

Directory of Annual Agricultural Research Programme of NARS Institutes 2023-2024



Bangladesh Agricultural Research Council

Farmgate, Dhaka-1215, Bangladesh

www.barc.gov.bd

National Agricultural Research System (NARS)

The National Agricultural Research System (NARS) is composed of BARC and 13 Agricultural Research Institutes (ARIs).

Bangladesh Agricultural Research Council (BARC)

Being the Apex body of NARS, BARC has the responsibility to strengthen national agricultural research capability through research planning, coordination, integration and resource allocation. Establish national research priorities, monitor and review the research program of the institutes, contribute to govt. policy formulation, coordinate with donors and share resources with NARS institutes to conduct research in priority areas are some of the mandate of BARC.

Bangladesh Agricultural Research Institute (BARI)

Conduct research to ensure increased and stable Production of all crops (except rice, jute, sugarcane and tea) through scientific management of land, water, fertilizers, insect and diseases; develop varieties of crops with resistances to biotic and abiotic stresses; improve fanning systems to optimize production; develop tools and machinery to improve labor productivity; train scientists, extension functionaries, farmers, NGO workers, etc.; collaborate with private sector; publish newsletters, bulletins, and journals; test packages of new technologies.

Bangladesh Rice Research Institute (BRRI)

Conduct research on all aspects of rice to develop high yielding varieties for different ecosystems, develop component technologies for improving productivity of rice-based cropping systems, and transfer rice production technologies through training, workshop, seminar, and publication. Diffusion of technology to farmers through extension agencies.

Bangladesh Jute Research Institute (BJRI)

Conduct Agricultural and Technological research on jute and allied fibers. Agricultural Research: develop short duration high yielding varieties of both white and tossa jute varieties with improved fibers; short duration varieties of kenaf and mesta; agronomic analyses of jute production, prices and markets. Technological Research: identify fiber properties to produce quality products; develop processes and equipment for manufacturing new-jute products and improving the quality of conventional jute products; provide technical services to manufacturers with emphasis on establishing new jute industries.

Bangladesh Institute of Nuclear Agriculture (BINA)

To adapt advanced research techniques for the development of a stable and productive agriculture by evolving new crop varieties, technologies to improve management of crops, land and water, as well crop quality, and pest management practices.

Bangladesh Sugarcrop Research Institute (BSRI)

Develop high yielding, high sugar content cane varieties with low fiber contents which are disease and insect resistant for refined sugar and "gur" production; develop early, medium and late maturing varieties to accommodate intensive cropping sequences of major agro-ecological zones; develop improved cultural practices including intercropping and relay cropping patterns; develop varieties and practices to exploit the potential of minor sugar crops.

Bangladesh Wheat and Maize Research Institute (BWMRI)

Development and implementation of wheat and maize improvement as well as conduct basic and applied research

on different issues. Production of breeders and quality seed of wheat and maize and distributed for setting demonstration and dissemination.

Soil Resources Development Institute (SRDI)

Provide soil management advisory services to farmers; assess potentials of land resources through soil survey; assist government and other agencies with planning for agriculture, forestation, soil conservation, land reclamation, settlements, irrigation, drainage, and flood protection by providing basic soil data, and information and technical support.

Bangladesh Fisheries Research Institute (BFRI)

Conduct and coordinate research on freshwater capture and pond fisheries, brackish water fisheries, and marine fisheries; and assist with development of efficient and economic but sustainable methods for fish production, management, processing and marketing.

Bangladesh Livestock Research Institute (BLRI)

Conduct research to solve problems that restrain the growth and development of livestock production at the farm level, and improve the livestock component of farming systems.

Bangladesh Forest Research Institute (BFRI)

Develop management practices to increase productivities of national forests and village groves and to convert wastelands and marginal lands to forestry and agro forestry uses; develop technologies for rational utilization of forest products; generate technologies to conserve or restore environment balances through increased stocking densities of both rural and urban forests; transfer technology through extension services and other agencies to end users.

Bangladesh Tea Research Institute (BTRI)

Mandate to conduct research for increased yields and profits by developing improved production technologies and high yielding, high quality tea clones.

Bangladesh Sericulture Research and Training Institute (BSRTI)

Develop disease, drought and water logging resistant high yielding and nutritionally rich mulberry varieties for rearing of silkworms. Develop appropriate technology for quality silkworm egg and silk production through low cost innovative technologies.

Cotton Development Board (CDB)

Conduct research on different aspects of cotton production; develop hybrid and short duration high yielding cotton varieties with desirable fiber characteristics, generation of agronomic, soil and pest management practices.

**Directory of Annual Agricultural Research
Programme of the NARS Institutes
2023-2024**

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Foreword

My pleasure goes beyond means to present the Directory of Annual Agricultural Research Programme of the NARS Institutes 2023-2024 as the Executive Chairman of Bangladesh Agricultural Research Council (BARC). The National Agricultural Research System (NARS) of Bangladesh has successfully overcome the challenges of the country's food crisis after its independence by releasing new varieties of rice, wheat, vegetables. NARS institutes always play an important role not only in determining food sufficiency to the burgeoning population of the country but also in providing the food and nutrition security for the people and alleviating poverty. It has worked much to opt appropriate agricultural research agenda and cutting-edge technologies with the agricultural policies in the country and the world for the benefits of our farmers and consumers.

I can ensure that NARS institutes will continue with time-winning research on agricultural varieties and substantial outreach of technologies that perform farmer-centric agricultural development in the country. In fact, mentoring quality research and development works of the NARS institutes with subtle decision making is our priority. In agricultural growth the success and the achievement that NARS institutes have gained would be enhanced in



the coming years by exploring new strategies in agricultural research to remain food surplus.

The current annual research programme directory has accumulated new and important research and development programmes of the NARS institutes during 2023-2024. I hope that our diverse stakeholders will find the contents inside more useful and hence provide with the constructive views to bring improvements in agricultural research and human resource development thereby ensuring agriculture as a profitable business.

I must appreciate the support and contribution of the NARS scientists. Without their contribution, this directory would not have been possibly published. Finally, I thank all those who are associated with compiling, editing and printing of this report.

Nazmun Nahar Karim

(Dr. Nazmun Nahar Karim)

Executive Chairman
Bangladesh Agricultural Research Council

Executive Summary

Bangladesh Agricultural Research Council (BARC) has initiated to document the annual agricultural research programmes of thirteen NARS institutes (BARI, BRRI, BJRI, BINA, BSRI, BWMRI, SRDI, BTRI, BFRI (Forest), CDB, BSRTI, BFRI (Fisheries) and BLRI) with discipline wise number of experiments conducted during 2023-2024. The directory is the testimony of the overall contribution of the National Agricultural Research System (NARS) institutes in the agricultural sector. The performance NARS institutes showed in 2023-2024 in the economy of Bangladesh is significant. The scientists of the National Agricultural Research System (NARS) institutes have been putting their efforts to overcome the continuing challenges evolving due to biotic and abiotic factors in food production of the country. The objective of the directory is to make available of all activities in a single document which would help to undertake collaborative research programme

of the NARS Institutes and avoid duplication of research work in different areas. The annual research programmes are generally prepared in accordance with the 5- years Master Plan of the organizations which is originated from the agricultural research priorities up to the year 2030 and beyond.

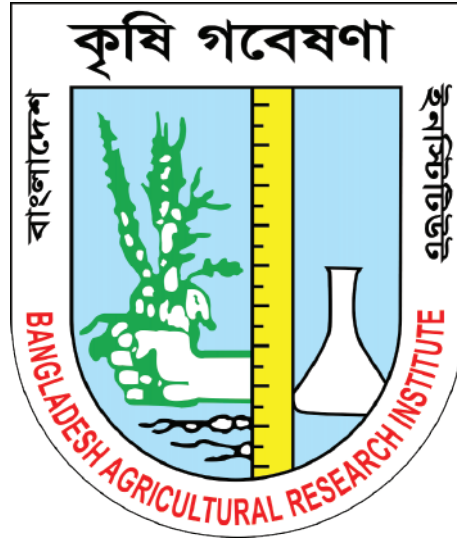
The individual Institute documents the information following their own style and mostly in isolated form. Therefore, it is immense necessary to prepare a consolidated documentation following a standard format incorporating the research title, objectives and location. This would also help preserving the valuable information for future reference. BARC is conducting this important activity since 2014 and eight volumes for 2014-15, 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22 and 2022-23 have been published over the year.

Number of Institute wise Research Programmes in 2023-24:

Name of the Institute	No. of Experiment conducted
Bangladesh Agricultural Research Institute (BARI)	
Bangladesh Rice Research Institute (BRRI)	
Bangladesh Jute Research Institute (BJRI)	
Bangladesh Institute of Nuclear Agriculture (BINA)	
Bangladesh Sugarcrop Research Institute (BSRI)	
Bangladesh Wheat and Maize Research Institute (BWMRI)	
Soil Resource Development Institute (SRDI)	
Bangladesh Tea Research Institute (BTRI)	
Bangladesh Forest Research Institute (BFRI)	
Cotton Development Board (CDB)	
Bangladesh Sericulture Research and Training Institute (BSRTI)	
Bangladesh Fisheries Research Institute (BFRI)	
Bangladesh Livestock Research Institute (BLRI)	

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BANGLADESH AGRICULTURAL RESEARCH INSTITUTE

BARI

Bangladesh Agricultural Research Institute

Sl. No.	Research Title	Objective(s)	Location(s)
HORTICULTURE RESEARCH CENTRE			
OLERICULTURE DIVISION			
Project-i: Breeding for development of open pollinated variety in vegetable crops			
1.	Observational yield trial of eggplant	• To observe the performance of eggplant lines and to find out superior lines having good horticultural traits including tolerance to pest and diseases	Gazipur, Jashore and Hathazari
2.	Regional yield trial of eggplant	• To study the adaptability of eggplant lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to diseases and high temperature	Gazipur, Akbarpur, Barishal, Jashore and Patuakhali
3.	Observational trial of exotic tomato	• To select suitable lines with good horticultural traits and tolerant to pests and diseases	Gazipur
4.	Evaluation of tomato	• To evaluate the performance and characterization of tomato in relation to yield, yield contributing characters; • To select promising tomato lines based on good horticultural traits with pest and disease tolerance	Gazipur and Raikhali
5.	Regional yield trial of winter tomato	• To study the adaptability of AFACI tomato lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to pest and diseases	Gazipur, Akbarpur, Burirhat, Jashore, Rahmatpur and Hathazari
	Regional yield trial of Sweet Pepper	• To study the adaptability of sweet pepper lines at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to pest and diseases	Gazipur, Jamalpur, Pahartali and Patuakhali
6.	Regional yield trial of bottle gourd	• To study standard heterosis in bottle gourd in order to select better cross combinations	Gazipur, Jamalpur and Rahmatpur
7.	Regional yield trial of cucumber	• To evaluate the yield performance and adaptability of cucumber lines at different AEZs	Gazipur, Jamalpur, Kharachari, Hathazari, Cumilla, Jashore, Ishurdi and Rahmatpur,
8.	Advanced yield trial of ridge gourd	• To evaluate the performance of selected ridge gourd lines for yield and insect and disease's reaction	Gazipur
9.	Advanced yield trial of snake gourd	• To select superior snake gourd lines having higher yield, attractive size and color	Gazipur
10.	Advanced yield trial of sponge gourd	• To evaluate the performance of selected sponge gourd lines for yield and insect and disease's reaction	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
11.	Advanced yield trial of netted melon	• To study the performance of selected lines having good horticultural traits including pest and disease tolerance	Gazipur
12.	Advanced yield trial of muskmelon	• To study the performance of muskmelon lines for good horticultural traits	Gazipur and Raikhali
13.	Advanced yield trial of teasle gourd	• Development of less seeded teasle gourd lines having good horticultural traits will be developed	Gazipur
14.	Regional yield trial of teasle gourd	• To study the adaptability of less seeded and having good horticultural traits teasle gourd lines at different AEZs of Bangladesh • To select high yield with good quality teasle gourd variety	Gazipur, Narsingdi, Cumilla, Jamalpur
15.	Collection and evaluation of local pointed gourd germplasm	• To select the superior pointed gourd lines for developing variety • To increase yield and quality	Rangpur
16.	Regional yield trial of country bean	• To determine the yield potentiality of country bean lines at different agro ecological zones of Bangladesh	Gazipur, Ishurdi, Jamalpur, Patuakhali and Pahartali
17.	Advanced yield trial of export-oriented country bean	• To evaluate the performance of selected country bean lines in respect of yield and quality for export	Gazipur
18.	Regional yield trial of yard long bean	• To develop new variety of yard-long bean	Gazipur, Jessare, Ishurdi, Jamalpur and Barishal
19.	Regional yield trial of year-round stem amaranth	• To study the adaptability of stem amaranth lines at different AEZs of Bangladesh and select suitable year-round lines with good horticultural traits including tolerance to pest and diseases	Gazipur
20.	Advanced yield trial of drumstick (on and off-season)	• Assessment of yield potentials of drumstick lines; and • Development of new on and off-season drumstick varieties	Gazipur
Project-ii: Breeding for hybrid development in vegetable crops			
21.	Inbred development of eggplant	• To extract superior homozygous eggplant lines from the diverse heterozygous population (Green and purple color)	Gazipur, Jashore and Hathazari
22.	Evaluation of hybrid eggplant	• To study standard heterosis in purple and green eggplant in order to select better cross combinations	Gazipur
23.	Regional yield trial of hybrid eggplant	• To study the adaptability of eggplant hybrids at different AEZs of Bangladesh and select suitable lines with good horticultural traits including tolerance to high temperature and diseases	Gazipur, Akbarpur, Barishal, Jashore and Patuakhali

Sl. No.	Research Title	Objective(s)	Location(s)
24.	Inbred development of tomato	• To extract superior homozygous tomatolines from the diverse heterozygous population	Gazipur, Jamalpur and Raikhali
25.	Evaluation of hybrid tomato	• Study of heterosis and to select better cross combinations of tomato to cultivate during winter and summer season	Gazipur
26.	Regional yield trial of hybrid tomato (afaci)	• To study the adaptability of tomato hybrids at different AEZs of Bangladesh and select suitable hybrids with good horticultural traits including tolerance to different diseases	Gazipur, Akbarpur, Jamalpur and Jeshore
27.	Inbred development of sweet pepper	• To select the superior sweet pepper lines tolerance to high temperature • To develop sweet pepper inbreds	Gazipur
28.	Evaluation of hybrid sweet pepper	• To to select better cross combinations of sweet pepper having good horticultural traits	Gazipur
29.	Regional yield trial of hybrid sweet pepper	• To assess the horticultural characters of sweet pepper hybrids • To select hybrids tolerance to mites and aphids in different AEZs of Bangladesh	Gazipur, Jamalpur, Pahartali and Patuakhali
30.	Inbred development in bottle gourd	• To extract superior homozygous lines from the diverse heterozygous population	Gazipur and Jamalpur
31.	Regional yield trial of hybrid bottle gourd	• To study standard heterosis in bottle gourd in order to select better cross combinations	Gazipur, Akbarpur and Rahmatpur
32.	Inbred development of pumpkin	• To develop high femaleness and high yield pumpkin lines from heterozygous population	Gazipur and Cumilla
33.	Regional yield trial of year-round hybrid pumpkin	• To develop pumpkin hybrid variety for winter and summer season	Patuakhali, Gazipur, Jamalpur, Burirhat and Ishwardi
34.	Observational yield trial of hybrid bitter gourd	• To select suitable bitter gourd hybrids having good horticultural traits	Gazipur
35.	Development of cucumber population	• To develop improved population in cucumber for increasing yield and disease resistance	Cumilla
36.	Inbred development of cucumber (s ₃ - s ₄)	• To develop inbred population in cucumber	Cumilla
37.	Performance of hybrid cucumber	• To select cucumber hybrids having good horticultural traits including disease tolerance	Gazipur
38.	Regional yield trial of hybrid ridge gourd	• To assess yield and quality of promising hybrids of ridge gourd at different regions of Bangladesh • To select hybrids of ridge gourd for releaseing as variety	Gazipur, Jamalpur, Akbarpur and Rahmatpur
39.	Inbred development of	• To select superior homozygous snake	Akbarpur,

Sl. No.	Research Title	Objective(s)	Location(s)
	snake gourd (s ₀ -s ₁)	gourd lines having better horticultural traits from the diverse heterozygous population	Moulvibazar
40.	Regional yield trial of hybrid snake gourd	- To observe yield and quality of promising hybrids of snake gourd at different regions of Bangladesh - To select hybrids of snake gourd for release as variety	Gazipur, Jamalpur, Akbarpur and Rahmatpur
41.	Hybridization in ash gourd	To develop hybrid population of ash gourd	Gazipur
42.	Inbred development of watermelon [s ₄ -s ₅]	To extract superior homozygous watermelon lines having better horticultural traits from the diverse heterozygous population for year-round watermelon production	Gazipur
43.	Evaluation of hybrid watermelon	To select the good quality hybrid watermelon having better horticultural traits	Gazipur
44.	Development of autotetraploid watermelon for seedless	To develop autotetraploid watermelon lines	Patuakhali
45.	Regional yield trial of hybrid watermelon	To study the adaptability of watermelon hybrids at different AEZs of Bangladesh for developing high yielding watermelon hybrids with good horticultural traits	Gazipur, Akbarpur, Burirhat, Jashore and Patuakhali
46.	Regional yield trial of hybrid squash	- To observe yield and quality of promising hybrids of squash at different regions of Bangladesh - To select hybrids of squash for release as variety	Gazipur, Burirhat, Akbarpur and Rahmatpur
Project-iii: Breeding for disease resistance in vegetable crops (<i>biotic stress tolerance</i>)			
47.	Development of bacterial wilt resistance eggplant variety through backcross method	To develop bacterial wilt resistant eggplant variety	Gazipur,
48.	Regional yield trials of virus tolerant summer hybrid tomato	- To study the adaptability of tomato hybrids at different AEZs of Bangladesh and - To select suitable hybrids with good horticultural traits including tolerance to high temperature	Gazipur, Hathazari, Cumilla, Jashore, Ishurdi, Rahmatpu
49.	Development of bacterial wilt resistance tomato variety through backcross method	To develop bacterial wilt resistant tomato variety	Gazipur,
50.	Screening of yvmv resistant line of okra	To develop and identify promising okra lines with resistance to YVMV	Cumilla
51.	Evaluation of yvmv tolerant okra	To select tolerant to YVMV of Okra	Gazipur
52.	Regional yield trial of yvmv tolerant okra	To select high yielding OP okra lines tolerant to YVMV	Gazipur; Patuakhali,

Sl. No.	Research Title	Objective(s)	Location(s)
			Jashore, Burirhat, Hathazari
Project-iv: Breeding for salinity, heat & drought resistance in vegetable crops (<i>abiotic stress tolerance</i>)			
53.	Preliminary yield trial of summer hybrid tomato (set-iii)	• To assess the yield performance and horticultural traits of newly developed summer hybrids to select suitable summer hybrid tomato lines for releasing as new hybrid tomato varieties	Gazipur
54.	Evaluation of heat tolerant lines under protected condition	• To characterize the tomato in relation to fruit setting, yield, yield contributing characters; and • To hybridize the lines for heterosis study	Gazipur
55.	Screening of hybrids tomato against salinity	• To investigate the response of F1 tomato at different level of salinity during the germination and seedling stages	Gazipur
56.	Regional yield trial of summer hybrid tomato	• To observe yield and quality of promising hybrids of tomato in summer season at different regions of Bangladesh • To select hybrids of tomato suitable for release as summer variety	Gazipur, Akbarpur, Jashore, Isurdi, Rahmatpur and Burirhat
57.	Regional yield trial of saline tolerant hybrid tomato	• To assess the yield performance and adaptability in saline prone area to select suitable hybrid tomato lines for releasing as new saline tolerant hybrid tomato varieties	Gazipur, Shatkhira, Patuakhali, Noakhali and Cox's Bazar
58.	Screening of pumpkin lines against waterlogging condition	• To identify the waterlogging tolerant pumpkin germplasms at seedling stage	Dumki and Patuakhali
Project-v: Maintenance breeding in vegetable crops project justification			
59.	Maintenance of OP and parents of hybrid tomato varieties	• To purify OP and parents of hybrid tomato varieties for generating original traits	Gazipur
60.	Maintenance for cauliflower varieties (BARI fulkopi-1 and 2)	• To purify the BARI Fulkopi-1, 2 variety and produce the quality nuclear seed	Gazipur
61.	Maintenance breeding for parents of hybrid pumpkin varieties	• To purify the BARI hybrid Mistikumra-1 and BARI hybrid Mistikumra-2 variety and produce the quality hybrid seed	Gazipur
Project -vi: Production technology of vegetables			
62.	Screening of BARI developed tomato varieties in gopalganj region	• To find out the suitable variety in Gopalganj region • To disseminate and popularize of BARI developed tomato varieties among farmers	Gopalganj
63.	Adoption, profitability and value chain analysis of	• To assess the adoption status of BARI Hybrid Summer Tomato in Sylhet	Sylhet and Moulvibazar

Sl. No.	Research Title	Objective(s)	Location(s)
	BARI hybrid summer tomato in sylhet region of Bangladesh	- division; - To estimate the profitability and factors affecting the profitability of BARI Hybrid Summer Tomato in Sylhet division; - To investigate the value chain of BARI Hybrid Summer Tomato in Sylhet division	
64.	Feasibility study of local and BARI developed of country bean varieties	To evaluating agronomic behavior and pod-yield country bean varieties	Ishwardi
65.	Improving productivity and adaption of BARI developed selected vegetable crops through integrated management approaches (ima) at char-areas of northern districts	- To adapt BARI, develop vegetable varieties and introducing integrated management practices for increasing productivity at char land; - To improve knowledge on modern techniques of vegetable production to extension personnel's and the farmers of selected areas; - To reduce malnutrition and attaining food security through safe vegetables production; and - To create income generating employment opportunities for youth and women	Gazipur, Sharikandi of Bogura and Kaonia of Rangpur
66.	Effect of tricho-compost, mulch and shading on growth and yield of summer tomato	- To study the efficiency of tricho-compost, mulch and shading in summer tomato production - To evaluate the benefit cost ratio of tricho-compost, mulch and shading for profitable production of summer tomato	Cumilla
67.	Bio-pesticide based management approach against tomato leaf miner, tuta absoluta	- To develop suitable bio-pesticide for the control of tomato leaf miner - To produce toxic chemical pesticides free tomato	Moulvibazar
68.	Effect of different shading material on yield and quality of summer tomato	To determine the effect of various shading material on growth and yield of summer tomato	Moulvibazar
69.	Effect of planting date and nutrient management on the growth and yield of tomato	- To observe the effect of Planting date and nutrient management on the yield of Tomato - To observe the combination effect of planting date and nutrient management on the growth and yield of Tomato	Gopalganj
70.	Identifying suitable salinity management techniques for the summer tomato production program in south-western coastal Bangladesh	- To identify the best technique for salinity management - To maximize summer Tomato yield through management practices under the coastal saline environment	Satkhira
71.	Effect of different mulches on growth and yield of	To determine the effect of various mulches on growth and yield of sweet	Moulvibazar

Sl. No.	Research Title	Objective(s)	Location(s)
	sweet pepper	pepper	
72.	Effect of spacing and plant population on growth and yield of bitter gourd	• To identify appropriate spacing and population density for better yield of Bitter gourd	Moulvibazar
73.	Effects of plastic mulch and pgr under poly tunnel on growth and yield of okra during winter season	• To study the effect of plastic mulch and tunnel environment on growth and yield of okra • To study the effect of PGR on growth and yield of okra	Ishwardi
74.	Effect of intercropping on growth and yield of radish intercropped with leafy vegetables under climatic condition of cumilla	• To evaluate the effects of intercropping on growth and yield of radish when intercropped with leafy vegetables under climatic conditions of Cumilla • To calculate crop equivalent yield and the benefit cost ratio of profitable production of radish intercropped leafy vegetables	Cumilla
75.	Effect of transplanting dates and polythene mulch on the yield and quality of rock melon	• To select the best planting time and mulching paper for flowering, fruit setting, yield and quality of rock melon • To develop a year-round production technology with mulching paper under the prevailing agro-climatic condition of Moulvibazar	Moulvibazar
76.	Effect of rootstock on tomato grafting against bacterial wilt	• To study the performance of different rootstock on tomato grafting against bacterial wilt	Cumilla
77.	In vitro regeneration of BARI hybrid potol-1 from different explants	• To establish a reproducible protocol for in vitro regeneration of BARI Hybrid potol -1 from different explants	Gazipur
78.	Effect of substrate media on growth, yield and quality of oyster mushroom	• To select suitable substrate media for Oyster mushroom	Gazipur
79.	Effect of silver nitrate on induction of staminate flowers in gynoeious plants	• To developed effective method of staminate flower induction in gynoeious plants	Chattogram
80.	Development of pollen preservation method of pumpkin (<i>cucurbita moschata</i> sp)	• To develop short-term and long-term preservation method of pumpkin pollen • To determine the pollen viability and germination potential based on different storage condition	Gazipur
81.	Effect of different doses of triacontanol on growth, yield, and quality of tomato in cumilla region	• To evaluate the effect of different doses of triacontanol on tomato growth, yield, and quality	Cumilla
82.	Effect of foliar application of boron trioxide and zinc oxide nanogparticles on growth and yield of	• To improve the growth and yield of cauliflower using boron trioxide and zinc oxide nano particles • To determine the appropriate	Cumilla

Sl. No.	Research Title	Objective(s)	Location(s)
	cauliflower	concentration of nano-boron and nano-zinc to reach the best growth and yield of cauliflower	
83.	Effect of liming on growth and yield of bush bean at moulvibazar	• To find out the dolochun effect on BARI Jharsheem-2 at the acidic soil of Moulvibazar region	Moulvibazar
84.	Yield and quality of rock melon as influenced by liming material and boron under acidic soil of sylhet region	• To study the effect of Dolochun and B on yield and fruit quality of rock melon • To control gummy stem blight and fruit cracking of rock melon, and • To determine the appropriate amount of liming material in combination with B for quality melon production under acidic soil of Moulvibazar	Akbarpur
Project -vii: Off season vegetable production and protective culture			
85.	Effect of modified hydroponic nutrient solution based on commercially available fertilizer for production of high value vegetables	• To evaluate the performance of commercially available chemical fertilizers for growing high value crops hydroponically	Gazipur
86.	Application of iron nanoparticles on the growth, yield and physiological traits of tomato in hydroponics	• To determine to effect iron nanoparticles on the growth, physiological traits, fruit yield and quality of tomato in hydroponics	Gazipur
87.	Effect of biostimulants on the growth, yield and quality of sweet pepper in coco-coir substrate	• To investigate the influence of biostimulants on the performance of sweet pepper under soilless culture	Gazipur
88.	Effect of led on the yield and quality of sweet pepper grown in soilless culture	• To investigate the influence of supplemental LED on yield and fruit quality of sweet pepper under greenhouse condition	Gazipur
89.	Development of micro-garden model for medium-sized urban-family through soilless culture	• To produce fresh and nutrient rich vegetables and herbs throughout the year at micro level	Gazipur
90.	Demonstration of simplified hydroponic technology at dhaka city	• To study the feasibility of growing vegetable in urban areas of Dhaka and Gazipur City though hydroponic culture • To increase vegetable supply at homestead level of city dwellers	Dhaka
91.	Demonstration of simplified hydroponics at regional research stations of BARI	• To demonstrate and extend the simplified hydroponics techniques to different regional stations of BARI	Gazipur, Rangpur, Jamalpur, Rahmatpur, Phahartoli, Jashore, Khagrachari and Patuakhali
92.	Performance of low-cost	• To identify low-cost solution and get	Jamalpur

Sl. No.	Research Title	Objective(s)	Location(s)
	hydroponic solution for vegetable crops	higher BCR for hydroponic vegetable production	
93.	Production of selected vegetables through iot based hydroponic system	- To study feasibility of growing selected vegetable crops year-round through automatic hydroponic system - To find out suitable variety and automation system for hydroponic	Jamalpur
94.	Iot based hydroponic production of vegetables under different led light in indoor condition	- Production of fresh quality vegetables in indoor condition - To produce high antioxidant rich vegetables	Jamalpur
95.	Effect of nitrogen concentration on different growth stages of watermelon in hydroponic culture	- To find out optimum nitrogen dose for vegetative stage of Watermelon - To find out optimum nitrogen dose for reproductive stage of Watermelon	Dumki, Lebukhali, Patuakhali
96.	Development of simplified hydroponic technologies and validation for commercial cultivation	- To develop and standardize low cost hydroponic nutrient solutions using commercially available fertilizers in Bangladesh - To develop and validate transferable hydroponic growing systems developed by Olericulture Division, HRC, BARI in different locations of Bangladesh	Gazipur, Rangpur and Jashore
97.	Generation advancement of netted melon through sensor-based hydroponic cultivation system	To advance the generations of collected netted melon germplasm	Gazipur
98.	Production of basil (<i>ocimum basilicum</i> l) Through hydroponic systems for medicinal and culinary purposes	- To investigate the possibility of growing basil under different hydroponic techniques - To determine the medicinal and culinary properties of Basil grown through hydroponics	Rangpur
99.	Effect of different substrates and varieties on yield and quality of tomato in soilless culture	- To find out suitable summer tomato varieties for soilless culture - To find out effective substrate media for Tomato in soilless culture	Gazipur
100.	Production of basil (<i>ocimum basilicum</i> l) Through hydroponic systems for medicinal and culinary purposes	- To investigate the possibility of growing basil under different hydroponic techniques - To determine the medicinal and culinary properties of Basil grown through hydroponics	Burirhat
Project-viii: Production of organic and safe vegetables			
101.	Evaluation of microbiome on the growth, quality and yield of vegetables under organic conditions	To observe the performance of crop based liquid formulations on vegetables	Gazipur
102.	Effect of different organic manures on growth and productivity of summer	To find out the impact of organic manures on yield and yield contributing characters of summer	Akbarpur

Sl. No.	Research Title	Objective(s)	Location(s)
	tomato under acidic condition	tomato and • To develop organic manure-based fertilizer recommendation for summer tomato	
103.	Advanced yield trial of magic population of tomato under organic condition	• To evaluate the selected line of magic population	Gazipur
104.	Regional yield trial of carrot lines in organic condition	• To select carrot lines with good horticultural traits and seed production potentiality	Gazipur
105.	Organic production of vegetables production under low-cost plastic house	• To find out the suitable vegetables and standard production methods under plastic house	Gazipur
106.	Effect of organic practices on quality, yield attributes and yield of bitter gourd	• To evaluate the yield attributes and nutritional variation in bitter gourd through organic and conventional practice • To identify the suitable dose of organic fertilizer for organic bitter gourd production	Gazipur
Project-ix: Seed production technology and technology transfer of vegetables			
107.	Response of seed priming by salicylic acid to germination and seedling growth of tomato	• To alleviate salinity-induced growth inhibition at the early stage of Tomato seedlings • To assess ROS scavenging antioxidant effect induced in Tomato seedlings by SA	Shatkhira
108.	Breeder and truthful level/quality seed production at different stations for the year 2023-24	• Production of breeder seeds for producing foundation and certified seed	Gazipur, Rangpur, Jamalpur, Rahmatpur, Phahartoli, Jashore, Khagrachari and Patuakhali
POMOLOGY DIVISION			
Project i: Varietal development			
Jackfruit			
109.	Evaluation of jackfruit germplasm	• To evaluate the jackfruit germplasm for release as variety	HRC, BARI, Gazipur
110.	Evaluation of jackfruit germplasm at fruit research farm Gazipur	• To evaluate the jackfruit germplasm for release as variety	HRC, BARI, Gazipur
111.	Evaluation of colour fleshed small sized jackfruit germplasm in the southern region	• To evaluate the colour fleshed jackfruit germplasm for release as variety	HARS, BARI, Rahmatpur
112.	Hybridization in jackfruit	• To incorporate important characters like colour, off-season, year-round and regular heavy bearing habit in the desired variety or cultivar	HRC, BARI, Gazipur
113.	Characterization and performance of thirteen jackfruit germplasm in	• To identify the superior germplasm to release a variety having good yield and quality	RARS, BARI, Hathazari, Chattogram

Sl. No.	Research Title	Objective(s)	Location(s)
	Hathazari, Chattogram		
Mango			
114.	Hybridization in mango	• To develop hybrids to meet the local and international demand	HRC, BARI, Gazipur
115.	Hybridization in mango	• To develop hybrids to meet the local and international demand	FRS, Binodpur, BARI, Rajshahi
116.	Inter-varietal hybridization of mango	• To develop hybrids to meet the local and international demand	RHRS, BARI, Chapai Nawabganj
117.	Inter-varietal hybridization of mango	• To develop hybrids to meet the local and international demand	RARS, BARI, Jashore
118.	Hybridization in mango	• To develop hybrids to meet the local and international demand	RARS, BARI, Cumilla
119.	Hybridization in mango	• To develop hybrids to meet the local and international demand	ARS, BARI, Khulshi, Chattogram,
120.	Evaluation of mango germplasm	• To select suitable mango germplasm	FRS, Binodpur, BARI, Rajshahi
121.	Characterization and evaluation of late mango germplasm	• To identify the late mango germplasm with good qualitative characters	FRS, BARI, Binodpur, Rajshahi
122.	Hybridization in mango	• To incorporate desirable character and develop a new variety	HRC, BARI, Gazipur; FRS, BARI, Binodpur, Rajshahi; BARI, Cumilla
123.	Inter-varietal hybridization of mango	• To incorporate desirable character and develop a new variety	RHRS, BARI, Chapainawabganj; RARS, BARI, Jashore
124.	Performance of some mango hybrids	• To characterize the mango hybrids morphologically, physico-chemically along with growth and yield potentiality and to study the incidence of insect-pests and diseases infestation of mango hybrids grown at Chapai Nawabgonj	HRC, BARI, Gazipur
125.	Evaluation of mango germplasm	• To select desirable mango lines for higher yield and qualities and develop variety	FRS, BARI, Binodpur, Rajshahi
126.	Collection and evaluation of early mango germplasm	• To develop regular bearing, high yielding and good quality early variety	RHRS, BARI, Chapainawabganj
127.	In-situ evaluation of late mango germplasm	• To increase harvesting period as well as release new variety	RHRS, BARI, Chapainawabganj
128.	Improvement of local mango cultivars	• To improve local mango for better yield and quality	RARS, BARI, Jashore
129.	Evaluation of kancha-mitha mango germplasm in Chattogram region	• To select desirable mango lines for higher yield and qualities to release as a kancha- mitha variety	ARS, BARI, Khulshi, Chattogram
130.	Collection and evaluation of local mango germplasm in	• To select desirable mango lines as well as variety for higher yield and qualities	ARS, BARI, Khulshi,

Sl. No.	Research Title	Objective(s)	Location(s)
	Chattogram region		Chattogram
131.	Evaluation of local and exotic mango germplasm in Chattogram region	• To select desirable mango lines as well as variety for higher yield and qualities	ARS, BARI, Khulshi, Chattogram,
132.	Evaluation of exotic mango germplasm	• To find out the suitable exotic mango germplasm for releasing as variety	ARS, BARI, Burirhut, Rangpur; RHRS, Lebukhali, Patuakhali
133.	Evaluation of newly collected mango germplasm	• To observe the performance of newly collected mango germplasm in Chattogram Hill Tracts which can be released as a superior mango variety for Bangladesh	HARS, BARI, Raikhali, Rangamati
134.	Evaluation of mango germplasm for green consumption at hill valley in Chattogram hill tracts	• To study the performance of kachamitha mango germplasm in Chattogram Hill Tracts and can be released as a superior kachamitha mango variety	HARS, BARI, Raikhali, Rangamati
Banana			
135.	Evaluation of Sobri Kola germplasm at Jamalpur region	• To observe the performance of collected banana (Sabri) germplasm in southern region which can be released as a variety	RARS, BARI, Jamalpur; RHRS, BARI, Lebukhali, Patuakhali
Guava			
136.	Hybridization in guava for wilt resistance	• To incorporate wilt resistance characters from wild-type germplasm in popular guava	RARS, BARI, Cumilla
137.	Hybridization of local guava with BARI Guava-2	• To transfer desirable traits in BARI Peyara-2 • To develop high-yielding, good quality, crispy, and white/pink flesh with pleasant flavour guava	HRC, BARI, Gazipur
138.	Evaluation of colour fleshed guava germplasm in off season	• To select superior colour fleshed guava germplasm having year-round bearing habit	HRC, BARI, Gazipur
139.	Clonal selection of guava cv Kanchannagar	• To observe yield potentialities of Kanchannagar guava and to improve a high yielding variety	RARS, BARI, Hathazari, Chattogram
Litchi			
140.	Hybridization in litchi	• To incorporate the desirable characters in the late and early litchi variety or cultivar for developing new variety	HRC, BARI, Gazipur
141.	Intergeneric hybridization of litchi and longan	• To incorporate the desirable characters in longan	HRC, BARI, Gazipur
142.	Evaluation of local and exotic litchi germplasm	• To collect and evaluate local and foreign germplasm for enrich litchi germplasm as well as release variety	HRC, BARI, Gazipur
Papaya			
143.	Development of population for gynodioecious papaya variety	• To develop high yielding gynodioecious papaya variety (s)	HRC, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
144.	Maintenance of dioecious inbred lines of papaya	• To purify and maintain the dioecious inbred lines through sib-mating process	HRC, BARI, Gazipur
145.	Purification of Shahi papaya	• To purify the variety through sib-mating and selection and regain the original characteristics of Shahi Papaya	FRS, BARI, Binodpur, Rajshahi
Ber			
146.	Study on floral biology of different ber germplasms	• To know flowering behavior for hybridization and to develop variety	FRS, BARI, Binodpur, Rajshahi
147.	Evaluation of exotic ber germplasm	• To develop high yielding varieties with soury sweet taste and release a new soury sweet ber variety	HRC, BARI, Gazipur
148.	Evaluation of ber germplasm	• To select ber germplasm with a view to release a new variety	RARS, BARI, Hathazari, Chattogram
149.	Evaluation of indigenous ber germplasm at Khagrachari	• To select superior land races of ber for commercial cultivation in the hilly areas and release as variety	HARS, BARI, Khagrachari
Pineapple			
150.	Evaluation of pineapple germplasm	• To select superior line and develop a variety	HRC, BARI, Gazipur
151.	Preliminary yield trial of exotic pineapple germplasm	• To observe the potentiality of exotic lines and select suitable line for develop a variety	HRC, BARI, Gazipur
Coconut			
152.	Evaluation of dwarf coconut in hilly area of Rangamati	• To identify the superior dwarf coconut germplasm at Rangamati	HARS, BARI, Raikhali, Rangamati
Jamun			
153.	Evaluation of exotic jamun germplasm	• To evaluate the existing jamun germplasm	HRC, BARI, Gazipur; RARS, BARI, Hathazari, Chattogram
154.	Evaluation of jamun germplasm	• To identify good Jamun lines for higher yield and quality and release as variety	FRS, BARI, Binodpur, Rajshahi
Citrus			
155.	Evaluation of lemon germplasm	• To study the performance in respect of yield and quality of the collected germplasm	CRS, BARI, Jaintapur, Sylhet
156.	Evaluation of lime germplasm	• To screen the superior line and to develop new variety	CRS, BARI, Jaintapur, Sylhet,
157.	Collection and evaluation of lime germplasm	• To screen the superior line and to develop new variety	RHRS, BARI, Hathazari, Chattogram
158.	Evaluation of kaghzi lime	• To select superior line with a view to release as a variety	RARS, BARI, Rahmatpur
159.	Hybridization in mandarin	• To incorporate desirable characters ie high yielder, very sweet, quick	CRS (CRS), BARI, Jaintapur,

Sl. No.	Research Title	Objective(s)	Location(s)
		growing habit and resistance to insect pest and diseases through hybridization	Sylhet
160.	Evaluation of mandarin germplasm under North-Eastern hilly area of Bangladesh	• To study the performance of yield and quality of the collected germplasm and select suitable mandarin germplasm	CRS (CRS), BARI, Jaintapur, Sylhet
161.	Hybridization in sweet orange	• To incorporate desirable characters ie high yielder, very sweet, quick growing habit and resistance to insect pest and diseases through hybridization	CRS, BARI, Jaintapur, Sylhet
162.	Evaluation of sweet orange germplasm	• To identify superior germplasm for developing variety	RARS, BARI, Hathazari, Chattogram
163.	Evaluation of exotic sweet orange germplasm	• To study the performance of yield and quality of the collected germplasm and select suitable exotic sweet orange germplasm	CRS, BARI, Jaintapur, Sylhet
164.	Evaluation of sweet orange germplasm in the hilly region	• To study the performance of yield and quality of the collected germplasm and select suitable sweet orange germplasm	RARS, BARI, Khagrachari
165.	Evaluation of local pummelo germplasm	• To select suitable pummelo line (s) for releasing as variety	CRS, BARI, Jaintapur, Sylhet
166.	<i>In-situ</i> evaluation of local pummelo germplasm	• To find out a suitable pummelo line(s) for the development of variety	FRS, BARI, Binodpur, Rajshahi; RHRS BARI, Lebukhali, Patuakhali
167.	Evaluation of pummelo germplasm	• To find out superior pummelo germplasm for release as new variety (s) and conserve genetic resources	RARS, BARI, Jashore; Breeder Seed Production Centre, BARI, Debiganj, Panchagarh
168.	Evaluation of pummelo in hilly region of Rangamati	• To find out superior pummelo germplasm for release as new variety (s) for the the hilly region as well as conserve genetic resources	HARS, BARI, Raikhali, Rangamati
169.	Hybridization in satkara	• To incorporate desirable characters for improving quality	CRS, BARI, Jaintapur, Sylhet
Minor Fruits			
170.	<i>In-situ</i> evaluation of bael germplasm	• To study the performance of the selected bael germplasm for release as a variety and to conserve fruit genetic resources	RHRS, BARI, Chapainawabganj
171.	Evaluation of bael in hilly area	• To find out a suitable bael genotypes for releasing a variety; and to maintain germplasm of bael	HARS, BARI, Raikhali, Rangamati
172.	Evaluation of indian dillenia germplasm in Jashore	• To study the performance of Indian dillenia germplasm with a view to	HRC, RARS, BARI, Jashore

Sl. No.	Research Title	Objective(s)	Location(s)
		develop a variety	
173.	Evaluation of existing wax apple (jamrul) germplasm	• To test their potentiality of the germplasm for commercial cultivation as well as strengthen the base of the fruit industry of the country	RARS, BARI, Rahmatpur
174.	Evaluation of bullock's heart germplasm	• To find out the promising lines of bullock's heart to release as variety	RARS, BARI, Jashore, HARS, BARI, Raikhali, Rangamati
175.	Evaluation of custard apple germplasm	• To identify superior lines of custard apple and to conserve germplasm	FRS, BARI, Binodpur, Rajshahi
176.	Evaluation of cowa germplasm at Rahmatpur	• To select the superior quality cowa line and to conserve and popularize among the people	RARS, BARI, Rahmatpur, Barishal
177.	Evaluation of collected monkey jack germplasm	• To select the superior quality monkey jack germplasm and to conserve and popularize this fruit among the people	RARS, BARI, Rahmatpur, Barishal
178.	Evaluation of collected velvet apple germplasm	• To select the superior quality velvet apple germplasm and to conserve and popularize this fruit among the people	RARS, BARI, Rahmatpur, Barishal
179.	Evaluation of star gooseberry germplasm	• To select the superior quality star gooseberry genotypes, to conserve and popularize among the people	HARS, BARI, Raikhali, Rangamati
180.	Evaluation of soursop in hilly area	• To select the superior quality soursop germplasm, conserve the germplasm as well as release as variety	HARS, BARI, Raikhali, Rangamati
181.	Evaluation of eggfruit (<i>Pouteria campechiana</i>) in hilly area	• To evaluate, characterize and release as a new variety in Bangladesh	HARS, BARI, Raikhali, Rangamati
182.	Evaluation of jabuticaba (<i>Plinia cauliflora</i>) in hilly area	• To evaluate, characterize and release as a new variety in Bangladesh	HARS, BARI, Raikhali, Rangamati
183.	Evaluation of star apple (<i>Chrysophyllum cainito</i> l) Germplasm	• To evaluate, characterize and release as a new variety	HARS, BARI, Raikhali, Rangamati
184.	Evaluation of para jam (<i>Antidesma acidum</i>) germplasm	• To evaluate the germplasm for release as a new variety	HARS, BARI, Raikhali, Rangamati
Exotic Fruits			
185.	Hybridization in dragon fruit	• To incorporate desirable characters for improving existing variety	CRS BARI, Jaintapur, Sylhet
186.	Collection and evaluation of yellow dragon fruit germplasm	• To find out the suitable germplasm for higher yield and quality	RHRS, BARI, Hathazari, Chattogram
187.	Collection and evaluation of dragon fruit germplasm	• To find out the suitable germplasm for higher yield and quality	RHRS (RHRS), BARI, Lebukhali, Patuakhali
188.	Evaluation of promising cashewnut germplasm in Rangamati hilly area	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry	HARS, BARI, Raikhali, Rangamati

Sl. No.	Research Title	Objective(s)	Location(s)
		of our country	
189.	Evaluation of coffee germplasm	• To select suitable coffee lines in respect of yield and quality	HARS, BARI, Raikhali, Rangamati
190.	Evaluation of coffee germplasm in Chattogram region	• To evaluate coffee genotypes in order to identify the best genotype and to conserve and popularize among the people	ARS, BARI, Pahartali, Khulshi, Chattogram
191.	Evaluation of promising coffee germplasm in the hilly region of Bangladesh	• To evaluate coffee genotypes in order to identify the best genotype and to conserve and popularize among the people	HARS, BARI, Khagrachari
192.	Evaluation and adaptability of promising coffee germplasm at Ramgarh	• To identify suitable coffee fruit germplasm for developing a variety in Bangladesh	Hill Tracts ARS, BARI, Ramgarh
193.	Evaluation of coffee (robusta) germplasm In the north-eastern hilly region of Bangladesh	• To evaluate coffee genotypes in order to identify the best genotype and to conserve and popularize among the people	CRS, BARI, Jaintapur, Sylhet
194.	Evaluation of promising cashew nut germplasm in hill tract	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry of our country	HTARS, BARI, Ramgarh, Khagrachari
195.	Evaluation of cashew germplasm	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry of our country	HARS, BARI, Raikhali, Rangamati
196.	Evaluation of cashew nut germplasm in North-Eastern hilly region of Bangladesh	• To select suitable cashew lines in respect of yield and quality as well as strengthen the base of the fruit industry of our country	CRS, BARI, Jaintapur, Sylhet
197.	Study on pollen preservation technique of avocado	• To store the pollen for crosses in avocado breeding programs for future	HRC, BARI, Gazipur
198.	Evaluation of avocado germplasm	• To identify suitable avocado fruit germplasm for developing a variety for Bangladesh	Horticulture Research Farm, BSPC, BARI, Debiganj, Panchagarh
199.	Evaluation of exotic passion fruit (<i>Passiflora edulis</i>) germplasm	• To evaluate passion fruit germplasm and release as a variety	HARS, Raikhali, Rangamati
200.	Evaluation of different exotic fruit germplasm	• To evaluate exotic fruits for conservation and comprehensive evaluation in the research field	HRC, BARI, Gazipur
201.	Evaluation of mangosteen germplasm in Chattogram region	• To identify the promising mangosteen germplasm for release as a variety	ARS, Khulshi, Chattogram
Project ix: Adaptive trial			
202.	Adaptive trial of BARI developed jackfruit varieties in different regions of	• To evaluate the performance of grafted jackfruit plants in the farmer's field	HRC, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	Bangladesh		
Project xi: Maintenance and conservation of fruit germplasm			
203.	Maintenance of different fruit germplasm at HRC, RARS, Jamalpur	• To retain viability of germplasm of different horticultural crops for period and future use	HRC, RARS, BARI, Jamalpur
204.	Mother orchard establishment of BARI released/popular citrus fruit varieties	• For conserving varietal traits from degeneration • For preparing breeder propagule for extension agencies (DAE Horticulture centers/BADC/ NGOs/private nurseries etc	CRS, BARI, Jaintapur, Sylhet
Project xii: Technology transfer			
205.	Grafts and seedlings of fruits produced and distributed during 2023-2024	• To disseminate BARI developed varieties, technologies to the farmers as well as users	All Horticulture Research Station, BARI
LANDSCAPE, ORNAMENTAL AND FLORICULTURE DIVISION			
Project i: Crop improvement			
206.	Evaluation, characterization and maintenance of gladiolus	• Finding out of germplasm in terms of yield and quality • Maintaining the genetic purity	HRC, BARI, Gazipur
207.	Evaluation, characterization and maintenance of tuberose (<i>polianthes tuberosa</i> l) germplasm	• To characterize the tuberose germplasm in respect of their morphological variation, growth, yield and post-harvest life • To know the genetic variability which can be used in tuberose improvement programme • To identify the suitable cultivars for commercial cultivation in Bangladesh	HRC, BARI, Gazipur
208.	Evaluation, characterization and maintenance of liliun	• To collect the different species of liliun available in Bangladesh • To conserve the collected germplasm for future research • Variety development	HRC, BARI, Gazipur
209.	Evaluation, characterization and maintenance of chrysanthemum germplasm	• Monitoring of vase life and yield parameters • Finding out of germplasm in terms of yield and quality • Maintaining the genetic purity	HRC, BARI, Gazipur
210.	Evaluation, characterization and maintenance of cactus and succulents	• Finding out of germplasm in terms of yield and quality • Maintaining the genetic purity	HRC, BARI, Gazipur
211.	Evaluation, characterization and maintenance of gerbera	• Monitoring of vase life and yield parameters • Finding out of germplasm in terms of yield and quality • Maintaining the genetic purity	HRC, BARI, Gazipur
212.	Evaluation, characterization and maintenance of amaryllis	• To conserve the collected germplasm • To develop new variety	HRC, BARI, Gazipur
213.	Preliminary yield trial of	• To find out suitable line (s) for cut	HRC, BARI,

Sl. No.	Research Title	Objective(s)	Location(s)
	heliconia	flower	Gazipur
214.	Evaluation, characterization and maintenance of foliage and ornamental plants	• To collect, identify and characterize the different species of native foliage and ornamental plants available in Bangladesh • To evaluate the performance of collected germplasm • To conserve the collected germplasm for future research	HRC, BARI, Gazipur
215.	Evaluation, characterization and maintenance of water lily	• To collect water lily germplasm from different sources • To evaluate and characterize water lily germplasm	HRC, BARI, Gazipur
216.	Evaluation, characterization and maintenance of tulip (<i>tulipa sp</i>) genotypes	• To collect and characterize the different species of Tulip • To conserve the collected germplasm for future research	HRC, BARI, Gazipur
217.	Evaluation, characterization and maintenance of climbing plant at jamalpur region	• To conserve the climbing plant germplasm for future research • Variety development	RARS, Jamalpur
218.	Evaluation, characterization and maintenance of rose germplasm at jamalpur region	• To collect and evaluate and conserve rose germplasm at Jamalpur region	RARS, Jamalpur
219.	Evaluation, characterization and maintenance of indoor foliage plant at jamalpur region	• To collect, evaluate and conserve air purifying indoor foliage plant Jamalpur region	RARS, Jamalpur
220.	Hybridization in gladiolus flower	• To develop new hybrid varieties	HRC, BARI, Gazipur
221.	Evaluation, characterization and maintenance of cactus and succulents at jamalpur region	• To collect the different species of lilium available in Bangladesh • To conserve the collected germplasm for future research • To develop new variety	RARS, Jamalpur
222.	Evaluation, characterization and maintenance of orchid at jamalpur region	• To conserve the collected germplasm for future research • To develop new variety	RARS, Jamalpur
Project ii: Cultural management			
223.	Effect of potting media on growth and yield of spider lily	• To find out the suitable media(s) for spider lily • To produce the quality foliage	HRC, BARI, Gazipur
224.	Effect of live shade on the growth and yield of seasonal flowers at Jamalpur	• To study the effect of live shade on the growth and yield of flowers • To the increase the yield of vegetable and income of farmers	RARS, Jamalpur
225.	Performance of marigold at different sowing times at Jamalpur	• To study the effect of sowing time and pinching on the growth and yield of marigold • To extend the availability and fulfil the demand of marigold at different	RARS, Jamalpur

Sl. No.	Research Title	Objective(s)	Location(s)
		festivals of Bangladesh	
226.	Morphological study of bougainvillea lines based on dus test	- To select suitable varieties - To research with respect to breeding of <i>Bougainvillea</i> varieties for particular traits	HRC, BARI, Gazipur
227.	Effect of substrates on the growth and yield of BARI cactus-1 at Jamalpur region	To find out the suitable substrate (s) for BARI Cactus-1	RARS, Jamalpur
228.	Performance of commercial cultivars of gerbera collected from various sources under protected condition	To investigate the relative performance of gerbera cultivars collected from different sources for their growth, flower quality and yield characters under protected conditions	HRC, BARI, Gazipur
229.	Performance of succulents in different potting media at shade condition	To find out the suitable rooting media for propagation of succulent	HRC, BARI, Gazipur
230.	Standardization of potting media for better growth and yield of dendrobium orchid	- To find out the suitable media(s) for Dendrobium Orchid - To produce the quality flower	HRC, BARI, Gazipur
231.	Root initiation and flower production of chrysanthemum influenced by rooting hormone and cutting time of seedlings	- To see the effect of rooting hormone & it's method of application on root initiation of chrysanthemum - To find out the optimum time for cutting of chrysanthemum seedlings	HRC, BARI, Gazipur
232.	Production and quality of cordyline spp Influenced by different substrates	- To find out the suitable substrate(s) on growth of Cordyline - To observe the performance of foliage production	HRC, BARI, Gazipur
Project iii: Propagation			
233.	<i>In Vitro</i> Propagation of Lilium	To develop a suitable and reproducible protocol for <i>in-vitro</i> propagation of Lilium	Tissue culture lab, HRC, BARI, Gazipur
234.	<i>In Vitro</i> Propagation of Gerbera	To develop a suitable and reproducible protocol for <i>in-vitro</i> propagation of Gerbera	Tissue culture lab, HRC, BARI, Gazipur
235.	<i>In Vitro</i> Propagation of Gladiolus Hybrids	To develop a suitable and reproducible protocol for <i>in-vitro</i> propagation of BARI developed Gladiolus hybrids	Tissue culture lab, HRC, BARI, Gazipur
POSTHARVEST TECHNOLOGY SECTION			
236.	Nano-packaging of tomato and eggplant to extend the shelf life maintaining quality and food safety	To find the efficacy of nano-material incorporated polyethylene film in extending the shelf life of tomato and eggplant maintaining fruit quality during storage at ambient room conditions	Gazipur
237.	Determination of maturity indices and proper harvesting time of BARI Malta-1	- To determine the changes of physico-chemical properties of BARI malta-1 during development stages - To standardize the optimum harvesting period for getting better fruit quality and marketability	Gazipur
238.	Development of low-cost	To develop a low-cost ripening	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	ripening chamber and novel ethylene generator for uniform and safe ripening of jackfruit	chamber and a novel ethylene gas generator • To standardize a protocol for uniform and safe ripening of jackfruit using ethylene generator	
239.	Physicochemical characteristics and acceptability of dragon fruit jam prepared from peel and pulp	• To find out the suitable formulation of dragon fruit peel and pulp mixed jam • To assess the acceptability of dragon fruit peel and pulp mixed jam	Gazipur
240.	Survey on postharvest practices and losses in the guava value chain	• To accumulate the scenario of existing postharvest practices in the value chain of guava • To assess postharvest losses in the value chain of guava	Gazipur
241.	Optimization of recipe on the production of strawberry-flavored ash gourd jam	• To find out the suitable formulation of strawberry-flavored ash gourd jam • To assess the acceptability of prepared strawberry-flavored ash gourd jam	Gazipur
242.	Optimization of drying temperature for retaining colour and bio-active properties of butterfly pea as functional drink	• To assess the effect of drying temperature on the bioactive properties of butterfly pea flowers • Optimize the drying temperature for better quality retention of butterfly pea flowers	Gazipur
243.	Optimizing vapor heat treatment temperature and time to retain colour and quality of litchi	• To find out the suitable temperature, time and impact of vapor heat treatment on retaining colour and quality of litchi	Gazipur
244.	Study on preparation and preservation of fruit drink from jamun	• To develop a fruit drink formulation from jamun • To determine the nutritional quality and shelf life of jamun fruit drink • To count microbial load in jamun fruit drink	Gazipur
245.	Effect of preservatives and drying condition in retaining food quality of mango slice	• To identify the suitable food preservative and storage time for semi solid mango slice	Gazipur
246.	Selection of suitable cutting size for semi solid dry mango slice	• To identify the suitable cutting size with storage period for semi solid dry mango	Gazipur
247.	Fresh cut processing techniques of broccoli using different acidulants	• To develop fresh cut processing techniques of broccoli using acidulants maintaining quality and shelf life	Gazipur
248.	Maturity determination of broccoli	• To study the maturity indices of broccoli with quality and shelf life	Gazipur
SOIL AND WATER MANAGEMENT SECTION			
249.	Effect of foliar application of boron on growth, yield and quality of dragon fruit (<i>Hylocereus Costaricensis</i>)	• To study the response of dragon fruit to foliar application of boron • To determine appropriate B dose to improve yield and quality of dragon fruit	Research field of SWMS, HRC, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
250.	Evaluation of yield potential of tomato genotypes under elevated fertilizer level	• To study the growth and yield responses of promising tomato lines and popular tomato varieties to higher dose of fertilizer • To determine the yield potential of tomato genotypes	Research field of SWMS, HRC, BARI, Gazipur
251.	Foliar application of boron and boron nanoparticles on growth, yield, quality and nutrient use efficiency of cauliflower	• To evaluate the effectiveness of different doses of nano boron fertilizer on the growth, yield, quality and nutrient use efficiency of cauliflower • To determine appropriate B nano fertilizer dose to improve yield and quality of cauliflower	Research field of SWMS, HRC, BARI, Gazipur
252.	Foliar application of micronutrient nanoparticles in improving productivity, quality and nutrient uptake of summer tomato	• To evaluate the micronutrient nano complete fertilizer on yield, quality and nutrient use efficiency • To determine the suitable dose of B nano fertilizer	Research field of SWMS, HRC, BARI, Gazipur
253.	Influence of nitrogen and potassium application on productivity, quality and nutrient use efficiency of broccoli	• To study the effect of different doses of nitrogen and potassium on growth and yield of broccoli • To determine the appropriate dose of N and K for broccoli yield maximization and nutrient use efficiency	Research field of SWMS, HRC, BARI, Gazipur
254.	Effect of boron and magnesium on growth, yield and quality of okra	• To evaluate the suitable dose of B and Mg on productivity and quality of okra	Research field of SWMS, HRC, BARI, Gazipur
255.	Integrated nutrient management for gardenpea-bitter gourd-indian spinach-red amaranth cropping pattern to increase system productivity and quality	• To minimize the application of chemical fertilizers by using organic manure • To find out the suitable combination of organic and inorganic fertilizers for sustaining system productivity and quality	Research field of SWMS, HRC, BARI, Gazipur
256.	Effect of zinc and boron on growth, seed yield and quality of gypsophila	• To evaluate the effect of Zn and B on yield traits and seed yield of gypsophila • To determine the suitable dose of Zn and B for seed yield maximization of gypsophila	Research field of Floriculture Division under HRC, BARI, Gazipur
257.	Integrated nutrient management to improve productivity of sweet pepper	• To evaluate the organic and inorganic fertilizer management on growth, yield and quality of sweet pepper • To determinate the suitable combination of organic and inorganic package for maximizing the yield of sweet pepper BARI Misti Morih-1	Research field of SWMS, HRC, BARI, Gazipur
258.	Integrated nutrient management to improve the growth, yield and quality of ber (<i>Zizyphus mauritiana</i>)	• To find out the suitable combination of organic and inorganic fertilizer dose for yield maximization and quality improvement of ber	Research field of Pomology Division under HRC, BARI,

Sl. No.	Research Title	Objective(s)	Location(s)
			Gazipur
259.	Nutrient requirements for Brinjal-Indian spinach-Kangkong-Red amaranth cropping pattern to increase system productivity and maintain soil fertility	• To evaluate the combined application of organic and inorganic fertilizer • To find out the suitable combination of organic and inorganic fertilizers for increasing the system productivity, quality and sustaining soil fertility	Research field of SWMS, HRC, BARI, Gazipur
PLANT PATHOLOGY SECTION			
260.	Survey and identify the emerging new diseases in vegetables, fruits and flowers	• Survey on major vegetables, fruits and flowers for the presence of emerging new diseases • Identify the causal agents of new emerging diseases	HRC, BARI, Gazipur
261.	Survey on bacterial wilt of solanaceous vegetable crops	• To assess the incidence and severity of bacterial wilt of eggplant, tomato and other solanaceous crops • Isolation and identification of R solanacearum isolates	Gazipur, Thakurgaon Narshingdi, Jashore, Rangpur and Bogura
262.	Screening of eggplant germplasm against bacterial wilt caused by Ralstonia solanacearum	• To identify resistant source of eggplant against bacterial wilt	HRC, BARI, Gazipur
263.	Screening of tomato germplasm against bacterial wilt caused by Ralstonia solanacearum	• To identify resistant source of tomato against bacterial wilt (Ralstonia solanacearum) in tomato	HRC, BARI, Gazipur
264.	Screening of eggplant germplasm against root-knot nematode caused by Meloidogyne sp	• To identify resistant source against root-knot nematode in eggplant	HRC, BARI, Gazipur
265.	Screening of tomato germplasm against root-knot nematode caused by Meloidogyne spp	• To identify resistant source against root-knot nematode in tomato	HRC, BARI, Gazipur
266.	Screening of okra germplasm resistance to Okra yellow vein mosaic virus	• To find out suitable germplasm for resistance to OYVMV of okra	HRC, BARI, Gazipur
267.	Screening of tomato germplasm resistance to Tomato yellow leaf curl virus and blight disease of tomato	• To find out suitable germplasm for resistance to TYLCV of tomato	HRC, BARI, Gazipur
268.	Screening of country bean germplasm against Bean yellow mosaic virus	• To find out resistance germplasm to Bean yellow mosaic virus of country bean	HRC, BARI, Gazipur
269.	Evaluation of cucumber germplasm for resistance to Cucumber mosaic virus	• To identify resistant germplasm of cucumber against Cucumber mosaic virus	HRC, BARI, Gazipur
270.	Evaluation of Pumpkin Genotypes Against Papaya Ringspot Virus (PRSV) and	• To identify resistant resistance sources with desirable agronomic traits	HRC, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	Cucumber Mosaic Virus (CMV)		
271.	Efficacy of chemicals, botanicals and plant defense activators in managing whitefly and Okra yellow vein mosaic virus	• To find out the effective control strategy against Okra yellow vein mosaic virus	HRC, Gazipur
272.	Integrated disease management of tomato leaf curl virus of tomato	• To formulate an integrated management package with cultural, biological and chemical tactics against TYLCV of tomato	Farmer's field, Bogura
273.	Integrated Disease Management of bacterial wilt of eggplant and tomato	• To find out effective management option	HRC, BARI, Gazipur
274.	Efficacy of chemical, biological and cultural approach on management of foliar and fruit rot disease in strawberry	• To determine the effective management options against foliar and fruit rot diseases on strawberry	HRC, BARI, Gazipur
PLANT PHYSIOLOGY SECTION			
275.	Influence of humic acid on the growth, yield and physiological attributes of tomato under drought	• To find out the optimum dose humic acid for higher yield of tomato after drought stress	HRC, BARI, Gazipur
276.	Seed germination and seedling growth in okra as influenced by different priming agents	• To find out the influence of seed priming agents on germination and seedling growth of okra	HRC, BARI, Gazipur
277.	Influence of biochar on the growth and yield of tomato under salinity stress	• To investigate the effect of biochar on the growth and yield of tomato under salinity stress	HRC, BARI, Gazipur
278.	Response of seed priming by GA ₃ and KNO ₃ to germination and seedling growth of sweet pepper (<i>Capsicum annuum</i> L) in seed bed	• To find out the suitable condition GA ₃ and KNO ₃ for better seed germination	HRC, BARI, Gazipur
279.	Effect of calcium chloride and time of harvest on control of spongy tissue in BARI Aam- 3	• To minimize the incidence of spongy tissue in BARI Aam- 3 • To increase of quality of fruits	HRC, BARI, Gazipur
280.	Effect of plant growth regulators on the incidence of mango malformation cv BARI Aam- 8	• To find out the suitable dose of PGR for panicle formation • To observe the effect of PGR for fruit yield	HRC, BARI, Gazipur
AGRICULTURE ECONOMICS & STATISTICS SECTION			
281.	Sustainable practices and adoption challenges in eggplant, tomato, and radish farming in Bangladesh	• To identify and evaluate the sustainable farming techniques currently practiced in the cultivation of eggplant, tomato, and radish in Bangladesh; • To explore the primary barriers to	Jashore, Jamalpur, Narsingdi, Sathkhira, Rangpur and Chattagram

Sl. No.	Research Title	Objective(s)	Location(s)
		adopting modern practices in eggplant, tomato, and radish farming; • To investigate the potential impacts on farmer income, crop yield and livelihood status and • To propose strategies to overcome the challenges in adopting sustainable practices, including policy measures, training, and technological support	
282.	Sustainable practices and adoption challenges in rose and gladiolus flower farming in Bangladesh	• To evaluate the sustainable farming methods currently used in rose and gladiolus flower farming in Bangladesh; • To analyze the key barriers faced by farmers in adopting sustainable farming practices for rose and gladiolus cultivation; • To assess the level of awareness and knowledge among farmers regarding modern practices in flower farming • To develop recommendations for overcoming the challenges in adopting sustainable farming practices	Jashore, Rangpur, Savar, Manikganj and Cox'sbazar
ENTOMOLOGY SECTION			
283.	Development of bio-rational management package against sucking pests of bt-brinjal	• To develop sustainable bio-rational package against sucking pest of Bt-brinjal	HRC, Gazipur
284.	Development of IPM package against major insect pest of water melon	• To develop suitable IPM package against major insect pest of water melon	HRC, Gazipur
285.	Management of flea beetle, <i>Phyllotreta striolata</i> attacking cabbage	• To develop IPM package for managing flea beetle attacking cabbage	HRC, Gazipur
286.	Development of management approach against tomato leaf miner, <i>Liriomyza sativae</i>	• To develop an effective management approach against tomato leaf miner, <i>Liriomyza sativae</i>	HRC Gazipur & RARS, Jashore
287.	Development of integrated management package against red banded mango caterpillar, <i>Deanolis sublimbalis</i>	• To develop a suitable management technique against mango red banded caterpillar	HRC Gazipur & RHRS, Chapainawabgonj
288.	Survey and monitoring of insect pests of cashew nut and coffee in Bangladesh	• To record the insect pests and documenting their incidence on cashewnut and coffee at different regions of Bangladesh	HARS, Khagrachari, Rangamati, Bandarban, Tangail (Madhupur), Mymensingh (Haluaghat), Moulvibazar and Sherpur district

Sl. No.	Research Title	Objective(s)	Location(s)
289.	Integrated management of tea mosquito bug, <i>Helopeltis antonii</i> attacking cashew nut	• To develop sustainable management approach against tea mosquito bug infesting cashew nut	RARS, Akbarpur, Moulvibazar
290.	Survey on species identification and pest status of thrips in gerbera		Gazipur, Jashore
TUBER CROPS RESEARCH CENTRE			
Variety development of Potato			
291.	Hybridization for high yielding (early bulking and early maturity, export quality, etc) potato variety development	• To create variants for subsequent variety selection • To improve the genetic base of the parent population • To develop early bulker and earl mature varieties	Gazipur and Debiganj
292.	Production of potato seedling tubers from fl seed (f_{1c0})	• Production of F1 seedling tubers for selection(single tuber selection, F_1C_1) and variety development	Debiganj and Gazipur
293.	Field evaluation of fl potato seedling tubers (f_{1c1})	• Selection of superior population(single plant selection, F_1C_2) for variety development	Debiganj
294.	Preliminary observation trial with potato germplasm (f_{1c2})	• Selection of superior plant-row(s)(single rows selection, F_1C_3) for variety development	Debiganj
295.	Secondary observation trial with potato germplasm (f_{1c3})	• Selection of superior genotypes (single plot selection, F_1C_4) for variety development	Debiganj
296.	Advanced observation trial with potato germplasm (f_{1c4})	• To increase seed • To evaluate hybridized germplasm in nethouse	Debiganj
297.	Preliminary yield trial (pyt) with potato lines (f_{1c5})	• To select the superior line(s) for secondary yield trial of variety development process	Debiganj, Jamalpur and Gazipur
298.	Secondary yield trial (syt) with potato lines (f_{1c6})	• Selection of superior genotypes for advanced yield trial (open field)	Bogura, Debiganj, Gazipur, Jamalpur, Jashore and Munshiganj
299.	Advanced yield trial (ayt) with hybridized potato lines (f_{1c7}) and exotic varieties	• To select stable advanced lines and finalized the lines for RYT with the participation of farmers	Bogura, Debiganj, Gazipur, Jamalpur, Jashore and Munshiganj
300.	Regional yield trial (ryt) with advanced potato lines (f_{1c8})	• Selection of suitable advanced lines for releases varieties with the participation of farmers	Bogura, Debiganj, Gazipur, Jamalpur, Jashore and Munshiganj
301.	Hybridization for heat tolerant potato variety development	• Development of superior genotypes for heat tolerant potato variety development	Gazipur and Debiganj
302.	Production of seedling tubers from f_1 seed for heat tolerant potato variety development	• Production of F1 seedling tubers for selection and heat tolerant variety development	Debiganj and Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
303.	Field evaluation of fl potato seedling tubers (f ₁ C ₁) for heat tolerant potato variety development	• Selection of superior population(single plant selection, F ₁ C ₂) for variety development	Debigonj
304.	Evaluation of potato genotypes for early heat tolerance	• To identify genotypes suitable for early planting	Debigonj and HARS, Raikhali, Rangamati
305.	Hybridization for late blight resistant table potato variety development	• To develop high yielding late blight resistant potato variety (s)	Debigonj and Gazipur
306.	Production of seedling tubers from fl seed for late blight resistant variety development	• Production of F ₁ seedling tubers for selection and variety development	Debigonj and Gazipur
307.	Field evaluation of fl potato seedling tubers (f ₁ C ₁) for late blight resistant variety development	• Selection of superior population(single plant selection, F ₁ C ₂) for variety development	Debigonj
308.	Field evaluation of fl potato seedling tubers (f ₁ C ₁) for virus resistant variety development (cip source)	• Selection of superior population (single plant selection, F ₁ C ₂) for variety development	Debigonj
309.	Hybridization for nutrient (fe and zn) enriched potato variety development	• To develop superior genotypes for nutrient enrich (Fe and Zn) potato variety	Gazipur and Debigonj
310.	Production of seedling tubers from fl seed for nutrient (fe and zn) enriched potato variety development	• Production of F ₁ seedling tubers for selection and nutrient enrich (Fe and Zn) potato variety development	Debigonj and Joydebpur
311.	Field evaluation of fl potato seedling tubers (f ₁ C ₁) for nutrient (fe and zn) enriched potato variety development	• Selection of superior population (single plant selection, F ₁ C ₂) for variety development	Debigonj
312.	Regional yield trial (ryt) of nutrient enriched (fe & zn) potato lines (cip source)	• To identify high yielding and nutritious advanced lines with the participation of farmers • To enrich the germplasm which can be used in breeding program	Bogura, Debigonj, Gazipur, Jamalpur, Jashore, and Munshigonj
313.	Hybridization for potato variety development containing processing attributes	• Developed superior genotypes containing processing attributes	Gazipur and Debigonj
314.	Production of seedling tubers from fl seed for potato variety development containing processing attributes	• Production of F ₁ seedling tubers for selection and variety development with processed attributes	Debigonj and Gazipur
315.	Field evaluation of fl potato seedling tubers (f ₁ C ₁) for potato variety development containing processing attributes	• Selection of superior population (single plant selection, F ₁ C ₂) for variety development	Debigonj

Sl. No.	Research Title	Objective(s)	Location(s)
316.	Regional yield trial (ryt) of potato lines containing processing attributes	- To develop varieties containing processing attributes with the participation of farmers - To enrich the parental lines which can be used in breeding program	Debigonj, Bogura, Rangpur, Gazipur, Jamalpur, and Jashore
317.	Hybridization for anthocyanin enriched potato variety development	- To develop anthocyanin rich & high yielding potato variety (s) - To study the heterosis and combining ability among the germplasm - To boost up the parental stock for hybrid development	Debigonj and Gazipur
318.	Production of seedling tubers from fl seed for anthocyanin enriched potato variety development	Production of F1 seedling tubers for selection and variety development with processed attributes	Debigonj and Gazipur
319.	Field evaluation of fl potato seedling tubers (f ₁ C ₁) for anthocyanin enriched potato variety development	Selection of superior population (single plant selection, F₁C₂) for variety development	Debigonj
320.	Maintenance of released potato varieties, germplasm, lines and tps parents	To maintain the released potato varieties, germplasm and lines for future breeding programme	Debigonj
321.	Multiplication, purification and maintenance of indigenous potato cultivar	To improve the quality as well as maintain the indigenous potato varieties for future breeding programme	RARS, Burirhat
322.	Morphological characterization of advanced breeding lines of potato	- To fulfill the DUS test requirement - To characterize the advanced breeding lines and released varieties - To develop photographic monograph with descriptors	Gazipur and Debigonj
Variety development of Sweet Potato			
323.	Hybridization of sweet potato using polycross method	- To create variability and diversity over the existing genotypes of sweet potato - To develop high yielding, dry fleshed and carotene containing, early bulker, sweet potato weevil tolerant varieties	Gazipur
324.	Collection and maintenance of sweet potato germplasm	- To find out the diversity of collected germplasms - To select high yielding, dry fleshed and carotene containing, early bulker, sweet potato weevil tolerant varieties	Gazipur
325.	Observational yield trial of sweet potato Germplasm	To find out promising genotypes of sweet potato genotypes	Gazipur
326.	Advanced yield trial of sweet potato Germplasm	- To find out promising genotypes of sweet potato germplasms - To develop early bulker and high yielding sweet potato varieties	Gazipur, Jamalpur, Bogura and Debigonj
327.	Regional yield trial of sweet potato clones	- To select high yielding sweet potato clones - To select dry fleshed, carotene and anthocyanin containing sweet potato	Gazipur, Bogura, Jamalpur, Jashore and Pahartali

Sl. No.	Research Title	Objective(s)	Location(s)
		clones	
328.	Participatory variety selection trial of sweet potato clones	• Selection of suitable varieties obtained from RYT in collaboration with farmers • To know the farmers choice and opinion	Gazipur, Jamalpur, Bogura, Jossore and Pahartali
329.	Observational yield trial of white skin and white fleshed sweet potato genotypes	• To find out promising genotypes of white fleshed genotypes • To develop high yielding and white fleshed sweet potato varieties	Debiganj
330.	Screening of suitable sweet potato variety for northern part of Bangladesh	• To find out suitable variety from BARI released sweet potato varieties for northern part of Bangladesh	Debiganj
331.	Screening of salt tolerant sweet potato genotypes in saline area	• To find out the saline tolerant genotypes of sweet potato • To adopt sweet potato in saline areas	Satkhira
Variety development of Aroids			
332.	Collection and maintenance of aroids	• To increase the genetic resources of aroids • To maintain aroids germplasm for future use in breeding programme	All over Bangladesh
333.	Hybridization of panikachu	• To incorporate stolon and rhizome in same lines and quality development	Gazipur
334.	Advanced yield trial of mukhikachu lines	• To evaluate the Mukhikachu lines • To select high yielding Mukhikachu line(s) for utilization in next year	Gazipur, Jamalpur, Bogura
335.	Regional yield trial of mukhikachu lines	• To select high yielding Mukhikachu line(s) for releasing variety	Gazipur, Jamalpur, Jashore, Bogura and Barishal
336.	Regional yield trial of rhizome producing panikachu lines	• To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one(s) for release	Gazipur, Bogura, Jamalpur, Jashore and Barishal
337.	Regional yield trial of stolon producing panikachu lines	• To select high yielding stolon producing Panikachu line(s) for utilization in next year as a better one for release	Gazipur, Bogura, Jamalpur, Jashore and Barishal
338.	Participatory variety selection trial of stolon producing panikachu lines	• To select high yielding stolon producing Panikachu line(s) for utilization in next year as a better one for release with farmers' participation	Gazipur, Bogura, Jamalpur and Munshigonj
339.	Participatory variety selection trial of rhizome producing panikachu lines	• To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one for release with farmers' participation	Gazipur, Jamalpur, Bogura and Munshigonj
340.	Advanced yield trial of ghataman kachu in relation to spacing	• To select high yield Ghataman Kachu with optimum spacing	Gazipur and Barishal
341.	Advanced yield trial of panchamukhi kachu in relation to spacing	• To select high yield Panchamukhi Kachu line with optimum spacing	Gazipur and Jamalpur
Variety development of minor tuber crops			

Sl. No.	Research Title	Objective(s)	Location(s)
342.	Regional yield trial of yam	• To identify high yielding and commercially important genotype • To enrich the germplasm which can be used in breeding program	Gazipur, Bogura, Jashore,
343.	Secondary yield trial of yam	• To identify high yielding and commercially important genotype • To enrich the germplasm which can be used in breeding program	Gazipur, Bogura, Jashore,
344.	Preliminary yield trial of yam	• To identify high yielding and commercially important genotype • To enrich the germplasm which can be used in breeding program	Gazipur
345.	Secondary yield trial of cassava	• To identify high yielding and commercially important genotype • To enrich the germplasm which can be used in breeding program	Gazipur, Cumilla, Debiganj
346.	Collection and evaluation of cassava germplasm	• To find out superior germplasm of yam • To conserve germplasm	Jamalpur
347.	Secondary yield trial of jicama (<i>pachyrhizus tuberosus</i>)	• To identify high yielding and commercially important genotype • To enrich the germplasm which can be used in breeding program	Gazipur
PRODUCTION TECHNOLOGY			
348.	Influence of spacing and harvesting date on the yield of BARI Alu 102 as baby potato	• To find out optimum spacing and harvesting time of BARI Alu-102 (Spartan red) for maximum yield of baby potato	TCRC, BARI, Gazipur
349.	Performance of promising potato varieties under organic cultivation system	• To find out the performance of some promising potato varieties under organic production system	TCRC, BARI, Gazipur
350.	Determination of fertilizer dose for BARI Mete Alu-1	• To identify optimum fertilizer dose for BARI Mete Alu-1	TCRC, BARI, Gazipur
351.	Effect of planting time and spacing on the yield BARI Mistialu-17	• To find out the appropriate combination of date of planting and spacing for higher yield of Anthocyanin content BARI Mistialu - 17	TCRC, BARI, Gazipur
352.	Integrating Biochar and Vermicompost on Yield and Quality of Potato	• To find out the optimum combination for improving yield and quality and to minimize the use of chemical fertilizers	TCRC, BARI, Gazipur
353.	Relaying of different crops with potato at Gazipur	• To reduce turnaround time, to increase cropping intensity and to make potato more profitable	TCRC, BARI, Gazipur
354.	Storability of different sweet potato varieties under natural and cold storage condition	• To find out suitable sweet potato varieties for storage	TCRC, BARI, Gazipur
355.	Evaluation of BARI alu-7 (diamant) from different sources on common scab disease BARI development	• To find out reliable source of BARI Alu-7 for preventing common scab	TCRSC, Munshiganj

Sl. No.	Research Title	Objective(s)	Location(s)
	at munshiganj region		
356.	Evaluation of potato varieties in raise bed cultivation for adverse climatic condition at Munshiganj region	• To select suitable potato variety(es) for the adverse climatic condition and make the potato production more profitable	TCRSC, Munshiganj
357.	Effect of spacing on seed size potato tuber production under different varieties	• To find out suitable spacing for seed size potato tuber production	TCRSC, Munshiganj
358.	Controlling of potato common scab development by sulphur and irrigation regimes in Munshiganj region	• To find out the cultural management of potato common scab using irrigation regimes and application of sulphur-containing fertilizers	TCRSC, Munshiganj
359.	Effect of integrated fertilizer management on productivity and profitability of organic potato production	• To select safe and profitable potato production system through application of bio-fertilizers	TCRSC, Munshiganj
360.	Effect of alternative inhibitors on sprout suppression of stored potato in ambient condition	• To find out the superior alternative(s) to toxic CIPC for potato sprout control in ambient storage condition; and • To assess the efficacy of botanical sprout inhibitors for extending keeping quality of safe organic potato in natural condition	TCRSC, Munshiganj
361.	Effect of npk on growth and yield of panikachu varieties	• To determine a suitable dose of NPK fertilizers for enhancing the productivity of Panikachu	TCRSC, Bogura
362.	Validation trial of newly developed red skin potato varieties in the farmers field	• To evaluate the performance of the varieties under farmer's field condition and popularize BARI varieties to the farmers levels	TCRSC, Bogura
363.	Performance of newly developed high yielding early potato varieties in the banana-potato intercropping system	• To evaluate the performance of the varieties under farmer's field condition	TCRSC, Bogura
364.	Performance of stolon producing panikachu varieties in field condition	• To validate stolon producing Panikachu varieties among the farmers	TCRSC, Bogura
365.	Performance of late blight resistant potato varieties in joypurhat area	• To evaluate the performance of LB resistance varieties in late blight prone areas	TCRSC, Bogura
366.	Effect of intercropping potato with onion	• To earn extra income and to make potato more profitable	TCRSC, Bogura
ENTOMOLOGY			
367.	Comparative efficacy of bio-acaricides against red spider mite on aroids	• To develop biorational based management practice against red spider mite	TCRC, Gazipur
368.	Incidence of cutworm (<i>agrotis ipsilon</i>) on advance	• To find out the tolerant and susceptible potato advanced materials against	TCRC, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	materials of potato in field condition	cutworm	
369.	Incidence of sweet potato weevil (<i>cylas formicarius</i> fab) on advance materials of sweet potato	• To screen some genotypes against sweet potato weevil in field condition	TCRC, Gazipur
370.	Studies on succession of insect-mite pests on yam	• To observe the succession of the insect-mite pests of yam and their damage severity	TCRC, Gazipur
TUBER CROPS DISEASE MANAGEMENT			
371.	Survey and monitoring of new tuber crops diseases in Bangladesh	• To assess the abundance and severity of tuber crops diseases • To identify the new disease with their causal organisms	Dinajpur, Panchagarh, Thakurgaon, Rangpur, Kurigram, Nilphamary, Lalmonirhat, Gaibandha, Bogra and Gazipur
372.	Screening of selected potato varieties/ germplasm/lines against late blight of potato	• To study the tolerance level of BARI released potato varieties against late blight disease	Panchagarh,
373.	Monitoring of disease status of BARI released potato varieties against common scab	• To study the tolerance level of BARI released potato varieties against common scab disease	Gazipur
374.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (sixth progeny)	• To find out the virus disease resistant potato varieties/germplasm	Gazipur
375.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (fourth progeny)	• To find out the virus disease resistant potato varieties/germplasm	Gazipur
376.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (second progeny)	• To find out the virus disease resistant potato varieties/germplasm	Gazipur
377.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (third progeny)	• To find out the virus disease resistant potato varieties/germplasm	Gazipur
378.	Evaluation of potato hybrid clones and exotic lines for plrv and pvy resistance under the infection pressure (first progeny)	• To find out the virus disease resistant potato varieties/germplasm	Gazipur
379.	Observational trial of sweet potato varieties/ germplasm against virus diseases	• To identify the resistant or tolerant sources of germplasm	Gazipur
380.	Detection of potato viruses (plrv, pvy, pvx, pvm and pvs) in the supplied samples	• To identify the potato viruses (PLRV, PVY, PVX, PVM and PVS) from samples of different companies for	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	of different companies through das-elisa	enhancing virus free seed potato production	
POST HARVEST TECHNOLOGY			
381.	Storage behaviour of hybrid clones of potato under AYT in natural condition	• To assess the keeping quality of tubers from different hybrid clones • To observe the marketability of the hybrid clones under AYT in natural storage condition	Gazipur
382.	Storage behaviour of hybrid clones of potato under RYT in natural condition	• To assess the keeping quality of tubers from different hybrid clones under RYT • To observe the marketability of the hybrid clones in natural storage condition	Gazipur
383.	Storage behaviour of exotic potato varieties under SYT in natural condition	• To assess the keeping quality of tubers from different exotic potato varieties under SYT • To observe the marketability of the exotic varieties in natural storage condition	Gazipur
384.	Storage behaviour of hybrid clones of potato under SYT in natural condition	• To assess the keeping quality of tubers from different hybrid clones under SYT • To observe the marketability of the hybrid clones in natural storage condition	Gazipur
385.	Studies on the processing quality (chips and french fry) of potato cultivars and hybrid clones	• To select suitable varieties and germplasm lines for chips and French fries • To select the optimum colour and texture of the chips and French fries	Gazipur
PLANT CELL, TISSUE AND ORGAN CULTURE			
386.	Production and <i>in vitro</i> conservation of potato varieties/germplasm	• To maintain the genetic purity of the varieties, • To increase the number of propagules • To conserve the genetic materials for future program	Tissue culture lab, TCRC, BARI, Gazipur & BSPC, Debigonj
387.	Minituber production and tuberization behaviour of BARI released newly potato varieties	• To produce G₀ generation seeds in net house and green house conditions from disease free plantlets • To see the tuberization behavior of processing and export oriented potato varieties	Tissue culture lab, net house and green house, TCRC, BARI, Gazipur
388.	Improvement of indigenous promising potato cultivars through meristem culture and their yield performance study with traditional cultivars	• To produce virus free plantlets through meristem culture • To see yield performance between the virus free cultivars and conventional cultivars	Tissue culture lab, TCRC, BARI, Gazipur
389.	<i>In vitro</i> propagation of cassava (<i>manihotesculentacrantz</i>)	• To establish an efficient <i>in vitro</i> regeneration protocol • To enrich high quality planting	Tissue culture lab, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
		materials of cassava • To see the regeneration efficiency	
390.	Tissue culture based nutrient film technique protocol standardization for quality seed production of BARI alu-101, 102, 103, 104 round the year	• To develop a new breeder seed production system in TCRC • To produce high quality potato breeder seeds year-round • To get clean and disease-free potato seed	TCRC research field, Greenhouse, TCRC, Joydebpur and BSPC Debiganj
391.	<i>In vitro</i> propagation technique development for olkachu	• <i>In vitro</i> multiplication of mukhikachu and olkachu • To validate plantlets at field conditions	Tissue culture lab, TCRC, BARI, Gazipur
MOLECULAR BREEDING AND GENETICS			
392.	Morpho-molecular characterization and finger printing of BARI released potato varieties using ssr/snp marker	• To study the genetic variation and diversity of Potato varieties • DNA fingerprinting and documentation • Phylogenetic tree establishment among the varieties	Molecular Biology lab TCRC, BARI Gazipur
393.	Advanced yield trial (ayt) of late blight resistance potato derived from qtl mapping populations tb10, tb11 and tb17	• To select superior genotype (s) for subsequent program of late blight resistance variety development • To improve germplasms of potato	TCRC, Gazipur, BSPC, Debiganj and RARS, Rangpur
394.	Secondary yield trial of (synt) of lbr bio-fortified and anthocyanin rich potato	• To select superior genotype (s) for subsequent program of late blight resistance bio-fortified and anthocyanin rich variety development • To improve germplasms of potato	TCRC, Gazipur, BSPC, Debiganj and TCRSC, Bogura
395.	Secondary yield trial (synt) of heat tolerant potato germplasm derived from mas	• To select superior genotype (s) for subsequent program of heat tolerant variety development • To improve germplasms of potato	TCRC, Gazipur, BSPC, Debiganj and OFRD, Shyampur, Rajshahi
396.	Secondary yield trial (synt) of diploid potato resistant to different viruses	• To select superior genotype (s) for subsequent program of virus-resistant variety development • To improve germplasms of potato	TCRC, Gazipur, BSPC, Debiganj
397.	Molecular diagnosis and sequencing of potato viruses in Bangladesh	• To identify strain of virus diseases of potato in Bangladesh • To know the incidence of virus diseases through-out the country • To develop platform of developing virus resistance variety development	Molecular biology lab of TCRC, Joydebpur, BSPC, Debiganj and RARS, Burirhat, Rangpur
398.	Marker assisted selection (mas) of disease resistance r-genes intetraploid potato for late blight and viruses	• To develop resistance variety of potato against late blight and virus diseases • Varieties with R-genes will be used in the breeding program to pyramid R-genes for durable resistance of late blight and viruses in biofortified potato development	TCRC research field Molecular biology lab, Joydebpur, Gazipur, and RARS, Rangpur, BSPC, Debiganj
399.	Morpho-molecular	• To study the genetic variation and	Molecular Biology

Sl. No.	Research Title	Objective(s)	Location(s)
	characterization of BARI released varieties and developed advanced panikachu and mukhikachu lines	diversity of popular BARI released aroid varieties • DNA fingerprinting and documentation • Phylogenetic tree establishment among the varieties • To know the genetic linkage mapping among the varieties	lab TCRC, BARI Gazipur
400.	Morpho-molecular characterization of causal agent of zebra chip disease of potato in Bangladesh	• To Identify the pathogens (including strains/bio-var level) through morpho-molecular characterization and PCR based detection	Major potato growing areas (like Panchagarh, Thakurgaon, Dinajpur, Rangpur, Debiganj, Nilphamari, Lalmonirhat, Kurigram), Jamalpur Joypurhat, Bogra, Jamalpur, Rahmatpur, Jessore, Chottogrametc
GENETIC ENGINEERING			
401.	<i>In Vitro</i> regeneration protocol development in sweet potato (<i>Ipomoea Batatas</i> l) for transgenic development	• To develop an efficient plant regeneration protocol for genetic transformation of sweet potato in future	Tissue culture and Molecular biology Lab, BARI, Gazipur
QUALITY SEED PRODUCTION			
402.	Development of cost-effective nutrient solution for aeroponic culture	• Cost effective nutrient solution development for Aeroponic	Joydebpur
403.	Production of quality potato seeds	• Ensuring the demand of quality seeds throughout the country • Producing breeder seed for BADC	BSPC, Debigonj
404.	Production of quality potato seeds of lbr biofortified and anthocyanin rich potato germplasm	• Ensuring the demand of quality seeds for adaptive trial and the increase to supply to BADC • To fulfill the demand of experimental set up across the country	Tissue culture and Molecular biology Lab, BARI, Gazipur, and BSPC
405.	Production and preservation of sweet potato vines	• Ensuring the demand of quality seeds throughout the country	Gazipur, Bogura, Jamalpur, Jashore, Barishal, Chattagram
406.	Production and preservation of aroids seeds	• Ensuring the demand of quality seeds throughout the country	As mentioned in the above table
407.	Adaptive yield trial and seed production of yam (<i>Dioscorea</i> Spp)	• To popularize and seed production the newly released improved yam varieties • To collect the feedback of the newly released varieties	Locally adapted varieties will be identified by the farmers
408.	Seed production of yam	• To popularize and seed production the	Debiganj,

Sl. No.	Research Title	Objective(s)	Location(s)
		newly released improved yam varieties	Panchagarh
409.	Seed production of cassava	• To popularize and seed production the newly released improved cassava varieties	Debiganj, Panchagarh
410.	Tuber crops breeder seed production target 2023-2024	• Ensuring the demand of quality seeds of tuber crops	Gazipur
PULSES RESEARCH CENTRE			
Variety development			
Blackgram Improvement			
411.	Growing of f ₂ generation blackgram	• Selection of desired segregating plants with high yield potential, and maturity and diseases reaction for F ₂ generation towards attaining homozygosity	PRC, Ishurdi, Pabna
412.	Growing of f ₃ generation blackgram	• Selection of desired segregating plants with high yield potential, and maturity and diseases reaction for F ₃ generation towards attaining homozygosity	PRC, Ishurdi, Pabna
413.	Growing of f ₄ generation blackgram	• Selection of desired segregating plants with high yield potential, and maturity and diseases reaction for F ₄ generation towards attaining homozygosity	PRC, Ishurdi, Pabna
414.	Growing of f ₅ generation blackgram	• Selection of desired segregating plants with high yield potential, and maturity and diseases reaction for F ₅ generation towards attaining homozygosity	PRC, Ishurdi, Pabna
415.	Growing of f ₆ generation blackgram	• Selection of desired segregating plants with high yield potential, and maturity and diseases reaction for F ₆ generation towards attaining homozygosity	PRC, Ishurdi, Pabna
416.	Observation trial of blackgram	• Selection of genotypes for PYT which are prerequisite for varietal development	PRC, Ishurdi, Pabna
417.	Collection and evaluation of local and exotic black gram germplasm for genetic perspectives in Bangladesh	• To enrich and widen the genetic base of the gene pool of Black gram • To evaluate the collected germplasm for breeding purposes	PRSS, BARI, Gazipur,
418.	Preliminary yield trial of blackgram	• Selection of stable and desired genotypes for RYT	PRC, Ishurdi, PRSS, Gazipur, RARS, Jessore, RARS, Jamalpur and RPRS, Madaripur
419.	On-farm trial of promising blackgram genotypes	• Selection of stable genotypes over locations under farmers' management condition	PRC, Ishurdi; PRSS, Gazipur; RARS, RPRS, Madaripur; RARS, Jessore and RARS, Jamalpur region-based farmers field
Lentil Improvement			
420.	Hybridization of lentil	• Development of stemphylium blight resistant, high yielding, erect habit	PRC, Ishurdi, Pabna

Sl. No.	Research Title	Objective(s)	Location(s)
		with synchronous maturity variety	
421.	Growing of F ₁ of lentil	• Identifying confirmed crossed plants for growing as F ₂ generation next year	PRC, Ishurdi, Pabna
422.	Growing of F ₂ generation of lentil	• Selection of desired segregating plants with high yield potential, early maturing and resistant to insect and diseases and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna
423.	Growing and evaluation of lentil F ₃ generation	• Selection of desired segregating plants with high yield potential, early maturing and resistant to insect and diseases and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna
424.	Growing and evaluation of lentil F ₄ generation	• Selection of desired segregating plants with high yield potential, early maturing and resistant to diseases and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna
425.	Growing of F ₅ generation of lentil	• Selection of desired genotypes and attaining towards homozygosity and also find out high yield potential, early maturity, disease resistant or tolerant genotypes	PRC, Ishurdi, Pabna
426.	Observation trial of lentil	• Selection of stable genotypes over locations as a candidate variety for on-farm testing	PRC, Ishwardi; PRSS, Gazipur; RPRS, Madaripur; RARS Jamalpur; RARS Jashore and RARS Barishal
427.	Regional yield trial of lentil	• Selection of stable genotypes over different locations for PVS which are prerequisite for variety development	PRC, Ishwardi; PRSS, Gazipur; RPRS, Madaripur; RARS Jamalpur; RARS Jashore and RARS Barishal
428.	International trials of lentil (ICARDA)	• Selection of disease resistant and adaptable genotypes suitable for Bangladesh environment	PRC, Ishurdi, Pabna
429.	Evaluation of physiological traits associated with heat tolerance of lentil	• Exploring the relationship between physiological and agronomical traits including reproductive development to identify how genotypes sustain their yield potential under heat stress	PRC, Ishwardi and OFRD Barind, Rashahi
430.	Development of Lentil variety Tolerance to Terminal Heat Stress	• To investigate the effects of terminal heat stress during the reproductive phase; and • Recording phenotyping data to use in marker trait association mapping; and • Identify tolerant germplasm to use as parent for future breeding	PRC, Ishwardi and OFRD Shyampur, Rashahi
431.	Development of Lentil	• Recording phenotyping data in respect	PRC, Ishwardi;

Sl. No.	Research Title	Objective(s)	Location(s)
	Variety resistance to stemphylium blight disease	to disease reaction to use in marker-trait association mapping; and • Identify tolerant germplasm to use as parent for future breeding	RARS Jessore
432.	Evaluation and confirmation of lentil germplasm for resistance to stemphylium blight disease	• The resistant germplasm in the field screening will further be evaluated under pathogen inoculation at control environment to confirm the result	Green house at Spices Research Centre, Bogra
433.	Confirmation of heat tolerant lentil F ₁ generation and growing of F ₂ s generation of heat tolerant lentil genotypes	• Identifying confirmed cross materials and selection of desired genotypes with heat tolerant, high yield potential, early maturing and resistant to insect and diseases • Growing of F ₂ s generation heat tolerant lentil for advancement of segregates F ₂ to F ₃ s	PRC, Ishurdi, Pabna
434.	Growing of heat tolerant lentil F ₃ generation	• Selection of desired segregating genotypes with high yield potential, early maturing and resistant to insect and diseases and attaining towards homozygosity	PRC, Ishurdi, Pabna
435.	On-farm trail of heat tolerant lentil genotypes	• To select the stable genotypes over different locations before releasing a new variety	PRC, Ishurdi, PRSS, Joydebpur, RPRS, Madaripur, RARS Jessore, Barind Rajshahi, OFRD, Faridpur
Grasspea Improvement			
436.	Hybridization of grasspea	• Creation of genetic variation and development of high yielding grasspea genotypes having low toxin content, salinity tolerance and disease tolerance	PRC, Ishurdi, Pabna
437.	Hybridization of grass pea (Set-II)	• Creation of genetic variation and development of high yielding grass pea genotypes having short duration, high yielding and low ODAP content	PRSS, BARI, Gazipur
438.	Confirmation of grasspea F ₁ generation	• Identifying confirmed cross materials and selection of desired genotypes with high yield potential, short duration variety with strong root system having bold seed	PRC, Ishurdi, Pabna
439.	Confirmation of F ₁ S generation of Grass pea (Set-II)	• Selection of desired segregating plants with high yield potential, early maturing and resistant/ tolerant diseases and towards attaining homozygosity	PRSS BARI, Gazipur
440.	Growing of F ₂ S generation of Grass pea	• Selection of desired segregating plants with high yield potential, and maturity and diseases reaction for F ₂ generation towards attaining homozygosity	PRC Ishurdi & PRSS BARI, Gazipur
441.	Growing of grasspea F ₃ generation	• Selection of desired segregating genotypes with high yield potential,	PRC, Ishurdi, Pabna

Sl. No.	Research Title	Objective(s)	Location(s)
		early maturing and resistant to insect and diseases and attaining towards homozygosity	
442.	Growing of grasspea F ₄ generation	• Selection of desired segregating genotypes with high yield potential, early maturing and resistant to insect and diseases and attaining towards homozygosity	PRC, Ishurdi, Pabna
443.	Growing of grasspea F _{6S} generation	• Selection of desired segregating genotypes with high yield potential, early maturing and resistant to insect and diseases and attaining towards homozygosity	PRC, Ishurdi, Pabna
444.	Observation trial of grasspea	• Selection of genotypes for Preliminary Yield Trial which are prerequisite for variety development	PRC, Ishurdi, Pabna
445.	Regional yield trial of grasspea	• Selection of stable genotypes for PVS trial which are prerequisite for variety development • To find out the yield performance of promising line at multi-locations of grass pea growing areas in Bangladesh	PRC, Ishurdi; RPRS, Madaripur; PRSS, Gazipur; RARS, Barishal; RARS, Jamalpur, and RARS, Madaripur
446.	On-farm trail of promising grasspea genotypes	• Selection of stable genotypes for Participatory Varietal Selection trial which are prerequisite for assessing the advance materials performance at farmers field with their own management practices • To find out the yield performance of promising line at multi-locations of grass pea growing areas • To involve the farmers in varietal development process to emphasis their own choice	PRC, Ishurdi; OFRD, Faridpur under supervision of RPRS, Madaripur; OFRD, Gaibanda under supervision of PRSS, Gazipur, OFRD under RARS Barishal; RARS, Jamalpur
447.	Adaptive yield trial of grasspea	• To find out the yield performance of promising line at farmer's field under cultivation of farmer's own management practices • To involve the farmers in varietal development process to emphasis their own choice	OFRD, Faridpur under supervision of RPRS, Madaripur; OFRD, Gaibanda under supervision of PRSS, Gazipur, OFRD under RARS Barishal; RARS, Jamalpur
448.	International trials of grasspea (ICARDA)	• Selection of disease resistant and adaptable genotypes in Bangladesh environment	PRC, Ishurdi, Pabna
449.	Evaluation and confirmation trial of the previously selected local and exotic grass pea advanced	• Therefore, it may be possible to • improve the ability of lupin genotypes to adapt to subsoil • constraints by selecting for proxy root	PRSS, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	genotypes (3rd Year) for genetic perspective (earliness and high yielding) in Bangladesh	- traits from new and • exotic germplasm sources • To screening of local and exotic advanced genotypes for the purposes of earliness and high yield • To develop some advance lines for breeding purposes	
450.	Evaluation of grass pea genotypes as a herbage (leafy vegetable) in Bangladesh	• Therefore, it may be possible to • improve the ability of lupin genotypes to adapt to subsoil • constraints by selecting for proxy root traits from new and • exotic germplasm sources • To identify grass pea genotype for the purposes of leafy vegetable • To assess the some quality parameter of the genotypes	PRSS, BARI, Gazipur, and PRC, Ishurdi, Pabna
451.	Evaluation of advanced grass pea genotype in saline hotspot areas of Bangladesh	• Therefore, it may be possible to • improve the ability of lupin genotypes to adapt to subsoil constraints by selecting for proxy root traits from new and exotic germplasm sources • To identify salt tolerant grass pea genotypes • To develop a salt tolerant variety in salt tolerant hotspot of Bangladesh	Koera, OFRD Khulna and Shamnagar, ARS Sathkhira
452.	Evaluation and confirmation of grasspea germplasm to waterlogging tolerance at seedling stage	• Finding tolerant source of germplasm to use in breeding for developing waterlogging tolerant variety	PRC, Ishurdi, Pabna
453.	Genetic variability, diversity and association for morphological and physiological traits of grass pea genotypes	• To identify genotypes having short duration, high biomass and high yield potential • To assess genetic variability and diversity for the seed yield and related traits of grass pea genotypes	PRC, Ishurdi, Pabna
454.	Field screening of grasspea genotypes against heat	• Selection of heat tolerant genotypes of grasspea	RPRS, Madaripur and PRC, Ishurdi
Chickpea Improvement			
455.	Confirmation of chickpea F ₁ generation	• Identifying confirmed crossed plants for growing as F₂ generation next year	PRC, Ishurdi, Pabna
456.	Growing of F ₂ generation of chickpea	• Selection of desired segregating plants with high yield potential, early maturing and resistant to insect and diseases and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna
457.	Growing of F ₃ generation of chickpea	• Selection of desired segregating plants with high yield potential, early maturing and resistant to diseases and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna

Sl. No.	Research Title	Objective(s)	Location(s)
458.	Growing of F ₄ generation of chickpea	• Selection of desired segregating plants with high yield potential, early maturing and resistant to diseases and advance germination towards attaining homozygosity	PRC, Ishurdi, Pabna
459.	Growing of F ₅ generation of chickpea	• Selection of plants desired traits viz with high yield potential, early maturing and resistant to diseases/insects after attaining homozygosity	PRC, Ishurdi, Pabna
460.	Observation trial of Chickpea	• Selection of genotypes having desired agronomic traits with high yield potential for Preliminary Yield Trial	PRC, Ishwardi; RARS, Jashore; RPRS, Madaripur, PRSS, Gazipur, OFRD, Barind and RARS, Barishal
461.	Regional yield trial of Chickpea	• Selection of stable genotypes over locations resulting candidate variety for PVS trial or on-farm trial	PRC, Ishwardi; RARS, Jashore; RPRS, Madaripur, PRSS, Gazipur, RARS, Barishal and OFRD, Barind
462.	On-farm trials of promising chickpea genotypes	• Selection of stable genotypes over locations under farmers' management condition	Farmer's field near OFRD, Pabna; RARS, Jashore; RPRS, Madaripur, PRSS, Gazipur, RARS, Barishal and OFRD, Barind
Fieldpea Improvement			
463.	Hybridization of fieldpea	• Creation of genetic variation for desired characters and for the development of high yielding, disease resistance, short duration variety with strong root system having waterlogging tolerance	PRC, Ishurdi, Pabna
464.	Confirmation of fieldpea F ₁ generation	• Identifying confirmed cross materials for developing F ₂ generation	PRC, Ishurdi, Pabna
465.	Growing of F ₂ generation of field pea	• Selection of desired segregating plants with high yield potential, early maturing and resistant to insect and diseases and advance germination towards attaining homozygosity	PRC, Ishurdi, Pabna
466.	Growing of F ₄ generation of field pea	• Selection of desired segregating plants with high yield potential, early maturing and resistant to insect and diseases and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna
467.	Growing of F ₆ generation of fieldpea	• Selection of plants desired traits viz with high yield potential, early maturing and resistant to diseases/insects after attaining	PRC, Ishurdi, Pabna

Sl. No.	Research Title	Objective(s)	Location(s)
		homozygosity	
468.	Observation trial of Fieldpea	• Selection of genotypes for Preliminary Yield Trial which are prerequisite for variety development	PRC, Ishurdi, Pabna
469.	Preliminary yield trial of fieldpea	• Selection of stable genotypes over locations as a candidate variety for on-farm testing	PRC, Ishwardi; RARS, Jashore; RPRS, Madaripur, PRSS, Gazipur, RARS, Barishal and OFRD, Barind
470.	On-farm trials of promising fieldpea genotypes	• Selection of stable genotypes over locations under farmers' management condition	PRC, Ishwardi; RARS, Jashore; RPRS, Madaripur, PRSS, Gazipur, RARS, Barishal and OFRD, Barind
471.	Development of field pea genotypes tolerance to salinity	• To identify the salt tolerant field pea genotypes • To determine the critical level to salt tolerance in field pea	PRSS lab, BARI, Joydebpur, Gazipur
Mungbean Improvement			
472.	Collection and evaluation of sonamung germplasm	• To enrich and widen the genetic base of the gene pool of Sonamung • To evaluate the collected germplasm	The germplasm will be collected from farmers from possible sonamung growing areas like Greater Rangpur, Chapai Nowabgonj, Mymensingh (Kishoregonj), Barishal and Jashore region
473.	Hybridization of mungbean	• Creation of genetic variation for desired characters and development of varieties having early and synchronous maturity, disease resistance and better yield components	PRC, Ishurdi, Pabna
474.	Confirmation of F ₁ generation of mungbean	• Identifying confirmed cross plants for raising of F ₂ generation	PRC, Ishurdi, Pabna
475.	Growing of F ₂ generation mungbean	• Selection of desired plants for F ₃ generation	PRC, Ishurdi, Pabna
476.	Growing of F ₃ generation of mungbean	• Selection of desired segregants and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna
477.	Growing of F ₄ generation of mungbean	• Selection of desired segregants and advance generation towards attaining homozygosity	PRC, Ishurdi, Pabna
478.	Growing of F ₅ generation of mungbean	• Selection of desired individual plants for F ₆ families to be grown as plant to row under observation nursery	PRC, Ishurdi, Pabna
479.	Growing of F ₆ generation of mungbean	• Selection of desired segregating plants with high yield potential, early	PRC, Ishurdi, Pabna

Sl. No.	Research Title	Objective(s)	Location(s)
		maturing and resistant to diseases and advance generation towards attaining homozygosity	
480.	Observation trial (OT) of mungbean	• Selection of genotypes for Preliminary Yield Trial which are prerequisite for variety development	PRC, Ishurdi, Pabna
481.	Preliminary yield trail of mungbean (Set-I)	• Selection of farmers preferred stable genotypes over different locations which are prerequisite for variety development	PRC, Ishurdi; RPSS, Gazipur, RPRS, Madaripur, RARS, Barishal and RARS, Jashore
482.	Preliminary yield trail of mungbean for export quality (Set-II)	• Selection of farmers preferred stable genotypes over different locations which are prerequisite for variety development	PRC, Ishurdi; RPSS, Gazipur, RPRS, Madaripur, RARS, Barishal and RARS, Jashore
483.	Preliminary yield trail of sonamung (Set-III)	• Selection of farmers preferred stable genotypes over different locations which are prerequisite for variety development	PRC, Ishurdi; ARS, Thakurgaon and Gomostapur Chapainawabgonj
484.	Development of mungbean genotypes against waterlogging stress at vegetative growth stage on the basis of physiological parameters	• To find out waterlog tolerant mungbean genotypes and to study the tolerance mechanism	PRSS Gazipur
485.	Development of mungbean tolerance to NaCl salinity	• To observed the effects of salt stress on germination and growth responses of mungbean germplasm	PRSS Gazipur
486.	Selection of drought tolerant mungbean [<i>vigna radiata</i> (L) wilczek] genotypes based on morpho-physiological selection indices and yield	• Finding tolerant source of germplasm to use in breeding for developing droughttolerant variety	PRC, Ishurdi, Pabna
487.	Interspecific hybridization involving <i>Vigna radiata</i> with <i>Vigna mungo</i>	• To generate variability through interspecific hybridization • To develop uniform maturity and awn in pod surface for mungbean and early maturity for blackgram	PRC, Ishurdi, Pabna
488.	Evaluation of AVMU mungbean lines	• To enrich and widen the genetic base • To evaluate the AVMU Mungbean lines for diseases	PRC, Ishwardi, PRSS Gazipur, RPRS Madaripur and OFRD Rangpur
489.	International trials of mungbean (AVRDC)	• Selection of disease resistant and adaptable genotypes in Bangladesh environment	PRSS, Gazipur, PRC, Ishwardi,
490.	Evaluation of selected promising salinity tolerant	• To assess the performance of selected salinity tolerant mungbean genotypes	1 st year: PRC, Ishwardi and 2 nd

Sl. No.	Research Title	Objective(s)	Location(s)
	mungbean genotypes	for southern Bangladesh	year in ARS, Satkhira, OFRD, Khulna and Patuakhali
491.	Salinity tolerance of winter pulses at vegetative and reproductive stages	• To develop a suitable protocol for screening salinity tolerance in winter pulses	Partner project, PRC, BARI, Ishwardi, Pabna
492.	Screening of Mungbean genotypes against salinity stress under lab and pot experiment	• Selection of salinity tolerance mungbean genotypes	PRC, Ishurdi/RARS, Rahmatpur,
493.	Observation yield trial of heat tolerant mungbean exotic lines	• To select heat tolerant mungbean genotypes with yield potential and disease and insect resistance potentiality	RARS, Rahmatpur,
494.	Observation yield trial of thrips resistant mungbean exotic lines	• To select thrips resistance mungbean genotypes with yield, diseases and other insect resistance potentiality	RARS, Rahmatpur,
Cowpea			
495.	Development of cowpea genotypes through Hybridization and Top and Back cross method for attaining synchronize maturity with high yield potentiality	• Improvement of genetic variation for desired traits and development of varieties having early and synchronous maturity, disease resistance and high yield potential	RARS, Rahmatpur
496.	Confirmation of F ₁ generation of cowpea	• To confirm the crossed F ₁ generations and selection of desired genotypes with high yield potential, early maturing and resistant to insect and diseases for advancement of generation	PRC, Ishurdi, Pabna
497.	On-form trail of promising cowpea genotypes	• Selection of stable genotypes over different locations for releasing new variety which are essential for variety development	RARS, Rahmatpur, RPRS, Madaripur; OFRD Patuakhali, Bhola, Noakhali, and RARS, Hathazari
Crop and Soil Management			
498.	Integrated weed management for summer pulses	• To find out the suitable weed management practices for summer pulses	PRC, Ishurdi and RPRC, Madaripur, Agro, Div Gazipur, RARS, Barishal
499.	Performance of black gram as intercropped with pigeonpea	• To find out the performance of black gram with Pigeon pea	RPRS, Madaripur and PRC, Ishurdi
500.	Performance of high value crops as intercropped with pigeon pea	• To find out the performance of different high value crops with in Pigeon pea • To increase overall productivity per unit of land area	RPRS, Madaripur and PRC, Ishurdi

Sl. No.	Research Title	Objective(s)	Location(s)
501.	Effect of source of phosphorus fertilizer and application method on growth and yield of mungbean	• To evaluate the response of phosphorus on growth and yield of mungbean	PRRS, Madaripur
502.	Collection and evaluation of faba bean germplasm	• To develop suitable faba bean variety for southern farmers	RPRS, Madaripur
503.	Performance of Field pea-Mustard Mixed cropping in Madaripur	• To find out the suitable mixed cropping ratio of field pea and mustard for Madaripur	RPRS, Madaripur
504.	Performance of different pulses as forage in Barishal	• To find the suitable pulse crops to be used as forage in southern region of Bangladesh	RARS, Rahmatpur, Barishal
505.	Bio-fortification of chickpea through water soluble zinc sulphate	• To find out the effect of soil and foliar-applied Zn fertilizer on grain yield, protein content of Zn and Fe in chickpea	RARS, Jashore and PRC, Ishurdi
506.	Effect of bio-fertilizer and phosphorus levels on growth and yield of black gram	• To find out the response of different levels of phosphorus and bio-fertilizer on growth and yield of black gram	PRC, Ishurdi and RARS, Jeshore
507.	Performance of Field-pea with leafy vegetable	• To find out the performance of Field-pea with leafy vegetable, and increase farmers' income	RPRS, Madaripur
508.	Validation of the performance of herbicides for controlling weed in lentil	• To find out the performance of herbicide for controlling weed in lentil	RPRS, Madaripur and PRSS, BARI Gazipur
509.	Validation of the herbicidal performance to control weed in chickpea	• To find out the performance of herbicide for controlling weed in chickpea	RPRS, Madaripur and PRSS, BARI Gazipur
510.	Validation of the performance of herbicides for controlling weed in grasspea	• To find out the performance of herbicide for controlling weed in grasspea	RPRS, Madaripur and PRSS, BARI Gazipur
511.	Validation of the performance of herbicides for controlling weed in field pea	• To find out the performance of herbicide for controlling weed in field pea	RPRS, Madaripur and PRSS, BARI Gazipur
512.	Selection of suitable herbicide for controlling sedge weed in in black gram	• To find out the suitable herbicide to control sedge weed (mutha) in kharif season in Black gram	PRC, Ishurdi, Pabna and RPRS, BARI, Madaripur
513.	Determination of optimum dose of Panida for weed control in mungbean	• To find out the appropriate dose of Panida for weed control in mungbean	PRC, Ishurdi and RPRC, Madaripur
514.	Development of weed management package for summer mungbean	• To find out the suitable weed management for controlling weeds in summer mungbean	PRC, Ishurdi and RPRC, Madaripur
515.	Performance of pulse crops relay with T aman rice at Madaripur region	• To find out the suitability of relaying pulse crops in Madaripur Region	RPRS Madaripur and Farmers' Field
516.	Growth and yield of grass	• To determine the impact of foliar spray	RPRS, Madaripur

Sl. No.	Research Title	Objective(s)	Location(s)
	pea as influenced by foliar spray of potassium nitrate	of potassium nitrate on growth and yield of grass pea	
517.	Effects of tillage and residue retention on the performance of Lentil-Mungbean-Taman cropping pattern at Madaripur region	• To assess the agronomic productivity, soil health and economic profitability of tillage and residue retention in rice-based system	RPRS, Madaripur
518.	Profitability analysis of pulse-based rice cropping patterns against jute based cropping patterns in Madaripur	• To find out the suitable jute based cropping pattern for Madaripur district	RPRS, Madaripur
519.	Pulse crop technologies in southern Bangladesh: perspective of adoption behavior, influencing factors and dissemination pathways	• To Address the sources and availability of innovated pulse crops technologies; • To identify the adoption level of available technologies; • To determine the influencing factors of technology adoption; and • To establish the technology dissemination pathways	RPRS, Madaripur
520.	Agronomic biofortification of chickpea with zinc through application of zinc fertilizer	• To find out the effect of soil and foliar-applied Zn fertilizer on grain yield, protein content, and shoot and grain concentrations of Zn in chickpea	RARS, Jashore
521.	Lentil and Chickpea intercropping performances	• To find out the best legume- legume intercropping arrangement	RARS, Jashore
Disease Management			
522.	Effects of Tillage and P management under conservation agriculture (CA) on Root rot disease management of lentil of Lentil-Blackgram-Maize cropping Pattern	• To assess the effects of CA and P management practices on on Root rot disease management of lentil • To determine the actual P requirement for Lentil under CA system	PRC, Ishurdi, Pabna
523.	Identification and characterization of foot and root rot pathogens of lentil	• To identify and characterize foot and Root rot pathogens of lentil	PRC, Ishurdi, Pabna
524.	Screening of lentil germplasm for root rot and wilt Resistance	• To identify resistant genotypes through molecular markers against the Fusarium wilt disease	PRC, Ishurdi, Pabna
525.	Evaluation of biosynthesized AgNPs and ZnONPs against foot and root rot pathogens of lentil	• To synthesize Ag and Zn NPs; • To characterize the synthesized nanoparticles and • To see their efficacy against foot and root rot pathogens <i>in vitro</i> and field conditions	PRSC, BARI, Gazipur
526.	Effect of biological agents and chemical fungicides for controlling foot rot of lentil	• To find out the effective option to manage the diseases	PRSC, BARI, Gazipur, PRC, Ishurdi and RARS, Rahmatpur, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
527.	Screening of different groups of fungicides and bio-agents against Stemphylium blight of lentil	• To find out suitable fungicides and bio-fungicides against the disease	PRSC, BARI, Gazipur and PRC, Ishurdi
528.	Evaluation of selected exotic germplasm of lentil resistant to Stemphylium blight in natural conditions	• To find out high yielding as well as the resistant source of lentil against stemphylium blight disease	PRC& RARS, Jashore, BARI, Ishurdi
529.	Identification and characterization of <i>Stemphylium</i> spp associated with lentil blight disease in Bangladesh	• To identify Stemphylium species integrating with multiple phylogenetic analyses of rDNA using ITS, gpd, and cmdA primers and • To test and compare the pathogenicity of different isolates under experimental conditions	All over the Bangladesh
530.	Effect of biological agents and chemical fungicides on Fusarium wilt disease in Chickpea	• To find out an effective and suitable control measure of the disease	PRSC, BARI, Gazipur and RARS, Rahmatpur, Barishal
531.	Identification of Mungbean Yellow disease (MYD) associated insect vector biotypic variants and its Management	• Identification and molecular characterization of the MYMV disease of mungbean associated begomoviruses • Identification of the biotypic variants of white fly and their management	PRSC, BARI, Gazipur and RARS, Rahmatpur, Barishal
532.	Screening of Field Pea lines against Powdery Mildew and Rust Diseases	• To find out the resistant lines against the diseases	PRSC, Gazipur
533.	Effect of fungicides on Powdery mildew and Rust disease in Field Pea	• To find out an effective and suitable control measure for the disease	PRSC and RARS, Rahmatpur
534.	Survey, collection, isolation, and identification of pathogens on lentil, Mungbean and chickpea diseases	• To find out the resistant sources against Root rot pathogen of lentil	Pabna, Jashore, Barishal, Rajshahi, Patuakhali, Faridpur, Gaibandha, and Madaripur
OILSEEDS RESEARCH CENTRE			
Project I: Variety Development			
A. Rapeseed-Mustard			
Sub-Project I: Collection, evaluation and maintenance of oilcrops germplasm			
535.	Collection of rapeseed-mustard germplasm	• To enrich and widen the genetic base of the gene pool of oilseed crops	Different agro-ecological zones of Bangladesh
536.	Maintenance of rapeseed-mustard germplasm	• To explore the genetic diversity of Brassica rapa, B juncea and B napus germplasm • To identify the germplasm having useful traits	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
Sub-Project II: Development of high yielding short duration variety in <i>Brassica rapa</i> L and <i>Brassica napus</i> L			
<i>Brassica rapa</i> L			
537.	Hybridization in <i>B rapa</i> L	• To select early, yellow, bold seeded and erect type genotypes	Jamalpur, Gazipur
538.	Evaluation of segregating generation of <i>Brassica rapa</i> L	• To advance generation • To select short duration plants/families having desirable traits	Gazipur, Jamalpur
539.	Observation Trial of <i>Brassica rapa</i> L	• To select short duration genotypes with better agronomic traits	Gazipur, Jamalpur
540.	Preliminary Yield Trial of <i>Brassica rapa</i> L	• To select short duration genotypes with better agronomic traits	Gazipur, Ishurdi, Jashore, Rahmatpur, Rangpur, Hathazari Jamalpur
541.	Regional Yield Trial of <i>Brassica rapa</i> L	• To select short duration high yielding lines with better agronomic traits and wider adaptability • To develop short duration variety to fit in between T aman and Boro rice	Gazipur, Ishurdi, Jamalpur, Jessore, Rahmatpur, Rangpur, Hathazari
<i>Brassica napus</i> L			
542.	Hybridization in <i>B napus</i> L	• To select early, erect type and bold seeded genotypes	Gazipur, Jamalpur
543.	Evaluation of segregating generation of <i>Brassica napus</i>	• To advance generation • To select short duration plants/families having desirable traits	Gazipur, Jamalpur
544.	Observation yield trial of <i>Brassica napus</i>	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	Jamalpur
545.	Preliminary yield trial of <i>Brassica napus</i> L	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	Jamalpur, Gazipur, Ishurdi and Jashore
546.	Regional yield trial of <i>Brassica napus</i>	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	Jamalpur, Gazipur, Jashore, Ishurdi and Burirhat
Sub-Project III: Development of high yielding variety in <i>Brassica juncea</i> L and <i>Brassica carinata</i> L			
547.	Regional yield trial of <i>Brassica juncea</i> L	• To select lines with high yield potential, better agronomic traits and wider adaptability • To develop high yielding variety of <i>B juncea</i>	Gazipur, Ishurdi, Jamalpur, Jashore, Rahmatpur, Rangpur, Hathazari
<i>Brassica carinata</i> L			
548.	Evaluation of segregating generation of interspecific crosses	• To advance generation • To select short duration plants/families having desirable traits	Gazipur, Jamalpur
549.	Preliminary yield trial of entries developed from interspecific crosses among <i>B carinata</i> and <i>B napus</i>	• Utilization of genetic variability of inter specific cross • To find out genotypes suitable for cultivation in Bangladesh	Gazipur, Burirhat, Jashore, Rahmatpur

Sl. No.	Research Title	Objective(s)	Location(s)
Sub-Project IV: Development of hybrid variety in <i>B napus</i> L			
550.	Maintenance of CMS, restorer and maintainer lines of <i>Brassica napus</i> L	- To maintain the male sterile and maintainer lines - To use in future breeding programme	Gazipur
551.	Development of test cross hybrids	To develop and evaluate test cross hybrids	Gazipur
552.	Evaluation of rapeseed-mustard hybrid	To select (s) superior hybrid	Gazipur, Ishurdi, Jamalpur, Jashore, Rahmatpur, Burirhat, Hathazari
Sub-Project V: Development of double low (canola) variety in rapeseed			
553.	Hybridization in double low (canola) <i>B napus</i> L	To develop double low short duration genotypes through crossing between <i>Brassica rapa</i> and <i>Brassica napus</i>	Gazipur
554.	Evaluation of segregating generation of <i>Brassica napus</i>	- To advance generation - To select short duration plants/families having desirable traits	Gazipur, Jamalpur
Sub-Project VI: Development of climate smart variety of Rapeseed- mustard through Speed Breeding			
555.	Development of multi-parent advanced generation inter-cross (MAGIC) populations	- To develop MAGIC population to accumulate all favorable genes from multi-parents into a single parent - To create genetic variability	Gazipur
556.	Development of hexaploidy <i>Brassica spp</i>	- Incorporation of sufficient genetic diversity to form a basis for breeding and improvement of this potential crop species - Improvement of agronomic traits to the level of “elite” breeding material in the diploid and allotetraploid crop species	Gazipur
557.	Development of nested association mapping (NAM) populations	- To create genetic variability - To phenotyping of NAM lines under short duration and multiple stresses	Gazipur
558.	Introgression of heat tolerance gene in rapeseed-mustard from wild relatives	- Introgression of heat tolerance gene - Broadening of genetic diversity	Gazipur
559.	Identification of Climate Smart Rapeseed-Mustard	- To select abiotic stress tolerance line (s) - To explore climate smart Rapeseed-mustard	Gazipur
Sub-Project VII: Maintenance breeding of rapeseed-mustard			
560.	Maintenance of released varieties and advanced lines of rapeseed-mustard	To maintain the genetic purity of released variety and advanced lines of rapeseed-mustard	Gazipur
B. Sesame			
Sub-Project I: Collection and maintenance of sesame germplasm			
561.	Collection and evaluation of sesame germplasm	- To enrich and widen the genetic base of the gene pool of sesame - To evaluate the collected germplasm	Gazipur, Jessore, Ishurdi
562.	Regeneration of germplasm of sesame	To maintain the collected germplasm	Gazipur, Jessore, Ishurdi

Sl. No.	Research Title	Objective(s)	Location(s)
Sub-Project II: Creation of new genetic variability in sesame			
563.	Hybridization in sesame	• To create genetic variation • To find out desirable genotypes	Gazipur, Barishal
Sub-Project III: Development of high yielding variety of sesame			
564.	Growing/confirmation of F1 generation of sesame	• To obtains F2 seed • To confirm the crosses of previous season	Gazipur, Barishal
565.	Evaluation of segregating generation of sesame (F ₄ and F ₆)	• To advance generation • To select desirable genotypes	Gazipur
566.	Observation Trial of sesame	• To observe the performance of lines • To select lines with desired characters	Gazipur
567.	Preliminary Yield Trial of sesame	• To observe the performance of lines • To select lines with desired characters over locations	Gazipur, Ishurdi, Faridpur, Kushtia, Dinajpur, Khulna, Jessore
568.	Regional Yield Trial of sesame	• To observe the performance of lines • To select lines with desired agronomic characters and wider adaptability	Gazipur, Barishal, Ishurdi, Kushtia, Dinajpur, Jessore
569.	Seed increase of advanced lines of sesame	• To meet up the seed requirement for RYT of the next year • To meet up the seed requirement adaptive trial of the next year	Gazipur, Ishurdi, Jessore
Sub-Project IV: Development of water-logged tolerant variety of sesame			
570.	Screening of sesame genotypes under water logged condition	• To select water logged tolerant genotypes • To develop stress tolerant sesame variety	Gazipur
Sub-Project V: Adaptive trial of sesame			
571.	Adaptive trial of advanced lines of sesame	• To evaluate the performance of advanced lines of sesame in the farmers field at different locations of Bangladesh • To develop high yielding variety of sesame	Faridpur, Kushtia, Dinajpur, Tangail, Gopalganj, Khulna
C. Groundnut			
Sub-Project I: Collection, evaluation and maintenance of groundnut germplasm			
572.	Collection of groundnut germplasm	• To enrich and widen the genetic base of the gene pool of groundnut	Different agro-ecological zones of Bangladesh and Abroad
573.	Maintenance and evaluation of groundnut germplasm	• To maintain and evaluate the existing germplasm • Selection of different accessions for future breeding program	Gazipur
Sub-Project II: Development of high yielding, short duration and bold seeded variety of groundnut especially for char land			
574.	Hybridization in groundnut	• To create genetic variability • To incorporate earliness, high oleic acid and large kernel size into existing groundnut varieties	Gazipur, Jamalpur

Sl. No.	Research Title	Objective(s)	Location(s)
575.	Evaluation of segregating generations of groundnut	- To confirm the F₁ generation - To advance generation - To select short duration plants having desirable traits	Gazipur, Jamalpur
576.	Observation Trial of groundnut (Set-I, Set-II and Set-III)	- To select high yielding, bold seeded and early maturing lines - To select disease resistance lines with desired agronomic traits	Gazipur, Jamalpur
577.	Preliminary Yield Trial of groundnut (Set-I, Set-II, Set-III and Set-IV)	- To select high yielding and early maturing lines - To develop high oleic acid groundnut variety - To select bold seeded and early maturing lines - To select disease resistance lines with desirable agronomic traits	Gazipur, Burirhat, Jamalpur, Burirhat
578.	Regional Yield Trial of Groundnut (Set-I, Set-II and Set-III)	- To select high yielding and early maturing variety - To select disease resistance lines with desirable agronomic traits	Gazipur, Jamalpur, Burirhat, Jamalpur, Burirhat, Rajbari, Dinajpur
Sub-Project III: Maintenance breeding of groundnut			
579.	Maintenance of released varieties and advanced lines of groundnut	To maintain the genetic purity of released varieties and advanced lines of groundnut	Gazipur
Sub-Project IV: Adaptive trial			
580.	Adaptive trial of groundnut	To know the performance of advanced lines and their adaptation in farmers' field	Jamalpur, Rajbari, Dinajpur, Rangpur
D. Soybean			
Project I: Collection, evaluation, and maintenance of soybean germplasm			
581.	Maintenance of soybean germplasm	To maintain the germplasm of soybean	Gazipur
Project II: Development of a high yielding variety of soybean for coastal areas			
582.	Hybridization in soybean	- To create genetic variability - To develop bold seeded, short duration, stress tolerant, high yielding variety	Gazipur
583.	Observation Trial of soybean	To select high yielding genotypes	Gazipur
584.	Preliminary Yield Trial of soybean	To select high yielding genotypes with better agronomic traits	Gazipur, Burirhat, Noakhali
585.	Regional Yield Trial of soybean	To select high yielding genotypes with superior agronomic traits	Gazipur, Burirhat, Rahmatpur, Cumilla
Project III: Maintenance breeding of soybean			
586.	Maintenance of released variety and advanced lines of soybean	To maintain the genetic purity of released variety and advanced lines of soybean	Gazipur
Project IV: Adaptive trial of soybean			
587.	Adaptive trial of advanced lines of soybean	To evaluate the overall performance of advanced lines in farmers' fields	Chandpur, Bhola, Noakhali,

Sl. No.	Research Title	Objective(s)	Location(s)
			Lakshmipur
E. Sunflower			
Sub-Project I: Maintenance and evaluation of germplasm			
588.	Maintenance of sunflower germplasm	• To maintain the sunflower germplasm for utilizing in the future breeding program	Gazipur
Sub-Project II: Development of dwarf sunflower variety			
589.	Preliminary Yield Trial of Sunflower	• To select high yielding sunflower genotypes • To select medium dwarf sunflower genotypes with desirable agronomic traits	Gazipur, Ishurdi, Jessore, Cumilla
Sub-Project III: Creating new genetic variability in sunflower			
590.	Screening and evaluation of M6 mutant's family created by Gamma Radiation	• To create genetic variability in sunflower • To screen and find out mutants for the development of dwarf to medium dwarf high yield potential sunflower variety	Gazipur
591.	Screening and evaluation of M5 mutant's family using EMS	• To create & detect genetic variability in sunflower for development of dwarf high yielding sunflower variety	Gazipur
Sub-Project IV: Maintenance breeding of sunflower			
	Maintenance and seed increase of dwarf advance lines of sunflower	• To maintain and increase seed of dwarf advance lines of sunflower • To use seed in adaptive trial	Gazipur
Minor Oilseeds			
F. Linseed			
592.	Maintenance of linseed germplasms	• To maintain the collected germplasm as for future breeding programme	Gazipur
593.	Regional Yield Trial of linseed	• To select genotypes with high yield potential and better agronomic traits for different locations of Bangladesh • To develop high yielding variety of Linseed	Gazipur, Hathazari, Rahmatpur, Rangpur, Jashore, Jamalpur
G. Niger			
594.	Maintenance of niger germplasm	• To maintain the collected germplasm for future breeding programme	Gazipur
H. Safflower			
595.	Maintenance of safflower germplasm	• To maintain the collected germplasm for future breeding programme	Gazipur
I. Molecular Study of Oilseed Crops			
596.	Marker Assistance Selection (MAS) of double-low rapeseed	• To identify double-low rapeseed among the germplasm using functional primers	Gazipur
597.	Identification of restorer line through Marker Assisted Selection (MAS)	• To identify restorer lines • To select superior restorer lines for hybrid development	Gazipur
598.	Screening of diverse genotypes of Oilseed crops using SSR primers:	• To estimate the genetic diversity of oilseed genotypes for low erucic acid and glucosinolate content using SSR	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	molecular characterization of Brassica genotype(s) for low erucic acid and glucosinolate content using SSR markers	markers	
599.	Response of water-logged tolerant WRKY gene expression in sesame under water logged treatment	• The main goal of this study to identify genes that are differentially regulated upon exposure to waterlogging stress, • To provide new insight for the development of sesame plants with enhanced tolerance to waterlogging	Gazipur
600.	study of genetic diversity of soybean (<i>Glycine max</i> (L) Merr) genotypes using ssr markers	• To identify the genetic diversity of existing soybean germplasm and varieties using SSR marker	Gazipur
601.	Molecular characterization of dwarf sunflower mutants by the expression analysis of genes regulating Gibberalic Acid (GA) pathway	• To analyze sunflower dwarf mutant molecularly	Gazipur
602.	Identification and molecular characterization of the gene families controlling fatty acid biosynthesis in mutant sunflower: by the expression analysis of <i>FAD</i> , <i>SAD</i> and <i>Oleic</i> gene sequences	• To analyze expression of <i>FAD</i>, <i>SAD</i> and <i>Oleic</i> gene in sunflower mutant molecularly	Gazipur
603.	Molecular characterization of newly developed sunflower mutant by Genome sequencing	• To pool a large number of sequences to reach new frontiers in genomics-based scientific understanding of mutant • To discover the novel genes which makes the plant different	Gazipur
J. Fourth Industrial Revolution (4IR)			
604.	Area estimation of Rapeseed-Mustard crop using satellite based remote sensing technique: a case study of Tangail district	• To assess the feasibility of using satellite imagery for estimating the area under rapeseed-mustard cultivation in study area • To develop and implement a reliable methodology for rapeseed-mustard crop area estimation based on satellite data • To validate the accuracy of the satellite-based estimates through ground truth data and statistical analysis • To provide actionable insights and data-driven recommendations to policymakers and stakeholders for better crop management and	Tangail

Sl. No.	Research Title	Objective(s)	Location(s)
		agricultural planning	
Project II: Crop and Soil Management			
Sub-Project I: Multiple Cropping			
605.	Intercropping red amaranth and spinach with sunflower at different row arrangement	• To find out the suitable row arrangement of leafy vegetables with sunflower for higher productivity and profitability	Gazipur
606.	Development of cropping pattern for increasing cropping intensity and productivity	• Increase cropping intensity and productivity through crop intensification in rice based cropping system • Increase farmer's income, access to food and nutrition, employment opportunity and livelihood improvement	Gazipur
607.	Development of Mustard (var BARI Sarisha-18) - Sesame (var BARI Til-5) - T aman (var BRRI dhan75) cropping pattern against T aman-Fallow-Boro pattern for increasing cropping intensity and productivity	• Increase cropping intensity and productivity through crop intensification in rice based cropping system • Increase farmer's income, access to food and nutrition, employment opportunity and livelihood improvement	Gazipur
608.	Effect of relaying maize with mustard	• To determine the optimum relaying time of maize for better growth and yield of mustard	Gazipur
Sub-Project II: Unfavourable Ecosystem			
609.	Performance of intercropping banching onion and chili with groundnut in charland areas	• To find out the suitable intercrop combination of groundnut for higher productivity and profitability of charland area's stakeholders	Tangail, Faridpur
610.	Performance of BARI released mustard varieties at hilly areas in Bangladesh	• To observe the performance of mustard varieties for hilly areas	Hathazari, Bandarban, Khagrachari
611.	Performance of BARI released mustard varieties at haor areas in Bangladesh	• To observe the performance of mustard varieties for haor areas	Keshoregonj, Netrokona, Sylhet
612.	Performance of sunflower varieties in southern region of Bangladesh	• To identify the suitable variety of sunflower for southern region	Bhola, Patuakhali, Gopalganj, Gazipur, Shatkhira
613.	Performance of groundnut varieties at charland areas in Bangladesh	• To see the performance of groundnut and sesame varieties for charland areas	Faridpur, Pabna, Kustia
614.	Performance of sesame varieties at charland areas in Bangladesh	• To see the performance of groundnut and sesame varieties for charland areas	Faridpur, Pabna, Kustia
615.	Performance of mustard varieties in Barind areas	• To select suitable genotype of mustard for Barind areas	Joypurhat, Rajshahi, Bogra, Noagoan
616.	Performance of short duration mustard varieties in southern region of	• To identify the suitable variety of mustard for southern region	Bhola, Khulna, Gopalganj, Shatkhira

Sl. No.	Research Title	Objective(s)	Location(s)
	Bangladesh		
617.	Validation of intercropping fenugreek with groundnut in haor areas	• To validate the suitable row arrangement of fenugreek with groundnut for higher productivity and profitability in haor areas	Keshoregonj, Sunamganj, Moulovibazar
618.	Effects of management practices on growth and yield of sesame in tidal flooding ecosystem of Barishal region	• To examine the growth of sesame under different management practices under tidal flooding ecosystem • To increase the yield and economic return of sesame in Barishal region	Jhalakati
619.	Effects of different sowing methods on yield and economic return of mustard under rice based cropping system in Barishal region	• To examine the effect of different sowing methods on yield of mustard • To increase the yield and economic return of mustard in Barishal region	Barishal, Jhalakati
620.	Effects of irrigation scheduling on growth and yield of sunflower in Barishal region	• To determine the effects of irrigation scheduling on growth and yield of sunflower • To increase the yield of sunflower in Barishal region	Barishal
621.	Performance of mustard in rice based cropping patterns in Barishal region	• To examine the performances of mustard in rice based cropping patterns in Barishal region for developing different cropping patterns	Barishal
622.	Adaptive trial of Mustard-Sesame-Taman rice cropping pattern in Barishal region	• To examine the performance of Mustard-Sesame-Taman rice cropping pattern in Barishal region	Jhalakati
Sub-Project III: Yield Maximization			
623.	Performance of selected linseed genotypes under salinity condition in pot culture	• To select salt tolerant linseed genotypes under salinity condition	Gazipur
624.	Effect of spacing on growth and yield of perilla	• To find out the suitable spacing of perilla • To find out the growth, yield, and yield component of perilla	Gazipur
625.	Effect of planting time on growth, yield and seed quality of perilla	• To determine optimum planting time for maximizing yield of perilla	Gazipur
626.	Study on branching behavior of sunflower variety	• To observe the branching behavior of sunflower under different management practices for getting maximum yield	Gazipur
627.	Effect of foliar application of boron on seed setting and yield of sunflower (<i>Helianthus annuus</i> L)	• To evaluate the effect of foliar application of boron on seed setting of sunflower to get maximum yield	Gazipur
628.	Effect of two different plant growth regulators on grain filling of sunflower	• To evaluate the effect of foliar application of plant growth regulators on seed setting of sunflower to get maximum yield	Gazipur
629.	Field Performance	• To study the field performances of	Gazipur, Barishal,

Sl. No.	Research Title	Objective(s)	Location(s)
	Evaluation of BARI Seeder for Oil Seed Crops	BARI Seeder for oil seed crops in farmers' field • To make economic analysis of machine at farmers' socio-economic conditions	Jamalpur, Ishuirdi, Burirhat, Alamnagar, Pabna, Jashore
Project III: Disease Management			
630.	Survey of oilseed crop diseases and their existing disease management practices	• To assess disease status of the crops • To identify different diseases of the crops • To know the present status of disease management practices of the farmers	All over the country
631.	Study of mycoflora associated with sunflower seeds	• To identify the most prevalent fungi on freshly harvested seeds and storage seeds of sunflower • To assess their nutritional value when freshly harvested and during storage condition	All over the country
632.	Screening of rapeseed-mustard varieties/lines against <i>Alternaria</i> leaf blight disease	• To find out the resistant source(s) against <i>Alternaria</i> leaf blight disease of mustard • The selected resistant lines will be advanced as variety or utilized in the breeding programme	Gazipur
633.	Evaluation of different group of commercial fungicides against <i>Alternaria</i> blight disease of mustard	• To find out the most effective fungicides in controlling <i>Alternaria</i> blight disease of mustard • To increase seed yield of mustard	Gazipur
634.	Monitoring of disease status of different varieties/lines of groundnut	• To find out the resistant source(s) against Tikka (leaf spot), rust and other soil borne diseases of groundnut • The selected resistant lines will be utilized as variety or use in the breeding programme	Gazipur
635.	Evaluation of different fungicides against Tikka (leaf spot) and rust disease of groundnut (<i>Arachis hypogaea</i>)	• To find out effective fungicides in controlling Tikka (leaf spot) and rust disease of groundnut • To increase seed yield of groundnut	Gazipur
Project IV: Insect Pest Management			
636.	Effect of insecticides on foraging behaviour of honeybee (<i>Apis mellifera</i> L) on mustard (<i>Brassica rapa</i>)	• To know to the adverse effect of insecticides on honeybee • To determine the safe time for beekeeper to set their hive	Gazipur
637.	Insect Pollinators and their role on yield of sunflower (<i>Helianthus annuus</i> L)	• To identify the proper pollinating option for improving yield of sunflower	Gazipur
638.	Genetic analysis of honeybee, <i>Apis dorsata</i> populations using RAPD markers	• To find out e genetic variation • To observe migration rate among collected populations	Manikganj, Tangail, Gazipur
639.	Relative susceptibility of	• To identify the resistant sesame	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	sesame cultivars against green tobacco capsid (<i>Nesidiocoris tenuis</i> Reuter)	variety(ies) to green tobacco capsid • To fit the resistant variety in the IPM package for managing this pest	
640.	Development of IPM package against the major insect pests of sunflower	• To find out the the most effective management package(s) against insect pests of Sunflower • To record the incidence and damage severity of these pests	Gazipur
641.	Development of a management approach against flea beetle attacking mustard	• To record the incidence of flea beetle in mustard • To estimate damage severity of the pests in mustard varieties	Gazipur
642.	Development of a management approach against major insect pests of groundnut	• To find out the the most effective management package(s) against insect pests of groundnut • To record the incidence and damage severity of these pests	Gazipur
643.	Screening of soybean entries against major insect pests under natural field condition	• To find out the resistant entries against major insect pest • To record the incidence and damage severity of major pests in different Soybean entries	Gazipur
644.	Screening of groundnut entries against major insect pests under natural field condition	• To find out the resistant entries against major insect pest • To record the incidence and damage severity of major pests in different groundnut entries	Gazipur
645.	Screening of Mustard genotypes against major insect pests under natural field condition	• To find out the resistant genotypes against major insect pest • To record the incidence and damage severity of major pests in different Mustard genotype	Gazipur
Project V: Socioeconomic Research			
646.	Factors affecting adoptions of BARI developed mustard varieties in selected areas of Bangladesh	• To estimate input use, productivity and profitability of mustard; • To find out the adoption status of mustard varieties at farm level; • To analysis the factors affecting the production of mustard	Tangail, Sirajganj, Jamalpur
SPICES RESEARCH CENTRE			
PROJECT-I: Varietal development of spices crops			
Sub-project-1: Varietal development of onion			
647.	Development of diverse onion germplasm through hybridization (advancing of generation: set 1-3)	• To enhance genetic diversity and identify superior lines with desirable agronomic traits	SRC, Bogura
648.	Mass selection for onion population development	• To enhance genetic diversity and identify superior lines with desirable agronomic traits	RSRC, Gazipur
649.	Development of S ₃ bulb to S ₃ seed generation in onion	• To enhance genetic diversity and identify superior lines with desirable agronomic traits	RSRC, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
650.	Development of synthetic population in onion for higher yield and storability	• To produce F ₁ seed	RSRC, Gazipur
651.	Hybridization of onion for the development of summer variety/lines	• To produce F ₁ seed	RSRC, Gazipur
652.	Advance yield trial of winter onion	• To evaluate the onion advanced lines for winter season and to select promising winter onion line(s)	SRC, Bogura
653.	Advanced yield trial of white onion	• To study the performance of white onion lines and to select promising one for testing regional adaptability especially for dry powder	SRC, Bogura
654.	Advance yield trial of onion	• To evaluate genetic parameters and performance of various onion genotypes	SRC, Bogura
655.	Regional yield trial of winter onion against thrips	• To study the regional adaptability of the selected winter onion lines against thrips at different onion growing areas and to select promising winter onion line(s) for releasing as a thrips tolerant variety	SRC, Bogura; RSRC, Gazipur and Magura; SRSC, Faridpur and Lalmonirhat
656.	Regional yield trial of onion	• To identify new onion lines for different agro-ecological zones and to conserve the land races for future research purposes	SRC, Bogura; RSRC, Gazipur and Magura; SRSC, Faridpur and Lalmonirhat
657.	Maintenance of onion germplasm	• To identifying superior genotypes with desirable traits is crucial for developing high-yielding and resilient onion varieties, contributing to agricultural productivity and farmers' economic well-being	SRC, Bogura
658.	Regional yield trial of negi onion (<i>Allium fistulosum</i> L) genotypes	• To observe regional performance of Negi onion genotype	SRSC, Faridpur; RSRC, Lalmonirhat; SRC, Bogura; RSRC, Magura and RSRC, Gazipur
Sub-project-2: Varietal development of garlic			
659.	Evaluation of garlic germplasm	• To select the promising garlic germplasm for releasing a variety	SRC, Bogura
660.	Advance yield trial of garlic line	• To select the promising garlic germplasm for releasing a variety	SRC, Bogura
661.	Regional yield trial of promising garlic line	• To identify new garlic lines for different agro-ecological zones and to conserve the land races for future research purposes	SRC, Bogura; RSRC, Magura; SRSC, Lalmonirhat; RSRC, Gazipur; SRSC, Faridpur
Sub-project-3: Varietal development of chilli			
662.	Evaluation of chilli	• To evaluate the genetic parameters and	SRC, Bogura

Sl. No.	Research Title	Objective(s)	Location(s)
	genotypes	performance of fifteen chili genotypes	
663.	Evaluation of hybrid chilli genotypes	• To evaluated the genetic parameters and performance of twelve chili hybrid genotypes	SRC, Bogura
664.	Generation advancement of F ₃ chilli	• To evaluate F ₃ progenies of chili	RSRC, Gazipur
665.	Observation yield trial of chilli	• To evaluate all the available germplasm for their performances and to maintain the existing chilli germplasm with the aim to preserve the existing variability for future breeding program	SRC, Bogura
666.	Advance yield trial of chilli (Set-i)	• To evaluate various chilli genotypes and analyze associations among key traits	SRC, Bogura
667.	Advance yield trail of chilli (Set-ii)	• To study the performance of different chilli lines for developing variety having higher yield	RSRC, BARI, Cumilla
668.	Advanced yield trial of chilli genotypes against thrips and mite	• To test the performance of different chilli genotypes against thrips and mite	SRSC, Lalmonirhat
669.	Regional yield trial of chilli (Set-i)	• To inform evidence-based recommendations for sustainable chilli production and enhance the resilience and livelihoods of chilli farmers in Bangladesh	SRC, Bogura; SRSC, Lalmonirhat; RSRC, Gazipur
670.	Regional yield trial of chilli (Set-ii)	• To evaluate the performance of six chilli genotypes	RSRC, Gazipur and RSRC, Cumilla
671.	Maintenance of chilli germplasm	• To enhance, increase and conserve chilli germplasm to utilize in the crop improvement of chilli	RSRC, Gazipur
672.	Maintenance breeding of chilli	• To maintain the varietal purity through maintenance breeding	TCRSC, Sawasgari, Bogura
673.	Regional yield trial of ornamental chilli	• To evaluate the performance of advanced ornamental chilli lines at different AEZs and to select the promising one(s) for releasing new variety	SRC, Bogura; SRSC, Lalmonirhat; RSRC, Gazipur and CRS, Jaintapur, Sylhet
674.	Regional yield trail of naga chili lines	• To observe their yield and yield potentiality as well as quality of chili produced	CRS, Jaintapur, Sylhet
Sub-project-4: Varietal development of ginger			
675.	Evaluation of ginger germplasm	• To select the promising ginger germplasm for releasing a variety	SRC, Bogura
676.	Advanced yield trial of promising ginger lines	• To select the promising ginger germplasm for releasing a variety	SRC, Bogura
677.	Regional yield trial of promising ginger line	• To identify new onion lines for different agro-ecological zones and to conserve the land races for future research purposes	SRC, Bogura and SRSC, Lalmonirhat

Sl. No.	Research Title	Objective(s)	Location(s)
Sub-project-5: Varietal development of turmeric			
678.	Advance yield trial of turmeric (<i>Curcuma longa</i> L)	• To assess the performance of selected turmeric genotypes	SRSC, Faridpur
679.	Advance yield trial of turmeric	• To enhancing the productivity and sustainability of turmeric cultivation in the country	SRC, Bogura
680.	Regional yield trial of turmeric (set-i)	• To find out the performances of promising lines over different locations for regional adaptability	SRC, Bogura
681.	Regional yield trial of turmeric (set-ii)	• To evaluate different turmeric lines and to select the promising one for releasing a variety	RSRC, Magura; SRSC, Faridpur, SRC, Bogura; RSRC, Gazipur
682.	Maintenance of turmeric germplasm	• To evaluate the performance of various turmeric genotypes and to maintain the existing turmeric germplasm for future breeding programs	SRC, Bogura
Sub-project-6: Varietal development of minor spices			
683.	Evaluation of cumin germplasm	• To identify the best germplasm with higher yield and other desirable characters	SRC, Bogura
684.	Evaluation of coriander germplasm	• To identify the best genotype with higher yield and desirable characters	SRC, Bogura
685.	Evaluation of fenugreek germplasm	• To identify the best genotype with higher yield and desirable characters	SRC, Bogura
686.	Evaluation of sickle fruit fenugreek germplasm	• To identify the best genotype with higher yield and desirable characters	SRC, Bogura
687.	Evaluation of fennel germplasm	• To identify the best genotype with higher yield and desirable characters	SRC, Bogura
688.	Evaluation of dill germplasm	• To identify the best genotype with higher yield and desirable characters	SRC, Bogura
689.	Evaluation of ajowan germplasm	• To identify the best genotype with higher yield and desirable characters	SRC, Bogura
690.	Maintenance of betel vine germplasm	• To evaluate betel vine genotypes for higher leaf production	SRC, Bogura
691.	Preliminary yield trial of fennel (<i>Foeniculum vulgare</i>)	• To evaluate that germplasm	SRSC, Faridpur
692.	Advance yield trial of betel vine	• To evaluate betel vine genotypes for higher leaf production	SRC, Bogura
693.	Preliminary yield trial of garden cress	• To characterized and evaluated garden cress genotypes	RSRC, Magura
694.	Regional yield trial of mint	• To study the regional adaptability of the selected mint lines on different areas and to select promising mint line (s) for releasing variety	SRC, Bogura; RSRC, Magura and SRSC, Faridpur
695.	Collection and evaluation of annatto (<i>Bixa orellana</i> L) for seed multifaction as a source of natural edible dye	• To study the morphological and ecological features and uses of annatto germplasm and to select the promising one(s) for releasing as a variety	RSRC, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
PLANT GENETIC RESOURCE CENTRE			
696.	Exploration and Collection of Plant Genetic Resources	• To enhance diversity of collection and minimize genetic erosion	Different agro-ecological zone of Bangladesh (29 upazilas of 8 districts)
697.	Multiplication of Bitter Gourd, Snake Gourd and Kangkong	• To increase the seed for characterization	PGRC, BARI, Gazipur
698.	Characterization of Ridge Gourd Germplasm	• To explore the genetic diversity of ridge gourd germplasm • To identify salient feature of studied germplasm	PGRC, BARI, Gazipur
699.	Characterization of Rapeseed-Mustard Germplasm	• To explore the genetic diversity of rapeseed-mustard germplasm • To identify salient feature of studied germplasm	PGRC, BARI, Gazipur
700.	Characterization of Okra Germplasm	• To study the genetic diversity of okra germplasm • To identify the salient feature of studied germplasm	PGRC, BARI, Gazipur
701.	Characterization of Brinjal Germplasm	• To study the genetic diversity in brinjal germplasm • To identify salient features of studied germplasm	PGRC, BARI, Gazipur
702.	Characterization of Yard Long Bean Germplasm	• To explore the genetic diversity of newly collected germplasm • To identify salient features of studied germplasm	PGRC, BARI, Gazipur
703.	Characterization of Radish Germplasm	• To explore the genetic diversity of radish germplasm • To identify salient features of qualitative and quantitative characters	PGRC, BARI, Gazipur
704.	Characterization of Halda Chilli for GI Registration	• To establish ownership of halda chilli • To register as GI crops	PGRC, BARI, Gazipur
705.	Preliminary Evaluation of Sorghum Genotypes under Drought Condition	• To screen the sorghum genotypes and find out suitable genotypes under drought condition with high yield	PGRC, BARI, Gazipur
706.	Preliminary Evaluation of Mung Bean Germplasm under Water Logging Condition	• To find out waterlogging tolerance germplasm	PGRC, BARI, Gazipur
707.	Molecular Characterization of Loti Raj Kachu (Joypurhat)	• To characterize Loti Raj Kachu • To investigate molecular diversity by using SSR markers	Molecular Biology Laboratory, PGRC, Gazipur
708.	Molecular Characterization of Nac Fazli Mango	• To characterize Nac Fazli Mango • To investigate molecular diversity by using SSR markers	Molecular Biology Laboratory, PGRC, Gazipur
709.	Molecular Characterization and DNA Fingerprinting of	• To characterize Halda chilli • To investigate molecular diversity by	Molecular Biology Laboratory,

Sl. No.	Research Title	Objective(s)	Location(s)
	Halda Chilli	using SSR markers	PGRC, Gazipur
710.	Germplasm Conservation of PGRC	- To preserve the germplasm in mid-term and long-term storage for future use - To retain viability of the stored germplasm for long time	PGRC, BARI, Gazipur
711.	Monitoring of Germplasm in Active Collection	To check the viability of conserved germplasm/accession for future use	PGRC, BARI, Gazipur
712.	Distribution of Germplasm	To ensure the utilization of PGR	PGRC, BARI, Gazipur
713.	Regeneration of Different Crops	To increase the viability and increase the number of seeds of the conserved accessions for future utilization and conservation	PGRC, BARI, Gazipur; RARS, BARI, Ishwardi; RARS, BARI, Rangpur & RARS, Jashore
714.	Conservation of Germplasm in Field Genebank	To maintain germplasm at the field gene bank	PGRC, BARI, Gazipur
715.	Documentation of Germplasm	To develop gene bank management database and information sharing systems	PGRC, BARI, Gazipur
PLANT BREEDING DIVISION			
716.	Introgression of recessive <i>nud</i> gene combination of marker assisted breeding and speed breeding approaches	To develop high yielding hull-less barley through introgression of recessive <i>nud</i> gene	Gazipur
717.	Hybridization of barley	To create new variability for developing high nutrients and high yielding hull-less barley	Gazipur
718.	Growing of F ₁ generations of barley	Ensuring of F₁s compared to their parents	Gazipur
719.	Growing of F ₂ F ₆ generations of barley	Advancing of generations to select desirable segregates, individual plants, family and development of pure lines of barley	Gazipur
720.	Advancing of F ₃ , F ₄ and F ₅ generation of barley under saline condition	To selected salt tolerant plants of F₃, F₄ and F₅ generation	Sathkhira and Khulna
721.	Observation trial of barley	To select better performing high yielding hull-less barley lines for saline area	Sathkhira
722.	Preliminary yield trial of barley	To select better performing high yielding hull-less barley lines	Gazipur, Jashore, Hathazari, Sathkhira and Khulna
723.	Advanced yield trial of barley	To select better performing high yielding hull-less barley lines	Gazipur, Jashore, Burirhat and Hathazari
724.	Regional yield trial of barley	To assess the performance of promising hull-less barley lines and influence of different environments of	Gazipur, Jashore, Burirhat and Rahmatpur

Sl. No.	Research Title	Objective(s)	Location(s)
		Bangladesh • To select better performing stable and location specific hull-less barley line(s)	
725.	International barley yield trial for arid and semi-arid regions (IBYT-ASA-24)	• To test the performance of exotic barley lines in Bangladesh condition	Gazipur
726.	International barley observation nursery (IBON-24)	• To test the performance of exotic barley lines in Bangladesh condition	Gazipur
727.	Nucleus seed maintenance of BARI released barley varieties	• To maintain the purity and identity of released varieties and lines	Gazipur
728.	Induced mutagenesis in foxtail millet	• To create variability in the existing germplasm	Gazipur
729.	Growing of M ₁ and M ₂ generation of foxtail millet	• To evaluate M ₁ and M ₂ generation and • To select desired variable traits	Gazipur
730.	Preliminary yield trial of foxtail millet	• To test the performance of the selected foxtail millet lines over the tested regions • To develop drought tolerant and high yielding foxtail millet variety	Gazipur
731.	Preliminary yield trial of proso millet lines	• To test the performance of the selected proso millet lines over the tested regions • To develop high yielding and short statured proso millet variety	Gazipur, Rangpur, Hathazari and Akbarpur
732.	Regional yield trial of proso millet	• To develop high yielding and lodging tolerant proso millet variety	Gazipur, Jamalpur, Burirhat and Jashore
733.	Regional yield trial of finger millet	• To develop short stature and early maturing finger millet variety	Gazipur, Jashore, Burirtat and OFRD Barind, Rajshahi
734.	Development of base population in sorghum	• To develop source population for the production of short and medium height genotypes	Gazipur
735.	Observation trial of selected sorghum genotypes	• To select the high yielding sorghum genotype (s)	Gazipur
736.	Evaluation of sorghum genotypes for waterlogging tolerant at the field level	• To identify waterlogging stress tolerant sorghum genotypes at the field level	Gazipur
737.	Advancing of M ₄ mutants of oat	• To develop short height and high yielding variety and • To develop naked grain mutant line	Gaziur
738.	Advanced trial of oat genotypes	• To evaluate the performance of the collected genotypes for future breeding program	Gazipur, Jamalpur, Burirhut, Barishal, Khulna
739.	Regional yield trial of Quinoa	• To assess the stability of some quinoa lines and verify the influence of different environments at different locations of Bangladesh	Gazipur, Jashore, Moulvibazar (Akbarpur,), Jamalpur and

Sl. No.	Research Title	Objective(s)	Location(s)
		• To select better performing quinoa line(s)	Khulna
740.	Varietal identification and fingerprinting of BARI released barley (<i>Hordeum vulgare</i> L) varieties using morphological descriptors and SSR markers	• To develop unique DNA fingerprints for seed purity testing and varietal identification • To develop inimitable morphological descriptors for variety protection	Gazipur
741.	Screening of proso millet genotypes for drought tolerance at seedling stage using polyethylene glycol (PEG)	• To identify the best suitable drought-tolerant proso millet germplasm on the basis of root traits • To assess the suitability of various physiological indices as related to tolerance at seedling stage	Gazipur
742.	Screening of linked DNA marker for bacterial wilt resistance in tomato	• To validate the resistance linked DNA marker for bacterial wilt (BW) in tomato genotypes	Gazipur
743.	Screening of barley genotypes (<i>Hordeum vulgare</i> L) for drought tolerance at seedling stage on the basis of morphology and using polyethylene	• To identify the best suitable drought-tolerant or -sensitive barley germplasm • To assess the suitability of various physiological indices as the feasible criteria of barley drought tolerance at seedling stage	Gazipur
744.	Evaluation of oxidative stress tolerance basis in Quinoa	• To observe the suitability of quinoa in saline area • To find out the saline tolerance mechanism of quinoa	Gazipur
745.	Nutritional analysis of BARI released varieties of minor cereals	• Analysis of nutrient contents in barley, millets, sorghum, oat, buckwheat and quinoa grains	Gazipur
746.	Nutritional composition of multigrain flour prepared from high value minor cereals	• To determine the nutritional value of fresh minor cereals • To determine the nutritional value of multigrain flour of different ratio to prepare for different aged people	Gazipur
747.	Collection and evaluation of cucumber germplasm for agronomic traits and sex types	• To evaluate cucumber germplasm based on various agronomic traits (dwarfness) and sex types • To assess the variability of the collected germplasm	Gazipur
748.	Collection and evaluation of papaya germplasm for yield and sex types	• To evaluate papaya germplasm based on yield, dwarfness and sex types • To assess the genetic diversity of the collected papaya germplasm	Gazipur
749.	Collection and maintenance of coffee germplasm	• To enrich genetic resources of collected coffee germplasm • To find out variability of the collected germplasm	Joydebpur and HARS, Khagrachari
750.	Breeder seed production of barley	• To maintain and increase seed of the released variety • To supply seeds producing agency like	Gazipur, Ishurdi, Debigonj, Rajbari, Rahmatpur,

Sl. No.	Research Title	Objective(s)	Location(s)
		BADC, DAE or NGOs and farmers	Khulna and Burirhat
751.	Seed production of BARI developed hull-less barley lines	• To maintain and seed increase of BARI developed hull-less barley lines for long time preservation	Gazipur
752.	Breeder seed production of foxtail millet, proso millet, sorghum, oat and chia varieties	• To maintain and seed increase of the released variety to supply to BADC, DAE or NGOs and farmers	Gazipur, Burirhat, Debigonj, Rahmatpur, Jashore, Akberpur, Rajbari and Jamalpur
753.	Maintenance of barley lines	• To maintain and seed increase of advanced lines	Gazipur
754.	Maintenance of foxtail millet germplasm	• To maintain and seed increase of foxtail millet germplasm	Gazipur
755.	Maintenance of BARI released oat variety and germplasm	• To maintain and seed increase of released variety and collected germplasm	Gazipur
756.	Maintenance of BARI released chia variety and genotypes	• To maintain and enrich genetic resources of Chia germplasm	Gazipur
757.	Maintenance of buckwheat lines	• To increase seed of buckwheat lines	Gazipur
758.	Maintenance of quinoa germplasm	• To maintain and enrich genetic resources of quinoa germplasm	Gazipur
759.	Adaptive trials with BARI barley varieties and lines in Southern belt and Barind areas	• To observe the performance of BARI barley varieties in dry and saline areas • To disseminate and popularize BARI barley varieties to the farmers	Satkhiria, Khulna and Barind
760.	Adaptive trials with BARI barley, oat, finger millet and chia varieties in Char areas	• To observe the performance of BARI barley varieties in dry and char areas • To popularize and disseminate BARI barley varieties to the farmers of dry areas	OFRD Bogura, OFRD Tangail, Rangpur, Faridpur, OFRD Munshigonj and OFRD Gaibandha
761.	Up-scaling of BARI foxtail millet and proso millet varieties in Char and Barind areas	• To disseminate and popularize BARI Foxtail millet varieties to the farmers of char areas	Rangpur OFRD, Tangail, Bogura OFRD Sherpur OFRDRajshahi OFRD Gaibandha
762.	Field days on the performance of BARI released barley, millet, oat and chia varieties	• To popularize BARI Barley and Foxtail millet varieties among the farmers and private agencies	Khulna, Bogura, Magura, Gaibandha
AGRONOMY DIVISION			
763.	Effect of boron fertilization on yield and quality of BARI Sarisha-18	• To find out the appropriate amount of boron fertilizer for higher yield of BARI Sarisha-18	BARI, Gazipur, Charland of Rangpur, chalanbeel of Sirajganj
764.	Yield performance of garlic under integrated nutrient	• To find out the yield performance of garlic under different integrated	RARS, Jamalpur

Sl. No.	Research Title	Objective(s)	Location(s)
	management at AEZ-9	nutrient management at AEZ-9	
765.	Improvement of lentil productivity through increasing potassium (K) fertilizer	• To study the effect of K on productivity of lentil under late and optimum sown condition	RARS, Ishurdi, Pabna
766.	Effect of planting time on yield of onion varieties at Dinajpur	• To find out suitable transplanting time for getting higher yield of onion varieties	ARS, Rajbari, Dinajpur
767.	Effect of fertilizer dose and variety on the yield and yield attributes of sunflower in Rangpur region	• To find out the suitable fertilizer dose and variety for optimum yield of sunflower and better economic return in Rangpur region	RARS, Burirhat, Rangpur
768.	Integrated nutrient management in sunflower for Rangpur region	• To determine the nutrient management practices on the productivity and economic of sunflower	RARS, Burirhat, Rangpur
769.	Performance of different mungbean varieties at Moulvibazar	• To find out suitable mungbean variety for Moulvibazar area	RARS, Moulvibazar
770.	Performance of summer tomato varieties at early summer season in Dinajpur	• To find out the appropriate transplanting time and variety to get maximum yield of tomato	ARS, Rajbari, Dinajpur
771.	Effect of nutrient management on growth yield and nutrient uptake in sorghum (<i>Sorghum bicolor</i>)	• To study the effect of nutrient management on yield and nutrient uptake in sorghum	BARI, Gazipur
772.	Growth and yield of sorghum as affected by planting geometry	• To find out suitable planting geometry for getting higher yield of sorghum	BARI, Gazipur
773.	Growth and yield of barley (<i>Hordeum vulgare</i>) as influenced by weed and fertilizer management	• To find out the optimum fertilizer dose and appropriate weed management method for getting higher yield and economic return of barley	BARI, Gazipur
774.	Growth and yield of foxtail millet as affected by planting geometry	• To find out suitable planting geometry of foxtail millet	BARI, Gazipur
775.	Productivity and quality of fodder oat as influenced by seed rate	• To determine the optimum seed rate on productivity and quality of fodder oat	BARI, Gazipur
776.	Growth and yield of chia (<i>Salvia hispanica</i>) as influenced by sowing time and row spacing at different AEZ	• To study the effect of chia seeds as affected by sowing date and spacing at different location	BARI, Gazipur RARS, Jamalpur, RARS, Jashore, RARS, Burirhat, OFRD, Shyampur and ARS, Rajbari
777.	Growth and yield of quinoa as affected by sowing time	• To study the effect of yield of quinoa seeds as affected by sowing date	BARI, Gazipur
778.	Optimization of seed rate for potential yield of quinoa	• to determine the optimum seed rate of quinoa	BARI, Gazipur
779.	Effect of different type and rate of compost on winter vegetables in Barishal region	• To determinate the effect of different type and rate of compost on growth, yield and economic return of winter vegetables	RARS, Rahmatpur, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
Weed Management			
780.	Determination of crop weed competition of lentil	• To determine the CPWC for BARI Masur-9 (lentil) in north-western region of Bangladesh	RARS, Jashore
781.	Evaluation of new herbicide for controlling weed in garlic field	• To find out the efficacy of herbicide to control weeds in garlic field for higher yield	BARI, Gazipur
782.	Effect of integrated weed management on yield of mungbean	• To find out suitable weed management practice for controlling weeds in mungbean for getting higher seed yield and economic return	BARI, Gazipur
783.	Effect of integrated weed management on sorghum in winter	• To find out suitable weed management practice in sorghum	BARI, Gazipur
784.	Effect of integrated weed management on chia	• To determine appropriate and economic weed management practices for chia cultivation	BARI, Gazipur
785.	Efficacy of different herbicides for controlling weeds in onion field	• To find out the suitable herbicide for controlling weed in onion field	ARS, Dinajpur
786.	Evaluation of new herbicides for weed management in soybean	• To find out the performance of herbicidal weed management in soybean field	BARI, Gazipur and RARS, Barishal
Multiple Cropping			
787.	Sunflower-legume strip cropping for resource conservation	• To find out the effect of strip cropping on maintaining soil health and sustainable productivity	BARI, Gazipur
788.	Barley-legume strip cropping for higher productivity and soil health	• To maintain sustainable productivity and to conserve soil health	BARI, Gazipur
789.	Sorghum- legume strip cropping for higher productivity and increase soil health	• To evaluate the effect of strip cropping on maintain sustainable productivity and conserve soil health	BARI, Gazipur
790.	Intercropping okra with mukhikachu at different planting densities	• To find out suitable planting geometry and intercrop combination for higher productivity and economic return	RARS Ishurdi, Pabna
791.	Feasibility study of different component crops intercropping with chickpea	• To find out the suitable intercrop combination with chickpea for higher productivity and economic return	RARS Ishurdi, Pabna
792.	Intercropping short duration leafy vegetables with sweet gourd	• To find out suitable leafy vegetables intercropping with sweet gourd for higher productivity and maximum economic return	BARI, Gazipur
793.	Development of alternate cropping pattern against Potato-Maize-Fallow-TAman for Dinajpur region	• To evaluate the agro-economic performance of the alternate cropping pattern against an existing pattern	ARS, Rajbari, Dinajpur
794.	Development of alternate cropping pattern against Mustard-Fallow-TAman at Dinajpur region	• To develop a profitable cropping pattern over existing cropping pattern	ARS, Rajbari, Dinajpur

Sl. No.	Research Title	Objective(s)	Location(s)
795.	Comparison of different cropping pattern with potato-Maize-Taman cropping pattern in Rangpur region	• To increase farmers' income, cropping intensity and productivity of rice based cropping system in the country needs to be increased	RARS, Burirhat, Rangpur
796.	Performance of different Agro-Forestry crops as intercrop with Arecanut (<i>Areca catechu</i>)	• To introduce and economic performance of different crops as intercrop along with Arecanut and to motivate farmers to cultivate inter crops in Arecanut orchards	Farmer's field, Bhurungamari, Kurigram
797.	Productivity of chilli-onion intercropping system as influenced by fertilizer dose	• To find out optimum fertilizer dose for chilli-onion intercropping system for getting maximum yield and economic return	RARS, Cumilla
798.	Performance of intercropping coriander with sunflower	• To find out the suitable intercrop combination of coriander with sunflower for increasing cropping intensity and productivity	RARS, Cumilla
799.	Performance of relay bitter gourd in tomato + onion intercropping at medium high land under AEZ-9 without trellis	• To perform the relay bitter gourd in tomato +onion intercropping at medium high land under AEZ-9 without trellis	RARS, Jamalpur
800.	Enhancement productivity and economic return of pigeonpea through inclusion of turmeric	• To find out the suitable planting geometry of turmeric with pigeonpea in relation to higher system productivity and economic returns	RARS, Ishurdi, Pabna
801.	Performances of mustard varieties under existing mango orchard in southern region of Bangladesh	• To determine the yield and economic return under existing mango orchard	RARS, Rahmatpur, Barishal
802.	Performance of intercropping garden pea with sweet gourd	• To find out the suitable combination of sweet gourd with garden pea for higher productivity and economic return	BARI, Gazipur
803.	Performance of winter leafy vegetables intercropped with sorghum	• To find out suitable intercrop combination for higher productivity and monetary advantage	BARI, Gazipur
804.	Development of improved cropping pattern through minor cereal for nutritional security	• To find out suitable minor crop based cropping pattern for higher productivity	BARI, Gazipur
805.	A baseline survey of integrated farming systems (IFS) in Rangpur region	• To develop integrated farming system models for the farmers of this region	Ganghachara Upazila, Rangpur
Unfavorable-eco system			
Salinity			
806.	Effect of sowing time on the performance of sorghum in saline area	• To find out the optimum sowing time for sorghum in saline area	ARS, Benerpota, Satkhira
807.	Effect of folic acid and potassium on sunflower at varying sowing time under	• To find out the effect of seed treatment with folic acid and potassium foliar spray on phenotype and yield of	ARS, Benerpota, Satkhira

Sl. No.	Research Title	Objective(s)	Location(s)
	salinity stress	sunflower under saline condition	
Charland			
808.	Performance of sweet potato variety at char land area in Rangpur	• To find out the yield performance of sweet potato varieties in char land	Mohipur char, Gangachara, Rangpur
809.	Performance of potato variety in char land of Dinajpur	• To find out the yield performance of potato varieties in char land	Kantanjir char, Kaharol, Dinajpur
810.	Performance of sesame variety in charland area of Cumilla	• To compare the yield performance of BARI released sesame varieties to replace it by the best one	Roghunathpur village, Meghna upazila, Cumilla
Haor			
811.	Performance of mustard varieties in Haor areas of BrammanBARIa	• To compare the yield performance of BARI released mustard varieties against local variety to replace it by the best one	Kollanpur village, Bancharampur, BrammanBARIa
Chalan beel area			
812.	Improvement of existing cropping pattern (“ <i>Itali</i> ” (<i>local garlic</i>)-jute) through BARI Rasun-jute cropping pattern in the chalan beel area	• To compare the yield performance of BARI released garlic varieties against local variety to replace it by the best one for improving the garlic-jute cropping pattern	Dobila village, Tarash upazila, Sirajganj
813.	Performance of mustard – jute-fallow cropping pattern against mustard- <i>boro</i> -fallow cropping pattern in the chalanbeel area	• To compare the yield performance of BARI released mustard varieties against local variety • To improve the rice-based cropping system through non-rice crops in the beel area of Bangladesh	Dobila village, Tarash upazila, Sirajganj
814.	Performance of water melon as relay crop with garlic in chalanbeel area	• To evaluate the economic benefits of water melon relayed with garlic in farmers’ field condition	Gurudaspur, Sirajganj
Hill			
815.	Effect of soil amendments on tomato yield and soil characteristic in acidic soil at Moulvibazar	• To evaluated the effect of lime, phosphorus, and trichoderma on tomato yield and post-cropping soil properties	RARS, Akborpur, Moulvibazar
816.	Performance of mustard varieties in the hilly area of Khagrachari	• To evaluate the performance of mustard varieties in hilly area of Khagrachori	HARS, Khagrachari
Sorjan			
817.	Improvement of sorjan based cropping system for increasing crop productivity in southern Bangladesh	• To develop location specific sorjan based cropping system for increasing crop productivity and profitability in southern region of Bangladesh	Atghar, Nesarabad, Pirojpur
818.	Intercropping of vegetables with newly established guava orchard under sorjan system in Barishal region	• To develop suitable intercropping system(s) of vegetables with newly established guava orchard (var BARI Peyara-2) under sorjan system	Banaripara upazila, Barishal
819.	Influences of management practice on yield and quality of local Swarupkati guava	• To determine the appropriate management package for guava cultivation on sorjan bed and to reduce	Guava village, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
	on sorjan bed	cultivation cost as well as increase farmers' income	
820.	Yield and quality of golden apple as influenced by agronomic practice on sorjan bed	• To find out the optimum agronomic practice for getting higher yield and quality of golden apple on sorjan bed in Barishal region	Banaripara, Barishal
821.	Performance of turmeric variety under existing golden apple orchard on sorjan bed in Barishal region	• To evaluate the performance of turmeric varieties under existing golden apple orchard on sorjan bed in Barishal region	Jhalakati Sadar upazila, Jhalakati
822.	Pilot production programme of grafted BARI Peyara-2 replacing local Swarupkati guava variety on sorjan bed	• To observe the performance of grafted BARI Peyara-2 over the existing local Swarupkati variety under sorjan system in Barishal region	Banaripara, Barishal
823.	Effect of different type and rate of compost on growth, yield and economic return of winter vegetables in Barishal region	• To determinate the effect of different type and rate of compost on growth, yield and economic return of winter vegetables	RARS, Rahmatpur, Barishal
SOIL SCIENCE DIVISION			
Physical Aspect of Soil Management			
824.	Assessment of leaching loss of nutrients and determination of crop coefficient (Kc) values of cauliflower through lysimeter	• To find out the crop coefficient values (Kc) and evapotranspiration (Et) using lysimeter • To observe yield performance	Lysimeter block, BARI, Gazipur
825.	Effect of different tillage practices and rice straw mulch on soil temperature, soil moisture content and yield of onion	• To estimate carbon accumulation by different tillage practices • To observe the root growth and yield performance of onion • To determine the changes in soil soil moisture content, soil temperature	BARI Research field, Gazipur (AEZ-28)
826.	Effect of conservation tillage and IPNS based nutrient management on cabbage-Indian spinach-T aman cropping system and soil properties	• To investigate the performance of crops in vegetable based triple crops cropping system under the crop establishment and organic fertilizer application practices • To study the soil health under crop establishment and organic dominant IPNS in the cropping system	BARI Research field, Gazipur (AEZ-28)
827.	Requirement of nitrogen for mustard-okra- T aman cropping system under conservation tillage practices	• To determine the optimum rate of nitrogen fertilizer for the intensive Mustard-Okra-T Aman cropping system under CA practice, • To evaluate the effects of crop residue and nitrogen on soil physico-chemical properties and component crop productivity, • To assess the system productivity in	BARI Research field, Gazipur (AEZ-28)

Sl. No.	Research Title	Objective(s)	Location(s)
		the aforesaid cropping system	
828.	Role of organic amendments on improvement of nitrogen use efficiency in grey terrace soil	• To estimate the nutrients, use efficiency • To observe the changes in soil physico-chemical properties	BARI Research field, Gazipur (AEZ-28)
829.	Effect of tillage and organic mulch on soil physico-chemical properties and yield of potato	• To determine the effect of different tillages and mulches on soil temperature • To observe the changes in soil moisture and trend of nutrient availability as governed by organic and synthetic mulches	BARI Research field, Gazipur (AEZ-28)
830.	Effects of cowdung on composting maize residue for the preparation of high-quality compost	• To identify the suitable ratio of maize stock and cow dung • To evaluate the changes of some important physical, chemical, and microbial properties in the co-composting process	Compost shed, SSD, BARI, Gazipur (AEZ-28)
831.	Effects of tillage and maize stalks-based compost on soil organic carbon and aggregate stability under pea-okra-T aman cropping systems	• To evaluate the changes of soil carbon and aggregate stability • To study the interaction effects of tillage and organic amendment on the productivity of the Pea-Okra-Aromatic rice sequence	BARI Research field, Gazipur (AEZ-28)
832.	Soil mulch frequency with alternate irrigations of saline and sweet water affects soil salinity, growth, and yield of sweet gourd	• To evaluate the suitable soil mulch frequency and irrigation strategies for high yield sweet gourd	ARS, Satkhira (AEZ-13)
833.	Effect of minimum tillage and crop residue retention on soil physico-chemical properties and crop yields under a rice-based cropping system	• To assess the impact of tillage methods and residue retention on soil, crop yields, and productivity in rice-based systems	RARS, BARI, Jashore
834.	Requirement of potassium fertilizer under conservation agriculture practice in Wheat-Mungbean-T aman cropping system	• To identify the optimal potassium fertilizer rate for conservation agriculture and its effects on soil and productivity	RARS, BARI, Jashore
835.	Effect of long-term fertilization on crop productivity, soil properties and nutrient efficiency under conservation agriculture practice with Mustard-Boro-T aman cropping pattern	• To assess the impact of chemical fertilization on crop productivity, soil properties, and nutrient efficiency under conservation agriculture (CA) in a Mustard-Boro-T Aman cropping system	RARS, BARI, Jashore
836.	Energy use analysis of conservation agriculture tillage systems for Rice-	• To assess the system productivity, and quantify energy flow of conservation tillage methods	FMPE Division, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	Soybean cropping pattern		
837.	Establishment of CA park at BARI and adaptive trial of conservation agriculture practices	• To evaluate the long-term effect of conservation agriculture and conventional tillage on crop yield and soil properties for different cropping systems and tillage methods at CA park	CA park, FMPE Division, BARI, Gazipur
838.	Effect of different fertilizer doses and application methods for potato production under zero till condition in coastal area	• To evaluate various methods of fertilizer application with respect to different level of fertilizer in potato variety	Kalapara, Patuakhali
839.	Phosphorus management in conservation agriculture under lentil-black gram-maize system: crop yield and productivity	• To evaluate the effects of P management in CA on the performance of different crops in maize-based system in northern Bangladesh	Pulses Research Centre, Ishurdi, Pabna
Chemical Aspect of Soil Management			
840.	Nutrient management for sustaining soil fertility and yield of Wheat-Mungbean-TAman cropping pattern	• To find out judicious fertilizer recommendation for Wheat-Mungbean-TAman cropping pattern for sustainable yield; • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients	Ishurdi and Jashore
841.	Nutrient management for sustaining soil fertility and yield of Mustard-Mungbean-T Aman cropping pattern	• To find out judicious fertilizer recommendation for Wheat-Mungbean-TAman cropping pattern for sustainable yield; • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients	Ishurdi and Jashore
842.	Long-term integrated nutrient management for sustaining soil fertility and yield of Maize-Mungbean-TAman cropping pattern	• To find out judicious fertilizer recommendation for Maize-Mungbean-TAman cropping pattern for sustainable yield; • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients	Gazipur
843.	Effect of different organic manures on carbon accumulation in soil and yield of crops in mustard-mungbean-T Aman rice cropping pattern	• To find out judicious fertilizer recommendation for Wheat-Mungbean-T Aman cropping pattern for sustainable yield; • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
		major nutrients and make a balance sheet for each of the nutrients	
844.	Efficacy of different form of urea on nitrogen availability and yield of maize	• To find out use efficiency of different form of urea • To find out the yield and yield components of maize as influenced by different form of urea • To analyze cost and return of maize produced from different form of urea	Gazipur
845.	Performance evaluation of composite fertilizers using rice crop at different soil type	• To developed a composite fertilizer using macro and micro nutrient	Gazipur
846.	Nutrient use efficiency through NK nano fertilizers and the yield of cabbage	• To study the impact of nano-fertilizers on cabbage yield and nutrient utilization efficiency • To evaluatethe efficiency of nano-fertilizers	Gazipur
847.	Development of fertilizer recommendations for onion linseed intercropping	• To develop a suitable fertilizer recommendation for onion with linseed intercropping system • To increase crop yield and crop diversity	Gazipur
848.	Effect of different levels of sulphur and boron on yield and nutrient uptake of sesame	• To assess different levels of S and B on growth, yield & nutrient uptake of sesame, and • To increase yield and oil content of sesame	Gazipur
849.	Integrated nutrient management on yield, quality and nutrient uptake of linseed (<i>Linum usitatissimum</i> L)	• To find out a suitable and economic fertilizer dose for maximizing the yield of linseed	Gazipur
850.	Integrated nutrient management on yield and quality of safflower	• To determine the effect of fertilizer application on soil properties • To determine the effect of fertilizer on yield and quality of safflower seed	Gazipur
851.	Effect of integrated nutrient management and plant growth regulator on yield of Tomato	• To find out the suitable combination of organic manure and plant growth regulator to increase soil health and quality tomato production	Gazipur
852.	Soil health improvement and broccoli yield increase by enriched vermicompost	• To assess the effects of microorganism-enriched vermicompost on broccoli yield, quality, nutrient content, and nutrient uptake compared to conventional methods	Gazipur
853.	Soil sampling and drone mapping combine to deliver better fertilizer recommendation for crop production	• To assess soil nutrient variability within crop fields • To generate a detailed map of soil nutrient variability across the fields • To correlate drone-derived vegetation	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
		imaging indices with soil nutrient content • To develop a fertilizer recommendation map for nutrient application	
854.	Effect of N and K on the growth and yield of Shahebkachu	• To find out effect of nitrogen and potassium on Shahebkachu • To find out optimum dose of nitrogen and potassium for Shahebkachu production	Borishal
855.	Fertilizer recommendation for BARI Sarisha-18	• To find out suitable fertilizer dose for growth and yield of BARI Sarisha-18	Jamalpur
856.	Effect of different compost on potato productivity and soil health	• To reduce the use of chemical fertilizer for potato production by organic manure • To improve carbon stock in soil	Jamalpur
857.	Integrated effect of rice husk ash and chemical fertilizers on the growth and yield of sweet potato	• To know the effectiveness of rice husk as a source of K • To reveal the combined effect of rice husk ash and chemical fertilizers on the growth and yield of sweet potato	Jamalpur
858.	Effect of varied nitrogen levels and cultivars on yield of cauliflower	• To assess the response of different nitrogen dose and cultivar on curd yield of cauliflower • To find out suitable combination for commercial production	Jamalpur
859.	Integrated nutrient management and plant density for bitter melon in Jashore region	• To determine the effects of organic manure with inorganic fertilizers on soil properties and crop productivity, and • To find out a profitable and efficient nutrient package with proper plant density for bitter melon on trellis at Jashore region	Jashore
860.	Integrated nutrient management for yield and quality of potato in Jamalpur region	• To reduce the use of chemical fertilizer for potato production by organic manuring • To improve carbon stock in soil	Jamalpur
861.	Fertilizer Recommendation of Winter Stem Amaranth in Cumilla Region	• To find out the optimum and economic fertilizer dose for maximizing the yield of winter stem amaranth	Cumilla
Soil Micronutrient			
862.	Nanoscale zinc oxide particles for improving yield and quality of tomato	• To study the effects of ZnO nano particles on the yield and quality of tomato • To calculate zinc content and uptake of tomato; and • To evaluate the efficiency of ZnSO ₄ and ZnO nanoparticles	SSD Research Field, BARI, Gazipur
863.	Influence of boron in increasing yield and seed quality of garden pea	• To determine the appropriate dose of boron on the yield of garden pea • To evaluate different levels of boron	SSD Research Field, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
		on protein content of garden pea • To increase yield and nutrient uptake of garden pea	
864.	Application of nano boron particle on the yield and quality of broccoli	• To determine the appropriate concentration of nano boron to the yield and quality of broccoli • To calculate boron content and uptake of broccoli	SSD Research Field, BARI, Gazipur
865.	Response of black cumin to foliar application of zinc	• To determine the effect of foliar spray of zinc on yield contributing characters of Black Cumin • To find out the optimum concentration of zinc for maximizing the yield and oil content of Black Cumin	SSD Research Field, BARI, Gazipur
866.	Bioremediation of heavy metals polluted soil from industrial effluents polluted areas using microbes and biochar	• To evaluate the efficiency of microbes and biochar as a bioaccumulator for heavy metal in contaminated soil; • To determine the uptake pattern of heavy metal in the root, shoot and grain/fruit system of tested crop as influenced by microbes and biochar; • To quantify the heavy metal status of polluted soils	Shade house, SSD, BARI, Gazipur
867.	Role of micronutrients in improving productivity and seed quality of chia seeds	• To evaluates the response of chia plant to boron and zinc in terms of growth, crop yield and quality of chia seeds • To determine the appropriate levels of zinc and boron for the crop production	SSD Research Field, BARI, Gazipur
868.	Effect of zinc and biochar on the yield and nutrient content of sweet gourd	• To assess the effect of Zn and biochar on the yield of sweet gourd • To find out the Zn concentration and uptake of sweet gourd • To identify a suitable combination of Zn application with biochar	SSD Research Field, BARI, Gazipur
869.	Determination of critical limit of zinc for chickpea	• To evaluate the available Zn status of Calcareous and Non-Calcareous soils using DTPA extraction reagents and to correlate extractable Zn with soil properties, dry matter yield and Zn content by chickpea; and • To determine and update of critical limit of zinc in different soils for chickpea	Shade house, SSD, BARI, Gazipur
870.	Yield and quality of rock melon influenced by liming material and boron under acidic soil of Sylhet region	• To study the effect of dolomite and boron on yield and fruit quality of rock melon, • To control gummy stem blight and fruit cracking of rock melon and to determine the appropriate amount of liming material in combination with boron for quality melon production under acidic soil of Moulvibazar	RARS, BARI, Moulvibazar

Sl. No.	Research Title	Objective(s)	Location(s)
871.	Effect of foliar application of micronutrient on quality and yield of tomato	• To evaluate the effects of foliar applications of zinc and boron on the vegetative and reproductive growth and yield of BARI tomato-21	RARS, BARI Jashore
872.	Effect of foliar application of boron on seed setting and yield of sunflower	• To evaluate the effect of foliar application of boron on seed setting of sunflower to get maximum yield	Oilseed Research Field, BARI, Gazipur
873.	Effect of boron on the growth and seed yield of sunflower in acidic soil of Sylhet region	• To determine the optimal boron dose for BARI Surjomukhi-3	Farmer's Field, Hakaluki haor, Sylhet
874.	Effect of liming on the growth and seed yield of sunflower in acidic soil of Sylhet region	• To determine the optimum dose of lime to achieve better growth and yield of sunflower under acidic soil condition	Hakaluki haor MLT site, Moulvibazar
Microbiological Aspect of Soil Management			
875.	Study on collection, isolation and screening of indigenous <i>Rhizobium</i> strains, arbuscular mycorrhizal fungi, <i>Azotobacter</i> , phosphate solubilizing bacteria and <i>Azospirillum</i> strain(s) for different crops from different AEZs of Bangladesh	• To select the best indigenous <i>Rhizobium</i> strain(s), arbuscular mycorrhizal fungi, <i>Azotobacter</i>, phosphate solubilizing bacteria and <i>Azospirillum</i> strain(s) from different AEZs of Bangladesh • To prepare biofertilizer for different legume and other crops	Rahmatpur, Jessore, Joydebpur, Hathazari, Rajshahi, Dinajpur, Rangpur, Ishurdi, Khagrachari, Raikhali, Patuakhali, Sathkhira, Noakhali, Cox's Bazar, Sylhet, etc
876.	Assessment of Arbuscular mycorrhizal association in different plants and crops	• To study the percent root colonization and AM fungal spore population in the rhizosphere soil • To produce suitable AM inoculum for future use in different plants and crops	Khagrachori, Jamalpur, Gopalgonj, Rangpur, Jashore
877.	Effect of <i>Azotobacter</i> on the growth and yield of Chilli	• To study the role of <i>Azotobacter</i> on the growth and yield of chilli • To find out the nutrient uptake as influenced by <i>Azotobacter</i>	Net House of SSD, Gazipur
878.	Effect of Arbuscular mycorrhizal fungi and phosphorus on vegetables, spices and legume crops	• To study the effect of combined use of arbuscular mycorrhiza and phosphorus on the performing of vegetables spices and fruit crops under field condition • To reduce to use of P-fertilizer for vegetables, spices and legume crops	Joydebpur
879.	Effect of biofertilizer, vermicompost and chemical fertilizers on cowpea	• To study the effect of bio-fertilizer and vermicompost on yield of cowpea • To find out nutrient uptake as influence by bio-fertilizer and vermicompost • To reduce the chemical fertilizer in cowpea cultivation	Joydebpur, Jamalpur
880.	Study on the rhizobial	• To study the native rhizobial and other	Different AEZs of

Sl. No.	Research Title	Objective(s)	Location(s)
	population and other soil microorganism status of different soils (AEZs) of Bangladesh	soil microorganism population of different soils of Bangladesh • To know the effect of climate change on the rhizobial population and other soil microorganisms	Bangladesh
881.	Validation of biofertilizer on different legumes (Mungbean, lentil, chickpea, groundnut, soybean etc)	• To popularize the rhizobium biofertilizer technology for producing pulse and oilseed legumes in the farmer's level	Kustia, Faridpur, Patuakhali, Bhola, Satkhira, Sylhet, Cox's Bazar, Meherpur, Jessore, Jamalpur, Rajshahi, Pabna, Rangpur, Kishoregonj, Noakhali, Lakhmipur,
882.	Isolation of salt tolerant <i>Rhizobium</i> and their characterization, plant growth promoting and symbiotic performance on pulse and oilseed legume	• To isolate and identify effective rhizobial strains from coastal saline areas of Bangladesh • To characterize morphological, biochemical and PGPR of effective rhizobial strains • To measure nodulation test of collected strains in respective crops	Noakhali, Lakhmipur, Cox's Bazar, Chittagong, Satkhira, Bhola, Borguna, Patuakhali, Satkhira and different coastal AEZs of Bangladesh
883.	Effect of different biofertilizers on the growth and yield of onion	• To find out the effectiveness of different biofertilizers for minimizing the use of chemical N and P in respect of growth and yield of Onion	BARI, Gazipur
884.	Study on symbiotic, biochemical and molecular characterization of Rhizobial strains isolated from different AEZs and their PGPR activity and N ₂ fixation properties in pulse and oil seed legume	• To isolate and identify effective rhizobial strains from acidic, drought, saline and hilly areas of Bangladesh • To measure nodulation test of collected strains in respective crops • To measure plant growth promoting activity and N fixation capacity in respective crops • Genomic DNA isolation, PCR amplifications and sequencing to know family, genus and species of effective rhizobial strains	Rahmatpur, Jessore, Joydebpur, Hathazari, Rajshahi, Dinajpur, Rangpur, Ishurdi, Khagrachari, Raikhali, Patuakhali, Satkhira, Noakhali, Cox's Bazar, Sylhet and different AEZs
885.	Effect of different fertilizer combination on groundnut in Barishal region	• To find out the response of BARI Chinabadam -9 to different fertilizer • To determine the optimum dose of nutrient to maximizing the yield of BARI Chinabadam-9	Barishal
886.	Bio control of fusarium wilt disease of cowpea by dual inoculation with <i>Rhizobium</i>	• To observe the effect of pre-inoculation of AM and <i>Rhizobium leguminosarum</i> on the disease	Net House, SSD, Joydebpur, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	and arbuscular mycorrhiza	resistance of cowpea crops infected by pathogen • To produce healthy and vigorous seedlings of cowpea crops	
887.	Role of microbes for nutrient availability and uptake by soybean	• To increase the nutrient availability and uptake by soybean • To enhance the yield of soybean • To know the soil fertility status	Gazipur, Ishwardi and Jessore
888.	Influence of microbial inoculants on soil microbes, microbial biomass carbon, nitrogen and nutrient uptake by chickpea in red brown terrace soil	• To know the microbial population status • To estimate the nutrient uptake of chickpea • To monitor the soil fertility status	Gazipur, Ishwardi and Jessore
889.	Effect of legumes and <i>Rhizobium</i> biofertilizer on soil fertility, microbial status and productivity of eggplant	• To study the effect of legumes and <i>Rhizobium</i> biofertilizer on yield and quality of eggplant • To increase the nutrient status and carbon content in soil • To study the post-harvest soil microbial status of soil	Joydebpur, Gazipur
890.	Mono culture production of arbuscular mycorrhizal fungi	• To produce mono culture of arbuscular mycorrhizal fungi	Laboratory and net house of SSD, BARI, Joydebpur, Gazipur
891.	Suitability study of host and substrates for producing arbuscular mycorrhizal fungi inoculum	• To produce arbuscular mycorrhizal fungi inoculum	Laboratory and net house of SSD, BARI, Joydebpur, Gazipur
PLANT PATHOLOGY DIVISION			
892.	Screening of selected potato varieties/ germplasm/lines against late blight of potato	• To find out the desirable late blight resistance/tolerance variety(s)	Debigonj Panchogar
893.	Efficacy of new fungicides in controlling late blight of potato	• To evaluate the most effective fungicide against late blight disease of potato	Debigonj, Jamalpur, Cumilla, Bogura
894.	Efficacy of new fungicides in controlling late blight of potato	• To find out the appropriate chemical fungicide to control the Late blight disease of potato	RARS, Jamalpur
895.	Monitoring of disease status of BARI released potato varieties against common scab	• To find out the tolerant varieties against scab diseases of potato	Debigonj, Jamalpur, Cumilla, Bogura
896.	Evaluation of potato hybrid clones and exotic lines for plrv and pvv resistance under the infection pressure (1 st progeny)	• To find out the resistant source (s) against PLRV and PVY	Joydebpur, Gazipur
897.	Evaluation of potato hybrid clones and exotic lines for plrv and pvv resistance under the infection pressure	• To find out the resistant source (s) against PLRV and PVY	Joydebpur, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	(1 st progeny)		
898.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (2 nd progeny)	• To find out the resistant source (s) against PLRV and PVY	Debigonj, Jamalpur, Cumilla, Bogura
899.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (2 nd progeny)	• To find out the resistant source (s) against PLRV and PVY	Joydebpur, Gazipur
900.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (6 th progeny)	• To find out the resistant source (s) against PLRV and PVY	Joydebpur, Gazipur
901.	Evaluation of potato lines for plrv and pvy resistance under the infection pressure (4 th progeny)	• To find out the resistant source (s) against PLRV and PVY	Joydebpur, Gazipur
902.	Detection of potato viruses (plrv, pvy, pvx, pvm and pvs) in the supplied samples of different companies through das-elisa	• To test the plantlet samples through DAS-ELISA to produce disease free quality seeds nationwide	Gazipur
903.	Heterologous expression of recombinant truncated coat protein of three potato infecting viruses (pvy, plrv and pvx) in <i>escherichia coli</i>	• Express the recombinant fused CP of PVY, PVX & PLRV in <i>E coli</i>	Gazipur
904.	Observational trial of sweet potato varieties/germplasm against virus diseases	• To screen the sweet potato lines against different virus diseases	TCRC, Joydebpur, Gazipur
905.	Observational trial of sweet potato varieties/germplasm against virus diseases	• To screen the virus-resistant varieties	TCRC, Joydebpur, Gazipur
906.	Survey and monitoring of new tuber crops diseases in Bangladesh	• To monitor the disease status of potatoes and sweet potatoes	Dinajpur, Panchagarh, Thakurgaon, Rangpur, Kurigram, Nilphamary, Lalmonirhat, Gaibandha, Bogra and Gazipur
907.	Identification and characterization of root rot pathogens of lentil	• To identify the soil-borne pathogens associated with root rot disease of lentil and also to determine the prevalence of the disease, the major threats to lentil production in Bangladesh	PRS(Ishurdi), Char Saria and (Bogura), RARS(Jashore), RARS (Barishal), RARS(Jamalpur), PRS (Madaripur), and PRS(Gazipur)
908.	Screening of lentil germplasm for root rot and	• To search for root rot disease resistant lentil through field screening and	PRC, Ishurdi, Pabna

Sl. No.	Research Title	Objective(s)	Location(s)
	wilt resistance	artificial inoculation	
909.	Evaluation of biosynthesized agnps against foot and root rot pathogens of lentil	• To test the efficacy of AgNPs against <i>Sclerotium rolfsii</i> , <i>Rhizoctonia solani</i> , <i>Fusarium oxysporum</i> causing foot and root rot disease in lentil	Joydebpur, Gazipur (PRC)
910.	Effect of biological agents and chemical fungicides for controlling foot and root rot of lentil	• To determine the impact of biological agents and chemical fungicides on foot and root rot disease in seedling establishment and seed yield of lentil	PRC, BARI, Gazipur & PRC, Ishurdi, Pabna
911.	Screening of different groups of fungicides and bio-agents against <i>stemphylium</i> blight of lentil	• To search for new fungicides for management of Stemphylium blight of lentil	PRC, BARI, Gazipur & PRC, Ishurdi, Pabna
912.	Bio-agent based management practice against foot and root rot of lentil	• To control foot and root rot of lentil by using bio-control agents	RARS, Jasshore
913.	Effect of biological agents and chemical fungicides on <i>fusarium</i> wilt disease in chickpea	• To find out a suitable management package against the wilt disease of chickpea	PRSC, BARI, Gazipur
914.	Screening of field pea germplasm against rust disease	• To find out the resistant lines against the diseases	PGRC, BARI, Gazipur
915.	Effect of fungicides on rust diseases in field pea	• To find out an effective fungicide for controlling rust disease of Field pea	PRSC, BARI, Gazipur
916.	Morpho-physiological characterization of selected new isolates of <i>sclerotinia sclerotiorum</i>	• To know the morpho-physiological characteristics of the pathogen <i>S sclerotiorum</i>	RARS, Rangpur
917.	Surveillance, isolation and preservation of <i>sclerotinia sclerotiorum</i> from different hosts including mustard	• To know the present status of the white mold diseases in different hosts	RARS, Rangpur
918.	Surveillance of <i>plasmodiophora brassicae</i> causing clubroot of mustard	• To know the present status of clubroot diseases in northern region	RARS, Burirhat
919.	Screening of rapeseed-mustard varieties/lines against <i>alternaria</i> blight disease of mustard	• To find out the resistant lines of rapeseed-mustard against Alternaria blight	Oilseed Research Centre, BARI, Gazipur
920.	Screening of mustard varieties/lines against <i>Alternaria</i> blight and white mold disease	• To identify the resistant source of mustard against Alternaria blight and white mold disease under natural condition	Oilseed Research Centre, BARI, Gazipur
921.	Efficacy of fungicides against white mold of mustard	• To evaluate the fungicides for controlling Alternari blight white mold of mustard	RARS, Burirhat, Rangpur
922.	Efficacy of different group of chemical fungicides against alternaria blight of mustard	• To evaluate fungicides of different groups in controlling Alternaria blight disease of mustard	Oilseed Research Centre, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
923.	Evaluation of different group of commercial fungicides against tikka (leaf spot) and rust disease of groundnut (<i>arachis hypogaea</i>)	• To find out more effective fungicides against leaf spot and rust diseases of groundnut	Oilseed Research Centre, BARI, Gazipur
924.	Screening of groundnut varieties/lines against tikka rust and other soil borne diseases	• To screen the promising genotypes of groundnut to identify the sources of resistance to leaf spot and rust diseases	Oilseed Research Centre, BARI, Gazipur
925.	Variability of <i>sclerotium rolfsii</i> causing collar rot disease of sunflower	• To understand the variability in morphological and cultural characters <i>S rolfsii</i> causing collar rot disease of sunflower	Oilseed Research Centre, BARI, Gazipur
926.	Survey of oilseed crop diseases and their existing disease management practices	• To assess diseases associated with rapeseed-mustard and sunflower in farmers' fields across the country	Patuakhali, Barguna and Bhola
927.	Screening of onion varieties and lines against purple blotch disease	• To search for resistant variety against purple blotch disease of onion	SRC(Bogura), RARS(Gazipur) and SRC(Faridpur)
928.	Effect of bio-fungicides in controlling purple blotch disease of onion	• To find out the effective bio-fungicides in controlling purple blotch disease of onion	SRC, BARI, Gazipur
929.	Validation of developed idm package in controlling purple blotch disease of onion	• To validate the IDM package in controlling purple blotch disease of onion	SRC, BARI, Gazipur, SRSC, Faridpur, SRC, Shibganj, Bogra
930.	Efficacy of new fungicides in controlling purple blotch of onion	• To find out the effect of different fungicides for controlling purple blotch disease of onion	RSRC, BARI, Magura
931.	Evaluation of new fungicides for controlling purple blotch disease of onion	• To find out the effective new chemical fungicides against purple blotch disease of onion	RARS, Jessore
932.	Survey on pre and post-harvest diseases of onion in Bangladesh	• To observe the incidence and severity of pre and post harvest diseases on onion in Bangladesh	Faridpur, Rajbari, Magura, Bogura, Pabna, Lalmonirhat and Gazipur
933.	Survey and identification of new diseases of spice crops in Bangladesh	• To identify the new diseases of different spices crops at different areas of Bangladesh with their causal organism	SRC (Bogura)
934.	Cultural and morphological characteristics of <i>fusarium</i> wilt causing organisms of black cumin	• To characterize the different species of fungus associated with the wilt of black cumin in Bangladesh using cultural and morphological and molecular features	Bogura, Gazipur, Magura, Faridpur
935.	Effect of fungicides, bio-agent in controlling <i>alternaria</i> disease of black	• To find out the effective fungicides for controlling alternaria blight disease of black cumin	RARS, BARI, Magura

Sl. No.	Research Title	Objective(s)	Location(s)
	cumin		
936.	Induce systemic resistance against cucumber mosaic virus of chilli by <i>trichoderma harzianum</i>	• To study the induce systemic resistant against CMV of chilli	PPD, BARI, Gazipur
937.	Survey and identification of bacterial wilt of turmeric	• To find out the incidence and causal organism of rhizome rot of turmeric	Bogura, Rangpur, Lalmonirhat, Magura and Meherpur
938.	Screening of fungicides to control stem rot/blight disease of tomato	• To find out the effective fungicides against stem rot disease of tomato plant caused by <i>Alternaria solani</i>	RARS, Ishurdi, Pabna
939.	Evaluation of new fungicides against early blight of tomato	• To find out appropriate chemical fungicide to control early blight of tomato	RARS, Jessore
940.	Integrated management for controlling early blight of tomato	• To find out suitable integrated management practice to control early blight of tomato	RARS, Jessore
941.	Screening of tomato germplasm for resistance to bacterial wilt	• To find out the resistance source among tomato germplasm grown under artificially soil-inoculated conditions	HRC, BARI
942.	Integrated disease management of bacterial wilt in tomato	• To find out the effective control tactics in integrated approach against bacterial wilt and to enhance yield of tomato	HRC, BARI, Gazipur
943.	Integrated management of tomato leaf curl virus (toLCV) of tomato	• To find out a suitable management option against <i>Tomato leaf curl virus</i> (TOLCV) of Tomato	PPD, BARI, Gazipur
944.	Management of leaf curl disease of tomato using beneficial microbes and vector control	• To manage leaf curl disease of tomato by beneficial microbes and vector control	RARS, Jessore
945.	Identification of resistance sources of BARI released tomato varieties/lines against leaf curl viruses	• To identify resistant genotypes based on the percentages of plants infected under field natural condition	RARS, Jamalpur
946.	Screening of tomato germplasm for resistance to tomato leaf curl virus under field condition	• To screen the tomato germplasm for resistance to TLCV under field conditions	HRC, BARI, Gazipur
947.	Screening of tomato germplasm against root-knot nematode	• To identify the source of resistance in tomato var(s)/accessions	HRC, BARI, Gazipur
948.	Screening of new bio-fungicides against root-knot nematode <i>meloidogyne incognita</i> of tomato	• To observe the efficacy of new bio-pesticides against root knot nematode of tomato caused by <i>Meloidogyne incognita</i>	PPD, BARI, Gazipur
949.	Test of composts and biochars against root knot nematode of tomato	• To test the efficacy of available biochars and organic compost against root- knot nematode of tomato	PPD, BARI, Gazipur
950.	Efficacy of new fungicides in controlling powdery	• To find out the efficacy of new fungicides in controlling powdery	RARS, Comilla

Sl. No.	Research Title	Objective(s)	Location(s)
	mildew of cucumber	mildew of cucumber	
951.	Efficacy of fungicides and bio-fungicides against downy mildew disease of cucumber	• To test the efficacy of different group of fungicides and bio-fungicides against downy mildew disease of cucumber caused by <i>Pseudoperonospora cubensis</i>	PPD, BARI
952.	Development of bio-rational based integrated management package against foot and root rot disease of cucumber	• To develop eco-friendly integrated management technology against foot and root rot disease caused by <i>Fusarium oxysporum</i> and <i>Sclerotium rolfsii</i>	PPD, BARI, Gazipur
953.	Screening of cucumber germplasm for resistance to cucumber mosaic virus under field condition	• To find out resistant sources against cucumber mosaic virus (CMV) disease	HRC, BARI, Gazipur
954.	Screening of BARI bt-brinjal varieties against bacterial wilt under pot condition	• To observe the performance of four Bt- brinjal and three non Bt- brinjal varieties against bacterial wilt	PPD, BARI, Gazipur
955.	Screening of eggplant germplasm for resistance to bacterial wilt	• To find out the resistant sources of eggplant grown under artificial epiphytotic conditions	HRC, BARI
956.	Integrated disease management of bacterial wilt in eggplant	• To find out the effective control tactics in integrated approach against bacterial wilt and to enhance yield of eggplant	HRC, BARI, Gazipur
957.	Validation trial of emos for controlling bacterial wilt in <i>solanaceous</i> vegetable	• To find out the effective EMOs for Controlling Bacterial Wilt in <i>Solanaceous</i> Vegetable	RARS, Hathzari
958.	Screening of eggplant germplasm against root-knot nematode	• To identify the source of resistance in eggplants against root-knot disease	HRC, BARI, Gazipur
959.	Efficacy of new fungicides in controlling powdery mildew of sweet gourd	• To determine the effectiveness of some new fungicides against powdery mildew of sweet gourd	RARS, Jessore
960.	Comparison for effectiveness of a bio-fungicide with two chemical fungicides for the management of powdery mildew of pumpkin on floating bed	• To determine the effectiveness of some new fungicides against powdery mildew of pumpkin	RARS, Rahmatpur, Barishal
961.	Evaluation of pumpkin genotypes to mosaic viral disease under field condition	• To identify resistant resistance sources against mosaic disease with desirable agronomic traits	HRC, BARI, Gazipur
962.	Development of bio-rational based disease management package against root-knot nematode disease of bottle gourd	• To develop bio-rational based management packages of root-knot diseases of bottle gourd crop in the field	PPD, BARI, Gazipur
963.	Screening of okra germplasm resistance to okra yellow vein mosaic	• To record varietal reactions against OYVMV disease	HRC, BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	virus		
964.	Efficacy of chemicals, botanicals and plant defense activators in managing okra yellow vein mosaic virus	• To evaluate different chemicals, botanicals and plant defense activators for controlling okra yellow vein virus	HRC, BARI, Gazipur
965.	Integrated management of enation leaf curl disease of okra	• To eco-friendly management of white fly and enation leaf curl virus disease of okra	RARS, Ishurdi
966.	Screening of country bean germplasm for resistance to multiplex virus complex under field condition	• To find out resistant sources against country bean common mosaic virus (BCMV) disease	HRC
967.	Identification of the viruses that infecting country bean and associated weeds which acts as a reservoir of the viruses	• To identify the viruses which infecting country bean as well as the associated host plant of the viruses	PPD, Gazipur
968.	Efficacy of chemicals in controlling floral malformation of mango	• To test the efficacy of different chemicals to control floral malformation of mango	RHRS, Chapainawabganj
969.	Development of fungicides-based management against <i>anthracnose</i> of mango fruits	• To test the efficacy of different groups that are available in the market and are using by the mango growers against anthracnose of mango fruits	RHRS, Chapainawabganj
970.	Evaluation of new fungicides against <i>anthracnose</i> of mango	• To test the efficacy of new fungicides against post-harvest anthracnose of mango fruits	RHRS, Chapainawabganj
971.	Control of bacterial black spot in mango by bacillus based induction and different foliar sprayings	• To control the mango bacterial black spot (MBBS) of mango	RARS, Hathazari Chattogram
972.	Survey of floral malformation of mango in Rajshahi region of Bangladesh	• To assess the prevalence and severity of mango floral malformation	Chapainawabganj
973.	Characterization and efficacy test of antagonistic endophytic microorganism against <i>nalanthamala psidii</i> of guava	• To evaluate eight endophytic microbes against wilt disease of guava caused <i>Nalanthamala psidii</i>	PPD, Gazipur
974.	Screening of guava lines/varieties against wilt disease caused by <i>nalanthamala psidii</i> in pot	• To find out a resistant germplasm of guava against <i>N psidii</i> , causing wilt disease in guava	PPD, Gazipur
975.	Control of sigatoka in banana by bacillus based isr and different foliar approaches	• To control the Sigatoka leaf spot disease (SD) by the integrated disease management with the induction of <i>Bacillus</i> species with the rationalized chemical fungicides	RARS, Hathazari Chattogram
976.	Efficacy of different new fungicides in controlling sigatoka disease of banana	• To find out the effective fungicides in controlling sigatoka disease of banana	Mohinikati, Jhikargacha Jashore

Sl. No.	Research Title	Objective(s)	Location(s)
977.	<i>In-vitro</i> and in-vivo test of bacillus based emos with molecular study for controlling greening disease on sweet orange	• To control the greening disease of citrus by the novel <i>Bacillus</i> sp	RARS, Hathazari, Chattogram
978.	Identification of the citrus tristeza virus genotypes and their interactions on different citrus species	• To identify the CTV (Citrus Tristeza Virus) genotypes infecting citrus species in Bangladesh	PPD lab Gazipur
979.	Efficacy of different fungicides in controlling leaf spot and fruit rot caused by <i>pestalotia</i> sp of strawberry	• To know the efficacy of fungicides leaf spot and fruit rot caused by <i>pestalotia</i> sp of strawberry	Gazipur
980.	Development of integrated disease management (idm) packages in controlling root rot and anthracnose disease of strawberry	• To find out the effective management packages against root rot and anthracnose disease of strawberry	RARS, Ishordi, Pabna
981.	Survey and identification of diseases of strawberry in gazipur and Rajshahi region	• To isolate and identify the causes associated with the strawberry diseases in Bangladesh	Gazipur, Rajshahi
982.	Cultural, chemical and biological control of <i>fusarium</i> wilt in water melon	• To find out a suitable management package against the disease	RARS, Rahmatpur, Barishal
983.	Survey and identification of watermelon diseases in Bangladesh	• To identify the watermelon diseases of Bangladesh	Khulna, Jessore and Jhenaidah
984.	Etiological study and management of the watermelon bud necrosis disease (wbny)	• To prevalence, incidence and management of bud necrosis diseases of watermelon	Rajshahi, Natore, Rangpur, Barishal, Patuakhali, and Bhola
985.	Ecofriendly management of papaya ring spot virus (prsv)	• To develop eco-friendly disease management option against Papaya ringspot virus (PRSV) of papaya	Gazipur
986.	Survey of major diseases of selected fruits and vegetables in northern region	• To monitor incidence and severity of major diseases of selected commercial fruits and vegetables	Rangpur, Nilphamari, Punchagarh
987.	Efficacy of chemical fungicides in controlling botrytis blight of marigold	• To know the efficacy of chemical fungicides in controlling botrytis blight of marigold	Gazipur
988.	Integrated management of white mold disease of marigold	• To find out the effective management package against white mold disease of marigold	Ishordi, Pabna, RARS
989.	Evaluation of bio-agents botanicals and chemical fungicides against <i>alternaria</i> leaf spot of gerbera	• To find out appropriate management practice against alternaria leaf spot of gerbera	RARS, Jashore
990.	Survey on botrytis blight	• To record the incidence and severity of	HRC, BARI,

Sl. No.	Research Title	Objective(s)	Location(s)
	disease in lilium	botrytis blight disease of lilium	Gazipur
991.	Management of leaf spot disease of aloe vera	• To find out the effective treatments against leaf spot disease of Aloe vera	RARS, Ishordi
992.	Isolation and characterization of entomopathogenic fungi	• To isolate and characterize entomopathogenic fungi	Salna, Gazipur
993.	Molecular characterization of root-knot nematodes (<i>meloidogyne</i> spp) of different crops in gazipur, Bangladesh	• To identify the causal agent of root-knot of vegetable crops using PCR and DNA sequencing	Gazipur
994.	Collection and isolation of endophytic bacteria to suppress bacterial wilt pathogen	• To isolate endophytic bacteria from different healthy vegetable plants and also to determine their antimicrobial properties	BARI, Gazipur
995.	Identification of post-harvest diseases of fruits and vegetable	• To identify post-harvest diseases of fruits and vegetables	HRC, BARI, Gazipur
996.	Survey on major disease of commonly grown fruits in cumilla region	• To survey the incidence and severity of the diseases of fruits in Cumilla region of Bangladesh	Chandina, Borura, Lalmai and Adarsa Sadar upazila
997.	Survey on major disease of commercially grown vegetables in cumilla region	• To observe disease prevalence of commercially grown vegetables in Cumilla region	Chandina, Nangolkot and Adarsa Sadar areas
998.	Survey on bacterial wilt of solanaceous vegetable crops	• To record the incidence of bacterial wilt of eggplant	Gazipur
ENTOMOLOGY DIVISION			
999.	Evaluation of different biopesticides & reduced risk insecticides against brinjal shoot and fruit borer, <i>Leucinodes orbonalis</i> Guenee	• To obtain new aspect management options against brinjal shoot and fruit borer	Gazipur
1000.	Biorational based management of fruit borer in tomato	• To find out the most effective biorational based management approach against fruit borer of tomato • To produce insecticide free tomato	Gazipur
1001.	Management of whitefly, <i>Bemisia tabaci</i> for suppressing tomato leaf curl virus	• To develop suitable management package(s) against whitefly transmitted tomato leaf curl virus (ToLCV) disease infecting tomato • To produce toxic chemical pesticides free tomato	Gazipur
1002.	Development of bio-rational based management package(s) against common cutworm, <i>Spodoptera litura</i> infesting cabbage	• To develop bio-rational based IPM package for the management of common cutworm infesting cabbage	Gazipur
1003.	Management of flea beetle, <i>Phyllotreta striolata</i> attacking cabbage	• To develop IPM package for managing flea beetle attacking cabbage	Gazipur
1004.	Development of bio-rational	• To develop bio-rational management	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	management approach against insect pest complex of okra	approach against insect pest complex of okra	
1005.	Management of pod borer attacking yard long bean	• To develop appropriate strategy for managing the pod borer attacking Yard long bean	Gazipur
1006.	Management of sucking insect pests of yard long bean	• To develop appropriate strategy for managing the sucking pests attacking yard long bean	Gazipur
1007.	Evaluation of different reduced-risk insecticides/IGRs against rugose spiralling whitefly infesting coconut	• To select the best reduced-risk insecticides/IGRs against rugose spiralling whitefly infesting coconut	Gazipur
1008.	Evaluation of different microbial bio-pesticides against rugose spiralling whitefly infesting coconut	• To select the best microbial bio-pesticides against rugose spiralling whitefly infesting coconut	Gazipur
1009.	Development of bio control-based management package(s) against two spotted spider mite, <i>Tetranychus urticae</i> Koch in brinjal under field condition	• To develop bio control based management package(s) for suppressing the naturally occurring <i>T. urticae</i> populations on brinjal cultivars	Gazipur
1010.	Mass rearing of <i>Trichogramma pretiosum</i> and <i>Telenomus remus</i> on eggs of <i>Corcyra cephalonica</i> under laboratory condition	• To develop economic and effective procedure for mass rearing of <i>Telenomus remus</i> and <i>Trichogramma pretiosum</i> under laboratory condition	Gazipur
1011.	Study on biology and mass rearing of common cutworm <i>Spodoptera litura</i> (Lepidoptera: noctuidae) on artificial diet	• To find out a suitable alternate host rearing on artificial diet for mass rearing of <i>Telenomus remus</i> under laboratory condition	Gazipur
1012.	Development and validation of analytical method for the determination of fipronil using gas chromatography triple quadrupole mass spectrometry	• To develop and validate an analytical method for the determination of fipronil using Gas Chromatography Triple Quadrupole Mass spectrometry (GC-MS/MS)	Gazipur
1013.	Development and validation of analytical methods for pesticide residue determination using HPLC-UV	• To develop and validate a multi-residue analytical method for the analysis of thiacloprid and carboxin using QuEChERS Extraction coupled to High Performance Liquid Chromatography with UV detector	Gazipur
1014.	Development of analytical method for the determination of bifenthrin using gas chromatography	• To develop and validate an analytical method for the analysis of bifenthrin using gas chromatography	Gazipur
1015.	Determination of pre	• To determine the PHI for acetamiprid	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
	harvest interval for neonicotinoid insecticides in selected vegetables under supervised field trial	in eggplant and cabbage	
1016.	Determination of pre-harvest interval for lambda-cyhalothrin, chlorpyrifos+cypermethrin, dimethoate and acephate in broccoli	• To re-set the PHI for lambda-cyhalothrin, chlorpyrifos+cypermethrin, dimethoate and acephate in broccoli	Gazipur
1017.	Study on residue degradation of newly registered and commonly used insecticide in mango under supervised field trial	• To assess the amount and degradation rate of left over residues of three newly registered used insecticides such as acetamiprid, lambda-cyhalothrin and chlorpyrifos+cypermethrin in mango	Gazipur
1018.	Study on residue degradation of newly registered and frequently used insecticide in litchi under supervised field trial	• To assess the amount and degradation rate of residues of three frequently used insecticides like acetamiprid, lambda-cyhalothrin and chlorpyrifos + cypermethrin in litchi	Gazipur
1019.	Study on residue degradation of commonly used insecticide in capsicum and chili under supervised field trial	• To assess the amount and degradation rate of left over residues of four frequently used insecticides ie, chlorpyrifos and dimethoate in capsicum; acephate and diazinon in chili	Gazipur
1020.	Quantification of pesticide residue load in major vegetables collected from two different regions of Bangladesh	• To detect and quantify the leftover residue of frequently used pesticides in selected vegetables collected from different markets of two locations in Bangladesh	Gazipur
1021.	Monitoring of multiple pesticide residues in fruits collected from different regions of Bangladesh	• To develop and validate an analytical method for the analysis of commonly used pesticides apple, grape, hog plum, dates fruit and dragon fruit using QuEChERS Extraction and Gas Chromatography • To monitor selected pesticide residues in apple, grape, hog plum, dates fruit and dragon fruit collected from Gazipur	Gazipur
1022.	Monitoring of multiple pesticide residues in betel leaf collected from different regions of Bangladesh	• To monitor selected pesticide residues in betel leaf collected from different locations (Dhaka, Gazipur, Rajshahi and Rangpur) of Bangladesh	Gazipur
1023.	Determination of multiple pesticide residues in capsicum, green chilli, lettuce leaf and coriander leaf collected from different markets of Bangladesh	• To develop and validate an analytical method for the analysis of commonly used pesticides in capsicum, green chilli, lettuce leaf and coriander leaf using QuEChERS Extraction and Gas Chromatography • To monitor pesticide residues in capsicum, green chilli, lettuce leaf and	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
		coriander leaf collected from different regions of Bangladesh	
1024.	Determination of pesticide residues in poultry meat using quechers extraction and gas chromatography	To monitor pesticide residues in poultry meat using QuEChERS Extraction and Gas Chromatography	Gazipur
1025.	Monitoring of pesticide residues in dry fruits	- To develop and validate an analytical method for the analysis of pesticide residues in dry fruits and - To monitor pesticide residues in dry fruit collected from different markets of Bangladesh	Gazipur
1026.	Detection and quantification of pesticide residue in spices	- To develop and validate an analytical method for the analysis of pesticide residues in marketed cumin powder, coriander powder and ginger - To detect and quantify the pesticide residue levels in marketed cumin powder, coriander powder and ginger	Gazipur
1027.	Determination of multiple pesticide residues in powder milk collected from different markets of Bangladesh	- To develop and validate an analytical method for the analysis of pesticide residues in milk - To monitor pesticide residues in milk collected from different markets of Bangladesh	Gazipur
1028.	Determination of pesticide residues in marketed herbal medicine	- To develop and validate an appropriate method for the residue analysis of some selected pesticides in herbal medicine using Gas-chromatography - To detect and quantify the pesticide residue levels in marketed herbal medicine	Gazipur
1029.	Risk assessment of selected pesticide residues in major fruits	To assess the health risk associated with the detected pesticides in apple, grape, hog plum, dates fruit and dragon fruit collected from different locations (Dhaka, Gazipur) of Bangladesh	Gazipur
1030.	Detection and quantification of different pesticide residues in dry fish and their associated health risk assessment	- To develop and validate an analytical method for residue analysis in dry fish and - To detect and quantify the pesticide residue levels in marketed dry fish	Gazipur
1031.	Effects of different household processing on the decontamination of chlorpyrifos residues in salad crops	- To validate the quantification method for the analysis of pesticide residues in cucumber - To quantify residue loss through washing with different household solution and peeling	Gazipur
1032.	Decontamination of chlorpyrifos residues in apple and grape through	To validate an analytical method for the chlorpyrifos residue analysis in apple and grape using Gas-	Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
		existing genotypes	
1546.	Confirmation of F ₁ generation in <i>Brassica napus</i>	• To incorporate high yield and short lifespan in <i>Brassica napus</i> existing genotypes	RARS, Jamalpur
1547.	Growing of F ₂ generation in <i>Brassica napus</i>	• To advance <i>Brassica napus</i> genotypes	RARS, Jamalpur
1548.	Growing of segregating population (F ₂ –F ₆) of Rapeseed -Mustard	• To advance F ₂ -F ₆ generation of rapeseed mustard	RARS, Jamalpur
1549.	Observation Yield trial of <i>B napus</i>	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	RARS, Jamalpur
1550.	Preliminary Yield trial of <i>B napus</i> (3 rd Year)	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	RARS, Jamalpur and Joydebpur, Jessore and Ishurdi
1551.	Regional Yield trial of <i>B napus</i> (3 rd Year)	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	RARS, Jamalpur, Joydebpur, Jessore, Ishurdi and Burirhat
1552.	Adaptive Yield trial of <i>B napus</i>	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	RARS, Jamalpur, and Melandha, Jamalpur
1553.	Regional Yield trial of <i>Brassica juncea</i> L	• To select high yield potential lines with early maturity	Joydevpur, Jamalpur, Rahmatpur, Hathazari Jessore, Ishurdi and Rangpur
1554.	Evaluation of segregating generation of interspecific crosses	• To select high yield potential lines with early maturity	Joydevpur and Jamalpur
1555.	Hybridization of Groundnut	• To incorporate high oleic acid, earliness and large kernel size into existing groundnut varieties	RARS, Jamalpur
1556.	Growing of F ₂ , F ₄ and F ₅ segregating population of Groundnut	• To advance generation of groundnut genotypes	RARS, Jamalpur
1557.	Regeneration of collected Groundnut lines	• To increase seed of collected lines	RARS, Jamalpur
1558.	Observation Yield Trial of Groundnut (Set-1)	• To select the early mature genotypes with high yield	RARS, Jamalpur
1559.	Observation Yield Trial of Groundnut (Set-2)	• To select the early mature genotypes with high yield	RARS, Jamalpur
1560.	Preliminary Yield Trial of Groundnut (Set-1)	• To develop high oleic acid groundnut line(s) and high yield potential genotypes	RARS, Jamalpur
1561.	Preliminary Yield Trial of Groundnut (Set-2)	• To select the early mature and large kernel genotypes with high yield	RARS, Jamalpur and Burirhat
1562.	Regional Yield Trial of	• To select the early mature genotypes	Jamalpur and

Sl. No.	Research Title	Objective(s)	Location(s)
	groundnut (Set-3) (3 rd Year)	with high yield potential lines	Burirhat
1563.	Adaptive Yield Trial of Groundnut	• To know the performance of advanced lines and their adaptation in farmers' field	Nowbhangarchar, and Char Belgachha, Islampur, Jamalpur
1564.	Growing/confirmation of F ₁ generation in <i>Brassica rapa</i>	• To confirmation of F ₁ generation in <i>Brassica rapa</i>	RARS, Jamalpur
1565.	Growing/confirmation of F ₁ generation in <i>Brassica napus</i>	• To confirmation of F ₁ generation in <i>Brassica napus</i>	RARS, Jamalpur
1566.	Growing/confirmation of F ₁ generation in groundnut	• To confirmation of F ₁ generation in Groundnut	RARS, Jamalpur
1567.	Observation Yield Trial of <i>Brassica juncea</i>	• To select the early mature genotypes with high yield	RARS, Jamalpur
1568.	Evaluation of groundnut Advance lines	• To select the early mature and high yield potential genotypes of groundnut	RARS, Jamalpur
1569.	Preliminary Yield Trial of Roket (<i>Brassica juncea</i>)	• To select the early mature and high yield potential genotypes of Roket (<i>Brassica juncea</i>)	RARS, Jamalpur
1570.	Screening of rapeseed-mustard against club rot diseases	• To find out resistance lines of rapeseed mustard against clubrot	RARS, Jamalpur
1571.	Block demonstration of BARI released oil crop varieties	• To demonstrate BARI released variety	RARS, Jamalpur
1572.	Hybridization of Sesame	• To create genetic variability of sesame	RARS, Jamalpur
1573.	Growing/confirmation of F ₁ generation of sesame	• To confirm F ₁ generation of sesame	RARS, Jamalpur
1574.	Breeder seed production of BARI Sarisha-11,14, 15, 17, 18,20 and Tori-7	• To multiply breeder seed	RARS, Jamalpur
1575.	Breeder seed production of BARI Chinabadam-8,9,10 and 11	• To multiply breeder seed	RARS, Jamalpur
1576.	Breeder seed production of BARI Till-3, 4	• To multiply breeder seed	RARS, Jamalpur
1577.	Breeder seed production of Linseed	• To multiply breeder seed	RARS, Jamalpur
1578.	Breeder seed production of Canola Advance lines	• To increase canola seed	RARS, Jamalpur
1579.	Preliminary yield trial of <i>Brassica napus</i>	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	ORC, RARS, Jamalpur
1580.	Regional yield trial of <i>Brassica napus</i>	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	ORC, RARS, Jamalpur
1581.	Observation yield trial of	• To select short duration and high	ORC, RARS,

Sl. No.	Research Title	Objective(s)	Location(s)
	<i>Brassica rapa</i> L	yield potential <i>Brassica rapa</i> genotypes	Jamalpur
IV. Pulse Research Centre			
1582.	Regional yield trial of blackgram	• To select suitable blackgram line for release as a variety	RARS, Jamalpur
1583.	Preliminary yield trial of lentil	• To select superior lentil lines for AYT	RARS, Jamalpur
1584.	Preliminary yield trial of grasspea	• To select superior grasspea lines for AYT	RARS, Jamalpur
1585.	Regional yield trial of grasspea	• Selection of superior grasspea line for release variety	RARS, Jamalpur
1586.	Participatory variety selection of grasspea	• To select high yielding grasspea line(s) for utilization in next year use as a better one for release	Pathalia, Jamalpur Sadar, Jamalpur
V. Plant Genetic Resources Centre			
1587.	Characterization of Chickpea germplasm	• To study the nature and magnitude of variability in chickpea germplasm • To identify the potential germplasm	PGRC, RARS, Jamalpur
VI. Spices Research Centre			
1588.	Seed bulb production of Onion	• To produce seed bulb of BARI piaz-4	SRC, RARS, Jamalpur
1589.	Breeder seed production of Onion	• To maintain and seed increase of the released variety to supply BADC, DAE or NGOs and farmers	SRC, RARS, Jamalpur
1590.	Breeder seed production of Minor spices	• To maintain and seed increase of the released variety to supply BADC, DAE or NGOs and farmers	SRC, RARS, Jamalpur
VII. Plant Breeding Division			
1591.	Evaluation of Foxtail millet genotypes for grain yield and biophysical traits	• To explore the variability in elite and diverse germplasm lines of foxtail millet for yield and yield attributing traits	PBD, RARS, Jamalpur
1592.	Advanced yield trial of Oat	• To select better performing high yielding Oat lines	PBD, RARS, Jamalpur
1593.	Regional yield trial of Proso millet	• To develop high yielding and lodging tolerant proso millet variety	PBD, RARS, Jamalpur
1594.	Regional yield trial of Quinoa	• To assess the stability of some quinoa lines and verify the influence of different environments at different locations of Bangladesh • To select better performing quinoa line(s)	PBD, RARS, Jamalpur
1595.	Breeder seed production of Minor cereals	• To maintain and seed increase of the released variety to supply BADC, DAE or NGOs and farmers	PBD, RARS, Jamalpur
VIII. Agronomy Division			
1596.	Yield performance of garlic under different integrated nutrient management at AEZ-9	• To verify the impact of integrated nutrient management on production and storage of Garlic	RARS research field Jamalpur
1597.	Performance of relay bitter	• To observe the performance of onion	RARS research

Sl. No.	Research Title	Objective(s)	Location(s)
	gourd in tomato +onion intercropping at medium high land under AEZ-9 without treilis	and bitter gourd as intercropping and relay cropping with tomato at medium high land under AEZ-9 for higher yield and economic return	field Jamalpur
1598.	Growth and yield of chia influenced by sowing time and row spacing at AEZ-9	• To evaluates the effect the effects of different sowing time and row spacing on the growth and yield of chia seed	RARS research field Jamalpur
IX. Soil Science Division			
1599.	Effect of varied nitrogen levels and cultivars on yield of cauliflower	• To assess the response of different nitrogen dose and cultivar on curd yield of cauliflower • To find out suitable combination for commercial production	RARS, Jamalpur
1600.	Integrated effect of rice husk ash and chemical fertilizers on yield of sweet potato	• To assess the effectiveness of combining chemical fertilizers and rice husk ash for sweet potato production • To enhance potassium uptake in sweet potato plants	RARS, Jamalpur
1601.	Fertilizer recommendation for BARI sarisha-18	• To determine suitable fertilizer dose for growth and yield of BARI Sarisha-18	RARS, Jamalpur
1602.	Integrated nutrient management for potato productivity and soil health	• To investigate the effects of integrated nutrient management for better yield of potato • To improve soil health	RARS, Jamalpur
1603.	Production program of vermicompost	• To popularize and distribute organic fertilizer among the farmers	RARS, Jamalpur
X. Entomology Division			
1604.	Survey and documentation of damage potential of stink bug in litchi at Jamalpur region	• Documentation of stink bug attacking litchi leaf, flower and fruits in Jamalpur region during the study period	RARS, Jamalpur
1605.	Development of management approaches for controlling rugose spiraling whitefly, <i>Aleurodicus rugioperculatus</i> in banana	• To develop suitable management package(s) against rugose spiraling whitefly, <i>Aleurodicus rugioperculatus</i> attacking banana	RARS, Jamalpur
1606.	Screening of different sweet gourd germplasms against major insect pest complex	• To find out the resistance/tolerance sweet gourd varieties/lines against major insect pest complex	RARS, Jamalpur
1607.	Management of whitefly in brinjal through intercropping	• To obtain suitable management option against whitefly of brinjal	RARS, Jamalpur
1608.	Effect of bagging against fruitfly against impact on the yield and quality of mango	• To find out effectiveness of bagging against fruitfly in mango and chemical insecticide free mango production	RARS, Jamalpur
XI. Plant Pathology Division			
1609.	Identification of resistance sources of BARI released Tomato varieties/lines	• To identify noble sources of resistance in BARI released Tomato varieties/lines against leaf curl	RARS, Jamalpur

Sl. No.	Research Title	Objective(s)	Location(s)
	against leaf curl viruses	viruses	
1610.	Efficacy of new fungicides in controlling late blight of Potato	• To find out the appropriate chemical fungicide to control the Late blight disease of Potato	RARS, Jamalpur
1611.	Efficacy of new fungicides in controlling anthracnose of Mango	• To find out the appropriate chemical fungicide to control the anthracnose of Mango	RARS, Jamalpur
1612.	Efficacy of new fungicides in controlling powdery mildew of sweet gourd	• To find out the appropriate chemical fungicide to control the powdery mildew of sweet gourd	RARS, Jamalpur
XII. Agricultural Engineering Division			
1613.	Evaluating the performance of Chilli conservation cropping practices for climate change adoption in the Jamalpur region	• To analyze the financial efficiency of tillage practices • To evaluate crop yield for conservation and conventional tillage practices based on growth and yield characteristics	RARS research field and Charland, Jamalpur Sadar, Jamalpur
1614.	Performance evaluation of onion production using conservation tillage practices in the Jamalpur region	• To analyze the financial efficiency of tillage practices • To evaluate crop yield for conservation and conventional tillage	RARS research field, Jamalpur Sadar, Jamalpur
1615.	Performance evaluation of different tillage practices of groundnut in Charland of Jamalpur region	• To analyze the financial performance of the tillage system • To evaluate crop yield for conservation and conventional tillage practices based on growth and yield characteristics of groundnut	RARS research field and Charland, Jamalpur Sadar, Jamalpur
1616.	Crop Water Requirement and Irrigation Scheduling	• To determine the critical growth stages of proso millet with respect to irrigation • To find out the effects of irrigation on yield and attributing characters	IWM, BARI, Gazipur and RARS, Jamalpur
1617.	Crop Water Requirement and Irrigation Scheduling	• To determine the critical growth stages of foxtail millet with respect to irrigation • To evaluate the performance of irrigation on yield and water productivity of foxtail millet	IWM, BARI, Gazipur and RARS, Jamalpur
XII. Farm Division			
1618.	Truthfully labelled seeds of Mustard, Chick pea and Grass-pea	• To maintain and seed increase of the released variety to supply BADC, DAE or NGOs and farmers	Farm division, RARS, Jamalpur
RARS, Jashore			
1619.	Agronomic biofortification of chickpea with zinc and iron through application of zinc fertilizer	• To find out the effect of soil and foliar-applied Zn fertilizer on grain yield, protein content, and Zn and Fe concentrations of shoot and grain in chickpea	RARS, Jashore
1620.	Performance of lentil and field pea intercropping with	• To find out the best legume- legume intercropping arrangement	RARS, Jashore

Sl. No.	Research Title	Objective(s)	Location(s)
	chickpea		
1621.	Seed multiplication of BARI released potato variety	• Seed production of BARI released potato variety • To disseminate the latest variety of potato	RARS, Jashore
1622.	Vine multiplication of BARI released sweet potato variety	• Vine multiplication of BARI released latest sweet potato variety • To disseminate the latest variety of sweet potato	RARS, Jashore
1623.	Saplings production of BARI released panikachu variety	• Seedling production of BARI released panikachu variety • To disseminate the latest variety of panikachu	Jashore
1624.	Block demonstration of BARI released potato varieties	• Field demonstration of BARI potato variety at farmer field • To disseminate the latest variety of potato	Jashore region
1625.	Block demonstration of BARI Mistialu-17	• Field demonstration of BARI mistialu-17 at farmer field • To disseminate the latest variety of sweet potato	RARS, Jashore
1626.	Collection and evaluation of local vegetables in Jashore region	• To find out the superior local vegetables for their growth and yield	RARS, Jashore
1627.	Evaluation of mango varieties for pickles	• To find out the suitable mango varieties for pickles preparation	RARS, Jashore
1628.	Collection and evaluation of monkey jack germplasm	• To characterize different monkey jack genotypes • To select the superior lines of monkey jack	RARS, Jashore
1629.	Collection and evaluation of rose apple germplasm	• To characterize different rose apple genotypes • To select the superior lines of rose apple	RARS, Jashore
1630.	Collection and evaluation of local ber germplasm	• To select suitable ber varieties for different regions • To conserve fruit genetic resources	Jashore
1631.	Evaluation of sweet olive germplasm	• To characterize sweet olive germplasm • To select as a variety with desired traits	RARS, Jashore
1632.	Collection and evaluation of banana germplasm	• To see the yield potentiality of the germplasm	RARS, Jashore
1633.	Introduction of simplified hydroponic system for growing high value vegetables at Jashore Region	• To develop simplified hydroponic models for urban areas of Jashore region and to produce high value vegetables through hydroponics with safety	Jashore
1634.	Collection and evaluation of local eggplant germplasm of Jashore region	• To observe the performance local brinjal variety of Jashore region and find out superior germplasm	RARS, Jessore
1635.	Collection and Evaluation of 'Lalmi' Germplasm	• To collect and characterize collected germplasm	RARS, Jessore

Sl. No.	Research Title	Objective(s)	Location(s)
		- To select suitable lines of <i>lalmi</i> for yield and quality - To conserve genetic resources of cucurbitaceous vegetables of <i>char</i> land areas	
1636.	Collection and evaluation of katoa type stem amaranth germplasm	To evaluate the performance of katoa type stem amaranth germplasm in respect of yield and quality	Jashore
1637.	Evaluation of two-yard-long bean lines with BARI Borboti-1	To introduce new variety of yard long bean	All RARS; ARS, Benerpota and ARS, Rajbari, Dinajpur
1638.	Collection and evaluation of plantain germplasm	- To characterize different plantain genotypes - To select the superior lines of plantain	Jashore
1639.	Hybridization in mango	- To produce the mango hybrids of desired characteristics - To release good quality coloured hybrid mangoes	RARS, Jashore
1640.	Hybridization in kanchamitha mango	To produce big sized, coloured kanchamitha mango variety will be developed	RARS, Jashore
1641.	Collection and evaluation of Indian dillenia germplasm	- To identify some suitable genotype - To develop a variety	RARS, Jashore
1642.	Evaluation of pummelo germplasm	- To find out superior pummelo genotypes to release as variety - To study on the diversity of pummelo genotypes	RARS, Jashore
1643.	Evaluation of canola lines	To find out the suitable advanced canola lines	RARS, Jashore
1644.	Effect of mulches on moisture conservation and weed control on tomato production	To verify the effects of the mulches on weed suppression and moisture conservation for tomato production	RARS, Jashore
1645.	Land use efficiency and benefit analysis of yam relay cropping in brinjal field	To verify the common practice of yam relay cropping in brinjal field	RARS, Jashore
1646.	Determination of crop weed competition of lentil	To determine the critical period of competition and effect of timing of weeding on lentil	Gazipur and RARS, Jashore
1647.	Weed management of mukhikachu (<i>Colocasia esculenta</i>)	To find out the economic and effective way of weed management in Mukhikachu cultivation	RARS, Jashore
1648.	Effect of fertilizer and irrigation on yield of chia seed	To find out fertilizer dose and number of irrigations to maximize yield of chia seed	RARS, Jashore
1649.	Integrated nutrient management and proper plant density for the trellis growing bitter gourd at Jashore region	To determine the effects of organic manure with inorganic fertilizers on soil properties and crop productivity, and To find out a profitable and efficient nutrient package with proper	RARS, Jashore

Sl. No.	Research Title	Objective(s)	Location(s)
		plant density for bitter gourd on trellis at Jashore region	
1650.	Nutrient management for sustaining soil fertility and yield of wheat-mungbean-T Aman cropping pattern	• To find out sustainable fertilizers recommendations for wheat-mungbean- T Aman cropping pattern, • To monitor soil health after each cropping pattern, and to estimate uptake of different nutrients and to make a balance sheet for each nutrient	RARS, Jashore
1651.	Nutrient management for sustaining soil fertility and yield of mustard-mungbean-T Aman cropping pattern	• To find out sustainable fertilizers recommendations for mustard-mungbean-T Aman cropping pattern, • To monitor soil health after each cropping pattern, and to estimate uptake of different nutrients and to make a balance sheet for each nutrient	RARS, Jashore
1652.	Effect of long-term fertilization on crop productivity, soil properties and nutrient efficiency under conservation agriculture practice with a Mustard-Boro-T Aman cropping pattern	• To examine the long-term effects of chemical fertilization on soil properties and crop productivity under conservation agriculture practices in a Mustard-Boro-T Aman cropping pattern in Jashore and to study the long-term effects of chemical fertilization on nutrient use efficiency under CA practice in the intensive cropping system	RARS, Jashore
1653.	Integrated nutrient management and proper plant density for the popular trellis growing pointed gourd at Jashore region	• Find out the optimum combination of plant density and nutrient management for the pointed gourd on trellis, • Determine the effects of organic manure with inorganic fertilizers on soil properties and crop productivity, and • Find out a profitable and efficient nutrient package with proper plant density for pointed gourd on trellis at Jashore region	RARS, Jashore
1654.	Management of sigatoka disease of banana through bio-control agents	• To find out effective bio-agent (s) against sigatoka disease of banana	Jashore region
1655.	Integrated management of bacterial card rot disease of cauliflower	• To find out effective control measure against bacterial card rot disease of cauliflower	RARS, Jashore and MLT site, Chuadanga
1656.	Bio-agent based management practice against foot and root rot of lentil	• To find out effective biological management against foot and root rot of lentil	RARS, Jashore
1657.	Management of leaf curl disease of tomato by using beneficial microbes and vector control	• To elucidate the resistance mechanism of tomato against leaf curl virus derived by beneficial microbes and to find out a management practice of leaf curl disease of tomato	BARI, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
1658.	Eco friendly management of alternaria leaf spot of gerbera	• To find out effective tools against alternaria leaf spot of gerbera	RARS, Jashore
1659.	Integrated management for controlling early blight of tomato	• To find out effective management practice against early blight of tomato	RARS, Jashore
1660.	Survey on major diseases of vegetable crops in saline region	• To identify the diseases of vegetable crops grown in saline belt of Satkhira district	Satkhira district
1661.	Population dynamics and management of rugose spiraling whitefly, <i>Aleurodicus rugioperculatus</i> Martin infesting coconut	• To document the seasonal population abundance of rugose spiraling whitefly in coconut and • To develop appropriate strategy for managing the pest	RARS, Jashore
1662.	Biorational management of pulse beetle, <i>callosobruchus chinensis</i> (coleoptera: bruchidae) in mungbean	• To develop an effective management option against pulse beetle	RARS, Jashore
1663.	Survey and documentation of insect pests of pigeon pea and their natural enemies	• To document the insect pests attacking pigeon pea • To document the natural enemies of insect pest attacking pigeon pea	RARS, Jashore
1664.	Development of management strategies for the control of pod borer complex in pigeonpea	• To develop an effective management option against pod borer complex in pigeonpea	RARS, Jashore
1665.	Extent of pesticide used of some off-season vegetables (tomato, cabbage, cauliflower, bean) at Jashore	• To estimate the extent of pesticide used of some summer vegetables viz summer tomato, cabbage, cauliflower and bean and to analyzed the profitability of selected vegetables	Jashore
1666.	Observation trial of foxtail millet	• Selection of genotypes of foxtail millet for preliminary yield trial which is prerequisite for variety development	RARS, BARI, Jashore and ARS, BARI, Shatkhira
1667.	In vitro propagation of different gerbera cultivar from young capitulum	• To develop a suitable <i>in vitro</i> propagation method for large-scale multiplication of gerbera	RARS, BARI, Jashore
1668.	Agricultural pests' recognition using image processing	• To deployed web or mobile application to recognition of agricultural pests	RARS, Jashore
1669.	Crop leaf diseases detection using image processing	• To build a web application to predict the diseases of plants that will help farmers to identify the diseases	RARS, Jashore
1670.	Intercropping chilli with sweet gourd	• To find out suitable intercropping combination • To increase total production	MLT site, Monirampur and Jhenaidah
1671.	Development of Garlic-T Aus-T Aman cropping pattern against Boro-Fallow- T Aman cropping pattern	• To improve the existing cropping pattern • To increase crop yields and economic return of farmers	MLT site, Monirampur
1672.	Development of alternate	• To improve the existing cropping	MLT site,

Sl. No.	Research Title	Objective(s)	Location(s)
	cropping pattern Mustard - Jute - T Aman against Fallow- Boro- T Aman	pattern by inclusion of modern crop varieties and to increase crop yield and farmers' income	Monirampur, Jhenaidah and Narail
1673.	Intercropping of garlic with pointed gourd	• To find out the performance of garlic as intercrop with pointed gourd and to increase total productivity and economic return	MLT site, Monirampur
1674.	Intercropping of mustard with pointed gourd	• To find out the performance of mustard as intercrop with pointed gourd and to increase total productivity and economic return	MLT site, Monirampur
1675.	Adaptive trial of bushbean varieties in Jashore region	• To evaluate the performance of BARI developed bush bean varieties	MLT site, Monirampur and Jhenaidah
1676.	Production program of BARI Surjomukhi-3	• To introduce BARI Surjomukhi-3 in farmers' field	MLT site, Monirampur, Jhenaidah and Narail
1677.	Production program of BARI Lau-4	• To introduce BARI Lau-4 in farmers' level	MLT site, Monirampur, Narail and Jhenaidah
1678.	Production program of BARI Begun-12	• To introduce BARI Begun-12 in farmers' field	MLT site, Monirampur, Jhenaidah and Narail
1679.	Production program of BARI Borboti-2	• To introduce BARI borboti-2 in farmers' field	MLT site, Monirampur, Jhenaidah and Narail
1680.	Production program of BARI Bt Begun-4	• To evaluate the performance of Bt brinjal under the farmers' field condition	MLT site, Monirampur and Jhenaidah
RARS, Akbarpur, Moulvibazar			
1681.	Regional yield trial of Tomato hybrids	• To study the yield potentiality and adaptability of different tomato hybrids	RARS, BARI, Akbarpur, Moulvibazar
1682.	Regional yield trial of AFACI winter Tomato lines	• To find out suitable tomato lines for developing new variety	RARS, BARI, Akbarpur, Moulvibazar
1683.	Regional yield trial of Eggplant lines	• To verify the yield performance of eggplant lines at different locations	RARS, BARI, Akbarpur, Moulvibazar
1684.	Regional yield trial of Eggplant lines (summer)	• To observe the yield performance of summer eggplant lines at different locations	RARS, BARI, Akbarpur, Moulvibazar
1685.	Regional yield trial of Bottle gourd hybrids	• To select superior bottle gourd hybrid with earliness, higher yield and attractive consumer preferences fruit shape and colour	RARS, BARI, Akbarpur, Moulvibazar
1686.	Regional yield trial of Squash hybrids	• To evaluate squash varieties for yield performance and for insect and disease	RARS, BARI, Akbarpur,

Sl. No.	Research Title	Objective(s)	Location(s)
		tolerance	Moulvibazar
1687.	Evaluation of Yard long Bean lines with BARI Borboti-1	• To find out the new high yielding variety of yard long bean	RARS, BARI, Akbarpur, Moulvibazar
1688.	Effect of different shading material on yield and quality of summer Tomato	• To investigate the effect of shading nets on the growth of summer tomato plants	RARS, BARI, Akbarpur, Moulvibazar
1689.	Effect of spacing and no of plant/ pit on growth and yield of Bitter gourd	• To find out the appropriate spacing and no of plant/pit for better yield of Bitter gourd	RARS, BARI, Akbarpur, Moulvibazar
1690.	Effect of liming on growth and yield of Bush bean at Moulvibazar	• To find out the dolochun effect on BARI Jharsheem-2 and to optimize the amount of limeing material for this crop at the acidic soil of Moulvibazar	RARS, BARI, Akbarpur, Moulvibazar
1691.	Effect of potassium on the growth, yield and quality of Sweet orange	• To evaluate the effect of potassium on the fruit quality and to develop an optimum dose of potassium for maximum growth and production of sweet orange in hilly area of Bangladesh	RARS, BARI, Akbarpur, Moulvibazar
1692.	Effect of different fertilizer management levels on growth, yield and fruit quality of Pummelo (<i>Citrus grandis</i>)	• To determine the effects of fertilizer levels on the vegetative and reproductive growth, yield and fruit quality of pummelo	RARS, BARI, Akbarpur, Moulvibazar
1693.	Yield and quality of Rock melon influenced by liming material and boron under acidic soil of Sylhet region	• To determine the appropriate amount of liming material in combination with B for quality melon production under acidic soil of Moulvibazar	RARS, BARI, Akbarpur, Moulvibazar
1694.	Survey, monitoring and documentation of major insect pests attacking citrus in north eastern region of Bangladesh	• To record the seasonal activity of insect pests and natural enemies in BARI Jaralebu-1	RARS, BARI, Akbarpur, Moulvibazar
1695.	Integrated management of tea mosquito bug, <i>Helopeltis antonii</i> attacking Cashew nut	• To control tea mosquito bug of cashew nut	RARS, BARI, Akbarpur, Moulvibazar
1696.	Population dynamics and bio-rational management of whitefly complex infesting guava	• To evaluate the efficacy of some selected bio-pesticides with standard chemical as check against rugose spiraling whitefly in guava	RARS, BARI, Akbarpur, Moulvibazar
1697.	Present status and farmers perception of cultivating BARI Malta-1 in Sylhet region	• To find the present status and problem faced in cultivating BARI Malta-1 by farmers in Sylhet region	RARS, BARI, Akbarpur, Moulvibazar
1698.	Adaptive trial with newly BARI released high yielding Potato varieties at Haor area	• To popularize the newly released improved potato varieties and seedling tuber progenies among the farmers	RARS, BARI, Akbarpur, Moulvibazar
1699.	Performance of BARI Panikachu varieties in Sylhet region	• To test the adaptability of the improved Panikachu varieties at Sylhet region	RARS, BARI, Akbarpur, Moulvibazar

Sl. No.	Research Title	Objective(s)	Location(s)
1700.	Evaluation of Quinoa germplasm at Moulvibazar	• To develop a new variety of Quinoa for drought and salinity-prone areas of Bangladesh	RARS, BARI, Akbarpur, Moulvibazar
1701.	Regional yield trial of Quinoa	• To observe the yield performance and adaptability of Quinoa	RARS, BARI, Akbarpur, Moulvibazar
1702.	Preliminary yield trial of Proso millet	• To develop high yielding proso millet variety in near future	RARS, BARI, Akbarpur, Moulvibazar
1703.	Effect of soil amendments on Tomato grain yield and soil characteristic in acidic soil at Moulvibazar	• To assess the effect of soil amendments on tomato growth, yield and soil properties	RARS, BARI, Akbarpur, Moulvibazar
1704.	Influence of foliar application of boron and humic acid on yield of Blackgram at acidic soil of Moulvibazar	• To find out suitable foliar application dose of boron and humic acid on improvement of yield in black gram	RARS, BARI, Akbarpur, Moulvibazar
RARS, Rahmatpur, Barishal			
HRC: Olericulture Division			
1705.	Influence of rootstock on the growth, yield and quality of watermelon	• To find out the suitable rootstock for watermelon • To increase yield and quality of watermelon	RARS, Rahmatpur, Barishal
1706.	Performances of BARI released summer tomato varieties in Barishal region	• To evaluate the performance of summer tomato • Selecting suitable summer tomato variety for Barishal region	RARS, Rahmatpur, Barishal
1707.	Effect of dhap residue on growth and yield of tomato and chilli	• To find out effect of dhap residue on growth and yield • To find out appropriate nutrient combination for tomato and chilli production	RARS, Rahmatpur, Barishal
1708.	Effect of polythene shade and variety on growth and yield of summer tomato in floating bed	• To find out the appropriate production technology of summer tomato in floating bed • To find out suitable varieties of summer tomato in floating bed cultivation	RARS, Rahmatpur, Barishal
1709.	Development of simplified hydroponic systems for growing tomato and sweet pepper at RARS Rahmatpur	• To develop simplified hydroponic growing systems suitable for high value vegetables	RARS, Rahmatpur, Barishal
1710.	Effect of mulching on growth and yield of watermelon	• To know the effects of different mulching materials on plant growth and yield potential of watermelon	RARS, Rahmatpur, Barishal
1711.	Collection and evaluation of cucumber germplasm	• To identify promising lines with desirable characteristics • To develop parent lines for hybridization program	RARS, Rahmatpur, Barishal
1712.	Performance of bitter gourdunder different	• To standardize various systems of training	RARS, Rahmatpur,

Sl. No.	Research Title	Objective(s)	Location(s)
	training systems	- To study the economic return on the yield of bitter gourd - To evaluate the effects of different training systems on fruit quality and yield	Barishal
HRC: Pomology Division			
1713.	Evaluation of local and exotic mango germplasm	- To evaluate the performance of local and exotic lines of mango at different locations for identification of suitable ones and releasing as variety - To conserve the germplasm in Barishal region	RARS, Rahmatpur, Barishal
1714.	Suitability study of BARI released existing mango varieties in the southern part of Bangladesh	- To evaluate the performance of BARI released mango varieties at different locations of Barishal for identification of suitable ones - To establish mother orchard in southern part of Bangladesh	RARS, Rahmatpur, Barishal
1715.	Evaluation of colour fleshed small sized jackfruit germplasm in the southern region	To identify superior lines of jackfruit	Uzirpur, Barishal
1716.	Evaluation of coconut from existing germplasm	- To identify promising coconut lines with desirable characteristics - To develop high yielding variety of coconut	RARS, Rahmatpur, Barishal
1717.	Hybridization in coconut (Dwarf × BARI coconut-2)	- To develop semi dwarf coconut variety - To increase the size of coconut - To incorporate desirable traits of coconut	RARS, Rahmatpur, Barishal
1718.	Evaluation of existing local rose apple (Golapjam) germplasm	- To identify promising local rose apple line with desirable characteristics - To conserve germplasm	RARS, Rahmatpur, Barishal
1719.	<i>In-situ</i> evaluation of monkey jack (<i>Artocarpus lacucha</i>) germplasm	- To identify promising line with desirable characteristics - To conserve germplasm	RARS, Rahmatpur, Barishal
1720.	Evaluation of collected cowa germplasms	- To select the superior lines - To identify suitable germplasm for higher yield and quality	RARS, Rahmatpur, Barishal
1721.	Evaluation of collected kaghzi lime germplasm	- To enrich the germplasm pool for kaghzi lime - To screen the superior line - To develop new variety	RARS, Rahmatpur, Barishal
1722.	Effect of pruning time on growth and yield of guava	- To know the suitable pruning times of guava - To explain the relationship between different pruning times guava plants	RARS, Rahmatpur, Barishal
1723.	Effect of different rootstocks on survivability, stionic relationship, growth and yield of guava cv BARI Peyara-2	- To find out suitable rootstock for stionic relationship with BARI peyara-2 as scion - To increase guava production in flood prone southern region	RARS, Rahmatpur, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
1724.	Performance of swarupkathi peyara (rootstock) and BARI released peyara (scion) grafts in flood prone southern region of Bangladesh	• To find out graft suitability between Swarupkathi peyara as rootstock and BARI peyara 2 as scion • To replace local guava variety by BARI released improved variety • To increase guava production in flood prone southern region • To produce guava round the year	RARS, Rahmatpur, Barishal
1725.	Evaluation of existing monkey jack (<i>artocarpus lacucha</i>) germplasm	• To enrich the germplasm pool for monkey jack (dewa) • To screen the superior line • To develop new variety	RARS, Rahmatpur, Barishal
1726.	Evaluation of minor fruits collected through lean season project	• To identify suitable germplasm for higher yield and quality • To develop a new variety	RARS, Rahmatpur, Barishal
1727.	Evaluation of existing velvet apple (<i>diospyros discolor</i>) germplasm	• To enrich the germplasm pool for velvet apple (bilatigub) • To screen the superior line • To develop new variety	RARS, Rahmatpur, Barishal
1728.	Evaluation of existing Indian dillenia (Elephant apple) germplasm	• To identify some suitable genotypes • To develop a variety	RARS, Rahmatpur, Barishal
1729.	Evaluation of existing wax apple (Jamrul) germplasm	• To identify promising local Wax apple line with desirable characteristics • To conserve germplasm	RARS, Rahmatpur, Barishal
1730.	Crop Production Under coconut based Agro forestry System in the Southern Region	• To scale up farm productivity throughout the year • To increase farmers income	RARS, Rahmatpur, Barishal
1731.	Development of short duration and high yielding <i>Brassica rapa</i> L lines through hybridization	• To create genetic variation • To develop bold seeded and early maturing <i>B. rapa</i> lines • To develop high yielding toria type <i>rapa</i> germplasm	RARS, Rahmatpur, Barishal
1732.	Incorporation of earliness and bold seed size through hybridization in Groundnut (<i>Arachis hypogaea</i>)	• To create genetic variability • To incorporate earliness and large kernel size into existing groundnut varieties	RARS, Rahmatpur, Barishal
1733.	Adaptability study and evaluation of selected Bambara groundnut (<i>Vigna subterranea</i> L) accessions in tropical monsoon climate of Bangladesh	• To introduce this crop as a new legume in Bangladesh • To evaluate of the collected lines for future breeding program • To observe the adaptability of collected lines in southern region of Bangladesh	RARS, Rahmatpur, Barishal
1734.	Induced mutagenesis in sesame (<i>Sesamum indicum</i> L) to create genetic variability via Ethyl Methane Sulfonate (EMS)	• To create genetic variability for development of stress tolerant sesame variety with improve agronomic trait • To select desirable sesame mutant line with high yield potential	RARS, Rahmatpur, Barishal
1735.	Creation of genetic variability in sesame	• To create genetic variation • To find out desirable genotypes	RARS, Rahmatpur,

Sl. No.	Research Title	Objective(s)	Location(s)
	(<i>Sesamum indicum</i> L) through hybridization		Barishal
1736.	Evaluation of F ₁ generation of Sesame (<i>Sesamum indicum</i> L)	- To advance generation - To select desirable genotypes	RARS, Rahmatpur, Barishal
1737.	Screening and evaluation of sesame genotypes under artificial waterlogged and field condition in southern region of Bangladesh	- To select waterlogged tolerant genotypes - To develop stress tolerant high yielding sesame variety	RARS, Rahmatpur, Barishal
1738.	Validation trail for yield performance of released Sesame (<i>Sesamum indicum</i> L) varieties in southern region of Bangladesh	- To know the yield performance among the varieties - To identify the suitable variety of sesame for southern region	RARS, Rahmatpur, Barishal
1739.	Screening and evaluation of sunflower (<i>Helianthus annuus</i> L) germplasms in southern region of Bangladesh	- To find out the medium dwarf genotypes with desirable agronomic traits - To select the large flower headed high yielding genotypes - To maintain the sunflower germplasm for utilizing in the future breeding program	RARS, Rahmatpur, Barishal
1740.	Breeders seed & TLS production of rapeseed-mustard, groundnut, sesame, and sunflower	- To produce breeders' seeds of modern varieties/advanced lines of rapeseed-mustard - To supply seed to BADC, research divisions and other research organizations, NGOs, farmers etc	RARS, Rahmatpur, Barishal
PULSES RESEARCH CENTRE			
1741.	Multi-locational yield trial of heat tolerant lentil genotypes under different hotspot regions of Bangladesh	Selection of stable heat tolerant lentil genotypes over different locations for PVS which are prerequisite for variety development	RARS, Rahmatpur, Barishal
1742.	Hybridization of cowpea for attaining synchronize maturity	Creation of genetic variation for desired traits and development of varieties having early and synchronous maturity, disease resistance and high yield potential	RARS, Rahmatpur, Barishal
1743.	Preliminary yield trial of cowpea	Selection of stable genotypes over different locations for RYT which are prerequisites for variety development	RARS, Rahmatpur, Barishal
1744.	Regional yield trial of cowpea	Selection of stable genotypes over different locations for PVS which are prerequisite for variety development	RARS, Rahmatpur, Barishal
1745.	Screening of Mungbean genotypes against salinity stress under lab and pot experiment	Selection of salinity tolerance Mungbam genotypes	RARS, Rahmatpur, Barishal
1746.	Evaluation and seed multiplication of heat	Selection as well as seed multiplication of heat tolerance mungbean genotypes	RARS, Rahmatpur,

Sl. No.	Research Title	Objective(s)	Location(s)
	tolerant mungbean exotic lines		Barishal
1747.	Evaluation and seed multiplication of Thris resistant mungbean exotic lines	• Selection as well as seed multiplication of thrisps tolerance mungbean genotypes	RARS, Rahmatpur, Barishal
1748.	Observation trial on performance of mungbean as intercropped with water melon	• To assess the intercropping efficiency of watermelon and mungbean	RARS, Rahmatpur, Barishal
1749.	Effect of spacing on advance lines of cowpea	• To identify the best row spacing for local and exotic advanced lines of cowpea	Gava, Banaripara, Barishal
1750.	Performance of cowpea as influenced by sowing dates in Barishal	• To know the growth pattern of cowpea under late seeded heat stress conditions	RARS, Rahmatpur, Barishal
SOIL SCIENCE DIVISION			
1751.	Effect of pruning and integrated fertilizer management on Coconut in Barishal	• To find out the effect of pruning on the fruit production of coconut • To determine the optimum dose of nutrient for maximizing the yield of coconut BARI Narikel-2	RARS, BARI, Rahmatpur, Barishal
1752.	Preparation of vermicompost through different degradable crop raw materials and their nutrient analysis	• To developed the use efficiency of different degradable raw materials (residue) by vermicompost preparation • To find out the different nutrient content in vermicompost	RARS, BARI, Rahmatpur, Barishal
1753.	Effect of N and K on growth and yield of Shahebkachu	• To find out effect of NPKS for Shahebkachu • To increase the yield of Shahebkachu through fertilizer management	RARS, BARI, Rahmatpur, Barishal
1754.	Integrated nutrient management for pineapple in Barishal region	• To Find out the effect of different fertilizer on pineapple production • To Find out the optimum dose of fertilizer for maximizing pineapple yield	RARS, BARI, Rahmatpur, Barishal
1755.	Effect of different nutrients on Betel nut (<i>Areca catechu</i>) in southern region of Bangladesh	• To Find out the effect of different fertilizer on betel nut production • To Find out the optimum dose Of Fertilizer for betel nut production	RARS, BARI, Rahmatpur, Barishal
1756.	Response of different fertilizer on groundnut in Barishal region	• To find out the response of BARI Chinabadam-9 to different fertilizer • To determine the optimum dose of nutrient to maximizing the yield of BARI Chinabadam-9	RARS, BARI, Rahmatpur, Barishal
1757.	Performance of different sesame variety through nutrient management in Barishal region	• To find out the response of sesame variety to nutrient management • To increase the yield of sesame through fertilizer management	RARS, BARI, Rahmatpur, Barishal
1758.	Integrated fertilizer management on lentil in Barishal region	• To find out the response of BARI Masur-8 to different fertilizer • To determine the optimum dose of	RARS, Rahmatpur, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
		organic and inorganic fertilizer for maximizing the yield of BARI Masur-8	
AGRONOMY DIVISION			
1759.	Effect of management practices on sorjan bed for creeper vegetables cultivation during rainy season in Barishal region	• To cultivate vegetables through protection of the vegetable crops from inundation and tidal flooding on sorjan bed during rainy season in Barishal region	RARS, Rahmatpur, Barishal
1760.	Intercropping of pineapple under existing fruit and forest trees in Barishal region	• To utilize the fallow land under sole fruit/forest trees in Barishal region • To increase the crop productivity and farmers' income	RARS, Rahmatpur, Barishal
1761.	Performances of mustard varieties under existing mango orchard in southern region of Bangladesh	• To increase the yield and economic return under existing mango orchard	RARS, Rahmatpur, Barishal
1762.	Performances of turmeric varieties under existing fruit orchard on sorjan bed	• To find out the suitable variety(ies) of turmeric for introduction under sorjan system in southern region of Bangladesh	RARS, Rahmatpur, Barishal
1763.	Intercropping of vegetable and spice crops with dragon fruit in Barishal region	• To utilize the fallow land under sole dragon fruit orchard in Barishal region	RARS, Rahmatpur, Barishal
1764.	Effect of vertical production system on the productivity of pyramid agriculture in Barishal region	• To utilize the fallow or seasonal fallow lands in Barishal region • To increase the agricultural productivity and farmers' income	RARS, Rahmatpur, Barishal
1765.	Effect of weed management on growth and yield of onion in Barishal region	• To control the weeds effectively and increase the yield of onion	RARS, Rahmatpur, Barishal
1766.	Effect of weed management practices on growth and yield of sesame in Barishal region	• To control the weeds effectively and increase the yield of sesame	RARS, Rahmatpur, Barishal
1767.	Effect of different chemical herbicides for controlling weed in mungbean in Barishal region	• To control the weeds effectively and increase the yield of mungbean	RARS, Rahmatpur, Barishal
1768.	Effects of different production systems on the productivity of vegetable crops in the low-lying areas of southern region	• To study the effects of different production systems on the productivity of vegetable crops in low-lying areas of the southern region of Bangladesh	RARS, Rahmatpur, Barishal
1769.	Effects of different types and rates of compost on growth, yield and economic return of winter vegetables in Barishal region	• To determinate the effect of different types and rates of compost on growth, yield and economic return of winter vegetables in Barishal region	RARS, Rahmatpur, Barishal
1770.	Effects of management practices on growth and yield of sesame in tidal	• To examine the growth of sesame under different management practices under tidal flooding ecosystem	RARS, Rahmatpur, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
	flooding ecosystem of Barishal region	• To increase the yield and economic return of sesame in Barishal region	
1771.	Effects of different sowing methods on yield and economic return of mustard under rice based cropping system in Barishal region	• To examine the effect of different sowing methods on yield of mustard • To increase the yield and economic return of mustard in Barishal region	RARS, Rahmatpur, Barishal
1772.	Effects of irrigation scheduling on growth and yield of sunflower in Barishal region	• To determinate the effects of irrigation scheduling on growth and yield of sunflower • To increase the yield of sunflower in Barishal region	RARS, Rahmatpur, Barishal
1773.	Performances of mustard based different cropping patterns in Barishal region	• To examine the performances of mustard based different cropping patterns in Barishal region	RARS, Rahmatpur, Barishal
1774.	Adaptive trial of Mustard-Sesame-Taman rice cropping pattern in Barishal region	• To examine the performance of Mustard-Sesame-Taman rice cropping pattern in Barishal region	RARS, Rahmatpur, Barishal
1775.	Improvement of sorjan based cropping systems for increasing crop productivity in southern Bangladesh	• To develop location specific sorjan based cropping systems in southern region of Bangladesh • To increase crop productivity and profitability under sorjan	RARS, Rahmatpur, Barishal
1776.	Intercropping of vegetables with new guava orchard (BARI Peyara-2) under sorjan system in Barishal region	• To develop suitable intercropping system of vegetables with new guava orchard (BARI Peyara-2) for sorjan agriculture system in Barishal region	RARS, Rahmatpur, Barishal
1777.	Effects of USG and NPK briquette on the yield and economic returns of ribbed gourd under sorjan system	• To examine the effects of USG and NPK briquette on the yield and economic returns of ribbed gourd on sorjan bed • To develop eco-friendly and cost-effective technology for vegetables cultivation under sorjan system	RARS, Rahmatpur, Barishal
1778.	Fertilizer management of bottle gourd on sorjan bed in Barishal region	• To find out the optimum fertilizer dose for getting higher yield from creeper crops on sorjan bed in Barishal region	RARS, Rahmatpur, Barishal
1779.	Influences of agronomic management practices on yield and quality of guava in sorjan bed	• To find out the optimum fertilizer dose for getting higher yield of guava on sorjan bed in sorjan bed	RARS, Rahmatpur, Barishal
1780.	Golden apple yield and quality as influenced by agronomic management practices on sorjan bed	• To find out the optimum agronomic management practices for getting higher yield and quality of golden apple on sorjan bed in Barishal region	RARS, Rahmatpur, Barishal
1781.	Pilot production programme of grafted BARI Peyara-2 replacing local Swarupkati guava variety on sorjan bed	• To examine the performance of grafted BARI Peyara-2 over the existing local Swarupkati guava variety under sorjan system • To increase the yield and economic	RARS, Rahmatpur, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
		return of guava in southern region of Bangladesh • To make availability of fresh guava all the year round for improving the nutritional security of the sorjan farm family	
1782.	Performances of fodder crop species with different planting position on bed slope under sorjan farming systems	• To find out the suitable fodder crop species under sorjan farming systems • To find out the suitable planting position of fodder crop on sorjan bed slope	RARS, Rahmatpur, Barishal
1783.	Performances of different fish species in canal water under sorjan farming systems	• To find out the suitable fish species for sorjan canal water • To increase the income of sorjan farming systems	RARS, Rahmatpur, Barishal
1784.	Effects of different production systems on the productivity of vegetable crops in the low-lying areas of southern region	• To study the effects of different production systems on the productivity of vegetable crops in low-lying areas of the southern region of Bangladesh	RARS, Rahmatpur, Barishal
PLANT PATHOLOGY DIVISION			
1785.	Disease assessment in fruits and vegetables mixed cropping system in different seasons	• To assess different disease status of fruits and vegetable crops in mixed cropping system in different seasons • To assess the Incidence and severity of different diseases	RARS, Rahmatpur, Barishal
1786.	Comparison of bio-fungicide and chemical fungicides for the management of early blight of tomato grown on floating bed	• To find out the suitable bio-rational control measures of early blight of tomato in floating bed	RARS, Rahmatpur, Barishal
1787.	Comparison for effectiveness of a bio-fungicide with two chemical fungicides for the management of powdery mildew of pumpkin on floating bed	• To find out an effective chemical in controlling powdery mildew of pumpkin • To reduce yield losses of that crops	RARS, Rahmatpur, Barishal
1788.	Cultural, chemical, and biological control of Fusarium wilt in watermelon	• To find out an effective and suitable control measure of the disease	RARS, Rahmatpur, Barishal
1789.	Effect of planting date and Cultivar resistance on Fusarium wilt disease in watermelon	• To find out an effective and suitable control measure of the disease	RARS, Rahmatpur, Barishal
ENTOMOLOGY DIVISION			
1790.	Bio-rational based management options against major insect pests of non-	• To develop an biorational based management option against major insect pests creeper crops	RARS, Rahmatpur, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
	creeper crops		
1791.	Effect of different bio-pesticides with pheromone impregnated sticky trap against fruit fly attacking creaper crop in farmer's field	• To select suitable bio-pesticide with pheromone impregnated sticky traps for controlling fruit fly of creeper crops	RARS, Rahmatpur, Barishal
1792.	Field validation of management practices guava fruit fly in farmers field	• To disseminate and popularized management practices in guava fruit fly	RARS, Rahmatpur, Barishal
AGRICULTURAL ENGINEERING			
1793.	Design and development of low-cost drip irrigation system for pyramid agriculture	• To design the drip irrigation system • Performance evaluation of the water application efficiency using designed drip irrigation system	RARS, Rahmatpur, Barishal
1794.	Design and development of power operated rotary tiller for sorjan based farming system	• To design the suitable rotary tiller part • To develop and adopt suitable tillage implement to mitigate labour shortage, minimize cost of production in Sorjan based farming systems	RARS, Rahmatpur, Barishal
1795.	Adaptive trial of power operated seeder in southern region of Bangladesh	• Field performance evaluation of Power seeder in southern region of Bangladesh • Disseminate this technology among the farmers through adaptive trials	RARS, Rahmatpur, Barishal
ON FARM RESEARCH DIVISION (OFRD)			
1796.	Variety and Sowing date interaction impact on sunflower yield and productivity in Barishal and Jhalokathi	• To find out the yield potentiality of different sunflower varieties under different environmental conditions	RARS, Rahmatpur, Barishal
1797.	Adaptive trial of mungbean varieties in fallow land of Barishal and Jhalokathi	• To find out the location specific best variety to be adopted by farmers	RARS, Rahmatpur, Barishal
1798.	Adaptive trial of grasspea varieties as relayed with TAmam rice in fallow land of Barishal, Jhalokathi and Barguna	• To find out the location specific best grasspea variety to be adopted by farmers	RARS, Rahmatpur, Barishal
RARS, Hathazari, Chattogram			
1799.	Characterization and performance of thirteen jackfruit germplasm in Hathazari, Chattogram	• To identify the superior trees to release a variety having good agronomic and economic traits	RARS, Hathazari, Chattogram
1800.	Evaluation of jamun germplasm	• To identify good jamun lines for higher yield and quality	RARS, Hathazari, Chattogram
1801.	Evaluation of ber germplasm	• To maximize the potential of ber cultivation and utilization in different regions and markets	RARS, Hathazari, Chattogram
1802.	Evaluation of lime germplasm in Chattogram	• To record the extent of genetic diversity and elite genotypes	RARS, Hathazari, Chattogram

Sl. No.	Research Title	Objective(s)	Location(s)
	region	possessing desirable fruit characters	
1803.	Evaluation of yellow dragon fruit germplasm	• To identify scientific evidences on yellow dragon fruit production to develop a variety	RARS, Hathazari, Chattogram
1804.	Evaluation of sweet orange line	• To assess the yield potentialities of Katamalta	RARS, Hathazari, Chattogram
1805.	Clonal selection of guava cv Kanchannagar	• To observe yield potentialities of Kanchannagar guava and to improve a high yielding variety	RARS, Hathazari, Chattogram
1806.	RYT of Chery Tomato lines	• To select suitable Chery Tomato lines with high yield, better quality and wide adaptability in Chattogram region	RARS, Hathazari, Chattogram
1807.	RYT of bold seeded country bean	• To collect and select best bold seeded line (s)	RARS, Hathazari, Chattogram
1808.	Evaluation of local chilli (Halda morich) germplasm	• To observe their yield potentialities and other performances	RARS, Hathazari, Chattogram
1809.	Regional Yield Trial (RYT) of selected YVMV tolerant okra	• To select YVMV tolerance or resistance in okra lines	RARS, Hathazari, Chattogram
1810.	Control of bacterial black spot in mango by bacillus-based induction and different foliar sprayings	• To control the MBBS of mango	RARS, Hathazari, Chattogram
1811.	Control of sigatoka in banana by bacillus based isr and different foliar approaches	• To control the SD by the integrated disease management with the induction of <i>Bacillus</i> species with the rationalized chemical fungicides	RARS, Hathazari, Chattogram
1812.	<i>IN-vitro</i> and <i>in-vivo</i> test of bacillus based emos with molecular study for controlling greening disease on sweet orange	• To control the greening disease by the novel <i>Bacillus</i> sp YC7007 and YC7012 that species already was patented and novel species (Hossain et al, 2016 and 2019)	RARS, Hathazari, Chattogram
1813.	Effect of irrigation on wood apple production	• To find the suitable irrigation schedule	RARS, Hathazari, Chattogram
1814.	Adaptive trial of BARI tomato varieties at Hathazari, Chattogram	• To select suitable tomato varieties with high yield, better quality and wide adaptability in Chattogram region	RARS, Hathazari, Chattogram
1815.	Validation trial of EMOS for controlling bacterial wilt in solanaceous vegetable	• To control the bacterial wilt of solanaceous crops like BARI <i>Bt</i> begun 4, BARI Begun 12, BARI tomato 15 and Profit early, a hybrid Tai variety	RARS, Hathazari, Chattogram
RARS, Burirhat, Rangpur			
Horticulture			
Bottom Up			
1816.	In-situ evaluation of mango (cv Harivanga) at ripening (marketable maturity) stages	• To find out the proper stage of maturity and causes of internal breakdown • To find out stone jelly free and good quality harivanga mango	Burirhat, Rangpur
1817.	Evaluation of coloured mango germplasm	• To develop quality coloured mango variety (ies)	Burirhat, Rangpur

Sl. No.	Research Title	Objective(s)	Location(s)
		• To increase genetic resources of mango	
1818.	Evaluation of exotic mango germplasm	• To select the superior line for commercial cultivation • To develop new variety	Burirhat, Rangpur
1819.	Evaluation of collected local mango germplasm	• To identify and select the most desirable improved mango lines • To select a suitable germplasm for releasing as a variety	Burirhat, Rangpur
1820.	Evaluation of collected local pomegranate germplasm	• To select a suitable variety of pomegranate • To develop variety (ies)	Burirhat, Rangpur
1821.	Post-harvest quality and marketable life of mango cv Harivanga as influenced by maturity stages	• To find out the proper stage of maturity and causes of internal breakdown • To maintain quality and extend shelf life/marketable life	Burirhat, Rangpur
1822.	Evaluation of bael germplasm	• To select superior lines • To develop variety (ies)	Burirhat, Rangpur
1823.	Collection and evaluation of local pointed gourd germplasm	• To select the superior pointed gourd lines for developing variety • To increase yield and quality	Burirhat, Rangpur
1824.	Collection and evaluation of local spine/ teasle gourd germplasm	• To select the superior spine gourd lines for developing variety • To increase yield and quality	Burirhat, Rangpur
1825.	Regional yield trial of year round hybrid pumpkin	• To develop pumpkin hybrid variety for winter and summer season	Patuakhali, Gazipur, Jamalpur, Burirhat, Ishwardi
1826.	Regional yield trial of hybrid squash	• To observe yield and quality of promising hybrids of squash at different regions of Bangladesh • To select hybrids of squash for release as variety	Gazipur, Burirhat, Akbarpur and Rahmatpur
1827.	Regional yield trial of YVMV tolerant okra	• To select high yielding OP okra lines tolerant to YVMV	Gazipur; Patuakhali, Jashore, Burirhat, Hathazari
1828.	Regional yield trial of yard long bean	• To develop new variety of yard-long bean	All RARS; ARS, Benerpota and ARS, Rajbari, Dinajpur and RARC, Khagrachari
1829.	Effect of sowing on yield and quality of BARI begun-12	• To find out the best time on yield and quality of BARI Begun-12	RHRS, Lebukhali, PotuaKhali; ARS, Rahmatpur, Barishal and RARS, BARI, Rangpur
OILSEED DIVISION			
1830.	Collection and evaluation of locally collected groundnut germplasm at Rangpur	• Collection of germplasm to enrich the gene pool of groundnut • Evaluation of the collected germplasm	RARS, Burirhat, Rangpur

Sl. No.	Research Title	Objective(s)	Location(s)
	region	to use in the future breeding program • To develop high yielding, early maturing, determinate type, widely adapted, highly disease resistant, dwarf varieties suitable for both rabi and kharif season and also suitable for the existing cropping systems	
1831.	Identification of Climate Smart Rapeseed-Mustard	• To select abiotic stress (mainly drought) tolerance line (s) To explore climate smart Rapeseed-mustard	RARS, Burirhat, Rangpur
1832.	Influence of plant growth regulators on growth and yield of groundnut (<i>Arachis hypogaea</i> L)	• To identify the appropriate plant growth regulator to arrest flowering at later stages of crop growth and which ultimately increase the yield	RARS, Burirhat, Rangpur
1833.	Effect of drum rolling on the yield of groundnut	• To investigate the effect of drum rolling practices in Groundnut (<i>Arachis hypogaea</i> L)	RARS, Burirhat, Rangpur
1834.	Hybridization in Soybean	• To create genetic variability • To develop short duration and bold seeded variety of Soybean	RARS, Burirhat, Rangpur
1835.	Performance of newly released groundnut varieties in the charland areas of Rangpur	• To see the performance of newly released groundnut varieties in the charland areas of Rangpur • To select suitable varieties of groundnut for charland	Charland areas of Rangpur
1836.	Preliminary yield trial of <i>Brassica rapa</i> l	• To select short duration genotypes with better agronomic traits	Set-I: Joydebpur, Ishurdi, Jashore, Rahmathpur, Rangpur and Hathazari Set-II: Joydebpur, Jamalpur Set-III: Joydebpur, Jamalpur
1837.	Regional Yield Trial of <i>Brassica rapa</i> L	• To select short duration high yielding lines with better agronomic traits and wider adaptability • To develop short duration variety to fit in between T aman and Boro rice	Set-I (Joydebpur, Ishurdi, Jamalpur, Jessore, Rahmatpur, Rangpur and Hathazari) Set –II (Joydebpur, Ishurdi, Jamalpur)
1838.	Regional Yield Trial of <i>Brassica napus</i>	• To select high yield potential lines with early maturity those can be grown in between T Aman and Boro rice	RARS, Jamalpur, Joydebpur, Jashore, Ishurdi and Burirhat
1839.	Regional yield trial of <i>Brassica juncea</i> l	• To select lines with high yield potential, better agronomic traits and wider adaptability • To develop high yielding variety of <i>B juncea</i>	Joydebpur, Ishurdi, Jamalpur, Jashore, Rahmatpur, Rangpur and Hathazari

Sl. No.	Research Title	Objective(s)	Location(s)
1840.	Preliminary yield trial of entries developed from of inter specific crosses among <i>b Carinata</i> and <i>b Napus</i>	- Utilization of genetic variability of inter specific cross - To find out genotypes suitable for cultivation in Bangladesh	Joydebpur, Burirhat, Jashore, and Rahmatpur
1841.	Evaluation of rapeseed-mustard hybrid	To select (s) superior hybrid	Joydebpur, Ishurdi, Jamalpur, Jashore, Rahmatpur, Burirhat and Hathazari
1842.	Identification of climate smart rapeseed-mustard	- To select abiotic stress tolerance line (s) - To explore climate smart Rapeseed-mustard	Greenhouse of Plant Breeding Division, Joydebpur
1843.	Preliminary yield trial of groundnut	- To select high yielding and early maturing lines - To develop high oleic acid groundnut variety - To select bold seeded and early maturing lines iv) To select disease resistance lines with desirable agronomic traits	Joydebpur and Burirhat (Set-I and Set-II) and RARS, Jamalpur and Burirhat (Set-III and Set-IV)
1844.	Regional yield trial of groundnut (set-i, set-ii and set-iii)	- To select high yielding and early maturing variety - To select disease resistance lines with desirable agronomic traits	Joydebpur, Jamalpur and Burirhat (Set-I and Set-II) and RARS, Jamalpur, Burirhat and Rajbari, Dinajpur (Set-III)
1845.	Hybridization in soybean	- To create genetic variability - To develop bold seeded, short duration, stress tolerant, high yielding variety	Joydebpur
1846.	Preliminary yield trial of soybean	To select high yielding genotypes with better agronomic traits	Joydebpur, Burirhat and Noakhali
1847.	Regional yield trial of soybean	To select high yielding genotypes with superior agronomic traits	Joydebpur, Burirhat, Rahmatpur and Cumilla
PLANT BREEDING DIVISION			
Bottom Up			
1848.	Evaluation of foxtail millet germplasm	- To evaluate the performance of foxtail millet germplasm - To select superior germplasm for releasing as variety	RARS, Burirhat, Rangpur
1849.	Collection and evaluation of buckwheat germplasm	- To collect and evaluate the performance of buckwheat germplasm - To select superior germplasm for releasing as variety - To conserve the plant genetic	RARS, Burirhat, Rangpur

Sl. No.	Research Title	Objective(s)	Location(s)
		resources	
1850.	Evaluation of newly collected local mango germplasm	• To identify and select the most desirable improved mango lines • To select a suitable germplasm for releasing as a variety • To conserve the plant genetic resources	RARS, Burirhat, Rangpur
1851.	Collection and evaluation of brinjal germplasm	• To collect and evaluate the performance of brinjal germplasm in relation to yield and yield contributing characters both in winter and summer season • To select superior germplasm for releasing as a variety	RARS, Burirhat, Rangpur
1852.	In-situ evaluation of Pummelo	• To find out early and late pummelo germplasm • To find out a suitable pummelo germplasm for releasing as a variety • To conserve the fruit genetic resource	RARS, Burirhat, Rangpur
1853.	Collection, characterization and evaluation of local bitter gourd (ussakarola) germplasm	• To find out Suitable bitter gourd (ussakarola) germplasm	RARS, Burirhat, Rangpur
1854.	Evaluation of locally collected foxtail millet germplasm at Rangpur region	• To enrich genetic resources of locally collected foxtail millet • To find out the variability of the collected materials	Rangpur, kurigram, Lalmonirhat, Thakurgaon and Panchagor
Top Down			
1855.	Advanced yield trial of barley	• To select better performing high yielding hull-less barley lines	Gazipur, Jashore, Burirhat and Hathazari
1856.	Preliminary yield trial of foxtail millet	• To test the performance of the selected foxtail millet lines over the tested regions • To develop drought tolerant and high yielding foxtail millet variety	Gazipur, Burirhat, Barind (Rajshahi) and Jashore
1857.	Preliminary yield trial of proso millet lines	• To test the performance of the selected proso millet lines over the tested regions • To develop high yielding and short statured proso millet variety	Gazipur, Rangpur, Hathazari and Akbarpur
1858.	Regional yield trial of proso millet	• To develop high yielding and lodging tolerant proso millet variety	Gazipur, Jamalpur, Burirhat and Jashore
1859.	Regional yield trial of finger millet	• To develop short stature and early maturing finger millet variety	Gazipur, Jashore, Burirtat and OFRD Barind, Rajshahi
1860.	Advanced trial of oat genotypes	• To evaluate the performance of the collected genotypes for future breeding program	Gazipur, Jamalpur, Burirhat, Barishal, Khulna
RARS, Cumilla			

Sl. No.	Research Title	Objective(s)	Location(s)
1861.	Hybridization in mango	• To develop hybrid mango variety of desired character(s)	RARS, Cumilla
1862.	Hybridization of guava for wilt resistance	• To incorporate wilt resistance from wild type; and • To improve fruit bearing capacity	RARS, Cumilla
1863.	Development of inbred in pumpkin (S ₂ to S ₃)	• To develop inbred population in pumpkin	RARS, Cumilla
1864.	Phenotypic recurrent selection in cucumber	• To develop improved population in cucumber	RARS, Cumilla
1865.	Development of inbred in cucumber (S ₂ to S ₄)	• To develop inbred population in cucumber	RARS, Cumilla
1866.	Screening of okra germplasm against YVMV	• To identify promising okra lines with tolerance to YVMV	RARS, Cumilla
1867.	Effect of rootstock on tomato grafting against bacterial wilt	• To study the performance of different rootstock on tomato grafting against bacterial wilt	RARS, Cumilla
1868.	Effect of different doses of triacontanol on growth, yield, and quality of tomato in Cumilla region	• To evaluate the effect of different doses of triacontanol on tomato growth, yield, and quality	RARS, Cumilla
1869.	Evaluation of yard long bean lines with BARI borboti-1	• To observe the performance of the selected lines	RARS, Cumilla
1870.	Secondary yield trial of cassava lines	• To promote advance breeding program and release a new potential variety of cassava	RARS, Cumilla
1871.	Effect of two different plant growth regulators on production traits of sunflower	• To assess the impact of growth regulators on sunflower on seed yield of sunflower	RARS, Cumilla
1872.	Regional yield trial of soybean	• To evaluate the yield and yield attributes of 10 different soybean germplasms with two check varieties BARI Soybean-6 and BU Soybean-2	RARS, Cumilla
1873.	Advance yield trail of chilli	• To study the performance of chilli line (s) • To identify promising chilli lines for RYT	RARS, Cumilla
1874.	Effect of sowing time on the yield and yield components of black cumin in cumilla region	• To know the appropriate sowing time for maximum yield of black cumin in Cumilla region	RARS, Cumilla
1875.	Performance of different fenugreek varieties in charland area of Cumilla	• To observe the yield performance of high yielding fenugreek varieties in charland area of Cumilla	RARS, Cumilla
1876.	Regional yield trial of naga chilli	• To select suitable line(s) for cultivation	RARS, Cumilla
1877.	Performance of mustard varieties in haor land of BrammanBARIA	• To select suitable mustard variety for haor land of BrahmanBARIA district	RARS, Cumilla
1878.	Performance of intercropping coriander with	• To find out the suitable intercrop combination of coriander with	RARS, Cumilla

Sl. No.	Research Title	Objective(s)	Location(s)
	sunflower	sunflower for increasing cropping intensity and productivity	
1879.	Productivity of chilli-onion intercropping system as influenced by fertilizer	• To develop nutrient management package for chilli-onion intercropping system	RARS, Cumilla
1880.	Development of fertilizer recommendation for winter stem amaranth in Cumilla region	• To find out the optimum and economic fertilizer dose for maximizing the yield of winter stem amaranth	RARS, Cumilla
1881.	Survey on major diseases of commercially grown vegetables in Cumilla region	• To identify major diseases of commercially cultivated vegetables; and • To assess incidence and severity of identified diseases	RARS, Cumilla
1882.	Efficacy of new fungicides in controlling powdery mildew of cucumber	• To study the efficacy of new fungicides in controlling powdery mildew of cucumber	RARS, Cumilla
1883.	Efficacy of new fungicides in controlling late blight of potato	• To evaluate the most effective fungicide to control late blight of potato	RARS, Cumilla
HARS, Khagrachari			
1884.	Evaluation of indigenous ber germplasm at khagrachari	• To identify high yield potentiality and better-quality coffee variety	HARS, Khagrachari
1885.	Evaluation of indigenous ber germplasm at khagrachari	• Select superior land races for commercial cultivation in the hilly areas	HARS, Khagrachari
1886.	Evaluation of sweet orange germplasm in the hilly region	• To identify the superior germplasm for developing variety	HARS Khagrachari
1887.	Studies on different methods and time of vegetative propagation of robusta coffee (<i>coffea canephora</i>)	• Necessary to find out the best vegetative propagation technique and time for Robusta coffee	HARS Khagrachari
1888.	Survey and monitoring of insect pests of cashew nut and coffee in hill tracts region of Bangladesh	• To document the insect pests for developing appropriate management strategies	HARS Khagrachari
1889.	Efficacy of some bio-pesticides against mango hopper, weevil and fruit fly in khagrachari hill tracts	• The efficacy of some bio-pesticides against major insect pest of mango and to develop bio-rational based management option against major insect pest of mango	HARS Khagrachari
1890.	Growth and yield of selected vegetables in soilless substrates	• To evaluate the performance of vegetables in the Hydroponics and Controlled Environment Agriculture	HARS Khagrachari
Hill Tract ARS, Ramgarh, Khagrachari			
1891.	Yield response of promising velvet bean lines in response to different sowing date	• To record the performances of velvet beans in the hilly region • To select suitable line (s) for the release of the new variety	HTARS, Ramgarh, Khagrachari

Sl. No.	Research Title	Objective(s)	Location(s)
		• To determine suitable planting time for velvet bean	
1892.	Evaluation of promising cashew nut germplasm in hill tract	• To select superior lines for release of variety	HTARS, Ramgarh, Khagrachari
1893.	Evaluation and adaptability of promising coffee germplasm at Ramgarh	• To identify superior lines • To popularize the coffee cultivation in Bangladesh	HTARS, Ramgarh, Khagrachari
1894.	Effect of irrigation on cashew nut germplasm during dry season at Ramgarh hilly area	• Observe the effect of irrigation in cashew nut in hilly area • Drought tolerant line identification	HTARS, Ramgarh, Khagrachari
HARS, Raikhali, Rangamati			
Fruit crops			
1895.	Evaluation of soursop in hilly area	• To find suitable soursop lines in hilly area	Raikhali
1896.	Evaluation of bael in hilly area	• To select suitable bael germplasm in respect of yield and quality	Raikhali
1897.	Evaluation of eggfruit (<i>pouteria campechiana</i>) in hilly area	• To select suitable eggfruit/canistel /tiesa/chiesa lines in respect of yield and quality	Raikhali
1898.	Evaluation of jabuticaba (<i>plinia cauliflora</i>) in hilly area	• To select suitable jabuticaba lines in respect of yield and quality	Raikhali
1899.	Evaluation of star gooseberry (<i>phyllanthus acidus</i> l) Germplasms	• To select suitable star gooseberry / orbroi lines in respect of yield and quality	Raikhali
1900.	Evaluation of star apple (<i>chrysophyllum caimito</i> l) Germplasms	• To select suitable star apple lines in respect of yield and quality	Raikhali
1901.	Evaluation of bullock's heart (<i>annona reticulata</i> l) germplasm	• To select suitable bullock's heart lines in respect of yield and quality	Raikhali
1902.	Evaluation of exotic passion fruit (<i>passiflora edulis</i>) germplasm	• To select suitable passion fruit lines in respect of yield and quality	Raikhali
1903.	Evaluation of para jam (<i>antidesma acidum</i>) germplasm	• To select suitable para jam lines in respect of yield and quality and to preserve the germplasm	Raikhali
1904.	Evaluation of mango germplasm for green consumption at hill valley in chattogram hill tracts	• To evaluate the mango germplasm for green consumption (kachamitha) in Rangamati Hilly area	Raikhali
1905.	Evaluation of dwarf coconut in hilly area of rangamati	• To evaluate the Vietnam dwarf (Xiem blue) and Kerala hybrid dwarf in hilly area	Raikhali
1906.	Evaluation of newly collected mango germplasm	• To select suitable mango germplasm in respect of yield and quality	Raikhali
1907.	Evaluation of pummelo in	• To select superior pummelo line(s) in	Raikhali

Sl. No.	Research Title	Objective(s)	Location(s)
	hilly region of rangamati	respect of yield and quality	
1908.	Evaluation of dragon fruit germplasm in rangamati hilly area	• To find out the suitable germplasm for higher yield and quality	Raikhali
Coffee and cashew nut			
1909.	Collection and evaluation of coffee germplasm	• To select suitable coffee lines in respect of yield and quality	Raikhali
1910.	Collection and evaluation of cashew germplasm	• To select suitable cashew lines in respect of yield and quality	Raikhali
Fruit disease management			
1911.	Management of stem rot disease of BARI dragon fruit-1 in hilly area	• To isolate and identify the causal pathogen of stem rot disease • To develop effective and economic control measures against the stem rot disease	Raikhali
1912.	Survey, monitoring and documentation of major diseases of different minor fruit crops in hilly area	• To identify the diseases of different minor fruit crops • To determine the damage severity of pathogens	Raikhali
Vegetables crops			
1913.	Advanced yield trial of french bean lines	• To select suitable flat bean lines to release as variety	Raikhali
1914.	Advanced yield trial of year-round musk melon (lalmui) lines	• To select suitable year-round musk melon lines to release as variety	Raikhali
1915.	Regional yield trial of cherry tomato lines	• To select suitable cherry tomato lines to release as variety	Raikhali
1916.	Advanced yield trial of cape gooseberry line	• To select suitable cape gooseberry lines to release as variety	Raikhali
1917.	Evaluation of newly collected exotic tomato lines	• To select suitable tomato lines to release as variety	Raikhali
Oilseed crops			
1918.	Adaptive trial on sharisha advance line-22018 at hilly area	• To evaluate the performance of sharisha advance line-22018 at hill area	Raikhali
1919.	Adaptive trial on sharisha advance line-22023 at hilly area	• To evaluate the performance of sharisha advance line-22023 at hill area	Raikhali
Tuber crops			
1920.	Evaluation of potato genotypes for late heat tolerance	• To develop and/or select late heat tolerant genotypes	Raikhali
Regional HRC, Shibpur, Narshingdi			
1921.	Clonal selection of Banana Cv Amritsagar	• To find out the suitable germplasm/lines to release a new variety	RHRS, Narsingdi
1922.	Regional yield trial of hybrid pointed gourd lines	• To develop a new hybrid variety of pointed gourd	RHRS, Narsingdi
1923.	Collection and evaluation of teasle gourd germplasm	• To develop a high yielding teasle gourd line with desirable traits	RHRS, Narsingdi

Sl. No.	Research Title	Objective(s)	Location(s)
1924.	Adaptive trial of BARI released lemon varieties	• To observe the performance of BARI released lemon variety in Narsingdi region	RHRS, Narsingdi
1925.	Performance of different varieties/genotypes of gardenpea as affected by shoot picking for vegetable and grain production	• To find out the suitable variety for the higher production of vegetable, grain and economic net return	RHRS, Narsingdi
1926.	Observational yield trial in muskmelon	• To observe the promising germplasm of muskmelon	RHRS, Narsingdi
1927.	Collection and evaluation of pummelo germplasm	• To develop a new hybrid variety of pummelo	RHRS, Narsingdi
1928.	Performance of BARI released jackfruit varieties in Narsingdi region	• To observe the performance of BARI released jackfruit varieties in Narsingdi region	RHRS, Narsingdi
Regional HRC, Chapainawabganj			
1929.	In-situ evaluation of a late mango germplasm	• To select the superior line for commercial cultivation in the late season • To develop new late variety extending the availability period	Chapainawabganj
1930.	Collection and Evaluation of early mango germplasm	• To find out the superior early mango germplasm for releasing as a variety • To conserve genetic resources of fruits	Chapainawabganj
1931.	Inter-varietal hybridization of mango (SET-II)	• To incorporate desirable characters • To develop good quality hybrid variety(ies)	Chapainawabganj
1932.	Evaluation of beal germplasm	• To find out suitable bael germplasm for releasing as a variety • To conserve fruit genetic resources	Chapainawabganj
1933.	Effect of ultra high-density plantation of mango at varying spacing on yield and return	• To find out the optimum spacing for ultra-high density plantation (UHDP) • To evaluate the possibility of UHDP orchard for quality yield and profit	Chapainawabganj
1934.	Effect of height of heading back in ultra high-density plantation on growth, stature and yield of mango	• To find out the suitable length of heading back to cope the structure with the space • To control the plant height for higher yield and quality	Chapainawabganj
1935.	Effect of paclobutrazol on mango tree raised from seed to promote early bearing	• To lessen the gestation period of mango tree raised from true seed • To decrease the period for developing new hybrid variety	Chapainawabganj
1936.	Effect of training of mango sapling in seed bed for branching and dwarfing to fit in ultra high density orchard	• To produce well branched dwarf sapling for ultra high density orchard • To avert initial training in field for reducing gestation period	Chapainawabganj
1937.	Survey on different pests of mango, pesticide use patterns and farmers' perceptions at mango	• To know the present situation of pest and pesticide usage in Rajshahi Chapainawabganj and Naogaon	Chapainawabganj

Sl. No.	Research Title	Objective(s)	Location(s)
	growing areas of Rajshahi region		
1938.	Efficacy of different pesticides against thrips of mango	• To identify the suitable pesticide against thrips of mango	Chapainawabganj
1939.	Development of management approach against red banded mango caterpillar, deanolis sublimbalis	• To develop a suitable management technique against mango red banded caterpillar	Chapainawabganj
1940.	Survey of floral malformation of mango in Rajshahi region	• To assess the distortion in diversity of orchards, evaluate varieties status of the disease	Chapainawabganj
1941.	Efficacy of chemicals in controlling floral malformation of mango	• To find out effective chemicals to control floral malformation of mango	Chapainawabganj
1942.	Development of fungicides-based management against anthracnose of mango fruits	• To find out the suitable fungicide(s) to control the disease	Chapainawabganj
1943.	Evaluation of new fungicides against anthracnose of mango	• To investigate the efficacy of same new fungicides against anthracnose of mango	Chapainawabganj
Regional HRC, Lebukhali, Patuakhali			
1944.	Regional yield trial (RYT) of selected YVMV tolerant Okra	• To select high yielding OP okra lines tolerant to YVMV	RHRS, Lebukhali, Patuakhali
1945.	Regional yield trial of selected country bean lines	• To select suitable broad shaped fruit lines to release as open pollinated variety (s)	RHRS, Lebukhali, Patuakhali
1946.	Regional Yield Trial (RYT) of year round pumpkin hybrids	• To develop pumpkin hybrid variety for winter and summer season	RHRS, Lebukhali, Patuakhali
1947.	Screening of pumpkin lines against waterlogging condition	• To identify the waterlogging tolerant pumpkin germplasms at seedling stage	RHRS, Lebukhali, Patuakhali
1948.	Development of autotetraploid for seedless watermelon	• To get autotetraploid watermelon lines	RHRS, Lebukhali, Patuakhali
1949.	Effect of nitrogen concentration on different growth stage of watermelon in hydroponic culture	• To find out optimum nitrogen dose for vegetative stage of Watermelon • To find out optimum nitrogen dose for reproductive stage of Watermelon	RHRS, Lebukhali, Patuakhali
1950.	Evaluation of banana (Sabri) germplasm	• To select superior one(s) for commercial cultivation • To conserve germplasm	RHRS, Lebukhali, Patuakhali
1951.	Evaluation of local pummelo germplasm	• To select superior pummelo lines for releasing as a variety • To conserve genetic resources	RHRS, Lebukhali, Patuakhali
1952.	Collection and evaluation of dragon fruit germplasm	• To find out the suitable germplasm for higher yield and quality	RHRS, Lebukhali, Patuakhali
1953.	Collection and evaluation of exotic mango germplasm	• To find out the suitable germplasm for higher yield and quality	RHRS, Lebukhali, Patuakhali

Sl. No.	Research Title	Objective(s)	Location(s)
1954.	Hybridization of mango	• To incorporate the skin color in BARI Aam-4 • To develop a hybrid mango variety	RHRS, Lebukhali, Patuakhali
1955.	Enrichment and maintenance of fruit tree repository	• To conserve and maintain different horticultural crops for longer period and future use	RHRS, Lebukhali, Patuakhali
Citrus Research Centre, Jaintapur, Sylhet			
1956.	Hybridization in satkara	• To incorporate quick growing habit • To develop new variety(s)	CRS, Jaintapur
1957.	Hybridization in mandarin	• To incorporate sweetness • To develop new variety(s)	CRS, Jaintapur
1958.	Hybridization in sweet orange	• To incorporate color • To develop new variety(s)	CRS, Jaintapur
1959.	Evaluation of mandarin germplasm under North-eastern hilly area of Bangladesh	• To select suitable lines • To develop variety(s)	CRS, Jaintapur
1960.	Performance of exotic sweet orange germplasm	• Identification of valuable exotic germplasm • To increase quality production for internal consumption as well as for export markets	CRS, Jaintapur
1961.	Morphophysiological characterization and evaluation of pummelo germplasm	• To select superior pummelo lines for the release of variety(s) • To conserve genetic resources	CRS, Jaintapur
1962.	Evaluation of lemon germplasm	• To find out superior lines for releasing variety(s) • To enrich the gene pool	CRS, Jaintapur
1963.	Evaluation of lime germplasm	• To find out superior lines for releasing variety(s) • To enrich the gene pool	CRS, Jaintapur
1964.	Effect of different rootstock on the growth and yield of navel orange (CS Jai-003)	• To select the best rootstock for navel orange	CRS, Jaintapur
1965.	Propagation of BARI Komola-1 and BARI Malta-1 by shoot tip grafting	• For diseases free sapling production	CRS, Jaintapur
1966.	Integrated approaches to mitigate die-back disease of citrus	• To formulate an integrated approach to control citrus die-back disease	CRS, Jaintapur
1967.	Intercropping of pineapple with citrus	• Determine the performance of pineapple as an intercrop planted at Citrus orchard	CRS, Jaintapur
1968.	Hybridization in dragon fruit	• To incorporate yellow color and profuse bearing habit • To develop improved variety(s)	CRS, Jaintapur
1969.	Evaluation of coffee (robusta) germplasm in the north-eastern hilly region of Bangladesh	• To select suitable coffee lines in respect of yield and quality	CRS, Jaintapur
1970.	Evaluation of cashew nut	• To select superior lines for release as a	CRS, Jaintapur

Sl. No.	Research Title	Objective(s)	Location(s)
	germplasm in north-eastern hilly region of Bangladesh	variety	
1971.	Regional yield trial of naga chili (Set-III)	- To study for regional sdaptability - To select a promising naga chili line for releasing variety(s)	CRS, Jaintapur, RARS Akbarpur & RARS Cumilla
1972.	Conservation of germplasm in field gene bank	To conserve germplasm in the gene bank	CRS, Jaintapur
1973.	Mother orchard establishment of BARI released/popular citrus fruit varieties	To supply true to type quality planting materials released varieties	CRS, Jaintapur
FRS, Binodpur, Rajshahi			
1974.	Inter-variatal hybridization of mango	- To incorporate desirable characters - To develop good quality hybrid variety(ies)	FRS, BARI, Binodpur, Rajshahi
1975.	Evaluation of mango germplasm	- To find out the superior mango germplasm for releasing as a variety - To conserve genetic resources of fruits	FRS, BARI, Binodpur, Rajshahi
1976.	In-situ evaluation of local pummelo germplasm	- To select superior pummelo lines for releasing as a variety - To conserve genetic resources	FRS, BARI, Binodpur, Rajshahi
1977.	Purification of shahi pepe through half-sib method	- To regain the characteristics of Shahi Pepe - To maintain the germplasm	FRS, BARI, Binodpur, Rajshahi
1978.	Collection and evaluation of custard apple germplasm	- To find out superior genotypes of custard apple germplasm for better yield and insect-pest resistant - To develop a suitable custard apple variety for commercial cultivation	FRS, BARI, Binodpur, Rajshahi
1979.	Evaluation of jamun germplasm	- To find out superior genotypes of jamun germplasm for better yield and insect-pest resistant - To develop a suitable jamun variety for commercial cultivation	FRS, BARI, Binodpur, Rajshahi
1980.	Study on floral biology of different ber germplasms	- To study the detail flowering behavior of ber - To improve the fruit colour and other qualities of ber in performing hybridization Program	FRS, BARI, Binodpur, Rajshahi
1981.	Effects of different type of pruning on the rejuvenation of litchi orchard	To find out the effective pruning type for rejuvenation of old litchi orchard	FRS, BARI, Binodpur, Rajshahi
1982.	Effect of different doses and time of application of paclobutrazol on off-season flowering, fruiting, yield and fruit quality of mango cv BARI Aam-3 and BARI Aam- 4	To observe the response of paclobutrazol on producing off-season mango	FRS, BARI, Binodpur, Rajshahi
1983.	Performance of intercropping of different crops in mango orchard	To find out the suitability of crops in mango orchard as intercrop	FRS, BARI, Binodpur, Rajshahi

Sl. No.	Research Title	Objective(s)	Location(s)
1984.	Effect of different treatments for post-harvest disease management of mango	• To find out the effective way on post-harvest disease management of mango fruits through extend shelf life	FRS, BARI, Binodpur, Rajshahi
LAKHA RESEARCH CENTRE, Chapainawabganj			
1985.	Development of management approach against common cutworm, <i>Spodopteralitura</i> attacking lac host, <i>Flemingiasemialata</i>	• To evaluate approach for managing of common cutworm, <i>Spodopteralitura</i> attacking lac host, <i>Flemingiasemialata</i> for better lac cultivation	Lac Research Station, Chapainawabganj
1986.	Eco-friendly managing tactics against thrips of lac host, <i>Flemingiasemialata</i>	• To develop eco-friendly technique for managing thrips against flower thrips of lac host, <i>Flemingiasemialata</i>	Lac Research Station, Chapainawabganj
1987.	Determination of suitable pruning time of lac host <i>Flemingiasemialata</i>	• To determine suitable time of pruning of the lac host <i>Flemingiasemialata</i> for better lac production	Lac Research Station, Chapainawabganj
1988.	Determination of suitable pruning method of lac host plant <i>Flemingiasemialata</i>	• To determine suitable method of pruning of the lac host <i>Flemingiasemialata</i> for better lac production	Lac Research Station, Chapainawabganj
1989.	Determination of suitable propagation method of lac host <i>Flemingiasemialata</i>	• To determine the most suitable propagation method of the lac host <i>Flemingiasemialata</i> for better lac production	Lac Research Station, Chapainawabganj
BREEDER SEED PRODUCTION CENTRE, Debiganj, Panchagarh			
1990.	Hybridization for High yielding (Early Bulking and Early maturity, etc) Potato Variety Development	• To improve the genetic base of the parent population • To develop early bulker and early mature varieties	Debiganj
1991.	Secondary Yield Trial (SYT) with Potato Lines (F ₁ C ₆)	• Selection of superior genotypes for advanced yield trial	Debiganj
1992.	Advanced Yield Trial (AYT) with Hybridized Potato Lines (F ₁ C ₇)	• To select stable advanced lines and finalized the lines for RYT	Debiganj
1993.	Participatory Variety Selection of Advanced Clonal Hybrids (F ₁ C ₇)	• To select suitable advanced lines in collaboration with farmers and other stakeholders for releasing varieties	Debiganj
1994.	Regional Yield Trial (RYT) with Advanced Potato Lines (F ₁ C ₈)	• Selection of suitable advanced lines for releases varieties	Debiganj
1995.	Hybridization for Heat Tolerant Potato Variety Development	• To Develop new Variety	Debiganj
1996.	Advanced Yield Trial (AYT) of Heat Tolerant Potato Lines (CIP source)	• To Develop Heat Tolerant potato	Debiganj
1997.	Hybridization for Potato Variety Development Containing Processing Attributes	• To Develop new Variety	Debiganj

Sl. No.	Research Title	Objective(s)	Location(s)
1998.	Hybridization for Potato Variety Development Containing Export Qualities	• To Develop new Variety	Debiganj
1999.	Hybridization for Nutrient (Fe and Zn) Enriched Potato Variety Development	• To Develop new Variety	Debiganj
2000.	Advanced Yield Trial of (AYT) nutrient enriched (Fe & Zn) Potato Lines	• To Develop Fe & Zn Enrich new Variety	Debiganj
2001.	Hybridization for Anthocyanin Enriched Potato Variety Development	• To Develop Anthocyanin Enriched New Variety	Debiganj
2002.	Advanced yield trial of sweet potato genotypes	• To select stable advanced lines and finalized the lines for RYT	Debiganj
2003.	Regional yield trial of sweet potato clones	• Selection of suitable advanced lines for releases varieties	Debiganj
2004.	Integrated nutrient management for Potato-Groundnut-Taman cropping pattern	• To develop a suitable fertilizer package for the cropping pattern • To increase crop productivity and sustain soil health	Debiganj
2005.	Determination of fertilizer dose for Cassava production	• To observe the response of cassava to different nutrients • To develop a suitable fertilizer package for the cassava production • To increase crop productivity and sustain soil health	Debiganj
2006.	Effects of organic manure and Inorganic fertilizer on Anthocyanin Rich BARI Mishtialu-17	• To develop a suitable fertilizer package in combination of organic manure and chemical fertilizers • To study the quality components and storability of sweet potato root under different nutrient management and • To study the post-harvest soil properties	Debiganj
2007.	Effect of integrated nutrient management on the yield and quality of exportable potato varieties	• To develop a suitable fertilizer package for exportable potato variety • To study the quality component and storability of exportable potato variety under different nutrient management	Debiganj
2008.	Advanced Yield Trial (AYT) of late blight resistance potato derived from qtl mapping populations tb8, tb10 tb11, and tb17 (under mas and speed breeding)	• To select stable advanced lines and finalized the lines for RYT	Debiganj
2009.	Secondary Observational Trial (SOT) and MAS of Late Blight Resistance Potato under Speed breeding	• N/A	Debiganj

Sl. No.	Research Title	Objective(s)	Location(s)
2010.	Secondary Yield Trial of (SYT) of LBR Bio-fortified and anthocyanin rich potato	• Selection of superior genotypes for advanced yield trial	Debiganj
2011.	Secondary Yield Trial (SYT) of Heat Tolerant Potato Germplasm Derived from MAS	• Selection of superior genotypes for advanced yield trial	Debiganj
2012.	Preliminary Yield Trial (PYT) of Heat Tolerant Potato Germplasm Derived from MAS	• To select the superior line(s) for secondary yield trial of variety development process	Debiganj
2013.	Population Development of Marker Assisted Selection of (MAS) of late blight Resistance and virus resistance in Biofortified Tetraploid Potato	• To Develop new blight and virus resistance in Biofortified Tetraploid Potato	Debiganj
2014.	Secondary Yield Trial of Jicama	• Selection of superior genotypes for advanced yield trial	Debiganj
2015.	Production of Potato Seedling Tubers from F1 Seed (F1C0)	• Production of F1 seedling tubers for selection (single tuber selection, F1C1) and variety development	Debiganj
2016.	Field Evaluation of F1 Potato Seedling Tubers (F1C1)	• Selection of superior population (single plant selection, F1C2) for variety development	Debiganj
2017.	Preliminary Observation Trial with Potato Germplasm (F1C2)	• Selection of superior plant-row(s) (single rows selection, F1C3) for variety development	Debiganj
2018.	Secondary Observation Trial with Potato Germplasm (F1C3)	• Selection of superior genotypes (single plot selection, F1C4) for variety development	Debiganj
2019.	Advanced Observation Trial with Potato Germplasm (F1C4)	• To increase seed • To evaluate hybridized germplasm in nethouse	Debiganj
2020.	Preliminary Yield Trial (PYT) with Potato Lines (F1C5)	• To select the superior line(s) for secondary yield trial of variety development process	Objective
2021.	Evaluation of Potato Genotypes for Early Heat Tolerance	• To identify genotypes suitable for early planting	Debiganj
2022.	Maintenance of Released Potato Varieties, Germplasm, Lines and TPS Parents	• To Maintain the released potato varieties, Germplasm, Lines for future breeding programme	Debiganj
2023.	Observational yield trial of white skin and white fleshed sweet potato genotypes	• To find out promising genotypes of white fleshed germplasm • To develop high yielding and white fleshed sweet potato Varieties	Debiganj
2024.	Screening of suitable sweet potato variety for northern part of Bangladesh	• To find out suitable variety from BARI released sweet potato • varieties for northern part of Bangladesh	Debiganj

Sl. No.	Research Title	Objective(s)	Location(s)
2025.	Production of Seedling Tubers from F ₁ Seed for Nutrient (Fe and Zn) Enriched Potato Variety Development	• Production of F ₁ Seedling Tubers for selection and Nutrient Enriched (Fe and Zn) Potato Variety Development	Debiganj
2026.	Production of Seedling Tubers from F ₁ Seed for Potato Variety Development containing Processing Attributes	• Production of F ₁ Seedling Tubers for selection and Variety Development with Processed Attributes	Debiganj
2027.	Observational yield trial of color fleshed CIP sweet potato germplasm	• To find out promising genotypes of color fleshed CIP germplasms • To develop high yielding and color fleshed sweet potato varieties	Debiganj
2028.	Production of Seedling Tubers from F ₁ Seed for Late Blight Resistant Variety Development	• Production of F ₁ Seedling Tubers for selection and Late Blight Resistant Variety Development	Debiganj
2029.	Production of Seedling Tubers from F ₁ Seed for Heat Tolerant Potato Variety Development	• Production of F ₁ Seedling Tubers for selection and Heat Tolerant Variety Development	Debiganj
2030.	Response of potato varieties to water stress under field condition	• To identify varieties suitable for water stress condition	Debiganj
2031.	Determination of fertilizer dose for exportable potato variety using missing element treatment	• To observe the response of potatoes to different nutrients • To update and optimize the fertilizer package of exportable potatoes matching the soil and agro climatic condition and • To maximize yield and quality potatoes	Debiganj
2032.	Influence of foliar application of calcium and boron on yield and quality of potato	• To evaluate the response of potato to calcium and boron application as foliar spray, • To find out the suitable foliar dose of calcium and boron for potato and • To study the influence of calcium and boron on the quality of potato through foliar application	Debiganj
2033.	Yield and quality of exportable potato as influenced by the planting time	• N/A	Debiganj
2034.	Effect of haulm pulling date on yield and quality of exportable potato	• N/A	Debiganj
2035.	Effect of seed treatment in controlling black scurf disease of potato	• N/A	Debiganj
2036.	Screening of Selected	• To confirm the resistant ability of	Debiganj

Sl. No.	Research Title	Objective(s)	Location(s)
	Potato Varieties and Germplasm Against Late Blight of Potato	varieties / germplasms • To reduce the yield loss due to disease	
2037.	Evaluation of new fungicides against late blight of potato	• To select effective fungicides against late blight of potato • To reduce the yield due to the disease	Debiganj
2038.	Monitoring of disease status of BARI released potato varieties against common scab	• To study the tolerance level of BARI released potato varieties against common scab disease	Debiganj
2039.	Production of Nucleus Seed Potato (Minituber, G ₀) by <i>In Vitro</i> Plantlet	• To produce breeder seed	Debiganj
2040.	Evaluation of Bael Genotypes	• N/A	Debiganj
2041.	Evaluation of Existing Jackfruit Germplasm at BSPC Debiganj, Panchagarh	• To select superior early and late jackfruit lines and • To identify suitable germplasm for higher yield and quality	Debiganj
2042.	Evaluation of Avocado Germplasm	• To select superior early and late Avocado lines and • To identify suitable germplasm for higher yield and quality	Debiganj
2043.	Collection and Characterization of Orange Germplasm	• N/A	Debiganj
2044.	Breeder seed production of potato	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2045.	Seed Production of Cassava	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2046.	Vine production of sweet potato	• To maintain and increase vine of the released variety • To supply vine to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2047.	Seed production of Yam	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2048.	Breeder seed production of Country bean	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2049.	Breeder seed production of	• To maintain and increase seed of the	Debiganj

Sl. No.	Research Title	Objective(s)	Location(s)
	Radish	released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	
2050.	Breeder seed production of sweet gourd	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2051.	Breeder seed production of Mustard	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2052.	Breeder seed production of Sunflower	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2053.	Breeder seed production of Garden Pea	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2054.	Breeder seed production of barley	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2055.	Breeder seed production of cheena	• To maintain and increase seed of the released variety • To supply seeds to seed producing agency like BADC, DAE or • NGOs and farmers	Debiganj
2056.	Evaluation of released sweet potato varieties and advanced lines against potato cutworm (Agrotis ipsilon) in field condition	• To evaluate advanced lines of potato against cut worm in the field	Debiganj
2057.	Evaluation of released potato varieties and advanced materials against potato cutworm (Agrotis ipsilon) in field condition	• To evaluate advanced lines of potato against cut worm in the field	Debiganj
2058.	Development of effective integrated management package against sweet potato weevil (Cylas formicarius) in the field	• To identify the suitable varieties/lines resistance/tolerant to sweet potato weevil infestation • To determine the effects of sweet potato weevil infestation on the yield	Debiganj
Agricultural Research Sub-Station, Thakurgaon			
2059.	Influence of Different Fertilizer Doses on Yield	• To find out effective fertilizer management option for maximum	ARS, Thakurgaon

Sl. No.	Research Title	Objective(s)	Location(s)
	and Quality of Garden Pea	yield of garden pea	
2060.	Integrated Nutrient Management on Yield and Quality of Bitter Gourd	- To observe the effect of household waste compost on the growth, yield and quality of bitter gourd - To assess the effect of household waste compost on soil fertility parameters	ARS, Thakurgaon
Agricultural Research Station, Pahartali, Khulshi, Chattogram			
Fruit Crops			
2061.	Evaluation of pummelo germplasm in Chattogram region	To release it as a variety for commercial production of pummelo throughout the country	ARS, Khulshi, Chattogram
2062.	Hybridization of mango at Chattogram region	To develop premium quality mango variety with year-round production	ARS, Khulshi, Chattogram
2063.	Evaluation of local and exotic mango germplasm in Chattogram region	To identify promising lines and to select desirable mango lines as well as variety for higher yield and qualities	ARS, Khulshi, Chattogram
2064.	Evaluation of kancha-mitha mango germplasm in Chattogram region	To identify promising lines and to select desirable mango lines for higher yield and qualities to release as a kancha- mitha variety	ARS, Khulshi, Chattogram
2065.	Collection and evaluation of local mango germplasm in Chattogram	To identify promising lines and to select desirable mango lines as well as variety for higher yield and qualities	ARS, Khulshi, Chattogram
2066.	Collection and evaluation of coffee germplasm in Chattogram region	To release a coffee variety (Arabica) in Bangladesh	ARS, Khulshi, Chattogram
2067.	Evaluation of mangosteen at ARS, Khulshi, Chattogram	To identify the promising mangosteen germplasm to released as a variety	ARS, Khulshi, Chattogram
Vegetable Crops			
2068.	Regional yield trial of pod potential country bean lines in Chattogram region	To evaluate this promising germplasm for higher yield to release as variety	ARS, Khulshi, Chattogram
2069.	Preliminary yield trial of bold seeded country bean lines in Chattogram region	To evaluate this promising germplasm for higher yield to release as bold seeded variety	ARS, Khulshi, Chattogram
2070.	Hybridization of country bean	To develop high yielding off season country bean variety	ARS, Khulshi, Chattogram
2071.	Collection and evaluation of drumstick germplasm in Chattogram region	To identify the promising drumstick germplasm to released as a variety	ARS, Khulshi, Chattogram
2072.	Performance of lettuce and spinach in recirculating hydroponics system in Chattogram region	To find out the feasibility of hydroponics system for vegetable production	ARS, Khulshi, Chattogram
2073.	Management of sooty mold of guava	To study the effect of sooty mold on yield and quality of guava and to improve the quality of guava through management practices	ARS, Khulshi, Chattogram
ARS, Rajbari, Dinajpur			
2074.	Performance of potato	To select suitable potato variety for	ARS, Rajbari,

Sl. No.	Research Title	Objective(s)	Location(s)
	varieties in char land of Dinajpur	charland of Dinajpur	Dinajpur
2075.	Production of maize and potato intercropping at Char land of Dinajpur	• To assess the economic performance of intercropping potato with long duration maize	ARS, Rajbari, Dinajpur
2076.	Performance of summer tomato varieties at early summer season in Dinajpur	• To find out suitable summer tomato varieties and appropriate time at early summer season in Dinajpur	ARS, Rajbari, Dinajpur
2077.	Growth and yield of chia influenced by sowing time and row spacing at different AEZs	• To find out optimum sowing time and row spacing of chia for higher grain yield under different AEZ	ARS, Rajbari, Dinajpur
2078.	Effect of planting time on yield of onion varieties at Dinajpur region	• To find out the suitable variety and optimum seedling transplanting time on the yield of onion bulb	ARS, Rajbari, Dinajpur
2079.	Development of alternate cropping pattern instead of Onion- Fallow- T <i>Aman</i> rice in Dinajpur	• Gap time utilization between Onion and T <i>Aman</i> rice • To introduce new cropping pattern and increase cropping	ARS, Rajbari, Dinajpur
2080.	Development of vegetable based cropping pattern for increasing cropping intensity and productivity in Medium high land of Dinajpur	• To develop alternate cropping pattern and increase cropping intensity as well as income of the farmers • To increase production and economic return of farmers	ARS, Rajbari, Dinajpur
2081.	Development of alternate cropping pattern against Potato – Maize – Fallow – T <i>Aman</i> for Dinajpur region	• To improve the existing cropping pattern for increasing cropping intensity and productivity by introducing new crops	ARS, Rajbari, Dinajpur
2082.	Development of alternate cropping pattern against Mustard–Fallow–T <i>aman</i> at Dinajpur region	• To improve the existing cropping pattern for increasing cropping intensity and productivity • To increase crop yield and farmers' income	ARS, Rajbari, Dinajpur
2083.	Development of alternate cropping pattern Mustard – Tomato – T <i>Aman</i> against existing cropping pattern Fallow – Late Tomato – T <i>Aman</i>	• To increase cropping intensity and productivity through improve cropping pattern against farmers existing practice and • To increase crop yield and farmer's income	ARS, Rajbari, Dinajpur
2084.	Breeder Seed Productiuon	• Onion, Mustard, Sunflower, Ground nut, Soyabean, Barley, Lentil, Mung, Tomato, Brinjal, Country bean, Capsicum, Broccoli, Chia, etc	ARS, Rajbari, Dinajpur
ARS, Benerpota, Satkhira			
2085.	Soil mulch frequency with alternate irrigations of saline and sweet water affects soil salinity, growth, and yield of sweet gourd	• To evaluate the dual effects of soil much with alternative irrigations of saline and fresh water on salt accumulation and sweet gourd yield	ARS, Binerpota, Satkhira
2086.	Study on soil properties variation through the soil	• To evaluate the spatial variability of physico-chemical properties through	Siven Upazilas of Satkhira District

Sl. No.	Research Title	Objective(s)	Location(s)
	profile in saline areas of seven upazilas of Satkhira district	the soil profile in saline areas of Satkhira	(Satkhira Sadar, Assasuni, Debhata, Tala, Kalaroa, Kaliganj, Shyamnagar)
2087.	Effect of vermicompost, biochar, and k nano particles on the growth, yield, and quality of tomato in coastal saline ecosystem	- To evaluate the combined effect of vermicompost, biochar, and K-Nano particles on the growth and development of tomato subjected to salinity - To investigate ROS level antioxidant enzymes in tomato treated in vermicompost, biochar, and K-Nano particles under salinity	ARS, BARI, Binerpota, Satkhira
2088.	Identifying suitable salinity management techniques for the summer tomato production program in south-western coastal Bangladesh	- To identify the best technique for salinity management - To maximize summer Tomato yield through management practices under the coastal saline environment	ARS, BARI, Binerpota, Satkhira
2089.	Response of seed priming by salicylic acid to germination and seedling growth of tomato under salt stress at lab condition	- To alleviate salinity-induced growth inhibition at the early stage of Tomato seedlings - To assess ROS scavenging antioxidant effect induced in Tomato seedlings by SA	ARS, BARI, Binerpota, Satkhira
Tuber Crop Research Sub Station, Bogra			
2090.	Regional Yield Trial (RYT) with Advanced Potato Lines (F1C8)	• Selection of suitable advanced lines for releases varieties	TCRSC, Bogura
2091.	Regional Yield Trial (RYT) of Exotic Potato Varieties (C3)	• Selection of suitable exotic varieties for release	TCRSC, Bogura
2092.	Secondary Yield Trial (SYT) with Potato Lines (F1C6)	• Selection of superior genotypes for advanced yield trial (open field)	TCRSC, Bogura
2093.	Advanced Yield Trial (AYT) with Hybridized Potato Lines (F1C7)	• To select stable advanced lines and finalized the lines for RYT	TCRSC, Bogura
2094.	Participatory Variety Selection of AYT Lines(F1C8)	• To select desirable lines for variety release	TCRSC, Bogura
2095.	Participatory Variety Selection of RYT Lines(F1C8)	• To select suitable advanced lines in collaboration with farmers and other stakeholders for releasing as varieties	TCRSC, Bogura
2096.	Participatory Variety Selection (PVS) of AYT Exotic Potato Varieties (C2)	• To select suitable exotic varieties in collaboration with farmers and other stakeholders for releasing varieties	TCRSC, Bogura
2097.	Participatory Variety Selection (PVS) of RYT Exotic Potato Varieties (C3)	• To select suitable exotic varieties in collaboration with farmers and other stakeholders for releasing varieties	TCRSC, Bogura
2098.	Preliminary Yield Trial	• To select superior exotic variety in	TCRSC, Bogura

Sl. No.	Research Title	Objective(s)	Location(s)
	(PYT) of Exotic Potato Varieties(C1)	contest of Bangladeshi environment	
2099.	Advanced Yield Trial (AYT) of Exotic Potato Varieties (C2)	• Selection of suitable exotic varieties for regional yield trial	TCRSC, Bogura
2100.	Advanced Yield Trial (AYT) of Late Blight Resistant (LBR) Potato Lines (CIP source)	• To select late blight resistant potato lines	TCRSC, Bogura
2101.	Participatory Variety Selection (PVS) of Late Blight Resistant (LBR) Potato Lines (CIP source)	• To select late blight resistant potato germplasm in collaboration with farmers and other stakeholders for releasing varieties	TCRSC, Bogura
2102.	Advanced Yield Trial (AYT) of Nutrient Enriched (Fe & Zn) Potato Lines (CIP source)	• To identify high yielding and nutritious clones • To enrich the germplasm which can be used in breeding program	TCRSC, Bogura
2103.	Participatory Variety Selection (PVS) of Nutrient (Fe & Zn) Enriched Potato Lines (CIP source)	• To select suitable nutrient, enrich varieties in collaboration with farmers and other stakeholders for releasing varieties	TCRSC, Bogura
2104.	Advanced yield trial of sweet potato germplasm	• N/A	TCRSC, Bogura
2105.	Regional yield trial of sweet potato clones	• To select high yielding sweet potato clones • To select dry fleshed, carotene and anthocyanin containing sweet potato clones	TCRSC, Bogura
2106.	Participatory variety selection trial of sweet potato clones	• Selection of suitable varieties obtained from RYT in collaboration with farmers • To know the farmers choice and opinion	TCRSC, Bogura
2107.	Collection and Maintenance of Aroids	• To increase the genetic resources of aroids • To maintain aroids germplasm for future use in breeding programme	TCRSC, Bogura
2108.	Advanced Yield Trial of Mukhikachu Lines	• To evaluate the Mukhikachu lines • To select high yielding Mukhikachu line(s) for utilization in next year	TCRSC, Bogura
2109.	Regional Yield Trial of Mukhikachu Lines	• To select high yielding Mukhikachu line(s) for releasing variety	TCRSC, Bogura
2110.	Regional Yield Trial of Rhizome Producing Panikachu Lines	• To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one(s) for release	TCRSC, Bogura
2111.	Regional Yield Trial of Stolon Producing Panikachu Lines	• To select high yielding stolon producing Panikachu line(s) for utilization in next year as a better one for release	TCRSC, Bogura
2112.	Participatory Variety Selection Trial of Stolon	• To select high yielding stolon producing Panikachu line(s) for	TCRSC, Bogura

Sl. No.	Research Title	Objective(s)	Location(s)
	Producing Panikachu Lines	utilization in next year as a better one for release with farmers' participation	
2113.	Participatory Variety Selection Trial of Rhizome Producing Panikachu Lines	• To select high yielding rhizome producing Panikachu line(s) for utilization in next year as a better one for release with farmers' participation	TCRSC, Bogura
2114.	Regional yield trial of yam (<i>Dioscorea</i> spp) germplasm	• To identify high yielding and commercially important genotype • To enrich the germplasm which can be used in breeding program	TCRSC, Bogura
2115.	Effect of Different Amended and Locally Available Compost for Quality Yield of BARI Mistialu-17	• To find out the best performing compost for BARI Mistialu-17 • To determine the suitable rate of compost for quality production of BARI Mistialu-17 • To evaluate the soil health after harvesting the crop	TCRSC, Bogura
2116.	Effect of Different Fertilizer Doses and Vine Nodes on the Growth and Yield of BARI Mistialu-17	• To determine a suitable fertilizer dose for BARI Mistialu-17 production • To determine suitable vine (desired number of nodes) for higher yield of BARI Mistialu-17 • To evaluate the combine effects of fertilizer dose and vine for quality yield of BARI Mistialu-17	TCRSC, Bogura
2117.	Effect of NPK on Growth and Yield of Panikachu Varieties	• To determine a suitable variety for enhancing the productivity of paniikachu • To determine a suitable dose of N, P and K fertilizers for enhancing the productivity of paniikachu, and • To evaluate the effects of varieties and fertilizers for enhancing the productivity and profitability of paniikachu	TCRSC, Bogura
2118.	Response of BARI Alu-90 to Irrigation at Different Growth Stages and Application of Potassium Fertilizer	• To evaluate the effects of irrigation and K fertilizer for enhancing the quality tuber, productivity and profitability of BARI Alu-90	TCRSC, Bogura
2119.	Development of potato based cropping pattern for increasing cropping intensity and productivity	• To increasing cropping intensity, productivity and proper utilization of land	TCRSC, Bogura
2120.	Efficacy of new fungicides against late blight of potato	• To select effective fungicide against late blight disease	TCRSC, Bogura
2121.	Efficacy of fungicides against leaf blight of Panikachu and Mukhikachu	• To select effective fungicides against Phytophthora leaf blight • To reduce the yield due to the disease	TCRSC, Bogura
2122.	Production and Preservation of Sweet Potato Vines	• Ensuring the demand of quality seeds throughout the country	TCRSC, Bogura
2123.	Production and Preservation	• Ensuring the demand of quality seeds	TCRSC, Bogura

Sl. No.	Research Title	Objective(s)	Location(s)
	of Aroids Seeds	throughout the country	
2124.	Selection and Dissemination of Late Blight Resistant Variety from Existing Mega Varieties	• To select promising late blight resistant potato variety(s) from existing late blight resistant varieties	TCRSC, Bogura
2125.	Adaptive Trial with Anthocyanin rich potato varieties (BARI Alu-101 & 102)	• To popularize the newly released BARI Alu-101 and BARI Alu-102 potato varieties • To collect the feedback of the newly released varieties	Shibgonj, Bogura
2126.	Adaptive trials with sweet potato varieties	• To popularize the newly released improved sweet potato varieties • To collect the feedback of the newly released varieties	Sonatola, Bogura
2127.	Demonstration of BARI Released Varieties of Panikachu	• To study the performance of the improved varieties of Panikachu at farmers' level • To know the farmer's choice among the varieties	Shibgonj, Bogura
2128.	Demonstration of BARI released varieties of Olkachu	• To study the performance of the improved varieties of Olkachu at farmers' level	Shibgonj, Bogura
2129.	Validation Trial of Newly Developed Red Skin Potato Varieties in the Farmers Field	• Dissemination of red skin new variety (s) among the farmers • To increase production and income through technology dissemination	Shibgonj, Bogura
2130.	Performance of Newly Developed High Yielding Early Potato Variety in Banana-Potato Intercropping System	• Dissemination of early variety(s) among the farmers • To increase production and income	Shibgonj, Bogura
2131.	Effect of Intercropping Potato with Onion	• To find out Effective cropping pattern of Potato with Onion	TCRSC, Bogura
2132.	Performance of Stolon Producing Panikachu Varieties in Field Condition	• To validate stolon producing panikachu varieties among the farmers • To collect the feedback of the newly released varieties	Joypurhat
2133.	Performance of BARI Released Late Blight Potato Varieties in Joypurhat	• To evaluate the performance of LB resistance varieties in late blight prone areas • To collect the feedback of the newly released varieties	Joypurhat
Tuber Crop Research Sub Station, Munshiganj			
2134.	Secondary yield trial (syt) with potato lines (flc6)	• Selection of superior genotypes for advanced yield trial (open field)	TCRSC, Munshiganj
2135.	Advanced yield trial (ayt) with hybridized potato lines (flc7)	• To identify clones suitable for export and processing	TCRSC, Munshiganj
2136.	Advanced yield trial (ayt) of exotic potato varieties (c2)	• Selection of suitable varieties for Table, Export and Processing Purposes	TCRSC, Munshiganj
2137.	Regional yield trial (ryt) with advanced potato lines	• Selection of suitable varieties for release	TCRSC, Munshiganj

Sl. No.	Research Title	Objective(s)	Location(s)
	(f1c8)		
2138.	Regional yield trial (ryt) of exotic potato varieties (c3)	• Selection of suitable varieties for release	TCRSC, Munshiganj
2139.	Preliminary yield trial (pyt) of exotic potato varieties (c1)	• Selection of suitable varieties for release	TCRSC, Munshiganj
2140.	Advanced yield trial (ryt) of nutrient enriched (fe & zn) potato lines (cip source)	• Selection of suitable varieties for release	TCRSC, Munshiganj
2141.	Participatory variety selection	• To select suitable varieties in collaboration with farmers and other stakeholders for releasing varieties	TCRSC, Munshiganj
2142.	Evaluation of BARI alu-7 (diamant) from different sources on common scab disease development at munshiganj region	• To find out the safe sources of seed tuber of BARI Alu-7 (Diamant) to produce common scab free potato • To grow awareness about the common scab diseases among the farmers TCRSC, Munshiganj	TCRSC, Munshiganj
2143.	Evaluation of potato varieties in raise bed cultivation for adverse climatic condition at munshiganj region	• To select suitable potato variety (es) for the adverse climatic condition and make the potato production more profitable	TCRSC, Munshiganj
2144.	Effect of spacing on seed size potato tuber productioun under different varieties	• To find out suitable spacing for optimum seed size potato tuber (28-40mm) production	TCRSC, Munshiganj
2145.	Controlling of potato common scab development by sulphur and irrigation regimes in munshiganj region	• To find out the cultural management of potato common scab using irrigation regimes and application of sulphur-containing fertilizers	TCRSC, Munshiganj
2146.	Effect of integrated fertilizer management on productivity and profitability of organic potato production	• Tto select safe and profitable potato production system through application of bio-fertilizers under organic management practices	TCRC, Gazipur
2147.	Effect of alternative inhibitors on sprout suppression of stored potato in ambient condition	• To find out the superior alternative(s) to toxic CIPC for potato sprout control in ambient storage condition; • To assess the efficacy of botanical sprout inhibitors for extending keeping quality of safe organic potato in natural condition	TCRSC, Munshiganj
2148.	Integrating biochar and vermicompost on yield and quality of potato	• To find out the suitable combination of inorganic fertilizers and organic fertilizers with proper planting technique	TCRSC, Munshiganj
2149.	Relaying of different crops with potat at munshigonj region	• To find out suitable intercrop combination for higher profitability and economic return	TCRSC, Munshiganj

Sl. No.	Research Title	Objective(s)	Location(s)
ARS, Gopalganj			
2150.	Screening of BARI Developed Tomato Varieties in Gopalganj Region	• To find out the suitable Tomato variety in Gopalganj region	ARS Gopalganj
2151.	Effect of Vermicompost Stimulated Integrated Nutrient Management on The Yield of Onion	• To find out the combination effect of organic and inorganic fertilizers on the yield of onion	ARS Gopalganj
2152.	Preliminary Yield Trial of <i>Brassica Rapa</i> L	• To find out the short duration mustard variety	ARS Gopalganj
2153.	Regional Yield Trial of <i>Brassica Rapa</i> L	• To find out the short duration mustard variety	ARS Gopalganj



BANGLADESH RICE RESEARCH INSTITUTE

BRRI

Bangladesh Rice Research Institute

Sl. No.	Research Title	Objectives(s)	Location(s)
PLANT BREEDING DIVISION			
Project 1: Development of Upland Rice (B. Aus and Jhum rice)			
1.	Hybridization	• To create variations for the development of new genotypes with high yield, drought tolerant, adaptable to direct seeded condition with acceptable grain quality	Gazipur
2.	Confirmation of F ₁	• To confirm the crosses as true F ₁ s and use of the selected F ₁ s to produce F ₂ seeds	Gazipur
3.	Segregating RGA (F ₂ -F ₅)	• Rapid advancement of segregating population for shortening breeding cycle through field RGA	Gazipur
4.	Line Stage Testing (LST)	• To select uniform genotypes in terms of plant height and days to flowering with key target traits	Gazipur
5.	Observational Yield Trial (OYT)	• Selection of superior lines with desired agronomic characters	Gazipur
6.	Preliminary Yield Trial (PYT)	• Initial evaluation of breeding lines for yield potential in replicated trial	Gazipur
7.	Advanced Yield Trial (AYT)	• Evaluation of breeding lines for yield potential in replicated trial	Gazipur
8.	Maintenance breeding	• Maintaining seed purity and seed increase of landraces	Gazipur
Project 1A: Development of Jhum Rice			
9.	Hybridization	• To develop high yielding rice variety with low (10-19%) to high (25%) grain amylose content and drought tolerance suitable for Jhum cultivation	Gazipur
10.	Confirmation of F ₁	• To confirm the cross as true F ₁ s and use of the selected F ₁ s to produce F ₂ seeds	Gazipur
11.	Segregating RGA (F ₂ -F ₅)	• Rapid advancement of segregating population for shortening breeding cycle through field RGA	Gazipur
12.	Observational Yield Trial (OYT)	• To select genetically fixed lines based on uniformity in morpho-agronomic characters having high yield with low (10-19%) to high (25%) grain amylose content and drought tolerance suitable for Jhum cultivation	Gazipur
13.	Preliminary Yield Trial (PYT)	• Evaluation of initial yield potential in replicated plots.	Gazipur
14.	Advanced Yield Trial (AYT)	• Advanced evaluation of promising entries in replicated trial under targeted hill condition	Chottogram hill districts (Khagrachari and Bandarban)

Sl. No.	Research Title	Objectives(s)	Location(s)
Project 2: Development of Transplanted Aus (T. Aus) Rice			
15.	Hybridization	• Introgression of earliness, pre-harvest sprouting tolerance and tolerance to high temperature into high yielding varieties	Gazipur
16.	Growing of F ₁ populations	• To confirm the crosses as true hybrid	Gazipur
17.	Segregating population	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
18.	LST	• Screening of genetically fixed breeding lines for homogeneity, plant type, grain yield potential, grain quality and other attributes	Gazipur
19.	Observational Yield Trial (OYT)	• Selection of homogeneous breeding lines with acceptable grain quality having high yield with good plant type	Gazipur, Cumilla, Rajshahi, & Rangpur
20.	Advanced Yield Trial (AYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks under on station condition	Gazipur, Cumilla, Rajshahi, & Rangpur
21.	Regional Yield Trial (RYT#1-Favorable &2-BB Resistance)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	BRRI Gazipur, Cumilla, Rangpur, Rajshahi, Kushtia, Sonagazi
22.	Maintenance and seed increase of key parents	• To maintain genetic purity of parent materials with seed production	
Project 3: Development of Shallow Flooded Rice Varieties			
23.	Hybridization	• Generation of genotypes in combination with slow elongation, high yield and submergence tolerance for shallow flooded water sub-ecosystem (flood water depth 0.5-1.0 m)	Gazipur
24.	F ₁ confirmation	• Confirmation of crosses with introgression of genes for slow elongation, high yield and submergence tolerance for shallow flooded deep-water sub-ecosystem (flood water depth 0.5-1.0 m) into improved genetic background	Gazipur
25.	Segregating population (F2-F5)	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
26.	Line Stage Testing	• Screening of genetically homozygous lines for homogeneity, grain quality, grain yield potential	Gazipur
27.	Observational Yield Trial (OYT)	• Evaluation of tall breeding lines	Gazipur
28.	Advanced Yield Trial (AYT)	• Yield evaluation of advanced breeding lines in replicated trials for shallow flooded sub-ecosystem	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
29.	Maintenance and seed increase of land races	• Maintenance of seed purity and seed increase of land races	Gazipur
Project 4: Development of Rainfed Lowland Rice (RLR), T. Aman			
30.	Hybridization	• Introgression of genes from diverged genetic background for improvement of standard T. Aman varieties	Gazipur
31.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
32.	Maintenance of Parents	• To ensure seed safety of different quality genotypes and for future use in the hybridization or in the experiment as check variety	
33.	FRGA	• Generation Advance	Gazipur
34.	Line Stage Test (LST) Trial	• Identification of uniform lines based on plant height, flowering date and grain type	Gazipur
35.	Observational Yield Trial (OYT#1,2&3)	• Selection of genetically fixed breeding lines with acceptable grain quality having high yield potential with good plant type	Gazipur, Rangpur and Cumilla
36.	Trait paneling of OYT lines	• Assessment of presence/ availability of favorable alleles in breeding lines/population	Out Sourcing
37.	Advanced Yield Trial (AYT#1 &2)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur and Cumilla
38.	Regional Yield Trial (RYT#1&2)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-farm condition	Total 7-8 Regional Stations
Project 5: Improvement of deep-water rice			
39.	Hybridization	• To develop semi deep water/stagnant rice varieties with strong stems, higher grain (3.5- 4.5 t/ha) and straw (14 - 15 t/ha) yield, moderate elongation, drought and submergence tolerance. • To develop deep-water rice varieties with facultative type elongation and drought tolerance, higher grain (2.5- 3.5 t/ha) and straw (10 - 12 t/ha) yields. • To develop materials having perennial growth habit, vegetative propagation ability, fast growth and tallness, higher grain and straw yield.	Gazipur
40.	F ₁ confirmation	• Confirmation of crosses with introgression of genes for slow and fast elongation, higher grain and straw yield for semi and deep flooded environment	Gazipur
41.	Segregating population	• Advancement of segregating generations under rainfed conditions	Gazipur
42.	Advanced Line Adaptive	• On-farm evaluation of advanced breeding	10 locations

Sl. No.	Research Title	Objectives(s)	Location(s)
	Research Trial (Re-ALART)	lines compared to standard checks for testing their specific and general adaptability	(Locations will be selected by ARD)
Project 6: Development of Salt Tolerant Rice (T. Aman)			
43.	Hybridization	• Introgression of salinity tolerant traits/ gene(s) in high yielding varieties suitable for RLR ecosystem	Gazipur
44.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
45.	Quality check (QC) analysis of F ₁ s		Gazipur
46.	FRGA	• Generation Advance	Gazipur
47.	Line Stage Test (LST) Trial	• Identification of uniform lines based on plant type, flowering uniformity and grain type	Satkhira/ Gazipur
48.	Observational Yield Trial (OYT)	• Selection of genetically fixed salt tolerant breeding lines with acceptable grain quality having high yield potential with good plant type	Gazipur, Satkhira and Khulna
49.	Trait paneling of OYT lines	• Assessment of presence/ availability of favorable alleles in breeding lines/population	Out Sourcing
50.	Grain quality analysis of OYT, PYT, AYT & RYT lines	• To evaluate key economic traits based on consumers preference	GQN
51.	Preliminary Yield Trial (PYT1,2 &3)	• Initial yield evaluation of advanced lines compared to standard checks in replicated trial	Gazipur, Satkhira and Khulna
52.	Advanced Yield Trial (AYT#1&2)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Satkhira and Khulna
53.	Regional Yield Trial (RYT#1,2,3)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-farm condition	Gazipur, Satkhira and Khulna 5-6 locations)
54.	Line augmentation	• To develop diverse pre-breeding materials with combination of multiple alleles of desired/important traits	Gazipur
55.	Advanced Line Adaptive Research Trial (ALART)	• To evaluate the yield potential and adaptability of the advanced lines at farmers' field in different agro-ecological zones. • To get feedback about the advantages and disadvantages of the selected materials from farmers and Extension personnel. • To select suitable genotype(s) for proposed variety trial (PVT).	10 locations (Location will be selected by ARD)
56.	Proposed Variety Trial (PVT)	• To evaluate advanced breeding lines compared to standard checks in on-farm	Total 10 locations (Locations will be

Sl. No.	Research Title	Objectives(s)	Location(s)
		and on-station conditions in different regions by the NSB team for recommendation to release a new variety.	selected by SCA)
57.	Maintenance breeding	• Maintenance of donors/local and elite parents for future use in the hybridization or in the experiment as check variety	Gazipur
Project 6: Development of Salt Tolerant Rice (Boro)			
58.	Hybridization	• Introgression of salinity tolerant genes in genetically advanced genotypes	Gazipur
59.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
60.	Quality check (QC) analysis of F ₁ s	• To confirm the crosses as true hybrid	Gazipur
61.	FRGA	• Generation Advancement	Gazipur
62.	Line Stage Testing (LST)	• Identification of uniform lines based on plant height, flowering date and grain type	Satkhira/ Gazipur
63.	Observational Yield Trial (OYT)	• Selection of breeding lines with strong plant type, uniformity in heading, salinity tolerance in the field condition	Gazipur, Satkhira and Khulna
64.	Trait paneling of OYT lines	• Assessment of presence/ availability of favorable alleles in breeding lines/population	Out Sourcing
65.	Grain quality analysis of OYT, PYT, AYT & RYT, ALART lines	• To evaluate key economic traits based on consumers preference	GQN
66.	Preliminary Yield Trial (PYT1 &2)	• Initial yield evaluation of advanced lines compared to standard checks in replicated trial	Gazipur, Satkhira and Khulna
67.	Advanced Yield Trial (AYT#1,2,3)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Satkhira and Khulna
68.	Regional Yield Trial (RYT#1,2)	• To evaluate specific and general adaptability of the early maturity/shorter duration (GD: ~140 days or less) advanced breeding lines as compared with standard checks in on-station and/ on-farm (salinity) condition	Gazipur, Satkhira, Gopalganj, Bagerhat and Khulna 6-7 locations)
69.	RYT cum ALART	• To evaluate specific and general adaptability of the early maturity/shorter duration (GD: ~140 days or less) advanced breeding lines as compared with standard checks in on-station and/ on-farm (salinity) conditions	Gazipur, Bhanga, Rajshahi, Cumilla, Feni, Noakhali, Gopal ganj, Bagerhat, Satkhira and Khulna (10 locations)
70.	Advanced Line Adaptive Research Trial (ALART)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability in different agro-ecological zones (AEZs) to nominate for proposed	Gazipur, Feni, Noakhali, Gopal ganj, Bagerhat, Satkhira and Khulna

Sl. No.	Research Title	Objectives(s)	Location(s)
		variety trial (PVT).	(10 locations)
71.	Proposed Variety Trial (PVT)	• To evaluate advanced breeding lines compared to standard checks in on-farm and on-station conditions in different regions by the NSB team for recommendation to release a new variety.	Total 10 locations (Locations will be selected by SCA)
72.	Maintenance of parent	• Maintenance of parent for future use in the hybridization or in the experiment as check variety	Gazipur
Project-7: Development of Premium Quality Rice (PQR) T. Aman			
73.	Hybridization	• Introgression of genes of small grain (national & international grade) with or without aroma into high yielding rice genetic background	Gazipur
74.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
75.	Pedigree nursery (advanced through FRGA)	• Advancement of progenies with improved plant type, earliness, premium quality grain and high yield potential	Gazipur
76.	Line Stage Testing	• Evaluation of genetically homozygous lines for homogeneity, grain quality, grain yield potential and Anthocyanin gene	Gazipur
77.	Observational Yield Trial (OYT)	• Selection of genetically fixed lines with fine grain properties having high yield with good plant type	Gazipur
78.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur
79.	Advanced Yield Trial (AYT)	• Advanced yield evaluation of advanced lines compared to standard checks	Gazipur
80.	Maintenance of parents	• Maintenance of parent for future use in the hybridization or in the experiment as check variety	Gazipur
Project-7a: Development of Photosensitive Rice, T. Aman			
81.	Hybridization	• Development of strong photo-sensitive (Nizersail type) and medium photo-sensitive (Gainza type) premium quality rice for T. Aman season	Gazipur
82.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
83.	Pedigree nursery (advanced through FRGA)	• Advancement of progenies with improved plant type, earliness, premium quality grain, high photosensitivity and high yield potential	Gazipur
84.	Observational Yield Trial (OYT)	• Selection of genetically fixed lines having high yield with photosensitivity	Gazipur
85.	Advanced Yield trial (AYT)	• Advanced yield evaluation of advanced lines compared to standard checks	Gazipur
86.	Regional Yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
		station condition	
Project-7a: Development of Premium Quality Rice (PQR) Boro			
87.	Hybridization	• Introgression of extra-long grain with or without aroma into high yielding rice genetic background	Gazipur
88.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
89.	FRGA nursery	• Generation Advance	Gazipur
90.	Line Stage Testing (LST)	• Identification of uniform lines based on plant height, flowering date and grain type	Gazipur
91.	Observational Yield Trial (OYT#1, 2, 3 & 4)	• Selection of homogeneous breeding lines with fine grain properties having high yield with good plant type	Gazipur, Rangpur, Rajshahi
92.	Advanced Yield Trial (AYT#1, 2 & 3)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur, Rajshahi
93.	Regional Yield Trial (RYT# 1, 2 & 3)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Gazipur, Rangpur, Dinajpur, Rajshahi, Naogaon, Satkhira, Kushtia, Cumilla.
94.	Advanced Line Adaptive Research Trial (ALART)	• Evaluation of specific and general adaptability under on farm condition.	Total 10 locations (Location will be selected by ARD)
95.	G by E interaction of Basmati type rice on phsico-chemical properties	• Evaluation of Basmati type cultivar on different environment for adaptability and changes on physico-chemical properties.	Gazipur, Rangpur (Rangpur, Dinajpur, Panchagarh), Rajshahi (Rajshahi, Naogaon), Kushtia (Kushtia, Chuadanga), Barishal, Satkhira, Gopalganj, Sonagazi, Cumilla & Habiganj
96.	Maintenance of parents	• Maintenance of parent for future use in the hybridization or in the experiment as check variety	Gazipur
Project 7b: Development of Premium Quality Rice (Black Rice)			
97.	Hybridization	• Introgression of antioxidant properties with or without aroma into high yielding rice genetic background	Gazipur
98.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
99.	FRGA	• Generation Advance	Gazipur
100.	Line Stage Testing (LST)	• To select uniform genotypes in terms of plant height and days to flowering with key target traits	Gazipur
101.	Observational Yield Trial (OYT#1, 2, 3 & 4)	• Selection of superior lines with desired agronomic characters	Gazipur
102.	Preliminary Yield Trial	• Initial yield evaluation of advanced lines	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	(PYT)	compared to standard checks	
103.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Total 10 locations
Project 8: Development of Rice Varieties for Favorable Boro Environment			
104.	Hybridization	• To create variations for the development of new genotypes with high yield and acceptable grain quality	Gazipur
105.	Confirmation of F ₁	• To confirm the crosses as true F ₁ s and use of the selected F ₁ s to produce F ₂ seeds and use in making different types of crosses	Gazipur
106.	Segregating RGA (F ₂ -F ₆)	• Generation Advance	Gazipur
107.	Line Stage Testing (LST)	• To select uniform genotypes in terms of plant height and days to flowering with key target traits	Gazipur
108.	Observational Yield Trial (OYT)	• Selection of superior lines with desired agronomic characters	Gazipur, Cumilla, Rajsahi Rangpur
109.	Advanced Yield Trial (AYT)	• Evaluation of breeding lines for yield potential in multi-locations in replicated trial	Gazipur, Cumilla, Rajsahi
110.	Regional Yield Trial (RYT#1, 2 & 3)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Total 9 locations
111.	Advance Line Adaptive Research Trial (ALART)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	Total 10 locations (Location will be selected by ARD)
Project 9: Development of Cold Tolerant Rice			
112.	Hybridization	• To create variations for the development of new genotypes with cold tolerance at reproductive and seedling stage with acceptable grain quality	Gazipur
113.	Confirmation of F ₁	• To confirm the crosses as true F ₁ s and use of the selected F ₁ s to produce F ₂ seeds and use in making different types of crosses	Gazipur
114.	Segregating RGA (F ₂ -F ₆)	• Generation Advance	Gazipur
115.	Line Stage Testing (LST)	• To select uniform genotypes in terms of plant height and days to flowering with key target traits	Gazipur
116.	Observational Yield Trial (OYT#1,2, QTL & Haor) [Cold stress (22 Oct seeding-CS1 & 1 Nov-CS2) & non-stress (15 Nov seeding)]	• Selection of superior and cold tolerant lines under natural cold condition	Gazipur, Habiganj

Sl. No.	Research Title	Objectives(s)	Location(s)
117.	Advanced Yield Trial (AYT)	• Evaluation of breeding lines for yield potential in multi-locations in replicated trial	Gazipur, And 6 Haor sites of Nikli and Taherpur
118.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station condition	Nikli (3 loc) Taherpue (3 loc) and Habiganj (4 loc)
Project 10: Development for Zinc Enriched Rice, T. Aman			
119.	Hybridization	• Development of new genotypes with high zinc and iron content along with resistance to major insect pests and diseases, abiotic stress tolerance and acceptable grain quality	Gazipur
120.	Confirmation of F ₁	• To confirm the crosses as true F ₁ s and use of the selected F ₁ s to produce F ₂ seeds and in different types of crosses	Gazipur
121.	Pedigree nursery	• To select progenies with emphasis on modern plant type, large panicle, more grains in panicle, lodging resistance and acceptable grain quality	Gazipur
122.	Observational Yield Trial (OYT)	• Selection of homogeneous breeding lines with desirable agronomic characters with less or no unproductive tiller, intermediate plant height, short growth duration, acceptable grain quality and high yield potential	Gazipur
123.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur
124.	10.6 Secondary Yield Trial (SYT)	• Confirmation of yield potentiality of the advanced lines compared to standard checks	Gazipur
125.	Regional yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	All BRRI R/S and Gaz
126.	Advanced Lines Adaptive Research Trial (ALART)	• Evaluation of specific and general adaptability under on farm condition	10 locations (selected by ARD)
Project 10: Development for Zinc Enriched Rice, Boro			
127.	Hybridization	• Development of new genotypes with high zinc and iron content along with resistance to major insect pests and diseases, abiotic stress tolerance and acceptable grain quality	Gazipur
128.	Confirmation of F ₁	• To confirm the crosses as true F ₁ s and use of the selected F ₁ s to produce F ₂ seeds and in different types of crosses	Gazipur
129.	Pedigree nursery	• To select progenies with emphasis on modern plant type, large panicle, more	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
		grains in panicle, lodging resistance and acceptable grain quality	
130.	Observational Yield Trial (OYT)	• Selection of homogeneous breeding lines with desirable agronomic characters with less or no unproductive tiller, intermediate plant height, short growth duration, acceptable grain quality and high yield potential	Gazipur
131.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	All BRRI R/S and Gazipur
132.	Secondary Yield Trial (SYT)	• Confirmation of yield potentiality of the advanced lines compared to standard checks	Gazipur
133.	Regional yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	Gazipur
Project 11: Development of Insect Resistant Rice (IRR), T. Aman			
134.	Hybridization	• Introgression of genes of BPH and gall midge into high yielding rice genetic background	Gazipur
135.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
136.	Quality check (QC) analysis of F ₁ s	• To confirm the crosses as true hybrid	Gazipur
137.	Line Augmentation	• Introgression of <i>bph</i> genes (<i>bph17</i> and <i>bph32</i>) to develop advanced breeding lines	Gazipur
138.	FRGA	• Generation Advance	Gazipur
139.	Line Stage Testing (LST)	• Identification of uniform lines based on good plant type, flowering date and grain type	Gazipur
140.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with resistant to BPH/GM, earliness having high yield with good plant type	Gazipur, Rajshahi, Cumilla
141.	Trait paneling of OYT lines	• Assessment of presence/availability of favorable alleles in breeding lines/population	Out sourcing
142.	Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur, Cumilla
143.	Grain quality analysis of OYT, PYT & AYT lines	• To evaluate key economic traits based on consumers preference	Gazipur
144.	Advanced Yield Trial (AYT)	• To evaluate/confirm yield performance of the advance breeding lines as compared with standard checks at multi-locations trials	Gazipur, Rajshahi, Cumilla
145.	Screening breeding lines for BPH and GM resistance	• To identify new sources of BPH and GM resistance	Entomology Division, BRRI
146.	Maintenance and seed increase of key parents.	• To maintain genetic purity of parent materials with seed production	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
Project 11: Development of Insect Resistant Rice (IRR), Boro			
147.	Hybridization	• Introgression of genes of BPH and gall midge into high yielding rice genetic background	Gazipur
148.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Gazipur
149.	Quality check (QC) analysis of F ₁ s	• To confirm the crosses as true hybrid	Gazipur
150.	Line Augmentation	• Introgression of <i>bph</i> genes (<i>bph17</i> and <i>bph32</i>) to develop advanced breeding lines	Gazipur
151.	FRGA	• Generation Advance	Gazipur
152.	Line Stage Testing (LST)	• Identification of uniform lines based on good plant type, flowering date and grain type	Gazipur
153.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with resistant to BPH/GM, earliness having high yield with good plant type	Gazipur, Rangpur, Cumilla
154.	Trait paneling of OYT lines	• Assessment of presence/availability of favorable alleles in breeding lines/population	Gazipur
155.	Grain quality analysis of OYT, PYT & AYT lines	• To evaluate key economic traits based on consumers preference	Out Sourcing
156.	11.10 Preliminary Yield Trial (PYT)	• Initial yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur, Cumilla
157.	Advanced Yield Trial (AYT)	• To evaluate/confirm yield performance of the advance breeding lines as compared with standard checks at multi-locations trials	Gazipur, Rangpur, Cumilla
158.	Screening breeding lines for BPH and GM resistance	• To identify new sources of BPH and GM resistance	Entomology Division, BRRI
159.	Maintenance and seed increase of key parents.	• To maintain genetic purity of parent materials with seed production	Gazipur
Project-12: Development of Disease Resistant Rice (BB, Blast & RTV), T. Aman			
160.	Hybridization	• Introgression of high yield, lodging tolerance and disease resistance trait for BB, Blast & RTV	Gazipur
161.	F ₁ confirmation	• To confirm the crosses as true hybrid	Gazipur
162.	Segregating population	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
163.	Observational Trial (OYT)	• Selection of genetically fixed breeding lines with strong plant type, uniformity in heading, good PACP in the field condition and tolerance to disease (BB & Blast) in artificial inoculation condition	Gazipur, Cumilla, Rangpur & Rajshahi
164.	Preliminary Yield Trial (PYT#1) (GD <120 days)	• Initial yield evaluation of advanced breeding lines in replicated trials for BB resistance with short duration	Gazipur, Cumilla, Rangpur & Rajshahi
165.	Preliminary Yield Trial	• Initial yield evaluation of advanced	Gazipur, Cumilla,

Sl. No.	Research Title	Objectives(s)	Location(s)
	(PYT#2) (GD >120 days)	breeding lines in replicated trials for BB resistance with medium duration	Rangpur & Rajshahi
166.	Multi-location Trial (MLT)	• Confirmatory yield evaluation of advanced lines compared to standard checks in different locations	Gazipur, Cumilla (2), Rangpur, Rajshahi, Bogura, Satkhira
167.	Regional yield Trial (RYT)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	All BRRI R/S and Gazipur
168.	Maintenance and seed increase of key parents.	• To maintain genetic purity of parent materials with seed production	Gazipur
Project 12: Development of Disease Resistant Rice (BB, Blast), Boro			
169.	Hybridization	• Introgression of high yield, lodging tolerance and disease resistance trait for BB & Blast	Gazipur
170.	F ₁ confirmation	• To confirm the crosses as true hybrid	Gazipur
171.	Segregating population	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
172.	Line Stage Testing (LST)	• Identification of uniform lines based on good plant type, flowering date and grain type	Gazipur
173.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with strong plant type, uniformity in heading, good PACP in the field condition and tolerance to disease (BB & Blast) in artificial inoculation condition	Gazipur, Cumilla, & Rajshahi
174.	Advanced Yield Trial (AYT)	• To evaluate/confirm the yield performance of the advanced breeding lines as compared with standard checks at multi-locations trials	Gazipur, Cumilla, & Rangpur
175.	Regional yield Trial (RYT#1 for BB) RYT#2 for BB-Blast RYT#3 for Blast (SD) RYT#4 for Blast (MD) RYT#5 for Blast (LD)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	All BRRI R/S and Gazipur
176.	Advance Line Adaptive Research Trial (ALART 1 & 2)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	10 locations (Locations will be selected by ARD)
177.	Proposed Variety Trial (PVT) (PVT 1: Short duration & PVT 2: Long duration)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	10 locations (Locations will be selected by SCA)
178.	Proposed Variety Trial (PVT) (BB and Blast-Short	• On-farm evaluation of advanced breeding lines compared to standard checks for	10 locations (Locations will be

Sl. No.	Research Title	Objectives(s)	Location(s)
	duration)	testing their specific and general adaptability	selected by SCA
179.	Maintenance and seed increase of key parents.	• To maintain the genetic purity of parent materials with seed production	Gazipur
Project-13: Development of Submergence and Water Stagnation Tolerance Rice Varieties			
180.	Hybridization	• Introgression of submergence and medium stagnant water tolerant genes into modern genetic background with high yield potential, short/long growth duration, weakly/strongly photoperiod sensitivity, grain quality etc.	Gazipur
181.	F ₁ confirmation	• Confirmation of crosses with introgression of genes for submergence tolerance (particularly <i>SUB1</i>) and water stagnation tolerance into improved genetic background	Gazipur
182.	Segregating population advanced through FRGA	• Advancement of segregating generations following single seed descent-based rapid generation advanced techniques	Gazipur
183.	Line Stage Testing	• Screening of genetically homozygous lines for homogeneity, grain quality, grain yield potential and <i>SUB1</i> -specific SNP markers	Gazipur
184.	Observational Yield Trial (OYT))	• Initial evaluation of the genotypes with tolerance against controlled submergence, rainfed and flood prone farmers field conditions	Gazipur and Rangpur
185.	Preliminary Yield Trial (PYT)	• Preliminary evaluation of yield and survivability of promising breeding lines in replicated trial under controlled submergence and flash flood prone farmers' field.	Gazipur and Rangpur
186.	Advanced Yield Trial (AYT)	• Advanced evaluation of yield and survivability of promising breeding lines in replicated trial under controlled submergence and flash flood prone farmers' field.	Gazipur and Rangpur
187.	PVS Trial/ Regional Yield Trial (RYT)	• Evaluation of genotypes in the real submergence and/or medium stagnation prone environments of the farmers' field with the participation of farmers under the management practices of researchers	Gazipur and Rangpur
188.	Proposed Variety Trial (PVT)	• On-farm evaluation of proposed genotype by the NSB team for recommendation to release as a new variety.	Sites will be selected by SCA
189.	Maintenance of submergence and Stagnant flood tolerant genotypes	• To ensure seed safety of submergence tolerant genotypes	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
190.	Screening and evaluation of Core parental material for submergence tolerance	• Screening of Core parental material for submergence tolerance	Gazipur
Project 14: Development of Drought Tolerant Rice (T. Aman)			
191.	Hybridization	• Introgression of drought tolerance gene into high yielding rice genetic background	Gazipur
192.	Confirmation of F ₁	• To confirm the crosses as true F ₁ and use of the selected F ₁ s to produce F ₂ seeds and in different types of crosses	Gazipur
193.	Maintenance of Parents	• To ensure seed safety of different quality genotypes and for future use in the hybridization or in the experiment as check variety	Gazipur
194.	FRGA	• Generation Advance	Gazipur
195.	Observational Yield Trial (OYT#1&2)	• Selection of homogeneous breeding lines with drought tolerant quality having high yield with good plant type	Gazipur, Rangpur and Rajshahi
196.	Trait paneling of OYT lines	• Assessment of presence/ availability of favorable alleles in breeding lines/population	Out Sourcing
197.	Advanced Yield Trial (AYT#1 &2)	• Confirmatory yield evaluation of advanced lines compared to standard checks	Gazipur, Rangpur and Rajshahi
198.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-farm condition	Rajshahi R/S (Tanore, Paba, Chapainawabganj), Rangpur (Sadar, Nilphamari, Kurigram), Kushtia
Project-15: Development of Water Saving Rice			
199.	Hybridization	• Introgression of high yielding, water saving and lodging tolerance genes	Gazipur
200.	F ₁ confirmation	• To confirm the crosses as true hybrid	Gazipur
201.	Segregating population	• Advancement of segregating generations following single seed descent-based RGA method	Gazipur
202.	Observational Yield Trial (OYT)	• Selection of genetically fixed breeding lines with strong plant type, uniformity in heading, good PAcp in the field condition	Gazipur
203.	Preliminary Yield Trial (PYT#1) (GD <150 days)	• Initial yield evaluation of advanced breeding lines in replicated trials for water saving with short duration	Gazipur
204.	Preliminary Yield Trial (PYT#2) (GD <150 days)	• Initial yield evaluation of advanced breeding lines in replicated trials for water saving with short duration	Gazipur
205.	Regional yield Trial (RYT_AWD)	• Evaluation of agronomic performance, specific and general adaptability under on station condition	10 BRRI R/S

Sl. No.	Research Title	Objectives(s)	Location(s)
Project 16: International Network for Genetic Evaluation of Rice (INGER), T. Aman			
206.	International Rainfed Lowland Rice Observational Nursery Module 1 (IRLON)-3 sets	• Sharing germplasm and breeding lines through international platform for the acceleration of rice improvement	Gazipur
207.	International Rice Soil Stress Tolerance Nursery (IRSSTN) - Module 1 (Coastal salinity, wet season)-1set	• Do	Gazipur, Rangpur, Barishal
208.	International Rice Brown Plant Hopper Nursery (IRBPN)- 2 sets	• Do	Satkhira
209.	International Rice Tungro Nursery (IRTN) -2 sets	• Do	Gazipur
210.	International Rice Blast Nursery (IRBN)- 2 sets	• Do	Gazipur
211.	International Rice Bacterial Blight Nursery (IRBBN)-2 sets	• Do	
212.	International Rice Submergence Tolerance Nursery for Flood prone environment (IRSTN-FP)-1 set	• Do	Gazipur
Project 16: International Network for Genetic Evaluation of Rice (INGER), Boro			
213.	International Irrigated Rice Observational Nursery (IIRON-3 Set)	• Sharing germplasm and breeding lines through international platform for the acceleration of rice improvement	Gazipur, Barishal, Habiganj
214.	International Rice Soil Stress Tolerance Nursery (IRSSTN) – 1 sets)	• Do	Satkhira
Project-17: Deployment and Validation of High Beta-carotene Rice and High-Iron & Zinc Rice Varieties (Healthier Rice Project), T. Aman			
215.	Backcross	• Introgression of high iron and zinc gene into high yielding rice genetic backgrounds of BR11723-4R-27, BRRI dhan81 and BRRI dhan97	Gazipur
216.	Pedigree Nursery	• Generation Advancement	Gazipur
Project-17: Deployment and Validation of High Beta-carotene Rice and High-Iron & Zinc Rice Varieties (Healthier Rice Project), Boro			
217.	Hybridization	• Introgression of high iron and zinc gene into high yielding rice genetic backgrounds of BRRI dha71, BRRI dhan79 and BRRI dhan81, BRRI dhan87, and BRRI dhan92 and BRRI dhan99	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
Project-18: Deployment of Superior high yielding fine quality rice varieties, T. Aman			
218.	Regional yield Trial -RYT#1(Katari type), RYT#2 (Zira type), RYT#3 (Tall haor)	• Evaluation of agronomic performance, specific and general adaptability under on station conditions	10 BRRI R/S
219.	Advanced Line Adaptive Research Trial -ALART-1(BRRI dhan49 grain type) and ALART-2 (Swarna grain type)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	10 locations (Locations will be selected by ARD)
220.	Proposed Variety Trial (PVT)	• On-farm and on-station evaluation of advance breeding lines compared to standard checks for releasing as new variety in different regions	10 locations (Locations will be selected by SCA)
Project-18: Development of Superior high yielding fine quality rice varieties, Boro			
221.	Regional Yield Trial -RYT# (Fine grain), RYT# (Tall)	• Evaluation of agronomic performance, specific and general adaptability under on station conditions	10 BRRI R/S
222.	Advance Line Adaptive Research Trial -ALART-1 (Zira type) and ALART-2 (Katari)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability	10 locations (Locations will be selected by ARD)
223.	Proposed Variety Trial (PVT)	• On-farm evaluation of advance breeding lines compared to standard checks for release as variety	10 locations (Locations will be selected by SCA)
BIOTECHNOLOGY DIVISION			
224.	Development of premium quality rice (Kalizira type) variety through antioxidant anther culture	• To develop premium quality rice DH lines through another culture	HQ, BRRI
225.	Development of Aus variety through antioxidant anther culture	• To develop short duration high yield Aus rice variety through another culture	HQ, BRRI
226.	Development of high yielding photosensitive rice variety through another culture	• To develop photosensitive rice variety	HQ, BRRI
227.	Development of Antioxidant enriched black rice variety through antioxidant anther culture	• To develop semi dwarf antioxidant enriched high yielding black rice	HQ, BRRI
228.	Studies Study on Kernel Elongation of Rice	• to develop long slender rice variety with high kernel elongation (>1.7)	HQ, BRRI
229.	Development of drought tolerant rice lines	• To develop drought tolerant rice lines	HQ, BRRI

Sl. No.	Research Title	Objectives(s)	Location(s)
230.	Development of Aus rice variety through antioxidant anther culture	• To develop high-yielding Aus Rice Varieties	HQ, BRRI
231.	Development of Photosensitive Rice through antioxidant anther culture	• To develop high-yielding Aman Rice capable of producing taller seedlings with Yield Target: 5-6 t/ha	HQ, BRRI
232.	Development of T aman rice variety through antioxidant anther culture	• To develop high-yielding T Aman Rice Varieties	HQ, BRRI
233.	Development of Boro rice variety through antioxidant anther culture	• To develop high-yielding Boro Rice Variety	HQ, BRRI
234.	Development of rice varieties using EMS treated rice seed	• To develop modern rice varieties for Aus, T. Aman and Boro season	HQ, BRRI
235.	Development of antioxidant enriched black rice variety through somaclonal variation	• To create somaclonal variation for development of antioxidant enriched high yielding modern rice variety	HQ, BRRI
236.	Development of premium quality rice (Kalizira type) variety through somaclonal variation	• To create somaclonal variation towards development of high yielding premium quality (Kalijira type) rice varieties	HQ, BRRI
237.	Effect of hormone on plant regeneration of rice genotypes	• optimization of regeneration protocol for transformation studies	HQ, BRRI
238.	Effect of incubation days on callus induction and plant regeneration of rice genotypes	• to observe the effect of day on calli production and regeneration	HQ, BRRI
239.	Development of High yielding variety through somaclonal variation	• To create somaclonal variation towards development of high yielding rice variety	HQ, BRRI
240.	Development of high yielding premium quality rice variety through somaclonal variation	• To select the best lines with high yield and desirable traits	HQ, BRRI
241.	Development of Kalijira type rice variety through mutation by NMU	• To develop high yielding short stature aromatic Kalizira type rice varieties	HQ, BRR
242.	Development of Sheath Blight resistant rice through mutation by EMS	• To develop Sheath Blight resistant lines	HQ, BRRI
243.	Development of Premium Quality Rice through Mutation by EMS (Ethyle Methane sulfonate)	• To develop high yielding, short stature, aromatic rice lines	HQ, BRRI

Sl. No.	Research Title	Objectives(s)	Location(s)
244.	Development of rice variety through mutation by Gamma Ray	• To develop high yielding short stature aromatic type rice varieties	HQ, BRRI
245.	Development of Aman rice variety through wide hybridization followed by embryo rescue	• To develop high-yielding rice varieties	HQ, BRRI
246.	Development of Aman rice variety through wide hybridization followed by embryo rescue	• To develop high-yielding rice varieties	HQ, BRRI
247.	Marker assisted selection for fragrance	• To develop high yielding aromatic rice	HQ BRRI
248.	Development of photosensitive high yielding rice variety	• To identify genomic location controlling photosensitivity.	HQ BRRI
249.	Marker assisted selection for aromatic and submergence tolerance rice genotype	• To develop high yielding submergence tolerant aromatic rice variety	HQ BRRI
250.	Marker assisted selection for BB resistance BRRI dhan87	• To develop BB resistance BRRI dhan87	HQ BRRI
251.	Isolation and cloning of drought tolerant genes from wheat	• Isolate and cloning of drought tolerance gene	HQ, BRRI
252.	Introgression of salt tolerant mangrove gene.	• To develop salt tolerance transgenic rice lines	HQ, BRRI
253.	Development of high yielding aromatic rice lines through genome editing	• To develop high yielding aromatic rice lines using CRISPR-Cas9 technology.	HQ, BRRI
254.	Identification of <i>Setaria italica</i> mutants losing C4 properties.	• Characterizing <i>Setaria italica</i> mutant population for loss of C4 functions	HQ, BRRI

HYBRID RICE DIVISION

Project 1: Development of parental materials for high yield, high amylose content and fine grain containing hybrid rice variety

255.	Source Nursery	• Identification of prospective maintainers and restorers of diversified origin for making experimental rice hybrids	Gazipur
256.	Testcross Nursery	• Confirmation of maintainers and restorers from the crossed entries. • Selection of heterotic rice hybrids. • Conversion of prospective maintainers into new CMS lines	Gazipur
257.	Backcross Nursery	• Developing CMS lines from identified	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
		maintainer by back crossing	
258.	CMS Maintenance and Evaluation Nursery	• Evaluation of locally developed and exotic CMS lines and their maintainer lines for genetic purity	Gazipur
259.	Development of B & R lines through B×B and R×R crosses	• To broaden the genetic base of maintainer & restorer lines and develop new recombinant lines for emphasizing yield and other desired characters	Gazipur
260.	Submergence tolerant parental line development	• To develop new CMS lines resistance to submergence and selection of heterotic rice hybrids resistance to submergence	Gazipur
261.	Field Rapid Generation Advance (FRGA) for B and R lines improvement	• Rapid advancement of segregating population for shortening breeding cycle	Gazipur
262.	Generation advancement of Fatema dhan	• Fixed line selection from Fatema dhan	Gazipur
263.	F ₁ confirmation of Blast resistant B and R lines development	• Confirmation of true F ₁ s based on desired traits	Gazipur
264.	Test hybrid development with blast resistant gene	• To find out maintainer and restorers with blast resistant gene	Gazipur
Project-2: Evaluation of parental materials & hybrids			
265.	Observational Trial (OT) of experimental hybrids	• Selection of promising hybrids	Gazipur
266.	Preliminary yield trial (PYT)	• To conduct preliminary evaluation for yield of promising rice hybrids	Gazipur
267.	Combining ability of A, B & R lines	• To select the best combiner (S) in respect of grain yield & yield components	Gazipur
268.	Performance evaluation of BRRI developed new promising hybrids	• Selection of promising hybrids	Gazipur
269.	Multi-location Yield Trials (MLT)	• To assess the yield of promising rice hybrids at different location for better adaptability	Gazipur, Barishal, Ishwardi, Rangpur, Sonagazi
270.	Breeding for outcrossing potentials in CMS lines	• To select best CMS lines for enhancing seed production of hybrid rice	Gazipur
271.	Demonstrational trials of BRRI released and promising hybrids with Dhanny Gold/SL8H	• Yield comparison and demonstration of BRRI released and promising hybrids with Dhanny Gold/SL8H	Gazipur
272.	National Hybrid Rice Yield Trial (NHRYT)	• Evaluation of imported hybrids for subsequent selection	Gazipur
Project-3: Seed Production of Parental lines and Hybrids			
273.	Multiplication of promising CMS lines	• To produce pure and good quality seed of CMS lines for subsequent use.	Gazipur
274.	CMS multiplication of BRRI hybrid dhan1 &	• Production of pure and good quality seed of CMS lines.	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	BRRi hybrid dhan4		
275.	CMS line multiplication of BRRi hybrid dhan2	• Production of sufficient quantity quality seeds of CMS lines for subsequent use	Gazipur
276.	CMS line multiplication of BRRi hybrid dhan3	• Production of sufficient quantity quality seeds of CMS lines for subsequent use	Gazipur
277.	F ₁ seed production of BRRi hybrid dhan3	• Production of sufficient quantity quality hybrid seed for subsequent use	Gazipur, Gopalganj, Barishal, Cumilla, Sonagazi
278.	F ₁ seed production of BRRi hybrid dhan4	• Production of sufficient quantity quality hybrid seed for subsequent use	Gazipur, Gopalganj, Barishal, Cumilla, Sonagazi
279.	F ₁ seed production of BRRi hybrid dhan5	• Production of sufficient quantity quality hybrid seed for subsequent use	Gazipur, Gopalganj, Barishal, Cumilla, Sonagazi
280.	CMS line multiplication of BRRi hybrid dhan5	• Production of sufficient quantity quality seeds of CMS lines for subsequent use	Gazipur
281.	F ₁ seed production of BRRi hybrid dhan6	• Production of sufficient quantity quality hybrid seed for subsequent use	Gazipur, Gopalganj, Barishal, Cumilla, Sonagazi
282.	CMS line multiplication of BRRi hybrid dhan6	• Production of sufficient quantity quality seeds of CMS lines for subsequent use	Gazipur
283.	F ₁ seed production of promising hybrids	• Production of sufficient quantity quality hybrid seed of promising hybrids for subsequent use	Gazipur
284.	CMS line multiplication of BRRi hybrid dhan8	• Production of sufficient quantity quality seeds of CMS lines for subsequent use	Gazipur
285.	F ₁ seed production of BRRi hybrid dhan7	• Production of sufficient quantity quality hybrid seed for subsequent use	Gazipur, Gopalganj, Barishal, Cumilla, Sonagazi
286.	F ₁ seed production of BRRi hybrid dhan8	• Production of sufficient quantity quality hybrid seed for subsequent use	Gazipur, Gopalganj, Barishal, Cumilla, Sonagazi
287.	Growth duration method (GDDM) for synchronization in flowering	• To determine proper heading time of parental lines (A & R) of promising hybrids	Gazipur
288.	Nucleus seed production of BRRi hybrid dhan1 & BRRi hybrid dhan4	• To produce parental lines nucleus seeds of BHD1 & BHD4	Gazipur
289.	Nucleus seed production of	• To produce parental lines nucleus seeds of	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	BRRI hybrid dhan2	BHD2	
290.	Nucleus seed production of BRRI hybrid dhan3	• To produce parental lines nucleus seeds of BHD3	Gazipur
291.	Nucleus seed production of BRRI hybrid dhan5	• To produce parental lines nucleus seeds of BHD5	Gazipur
292.	Nucleus seed production of BRRI hybrid dhan6	• To produce parental lines nucleus seeds of BHD6	Gazipur
293.	Nucleus seed production of BRRI hybrid dhan8	• To produce parental lines nucleus seeds of BHD8	Gazipur
294.	Maintainer and restorer lines multiplication of BRRI released hybrids	• Production of sufficient quantity quality parental lines for subsequent use	Gazipur
GENETIC RESOURCE & SEED DIVISION			
Project 01: Rice Germplasm Conservation and Management			
Collection, characterization, conservation and rejuvenation of rice germplasm to enrich the Genebank of BRRI and its sharing with rice researchers			
295.	Collection of rice (<i>Oryza sativa</i> L.) germplasm	• To collect cultivated and wild rice germplasm from unexplored areas of Bangladesh and to store the collected rice germplasm for different users	All over the country.
296.	Rejuvenation and conservation of rice germplasm	• To rejuvenate the Genebank accessions with fresh stock and to register the new collection by giving BRRI Genebank accession number after cross checking the duplication	BRRI, Gazipur.
297.	Purification (cleaning up) of rice germplasm accession	• To isolate the pure and homogeneous germplasm line(s) from each germplasm accession	BRRI, Gazipur.
298.	Morphological characterization and documentation of rice germplasm	• To characterize the rice germplasm as per BRRI prescribed "Germplasm Descriptors and Evaluation Form" as developed from biodiversity international and UPOV convention • To document the characterized rice germplasm through morpho-physiological data, digital photo, leaflet and to develop a computer database documentation system for different users	BRRI, Gazipur.
299.	Molecular characterization of rice germplasm	• To characterize the rice germplasm through molecular tools (DNA Fingerprinting)	Mol. Lab, GRSD, BRRI, Gazipur.
Project 02: Exploratory and Genetic Studies.			
Exploratory and genetic studies of rice germplasm.			
300.	Evaluation of photosensitive rice germplasm collected from Northern districts of	• To identify rice germplasm suitable for late transplanting after flood in northern region of Bangladesh (Bogura, Kurigram, Lalmonirhat, Gaibandha, Rangpur and	GRSD Field, BRRI, Gazipur.

Sl. No.	Research Title	Objectives(s)	Location(s)
	Bangladesh	Jamalpur)	
301.	Selection of superior genotypes from T. Aman/Boro rice germplasm based on agro-morphological traits	• To identify rice germplasm with higher total biomass yield and higher phenotypic acceptance	GRSD Field, BRRI, Gazipur.
302.	Characterization of similar named Jhoshua, Mal Shira, Shailla and Shapahar groups of germplasm	• To characterize and evaluate the similar or duplicate named groups of Jhoshua, Mal Shira, Shailla and Shapahar rice germplasm accessions through quantitative and qualitative traits for developing their core collection	GRSD Field, BRRI, Gazipur.
303.	Morphological and molecular characterization of 30 aromatic rice germplasm	• To identify and to study the morphological and molecular characteristics of selected aromatic rice germplasm	BRRI, Gazipur.
304.	Characterization of Nazirsail and Rata groups of rice germplasm	• To characterize and evaluate the similar named Nazirsail and Rata groups of rice germplasm accessions for developing their core collections	GRSD Field, BRRI, Gazipur.
305.	Characterization of important rice genetic resources of Bangladesh and identification of candidate genes for early flowering and yield related traits	• To characterize rice germplasm at morphological and molecular level, purify and develop a core set for further evaluation for early flowering and yield related traits, and to explore genome-wide association study (GWAS) based on explored traits for identifying genomic regions/QTLs/genes associated with the traits	BRRI, Gazipur.
306.	Genetic basis and identification of candidate genes for salinity tolerance and salinity recovery in 3K rice panel of Bangladeshi rice accessions	• To identify genomic regions/QTL/candidate genes for salinity tolerance and salinity recovery traits through genome-wide association study (GWAS) using the 3K panel of Bangladeshi rice germplasm phenotype under a standardized screening protocol for salinity recovery	BRRI, Gazipur.
Project 03: Seed Production and Variety Maintenance			
	Maintenance of nucleus seed stock and production for supplying breeder seeds as per national demand		
307.	Nucleus seed production and variety maintenance	• To maintain genetic purity and homogeneity of morphological characteristics of BRRI invented rice varieties as a source of breeder seed • To maintain the BRRI recommended HYVs (High Yielding Variety) and LIVs (Locally Improved Variety) for encouraging farmers to cultivate and for any other purpose	BRRI, Gazipur.

Sl. No.	Research Title	Objectives(s)	Location(s)
308.	Breeder seed production	To produce the breeder seed (BS) of BRRI invented rice varieties as per indent of GO, NGOs and PS seed producing organizations/companies/entrepreneurs	BRRI, Gazipur and all eleven BRRI R/S.
Project 04: Seed Technology Packages.			
Studies on seed technology for recommending as modern rice seed production technology.			
309.	Publication on seed production technology package	To make seed technology knowledge available to the growers by preparing leaflet on seed production techniques for BRRI Rice Seed Network partners	BRRI, Gazipur
GRS DIVISION			
310.	Rice germplasm supply and exchange	- To provide/supply rice germplasm accessions from BRRI Genebank to different divisions of BRRI for screening against biotic and abiotic stresses - To share germplasm to researchers from home and abroad with prescribed MTA for rice improvement	GRSD, BRRI, Gazipur.
311.	Sending <i>khudebarta</i> (SMS) for breeder seed distribution	To make it easy for the clients of BRRI Breeder Seed Network to get the information of BS distribution	GRSD, BRRI, Gazipur.
312.	Breeder seed distribution	To supply the breeder seed of BRRI invented rice varieties as per indent of GO, NGOs and PS seed producing organizations/companies/entrepreneurs	BRRI, Gazipur.
313.	Monitoring of breeder and foundation seed production farms	- To visit breeder seed plots of BRRI regional stations at flowering and maturity stages for ensuring the quality of produced seed as BS standard - To visit foundation seed (FS) plots of seed producing agencies at flowering and maturity stages for improving the quality of produced seed as FS standard by sharing experiences	Breeder seed producing plots at eleven BRRI R/S along with GO, NGOs and Private Seed Producing Farms.
GRAIN QUALITY & NUTRITION DIVISION			
314.	Determination of physicochemical and cooking properties of advanced breeding lines	To help to develop data base on physicochemical, cooking and eating qualities of grain for newly developed breeding lines	GQN Lab
315.	Evaluation of physicochemical properties of newly released BRRI varieties	To determine the physicochemical and cooking qualities of BRRI-developed rice varieties for updating the database.	GQN Lab
316.	Nutraceutical characterization of newly released BRRI HYVs.	- Amino acid profiling of newly released BRRI HYVs. - Fatty acid profiling of newly released BRRI	RAL & GQN Lab

Sl. No.	Research Title	Objectives(s)	Location(s)
		HYVs. • Antioxidant profiling of newly released BRRI HYVs. • Mineral profiling of newly released BRRI HYVs. • Volatile aromatic compound (VOC) profiling of newly released BRRI HYVs	
317.	Calibration of NIR to predict proximate composition of rice varieties	• To calibrate a near accurate prediction model for proximate composition of rice • To characterizing the proximate composition (moisture, carbohydrate, protein, lipids, ash and Dietary fiber) of BRRI varieties as an index of nutritional worth.	GQN Lab
318.	Analysis of ferulic acid (FA) in RBO of Bangladeshi rice varieties in the association of biochemical evaluation on burning effects of RBO in vivo rat experiment	• Evaluate an appropriate analysis methodology and study the amount of FA and their relation to nutrition properties in rice. • Evaluate the burning effects of RBO	GQN Lab
319.	To Screening, Selection, and Training of Sensory Panelists	• Determine impairment of primary senses (color, vision, ageusia, and anosmia) • Match test for taste and odor substances • Ability to detect basic taste and odor acuity • Determine the ability to characterize texture • Evaluate performance in comparison with other candidates. • Increase the sensory acuity of panelists and provide them with a rudimentary knowledge of procedures used in sensory evaluation.	GQN Lab
320.	A study on the different components of rice in relation to palatability	• Identify the parameters of rice grain by comparing different components of rice samples responsible for palatability.	GQN Lab
321.	The effect of fermentation on the nutritional and microbial changes in panta bhat	• Evaluate the nutritional properties of panta bhat • Determine the starch digestibility and bioavailability of mineral content • Evaluate the microbial properties and beneficial effect of panta bhat	GQN Lab
322.	Comparative study on rice bran oil (RBO) produced from BRRI varieties with existing RBO available in the market	• To observe the chemical properties of RBO • To analyze the FA profile, heavy metal and nutritional value of RBO	GQN & BCL

Sl. No.	Research Title	Objectives(s)	Location(s)
	(Recommendation from BARC workshop-2021)		
323.	Assessment of heavy metals (Cd, Zn, Pb, Cr, As) in soil, water, and rice grain from industrial area (Dhaka, Gazipur, Narayanganj, Mymensingh, Narshindi etc.)	• To quantify heavy metals in soil, water, and rice grain. • To identify area of rice field contaminated by industrial effluent water.	RAL & GQN Lab
324.	Standardization of in vitro Glycemic Index (GI) method to evaluate GI value of rice variety	• To standardize the in vitro GI method • To assess the variability of GI value through in vitro starch digestibility of physicochemical different BRRI varieties	GQN Lab
325.	Anthocyanin content, their antioxidant properties and expression of anthocyanin biosynthetic pathway genes in pigmented Boro rice cultivars of Bangladesh	• To evaluate physicochemical properties and anthocyanin content in the pigmented traditional boro rice cultivars • Analysis of expression of major genes (PAL, CHS, ANS) involved in anthocyanin biosynthetic pathway.	GQN Lab
326.	Determination of physicochemical properties and nutritional quality of puffed, popped and flattened rice from BRRI varieties	• To identify the physical quality of puffed, popped and flattened rice. • To determine the nutritional value and heavy metals in puffed, popped and flattened rice	GQN Lab
327.	Survey on rice based value added products available in the market (Recommendation from BARC workshop-2021)	• To find out BRRI varieties are used commercially for producing rice based products • To analyze the nutritional quality of value added rice based products in the market	Market & GQN Lab
328.	Formulation of rice-based foods supplemented with anthocyanin-enriched fermented rice bran	• To find out BRRI varieties are used commercially for producing rice based products • To analyze the nutritional quality of value added rice based products in the market	GQN Lab
329.	Application of remote sensing in rice agriculture	• To monitor crops at different growth stages. • To ensure effective crop management • To validate precision agriculture in rice cultivation	BRRI HQ & RS
Program Area: Rice Farming System			
Rice Farming System Survey			
330.	Characterization of farming system of Charlands	• To characterize and generate information on the farming system and identify problem and prospects of Charlands in Noakhali, Barishal, Rangpur, Sirajganj, Faridpur and Bhola regions for exploring its	Rangpur, Sirajganj, Chattogram

Sl. No.	Research Title	Objectives(s)	Location(s)
		opportunities of improvement	
Development of Cropping System and Component Technology for Favorable Ecosystem			
331.	Performance evaluation of four-cropped cropping pattern for irrigated medium high land ecosystem	• To evaluate the agronomic and economic performance of four cropped cropping pattern • To assess the soil fertility and water requirement in different cropping patterns	BRRI, Gazipur
332.	Performance evaluation of three-cropped cropping pattern for irrigated medium high land ecosystem	• To evaluate the agronomic and economic performance of three cropped cropping pattern • To assess the soil fertility and water requirement in different cropping patterns	BRRI, Gazipur
333.	Determination of optimum planting window of newly released rice varieties in Mustard-Boro-T. Aman cropping system	• To find out the suitable rice varieties for Mustard-Boro-T. Aman cropping pattern under different planting time • To find out the optimum sowing/planting window of mustard, Boro and T. Aman rice for Mustard-Boro-T. Aman cropping pattern	BRRI, Gazipur
334.	Exploration of water-logged wetland ecosystem through modification of land type for fish, vegetables and fruit production	• To bring up unproductive land to efficient production system • To find out suitable cropping cycle and economic return • To identify scope for increasing productivity by inclusion of high value fish and suitable vegetables and perennial fruit	BRRI, Gazipur
335.	Transformation of waterlogged wetland into three-tier production system for integrated rice-fish, vegetables and fruit cultivation	• To increase productivity and production diversity through integrating rice-fish, vegetables and fruits • To meet up the nutritional requirements of the farm family and increase income	BRRI, Gazipur
336.	Evaluation of newly released BRRI rice varieties under Boro -Fallow-T. Aman cropping pattern	• To find out the suitable crop sequence with newly released BRRI rice varieties in Boro -Fallow-T. Aman cropping pattern	BRRI, Gazipur
337.	Effect of fertilizer management of Boro rice in late situation under Potato - Boro -T. Aman cropping system	• To compare the yield performance of Boro rice in late situation under different fertilizer management in Potato - Boro -T. Aman cropping pattern	BRRI, Gazipur
338.	Management of aged seedling to minimize the yield loss of T. Aman rice	• To compare the yield performance of aged seedling of T. Aman rice through nitrogen fertilizer and crop management techniques	BRRI, Gazipur
339.	Utilization of fallow land to intensify the single T. Aman area and boost up the	• To increase the system productivity and income of the farmers through introduction of site-specific improved cropping systems	On-farm, Nabiganj, Habiganj

Sl. No.	Research Title	Objectives(s)	Location(s)
	productivity in the Sylhet region		
340.	Development of four-cropped cropping pattern under irrigated ecosystem	• To find out the most profitable and sustainable rice-based four cropped cropping pattern	BRRI, Rajshahi
341.	Long term evaluation of four cropped cropping pattern on crop productivity and soil health	• To validate the profitable cropping pattern under farmer's field condition • To find out long term implications of four cropped cropping pattern	BRRI, Rajshahi
342.	Evaluation of crop productivity and soil health under conservation tillage system in Maize-Mungbean-T. Aman cropping pattern	• To identify the extent of resource conservation and soil health by strip tillage system	BRRI, Rajshahi
343.	Evaluation of zero tillage mustard-based cropping patterns in Barind Tract	• To identify the profitable cropping pattern and extent of resource conservation for increasing the crop productivity	BRRI, Rajshahi
344.	Productivity and Soil Health Evaluation of Exhaustive Cropping Patterns in Barind Region	• To validate the profitable cropping patterns and to observe the soil health due to exhaustive cropping pattern	BRRI, Rajshahi
345.	Varietal Improvement of Potato-Boro-T. Aman cropping pattern in Rajshahi region.	• To find out the suitable varietal combination in Barind tract	BRRI, Rajshahi
346.	Evaluation of different Aman rice varieties under Wheat-Jute-T. Aman cropping pattern in Faridpur region	• To find out the suitability of newly released Aman rice varieties under Wheat-Jute-T. Aman cropping pattern • To increase the system productivity and farmers' income	On-farm, Rajbari/Faridpur
347.	Improvement of Boro-Fallow-Fallow cropping pattern through inclusion of B. Aman rice in Gopalganj District	• To increase cropping intensity and productivity in Gopalganj District	BRRI, Gopalganj
348.	Year-round vegetables production under agro-forestry system with exotic date palm (<i>Phoenix dactylifera</i>)	• To utilize the fallow space under date palms • To ensure year-round vegetables supply to farm family • To increase whole farm productivity	On-farm, Mujibnagar complex, Meherpur
349.	Interpolation of premium quality and nutrient enriched rice varieties in Existing Mustard-Boro-T. Aman cropping pattern	• To increase system productivity and profitability of existing cropping system	BRRI, Kushtia On-farm, Kushtia
350.	Evaluation of different rice-	• To ensure food sufficiency for farm family	On-farm,

Sl. No.	Research Title	Objectives(s)	Location(s)
	based cropping patterns under agro-forestry system with exotic date palm (<i>Phoenix dactylifera</i>)	• To increase whole farm productivity	Mujibnagar complex, Meherpur
351.	Effect of early mustard harvesting on Boro rice transplanting time under Mustard-Boro-T. Aman Cropping System	• To evaluate the early harvesting potentialities of HY mustard • To reduce the field duration of mustard • To ensure the close to optimum transplanting time of Boro rice • To increase total productivity of Mustard-Boro-T. Aman cropping pattern	On-farm, Kushtia
352.	Determination of optimum planting window of newly released T. Aman Rice varieties in Boro-Jute-T. Aman cropping pattern	• To find out the effective rice varieties with appropriate planting time for increasing yield potential of T. Aman rice	BRRI, Kushtia
353.	Improvement of Boro-Fallow-T. Aman cropping pattern in Cumilla region	• To increase cropping intensity and productivity through crop intensification in rice based cropping system	On-farm, Cumilla
354.	Varietal improvement of Boro-T. Aus-T. Aman cropping pattern in Cumilla region	• To maximize the productivity and farm income	On-farm, Cumilla
Development of Cropping System and Component Technology for Stress Prone Area			
355.	Intensification of Watermelon-Fallow-T. Aman cropping pattern by inclusion of Aus rice	• To find out the suitable BRRI released rice varieties for Watermelon-T. Aus-T. Aman cropping pattern • To maximize the productivity and farm income	On-farm, Khulna
356.	Optimizing of nitrogen management for Boro rice production in Rice-Fish non-saline gher-ecosystem	• To find out the appropriate N dose for optimum Boro rice production in Rice-fish non-saline gher ecosystem	On-farm, Satkhira
357.	Performance of saline tolerant BRRI rice varieties in the southern coastal saline gher-ecosystem	• To find out the yield performance of BRRI released saline tolerant rice varieties in gher system	On-farm, Satkhira
358.	Ratooning ability of BRRI released Boro rice varieties for Barishal region in Boro-Fallow-T. Aman cropping pattern	• To identify potential ratoon rice variety for Barishal region under tidal surge non saline ecosystem • To identify best fertilizer management under appropriate stem cutting for best ratoon rice crop • To intensify the land coverage and increase the productivity	BRRI, Barisal
359.	Suitable varietal combination for Fallow-T.	• To identify potential Aus and Aman varieties at different inundation depth in	On-farm, Barisal

Sl. No.	Research Title	Objectives(s)	Location(s)
	Aus-T.Aman cropping pattern in Barishal region	Barishal region • To increase the rice productivity of Barishal region	
360.	Improvement of single T. Aman cropping pattern through inclusion of salt tolerant Boro rice variety in saline coastal area	• To find out the suitable BRRI released rice varieties for Fallow-Fallow-T. Aman cropping pattern • To maximize the productivity and income	On-farm, Khulna
Development of Cropping System Technologies for Hill Ecosystem			
361.	Exploring the hills for rice research: Feasibility of Boro rice cultivation in fringe land at Rangamati district	• To increase the Boro coverage across the fringe land by cultivation of different Boro rice varieties	On-farm, Rangamati
362.	Improvement of Jhum production system through the introduction of modern HYV Aus varieties in hilly areas	• To increase the system productivity through the introduction of modern HYV Aus varieties and to compare their performance with the local varieties in jhum culture	On-farm, Khagrachori, Rangamati and Bandarban
Validation and Delivery of Cropping System Technology			
363.	Validation and delivery of site-specific rice based improved cropping patterns in different agro ecosystem across the country	• To increase the system productivity and income of the farmers through introduction of improved and intensified cropping systems	Rajshahi Barishal Bhanga Gopalganj Kaliganj Kushtia Sathkhira Habiganj Tangail Mymensingh
364.	Validation of pair row potato/pair row Maize-T. Aus-T. Aman cropping pattern in farmers' field	• To validate the profitable cropping pattern under farmers field condition • To find out long term implications of four crop cropping pattern	On-farm, Rajshahi
365.	Adaptability of Mustard-Boro-T. Aman cropping pattern in Rajshahi region	• To disseminate and up-scaling the profitable cropping pattern and synchronize cultivation technique for increasing farm income and profitability	BRRI, Rajshahi, Puthia, Rajshahi
366.	Varietal Improvement of Potato-Boro-T. Aman cropping pattern in Rajshahi region.	• To find out the suitable varietal combination in Barind tract	BRRI, Rajshahi
367.	Validation and fine tuning of Lentil+Muskmelon-Jute-T. Aman cropping pattern in Faridpur region	• To increase the system productivity and farmers' income	On-farm, Rajbari/Faridpur
368.	Validation of Boro-deepwater Aman in the	• To increase the system productivity and farmers' income	On-farm, Shariatpur/Faridpur

Sl. No.	Research Title	Objectives(s)	Location(s)
	single Boro area of Faridpur region		
369.	Improvement of existing Cropping pattern in Gopalganj District	To increase the productivity by improving the existing cropping pattern.	On-farm, Gopalganj
370.	Validation of improved cropping pattern in Barishal region	To increase the system productivity in Barisal region	On-farm, Barisal
371.	Field days and farmers' training on different farming systems activities	- To motivate farmers for adoption of FSR technologies - To improve farmers' knowledge base on improved agricultural production system	Across the country
Integrated Farming Systems			
372.	Development of Integrated Farming Systems for Different Farm Categories for Improving the Livelihoods of the Resource Poor Farm Household	N/A	N/A
373.	Monitoring the whole farm activities of intervened farmers	- To determine the livelihood improvement of the farmers resulted from the intervention of farming systems technologies - To observe the resource flow in the selected farm family	Kaliganj, Gazipur
374.	Integration of mustard/sunflower in the rice-based cropping system under different rice growing environments	To increase the system productivity by inclusion of mustard, sunflower and pulses in the existing cropping systems	Kaliganj, Gazipur
375.	Promotion of improved cropping pattern packages	To increase the system productivity and income of the farmers through introduction of improved cropping patterns	Kaliganj, Gazipur
376.	Farmers' participatory evaluation of recently released BRRI varieties for Boro and T. Aman season	- To find out the suitable T. Aman and Boro varieties for different rice growing ecosystems - To disseminate these varieties for achieving higher production over the existing varieties	Kaliganj, Gazipur
377.	Farmers' participatory quality seed production of recently released BRRI varieties for Boro and T. Aman season	- To demonstrate the quality rice seed production technique at farm level - To expedite the delivery systems of good quality seeds among the farmers' community	Kaliganj, Gazipur
Program Area: Crop Soil & Water Management			
AGRONOMY DIVISION			
Seed and Seedlings			

Sl. No.	Research Title	Objectives(s)	Location(s)
378.	Effect of Nanoparticles to reduce Chilling Stress in Rice	• To mitigate chilling stress of rice seedling by nano Zn	BRRI, Gazipur
Planting Practices			
379.	Effect of time of planting on the yield of submergence tolerance PVT genotype	• To determine optimum planting time of the submergence tolerance PVT genotype (IR16F1148) for higher yield levels in T. Aman season	BRRI, Gazipur
380.	Yield Loss Assessment of Rice under Late Planting Condition	• To quantify the effect of planting date on the key agronomic traits of BRRI dhan88 and BRRI dhan89 • To identify an optimal planting window to maximize grain yield of BRRI dhan88 and BRRI dhan89 • To determine the average loss when BRRI dhan88 and BRRI dhan89 are planted outside the optimal window	BRRI, Gazipur
Fertilizer Management			
381.	Effect of combined application of fertilizer and plant protectants on Water logging T. Aman rice	• To determine the effect of combined application of fertilizer and plant protectants on the growth, yield and nutrient uptake of water logging T. Aman rice	BRRI, Gazipur
382.	Growth stage-based Nitrogen management for yield maximization of Hybrid rice	• To investigate hybrid rice response to different nitrogen levels and timing of application at different growth stage to achieve higher yield and • To determine nitrogen, use efficiency of BRRI hybrid rice varieties	BRRI, Gazipur
383.	Effect of N levels and growth stage-based N application on growth, yield and nitrogen use efficiency in Rice	• To find out the influence of growth stage-based nitrogen application on growth and yield of rice	BRRI, Gazipur
384.	Effect of BRRI Bio-organic fertilizer on growth and yield of BRRI dhan90	• To find out the benefit of BRRI biofertilizer with inorganic fertilizer for BRRI dhan90	BRRI, Gazipur
385.	Effect of organic and inorganic source of nutrients on nitrogen mineralization, microbial population and yield of rice	• To determine the mineral nitrogen content under different nutrient management in soil • To investigate the effect of integrated nutrient management on soil microbial population • To find out the best organic material management practice to improve soil health and rice yield	BRRI, Gazipur
386.	Application of chitosan to improve salt tolerance of	• To elucidate the chitosan's response on growth, chlorophyll content, proline	BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	rice	content, photosynthetic activity, K^+/Na^+ ratio and yield of salt-sensitive and salt-tolerant rice cultivars under salinity stress.	
Weed Management			
387.	Effect of herbicide on Azolla infestation in rice field	• To reduce the abundance of Azolla from rice fields	BRRI, Gazipur
388.	Residue analysis of herbicide, insecticide and fungicide in soil, water and rice under irrigated ecosystem	• To analyze the MRL of pesticide in water, soil and rice	BRRI, Gazipur
389.	Changes in the Weed Seed Bank in long-term fellow management and herbicide uses in Rice- rice Cropping System	• To assess the total number of weed seeds reserve, species composition and dominant weed species present as well as to compare the floristic diversity of soil weed seed bank in rice field and • To reduce weed seed reservoir through fellow management in different soil depth	BRRI, Gazipur
390.	Residue analysis of widely used herbicides in the irrigated rice ecosystem by LCMS-MS	• To determine the residue of pre and post-emergence herbicides in the irrigation water, soil, rice straw and grain	BRRI, Gazipur
Yield Maximization			
391.	Effect of agronomic factors for maximizing yield (>5 t/ha) of BRRI developed Long Slender Premium Quality Fine Rice like Katarivog (BRRI dhan70) through developing sustainable production management protocol in T Aman season	• To study contributions of agronomic factors to maximize yield of BRRI dhan70 • To find out and recommend the best production management protocol for sustainable higher yield of BRRI dhan70 in T Aman season	BRRI, Gazipur
392.	Maximizing yield of BRRI developed new varieties through influencing some Agronomic Critical Factors in T Aman seasons at BRRI farm Gazipur	• To study the effect of most critical Agronomic factors for yield maximization of newly BRRI developed T Aman varieties and • To find out and recommend the most appropriate Agronomic critical factors packages for yield maximization of BRRI developed long, medium and short duration T Aman varieties.	BRRI, Gazipur
393.	Effect of agronomic factors for maximizing yield (7 t/ha) of medium duration BRRI variety (BRRI	• To find out the best production management protocol for sustainable higher yield of medium duration T Aman BRRI variety (BRRI dhan94)	BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	dhan94) through developing sustainable production management protocol in T Aman season		
394.	Maximizing yield of BRRI developed new varieties through influencing Agronomic Critical Factors in Boro seasons at BRRI farm Gazipur	• To find out and recommended the most appropriate Agronomic critical factors packages for yield maximization of newly BRRI developed Boro varieties.	BRRI, Gazipur
395.	Effect of some agronomic factors for maximizing yield of long duration BRRI variety (BRRI dhan92) through developing sustainable production management protocol in Boro season	• To find out the best production management protocol for sustainable higher yield of the long duration variety	BRRI, Gazipur
Good Agricultural Practices			
396.	Yield maximization of Boro rice through good agricultural practice	• To observe growth and yield of Boro rice and to reduce production cost by minimum use of inputs (fertilizer, pesticide, water).	BRRI, Gazipur
Soil Health Improvement			
397.	Improvement of soil health in four crops pattern through agronomic management	• To improve the soil health • To increase the cropping intensity and productivity	BRRI, Gazipur
398.	Biodegradation of pesticides in soil using selected microbial strains	• To measure the effect of pesticides on • To estimate the rate of pesticides degradation by the soil microbes	BRRI, Gazipur
399.	Screening of salt-tolerant PGPR isolated from coastal saline soil in Bangladesh	• To characterize the bacterial strains for salt-tolerance and plant growth-promotion	BRRI, Gazipur
400.	Effect of ST-PGPR inoculation on seedling growth of rice under saline condition, Boro 2022	• To observe the effect of ST-PGPR inoculation on plant salinity tolerance	BRRI, Gazipur
401.	Molecular characterization of Arbuscular Mycorrhizal fungal community composition associated with different stages of hilly rice in Bangladesh	• To characterize the potential AMF communities associated with different hilly rice ecosystem in Bangladesh • To investigate their relationship with environmental factors • To isolate indigenous AMF stain from hilly rice roots and soils • To promote rice growth by using the isolates	BRRI, Gazipur
Molecular Trait Management			

Sl. No.	Research Title	Objectives(s)	Location(s)
402.	Evaluation of agronomic and bio-molecular traits of BRRI released drought tolerant rice	• To identify enzymatic activities in drought stress of rice. • To identify drought tolerant mechanism of BRRI released variety for enhancing agronomic productivity	BRRI, Gazipur
403.	Physiological, biochemical and molecular mechanisms of salinity tolerance in rice	• To get insight into the physiological, biochemical and molecular mechanisms by which BRRI developed salt-tolerant varieties respond to the salinity stress	BRRI, Gazipur
Planting Practices			
404.	Effect of time of planting of newly developed BRRI varieties in different regional stations	• To find out the suitable time of planting of different popular varieties in different R/S • To find out the cut of transplanting dates for different varieties. • Yield loss assessment due to delay planting	BRRI, Gazipur
Fertilizer Management			
405.	Yield loss assessment due to omission of N at certain growth stage of rice	• To assess yield loss of rice due to improper N application	BRRI, Gazipur
406.	Performance evaluation of Zeba coated urea (ZCU) on nutrient uptake, nitrogen use efficiency and grain yield of transplanted rice	• To evaluation the effect of Zeba coated urea (ZCU) on nutrient uptake, nitrogen use efficiency and grain yield of transplanted rice	
Weed Management			
407.	Effect of adding urea with herbicides for controlling weeds and the growth and yield of transplanted rice	• To find out the effect of urea mixing with commonly used herbicides on weed control efficiency and the growth and yield of transplanted rice	BRRI, Gazipur
Yield Maximization			
408.	Effect of different yield goal levels agronomic factors-based managements on lodging behavior of BRRI developed T. Aman and Boro varieties	• To study the effect of agronomic factors-based managements on varietal lodging behavior at different yield goal level • To recommend the judicial management protocol for sustainable yield of different variety	BRRI, Gazipur
Soil Health Improvement			
409.	Changes in soil microbial community and activity caused by application of Bispyribac Sodium and Bensulfuran methyl + acetolol	• To evaluate the changes in the microbial community (genus & species level) and activity after the application of Bispyribac Sodium and Bensulfuran methyl + acetolol • To investigate the microbial population shifting during the rice growth period	BRRI, Gazipur
410.	Effect of herbicides on soil microbial community, soil fertility and enzyme activity	• To characterize the herbicide-induced responses of microorganisms in transplanted rice	BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
		To examine the influence of herbicides on soil fertility and enzyme activity of soil microbes	
411.	Mitigation of Heavy Metals Bio-accumulation in Rice Varieties through Agronomic Management at polluted Soils of Gazipur	- To determine the heavy metal concentrations, growth and yield of rice grown in the contaminated soil of Gazipur. - To assess the effects of amendment's on reducing heavy metals (As, Pb, Cd, Cr, Co, Hg), and nutrient uptake of rice grown on heavy metal contaminated soil.	BRRI, Gazipur
Precision Agriculture			
412.	Precision Agriculture management techniques for sustainable rice production	- To improve rice yield and grain quality, reducing input costs and environmental impact, and increasing efficiency and sustainability of the production process. - The overall objective is to improve the competitiveness of rice production, while ensuring the sustainability of the agricultural ecosystem	BRRI, Gazipur
SOIL SCIENCE DIVISION			
Fertility Assessment of Rice Soils and Nutrient use efficiency in rice			
To assess fertility status of rice growing areas and determine optimum fertilizer requirement			
413.	Improvement of rice yield and N use efficiency through nano technology	To assess yield and N use efficiency by urea-HA nano hybrid and natural zeolite plus prilled urea (PU) over PU	BRRI, Gazipur
414.	Screening of N use efficient rice genotypes	- To find the N use efficient genotypes - To find the agronomic traits related to efficient N management - GWA mapping of selected NUE lines	BRRI, Gazipur
415.	Management interventions to improve NUE and reduce N losses in typical rice cropping system of Bangladesh	- To quantify the fate of N fertilizer (crop, soil and losses) and NUE under various N managements for double rice cropping. - To develop locally based mitigation options that can be compared within plot based experiments.	BRRI, Gazipur
416.	Nitrogen response to drought tolerant ALART material in T. Aman season	To find out the optimum doses of N for drought tolerant ALART materials	BRRI, Gazipur
417.	Nitrogen response to submergence tolerant ALART material in T. Aman season	To find out the optimum doses of N for submergence tolerant ALART materials	BRRI, Gazipur
418.	Determination of nitrogen doses for modern rice varieties	To identify optimum nitrogen dose for MV rice	BRRI, Gazipur
419.	Phosphorus response study of newly released rice	To investigate the performance of MV rice under deficient soil P levels	BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	varieties		
420.	Effect of nitrogen and potassium rates on modern rice cultivation	- To find out the suitable combination of N and K for MV rice cultivation - To study the N and K dynamics in soil and plant	BRRI, Gazipur
421.	Effect of Crop residues retention on soil physicochemical properties after six cycles of four crops cropping	- To assess the changes in soil total C and N, exchangeable K, available P, S and Zn, etc. after six crop cycles. - To assess the changes in bulk density, percent sand, silt and clay.	BRRI, Gazipur
422.	Effect of Phosphatic fertilizers on growth, yield and economics of wetland rice	- To find out the right P source on growth and yield of rice - To observe the residual effect of P in the succeeding rice crop - To compare the economics of P fertilizers in rice production	BRRI, Gazipur
423.	Determination of NPK rates in CA using Nutrient omission technique in rice-based cropping pattern	- To determine NPK rates for CA practice - To study long-term effects of CA practice on soil health	BRRI, Gazipur
424.	Effect of long-term rice farming on the changes in soil nutrient status in different the soil profile of BRRI Farm	- To determine the changes that occurred in soil carbon and plant nutrient status of BRRI farm soil - To develop a soil fertility map - To devise a nutrient dynamics model to estimate the nutrient status on long term basis	BRRI farm Cumilla and Soil Science Laboratory
Identification and management of the nutritional disorder			
To determine upcoming nutritional disorders in rice under intensive rice cultivation with different fertilizer management practices			
425.	Long-term effect of organic and inorganic nutrients on yield and yield trend of lowland rice	- To evaluate changes in soil physical, chemical and biological properties - To determine management options for solution of soil problem(s)	BRRI, Gazipur
426.	Long-term missing element trial at BRRI regional station	- To determine nutrient mining problem on soil fertility and its influence on rice yield - To find out nutrient management options for correcting soil problems	BRRI RS Rajshshi, Barishal, Rangpur, Cumilla, Satkhira, Sonagazi, Hobiganj, Kustia, Gopalganj, Sirajganj
427.	Effect of intensive rice cropping on rice yield under continuous wetland condition	- To evaluate soil fertility and rice yield changes overtime - To find out mitigation options for soil health	BRRI, Gazipur
428.	Carbon and nitrogen fractions and stocks under	To study the long-term effects of different inorganic fertilizer applications on different	BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	continuous wetland conditions in intensive rice cropping	fractions of SOC and soil N • To estimate the effect of long-term chemical fertilizer on changes in C & N in intensive rice cropping	
429.	Development of nutrient management packages through Artificial Intelligence using a Drone	• To identify the nutrient requirement through analyzing the plant image of aerial photography • To correlate the image results with current plant nutrient content • To develop a proper nutrient requirement package for rice	BRRI, Gazipur
430.	Changes in soil fertility of long-term missing element trial	• For maximizing rice yield • To identify the mining nutrient • For maintaining soil fertility	BRRI, Gazipur
431.	Effect of added Zinc on BRRI Zinc-enriched rice varieties	• To increase rice yield • To increase Zn uptake by grain • To improve grain quality	BRRI, Gazipur and R/S Rajshahi
Integrated nutrient management for intensive rice cropping			
To increase rice productivity with sustainable soil health.			
432.	Integrated nutrient management for double and triple rice cropping for maximizing productivity	• to improve land productivity and soil health under an intensive cropping system.	BRRI, Gazipur
433.	Soil Management to maximize the yield of newly released rice varieties	• To maximize rice yield through organic and inorganic amendments while maintaining soil health in BRRI farm	BRRI, Gazipur, R/s Barishal, Sonagaji, Cumilla, Rangpur, Kustia
434.	Estimation of C and N flows in a village and developing methods to improve soil C and N within the system	• To estimate major C and N flows in a village • To develop treatments to improve soil C stock and N use efficiency in the farming system	BRRI, Gazipur and all R/S, BRRI.
435.	Good Agriculture Practices (GAP) to Increase Rice Productivity	• To obtain quality and safe rice • To sustain crop yield • To maintain soil health & minimize environmental pollution	BRRI farm Gazipur and Rangpur
436.	Determination of soil potentiality for maximizing rice yield	• To determine the relationship between rice yield and soil organic matter content; rice yield and percentage of sand, silt and clay; SOM and percentage of sand, silt and clay and ratio of other nutrients	Soil Science Division and all regional stations
Soil and Environmental problems			
To ameliorate soil & environment related problems			
437.	Effect of biochar on rice yield and soil health on problem soils	• Optimum rate of biochar for rice cultivation in Charland soil • Increased rice yield and improved soil health	BRRI R/S, Sirajganj

Sl. No.	Research Title	Objectives(s)	Location(s)
438.	Effects of fertilizer and varietal management on absorption and mitigating greenhouse gas emissions from rice cultivation in South-western coastal ecosystems	• To quantify GHG absorption and emissions from rice fields under different fertilizer and varietal management • To develop technology for increased crop productivity with reduced negative environmental impacts. • To develop country-specific Emission Factors and national GHG inventory	BRRI, Satkhira
439.	Management intervention for mitigation of carbon emission and determination of C absorption in the rice-based cropping system	• To assess the GHG • To determine Net carbon balance (Emission and absorption)	BRRI Gazipur, Kushtia
440.	Emission, mitigation, and absorption of greenhouse gas from the rice field	• To generate data on GHG (CH₄ and N₂O) emissions from rice cultivation using various rice cultivars and fertilizer management; • To find out a net carbon balance between emission and absorption from rice cultivation; • To inform policymakers related to GHG emission reductions and for the claiming of carbon credits from the global market	BRRI R/S, Satkhira, BRRI R/S, Cumilla and BRRI R/S, Sirajganj
Soil Microbiology and Biofertilizer to improve soil health			
441.	Evaluation of bio-organic fertilizer for the improvement of rice yield and soil health	• To evaluate the efficacy bio-organic fertilizer for growth and yield of rice. • To assess the impact of bio-organic fertilizer on soil health	BRRI, Gazipur
442.	Microbial characterization of different AEZs soil	• To characterize potential plant growth promoting bacteria (PGPB) • To develop bio-fertilizer using potential microbes for rice cultivation in acid and saline soil	BRRI, Gazipur
443.	Bio-Coated Urea: a new approach to improve N fertilizer use efficiency (NUE) and crop yield	• To formulate a bio-coated urea and Bio-coated TSP fertilizer • To determine its efficacy in soil-plant system	BRRI, Gazipur
444.	Bio-coated urea fertilizer for rice yield enhancement in saline soil	• To formulate a bio-coated urea fertilizer and • To determine its efficacy in soil-plant system	Satkhira R/S
445.	Isolation and Screening of Methane Degrading Bacteria	• Isolation and identification of indigenous potential methanotrophs from paddy field • Determination of methane oxidation capability of the isolates	BRRI SSD, Biotech lab & First base Singapore
IRRIGATION & WATER MANAGEMENT DIVISION			
Sub-Sub Program I: Improvement of Water Use Efficiency in Irrigated Agriculture			

Sl. No.	Research Title	Objectives(s)	Location(s)
Project 1. Water Requirement			
446.	Determination of Physical and Hydraulic Properties of Different Soil Types	- To determine important physical properties (bulk density, particle density, infiltration rate, hydraulic conductivity, soil-water retention, etc.) of root zone soil - To develop soil-water retention/characteristics curves - To determine parameters of soil-water retention function	BRRI farm, Gazipur and All Regional Station Farm, BRRI
447.	IoT based Automated Alternate Wetting and Drying (AWD) method for Smart Solution in Rice Cultivation	- To develop smart AWD irrigation system for rice irrigation using IoT based techniques - To calibrate and validate Automated system in field condition - To increase the water-use efficiency using smart irrigation system	BRRI, Gazipur
448.	Study on Water-Stress Tolerance for Different Advanced Rice Genotypes of BRRI	- To quantify water-stress tolerance capacity for different rice varieties - To determine yield of the rice varieties under different water-stress conditions	BRRI, Gazipur
449.	Performance Evaluation of the Proposed Rice Genotypes Under Different Water Regimes	- To study performance of the proposed rice varieties under different water regimes - To evaluate suitable water regimes for proposed lines/varieties of rice	BRRI farm, Gazipur
450.	Optimization of Water Use Efficiency Through Sub-irrigation in Bangladesh	- To increase Water Use Efficiency (WUE) in crop cultivation - To design and installation of sub-irrigation system - To evaluate the performance of sub-irrigation system in transplanted rice field	BRRI farm Gazipur
451.	Feasibility of Mini-sprinkler Irrigation System in Transplanted rice in Bangladesh	- To evaluate performance of sprinkler irrigation to transplanted rice - To find out an alternative to flood irrigation - To increase water use efficiency of rice field	BRRI farm Gazipur
452.	Irrigation water requirement and rainfall utilization for delayed transplanting of boro rice in BRRI farm Gazipur	- To find out the crop evaporative demand, variation of irrigation water in relation to the delayed transplanting - To determine the factors affecting the growth and yield in delayed transplanting	BRRI farm, Gazipur
453.	Real-time Monitoring System for Salt Dynamics in Different Textured Soils by Using Internet-of-Things (IoT)	- To develop a IoT based procedure for monitoring salt dynamics in soils, - To monitor salt movements during salinization and desalinization processes in 3 different textured soils under saturated/unsaturated conditions, and - To determine the volume of water required	BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
		to reduce the salinity of soils	
454.	Performance Evaluation of Smart Card Operated Irrigation Management of Rice Field in Muhuri Project Areas of Feni District	• To optimize the use of water for irrigation applying smart card technique • To reduce energy cost compared to farmer's traditional management practices, and • To evaluate a cost-benefit analysis of the different irrigation methods	Muhuri Irrigation Project, Sonagazi
455.	Increasing Land Productivity in Valley Area of Hilly Region Through Integrated Minor Irrigation System	• To conserve water from hilly stream near valley in dry season • To develop appropriate water distribution and application systems for irrigating valley land • To bring fallow lands under rice or rabi crop cultivation	Khagrachhari, Rangamati and Bandarban
Sub-Sub Program II: Utilization of Water Resources in Rainfed Environment			
Project 2. Water Management for rice cultivation in climate change situation			
456.	Irrigation scheduling of Rice (<i>Oryza sativa</i> L.) Based on Weather Forecasting in Gazipur	• To predict water demand through water balance simulation model for rice cultivation • To compare performance of water balance simulation model with AWD and conventions methods • To validate water balance simulation model with CROPWAT 8.0 model • To recommend the better method for irrigation scheduling of rice	BRRI farm, Gazipur
Sub-Sub Program III: Land Productivity Improvement in the Coastal Environment			
Project 3. Land and Water Resources Use for Sustainable Crop Production			
457.	Saline water irrigation strategies for Boro rice cultivation in the coastal saline area	• To find out the saline water irrigation management options for Boro rice cultivation • To assesses the response of rice growth and yield to saline water irrigation • To quantify the ionic stress on plant shoot and root under saline water treatments	Dacope, Khulna
458.	Impact of Saline Water Irrigation with Rice Straw and Gypsum Amendment on Soil Physicochemical Properties and Rice Yield in The Coastal Saline Area	• To evaluate the effect of rice straw and gypsum incorporation and saline water irrigation on soil physical and chemical properties • To find out the effect of rice straw and gypsum amendment on rice growth and yield in the saline area • To find out the sustainable saline water irrigation for rice cultivation in the coastal area	
Sub-Sub Program IV: Sustainable Management of Water Resources			

Sl. No.	Research Title	Objectives(s)	Location(s)
Project 4. Surface water and Groundwater Assessment			
459.	Monitoring Groundwater Level Fluctuation and Safe Utilization of Groundwater in Different Geo-Hydrological Regions	• -To determine fluctuation of groundwater level over time Activities to achieve the objectives	BRRI HQ & all R/S
460.	Assessment of Surface and Groundwater Quality for Irrigation in Selected Locations of Bangladesh	• To determine the surface and groundwater quality parameters • To determine the suitability of groundwater for irrigation	BRRI HQ & all R/S
461.	Groundwater Use Potential for Supplemental Irrigation for Boro Rice Production in the Haor Areas	• To assess the groundwater availability for Boro rice cultivation • To install tubewell for irrigation development • To reduce yield loss due to water stress at the later stage of Boro rice • To assess potential command area for the installed STW	Tahirpur, Sunamganj
462.	Effectiveness of Surface laid PVC pipe irrigation for boro rice cultivation in the Haor areas	• To develop a portable water conveyance system under undulating condition of haor areas • To minimize irrigation water loss in distribution systems of the LLP schemes • To increase irrigation coverage per unit time	Tahirpur, Sunamganj
Sub-Sub Program V: Utilization of Renewable energy			
Project 5. Renewable energy for irrigation			
463.	Development of A Low-cost DC Solar Water Pump for Irrigation in Bangladesh	• To use a permanent magnet brushless DC motor for operating solar water pump • To find out optimum panel size for good matching between pump and PV module • To test efficacy of the pump for surface water irrigation • To determine economic feasibility of the pump for rice cultivation	BRRI, Gazipur
Sub-Sub Program VI: Technology Validation in the Farmers' Field			
Project 6 Water Management Technologies Demonstration and Dissemination at Farmers' Field			
464.	Modeling Climate Change Impact on Agriculture and Developing Mitigation and Adaptation Strategies for Sustaining Agricultural Production in Bangladesh	• Assessment and characterization of climatic variability, vulnerability and extreme events for agro-production under climate change	Gazipur and R/S of BARI & BRRI and Campus of BAU & BSMRAU
465.	Intervention in Surface Water Utilization Through Integrated Minor Irrigation	• Cropping system intensification, land and water productivity improvement by expansion of Boro rice cultivation in	Patuakhali and Barguna

Sl. No.	Research Title	Objectives(s)	Location(s)
	Schemes for Escalating Water and Land Productivity in Coastal Region (ISIMISC)	selected area utilizing less saline surface water.	
466.	Upscaling of Improved Water Management Practices for Sustainable Productivity in the Haor areas	• To document the existing agricultural water management practices for identifying problems and potential to attain higher productivity in the haor areas • To assess the effect of water stress on the yield of boro rice and find suitable measures to overcome the problem • To demonstrate performance of suitable water management technologies (AWD irrigation, use of lay flat hose pipe etc.) for the improvement of irrigation efficiency and optimum crop yield • To evaluate the suitability of direct seeding method for labour and water saving and early harvest of boro for escaping flash flood; and • To explore the possibility of increasing crop production by further irrigation expansion through improved water management innovations in the haor areas.	Tahirpur and adjacent upazilas of Sunamganj
467.	Mitigating risk and scaling-out profitable cropping system intensification practices in the salt-affected coastal zones of the Ganges Delta (Funded by Australian Centre for International Agriculture Research and Krishi Gobeshona Foundation)	• Scaling out profitable cropping system intensification practices • Mitigating risk of changed practices and changing climate	Amtali, Barishal region and Batighata, Khulna region
PLANT PHYSIOLOGY DIVISION			
468.	Exploring new sources and advance breeding lines for salinity tolerance from at seedling stage.	• To identify salt-tolerant advance breeding lines/germplasm at the seedling stage.	Plant Physiology Division, BRRI, Gazipur
469.	Re-evaluation of previously screened saline-tolerant germplasm for salinity tolerance at the seedling stage.	• To identify salt-tolerant advance breeding lines/germplasm at the seedling stage.	Plant Physiology Division, BRRI, Gazipur
470.	Exploring new sources of submergence tolerance.	• To identify submergence tolerant germplasm	Plant Physiology Division, BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
471.	Screening for stagnant flooding tolerance of germplasm/advanced breeding lines.	• To identify tolerant germplasm/advanced breeding lines for water stagnation condition	Plant Physiology Division, BRRI, Gazipur
472.	Screening germplasm for drought tolerance at reproductive phase T. Aman'2023.	• To identify germplasm tolerant to drought stress at reproductive phase.	BRRI RS Rajshahi
473.	Evaluation of previously selected germplasm under drought stress at reproductive phase in the rain-out shelter.	• To evaluate previously selected germplasm under controlled drought condition in the rain-out shelter.	Plant Physiology Division, BRRI, Gazipur
474.	Confirmation of performance for RYT materials under drought stress at reproductive stage.	• To evaluate 7 RYT materials under controlled drought condition in the rain-out shelter.	Plant Physiology Division, BRRI, Gazipur
475.	Screening of rice germplasm and advanced breeding lines for high temperature tolerance under controlled conditions.	• To identify high-temperature tolerant germplasm and advanced lines under controlled condition	Plant Physiology Division, BRRI, Gazipur
476.	Screening for high temperature-induced spikelet fertility QTL introgression lines under controlled conditions.	• To identify high-temperature tolerant lines under controlled condition	Plant Physiology Division, BRRI, Gazipur
477.	Screening for high temperature tolerance of advance breeding lines.	• To identify high-temperature tolerant lines under controlled condition	Plant Physiology Division, BRRI, Gazipur
478.	Marker assisted introgression of high temperature induced spikelet fertility QTL (<i>qHTSF4.1</i>) in the background of BRRI dhan48 and BRRI dhan62.	• To develop high temperature induced spikelet fertility QTL (<i>qHTSF4.1</i>) introgression lines for the Aus and T. Aman (short duration) seasons.	Plant Physiology Division, BRRI, Gazipur
479.	Exploring new sources of cold tolerance from BRRI Gene Bank collections at seedling stage.	• To identify rice genotypes which can tolerate low temperature at seedling stag.	Plant Physiology Division, BRRI, Gazipur
480.	Evaluation of breeding lines for reproductive stage cold tolerance.	• To identify short duration and cold tolerant rice genotypes at natural condition.	Plant Physiology Division, BRRI, Gazipur
481.	Evaluation of BRRI Varieties under Natural Field Condition for	• To observe the cold tolerance level of some BRRI Boro varieties at reproductive phase.	Plant Physiology Division, BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	reproductive stage cold tolerance.		
482.	Study the Influence of Photo-thermal Quotient on the Growth and Yield of Rice under Varying Dates of Transplanting at different locations of Bangladesh.	• To justify the seeding or planting date in relation to agro-climatic indices.	Plant Physiology Division, BRRI, Gazipur
483.	Reduction of pre-harvest sprouting of rice through chemical spraying (New).	• To reduce the pre-harvest sprouting spikelet in rice panicle	Plant Physiology Division, BRRI, Gazipur
484.	Photoperiod sensitivity test of different types of rice genotypes.	• To know the photosensitive response of tested genotypes	Plant Physiology Division, BRRI, Gazipur
485.	Evaluation for lodging tolerance capacity at T. Aman season.	• To determine the lodging characters of tasted genotypes	Plant Physiology Division, BRRI, Gazipur
486.	Screening for lodging tolerance of advanced breeding lines in Boro season.	• To determine the lodging tolerant capacity of advanced breeding lines supplied from Plant breeding division	Plant Physiology Division, BRRI, Gazipur
487.	Characterization for lodging tolerance of BRRI released varieties in different transplanting time of Boro season.	• To determine the lodging tolerant capacity of newly BRRI released Boro varieties	Plant Physiology Division, BRRI, Gazipur
488.	Study of the grain filling characteristics of rice under different environmental conditions.	• To study the temperature effect on the grain-filling rate and duration.	Plant Physiology Division, BRRI, Gazipur
489.	To increase salinity tolerance via CRISPR-Cas9-targeted mutagenesis of the transcription factor gene <i>OsRR22</i> .	• CRISPR-Cas9 mutagenesis of the <i>OsRR22</i> gene for improving salinity tolerance of rice	Plant Physiology Division, BRRI, Gazipur
490.	Generation of male sterile rice line for two-line hybrid system by editing <i>TMS5</i> gene using CRISPR/Cas9 system.	• To generate a novel thermo-sensitive genic male sterile line by editing <i>TMS5</i> gene via CRISPR/Cas9 for two-line hybrid system. • To evaluate the suitability of the TGMS line in two-line hybrid breeding program	Plant Physiology Division, BRRI, Gazipur
491.	Investigation of anatomical differences in the leaves of rice and Uri dhan.	• To explore structural differences in the leaves of cultivated high-yielding rice variety and Uri dhan	Plant Physiology Division, BRRI, Gazipur
492.	Wide hybridization between Latisail (AAAA) and Uridhan (KKLL).	• To combine leaf traits through hybridization between an auto and allo tetraploid species	Plant Physiology Division, BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
493.	Optimizing chlorophyll fluorescence imaging system for photosynthetic efficiencies of rice in the submergence stress.	• To investigate the application of chlorophyll fluorescence-based imaging to assess the submergence tolerance of rice at the vegetative stage	Plant Physiology Division, BRRI, Gazipur
494.	Manual weather station data collection and maintenance.	• To collect, transfer and storage of different weather variables	Plant Physiology Division, BRRI, Gazipur and other seven regional stations,
Program Area: Pest Management			
ENTOMOLOGY DIVISION			
495.	Pest monitoring in BRRI farm.	• To study the insect pests and their natural enemy incidence at BRRI farm and to create a database to develop a forecasting system.	Gazipur
496.	Insect pests and natural enemy in light trap.	• To study the pest and their natural enemy incidence patterns in rice fields and to create a database to develop a forecasting system.	Gazipur and regional station, Cumilla, Rangpur, Barishal, Sonagazi, Rajshahi
497.	Survey and monitoring of rice arthropods in different AEZ of Bangladesh.	• To identify the peak abundance of insect pests at natural enemies in region different AEZ of Bangladesh.	Different AEZ
498.	Survey and monitoring of rice arthropods in coastal areas.	• To find out the arthropod composition and community structure in coastal areas.	Dacope & Batiaghata Khulna, Amtali Barguna
499.	Behavioral adaptation of RLR in different weather condition.	• To identify the effects of temperature on life cycle of rice leaf roller.	Gazipur
500.	Conservation of natural enemies through eco-engineering.	• To conserve natural enemies through ecological engineering approaches. • To reduce insecticide application in rice production. • To save environment from insecticidal pollution.	Gazipur Rangpur
501.	Study on entomogenous fungi to control BPH.	• To isolate the fungi from naturally infected insects. • To explore suitable media for mass production of the entomogenous fungi and its use in BPH management.	Gazipur
502.	Study on the biology of green mirid bug an egg predator of BPH.	• To know the biology and life cycle of green mirid bug.	Gazipur
503.	Species composition of stem borer in rice.	• To study the relative abundance of different species of rice stem borers and to determine the yield loss due to their damage.	Gazipur,

Sl. No.	Research Title	Objectives(s)	Location(s)
504.	Test of different insecticides against major insect pests.	• To evaluate the effectiveness of commercial formulations of different insecticides against major insect pests of rice.	Gazipur
505.	Use of nanoparticle to control rice insect pests.	• To develop nano-particle based pest management in rice • To reduce chemical pesticide load in environment.	Gazipur
506.	Pesticidal Effect of different botanicals and chemical against Rice weevil (<i>Sitophilus oryzae</i> L.).	• To assess the effectiveness of botanicals and chemical management practices for Rice weevil.	Gazipur
507.	Insect pest management without of less use of insecticide n rice production	• To develop eco-friendly insect pests' management technology in rice production • To reduce insecticide, use in rice production and increase farmers income. • To demonstrate sustainable insect pest management practices in farmer's field.	Habiganj Sylhat Rangpur Kurigram Sirajganj
508.	Effect of different insecticides on susceptible GLH population.	• To find out the susceptibility baseline of different group insecticides on GLH.	Gazipur
509.	Effect of different formulation of insecticide on resurgence development.	• To know the effect of insecticide formulation on development of resurgence in GLH.	Gazipur
510.	Residue analysis of different insecticide in rice by using LCMS.	• To detect insecticide residues in rice hull, bran and polished rice. • To establish monitoring and guidance on safe use of insecticide in rice field.	Gazipur
511.	Development and validation of analytical methods for multiple pesticide residue determination in rice grain using Liquid Chromatography with Tandem Mass Spectrometry (LCMS/MS).	• To develop and validate a multi-residue analytical method for the analysis of different pesticide in rice grain using QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe) extraction coupled to LC-MS/MS.	Gazipur
512.	Screening of rice germplasm, advance line against BPH, WBPH, GLH.	• To identify resistant rice germplasm against major insect pests.	Gazipur
513.	Suppression of serotonin synthesis in rice using CRISPR Cas9 for insect control.	• To develop insect resistant rice variety • To reduce insecticide dependency.	Gazipur
514.	Use of sex pheromone in corporation with other IPM tools to control leafroller and stem borer.	• To test the efficacy of sex pheromone against leafroller & stem borer in rice field. • To control rice leafroller & stem borer without insecticide.	Gazipur Cumilla Jashore Khulna

Sl. No.	Research Title	Objectives(s)	Location(s)
			Barishal
515.	Use of Watching Tower to manage rice rats.	• Sustainable management of rat facilitating owl watch tower for predation.	Gazipur
PLANT PATHOLOGY DIVISION			
Program Area: Disease Management			
516.	Survey and monitoring of rice diseases in selected areas	• 1. To investigate the present status of different rice diseases in different climatic environments; 2. To update disease crop calendar.	Bar, Cum, Gaz, Hab, Raj, Ran, Shir, Sat, & Chat
517.	Digitization of disease surveillance system and visualization at BRRI website	• To develop a web-based rice disease information platform in Bangladesh	Gazipur
518.	Identification of new virus disease and its causal organisms in Bangladesh	• To identify the new viruses by based on phenotypic symptoms and molecular markers.	Gazipur
519.	Etiology, Epidemiology and Management of BPB: An emerging and climate sensitive rice disease in Bangladesh	• To conduct a details studies on bacterial panicle blight disease	Gazipur
520.	Seed health status of rice in Bangladesh	• To know the health conditions of rice seeds available from public and private sectors, and farmers' seed as well; • To develop rice seed health standard in Bangladesh	Gazipur
521.	Improvement of differential system for rice blast disease in Bangladesh	• To select new differential blast isolates; • To identify candidate resistant gene(s) or source(s); • To monitor regularly of the evolution of new races	Gazipur
522.	Biology of Rice Kernel Smut Disease (<i>Tilletia Barclayana</i>) and Its Molecular Identification	• Isolation, clarify the growth nature of this fungus, life cycle and host pathogen interaction relationship; Molecular identification with ITS region and compare sequence analysis of some Rangpur isolates with worldwide through NCBI website	Gazipur & Rangpur
523.	Identification of critical climate status for rice blast and ShB disease outbreak	• To identify the real time for disease development and overcome the risk	Gazipur
524.	Investigation of disease and insect resistance performance in Zn content rice	• To observe the resistant ability of Zn-enrich rice against major pests	Gazipur
525.	Optimization and validation of aflatoxin detection method by chromatography	• To optimize the method to detect toxin in rice using LCMS-MS; 2. To validate the method following same procedure	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
526.	Development of BB resistant pre-breeding materials for T. Aus	• To develop medium duration BB resistance advanced lines for T. Aus	Gazipur
527.	Development of pre-breeding materials of BB and False smut resistance in the background of BRRI dhan49	• To develop resistance rice lines of bacterial blight and false smut disease.	Gazipur
528.	MLT of BB and Blast resistant lines in the Genetic Background of BRRI dhan63	• To develop pyramid line of blast and BB resistance of BRRI dhan63	Gazipur
529.	MLT of BB and Blast resistant lines in the Genetic Background of BRRI dhan81	• To develop pyramid line of blast and BB resistance of BRRI dhan81.	Gazipur
530.	MLT of tungro resistance advanced lines in Gazipur and Cumilla	• To evaluate tungro resistance advanced lines in Gazipur and Cumilla	Gazipur & Cumilla
531.	Advanced Yield Trial of blast resistant lines, T. Aman	• To evaluate blast resistance advanced lines	Satkhira, Gazipur
532.	Introgression of blast resistance gene(s) into BRRI dhan58 using marker assisted backcross breeding	• To introgress blast resistance <i>Pi9</i> and <i>Pb1</i> genes in BRRI dhan58	Gazipur
533.	Development of new markers for the detection of Rice Tungro Bacilliform Virus (RTBV)	• To develop novel primer to detect RTBV strain of Bangladesh.	Gazipur
534.	Phenotypic and genetic characterization of local aromatic germplasms	• To characterize resistance pattern for developing blast resistant aromatic pre breeding materials.	Gazipur
535.	Evaluation for Blast resistant advanced lines during Boro 2022-23	• To evaluate specific and general adaptability of blast advance breeding lines along with disease parameters as compared with standard checks.	Shirajganj
536.	MLT for both BB and Blast resistance during Boro 2022-23 (Short duration)	• To evaluate specific and general adaptability of blast and Bacterial blight resistant advance breeding lines along with disease parameters.	Gazipur, Rangpur & Sonagazi;
537.	Multilocation trial for Blast resistant advanced lines (Short duration)	• To evaluate specific and general adaptability of blast resistant advance lines along with disease parameters.	Sirajganj, Gazipur
538.	RYT of bacterial blight (BB) resistant materials	• To develop bacterial blight resistant advanced lines.	Gazipur
539.	RYT of multiple disease	• To develop bacteria blight and blast	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	resistant (BB and Blast) pre-breeding materials (LD)	resistance long duration varieties.	
540.	Evaluation of advanced lines for BB resistance in the background of CN6	• To develop BB resistance lines in the background of CN6.	Gazipur
541.	Response of Upland Aus Rice Germplasm to Blast Disease and Its Physio-Chemicals & Nutraceutical properties analysis	• To find out blast resistance Aus germplasm • 2. To evaluate the physio-chemicals & nutraceutical properties	Gazipur
542.	Screening of advanced breeding lines and land races against Blast, Bacterial blight and Sheath Blight diseases	• To identify the source of resistance against blast, bacterial blight, Bakanae and sheath blight diseases of rice.	Gazipur
543.	Development of blast resistant varieties using differential system and molecular markers	• To develop blast resistant varieties for Bangladesh.	Gazipur
544.	Studies on host range of the rice blast pathogen	• To determine the pathogenicity of all the isolates to rice and the pathogenicity of rice isolates to foxtail millet and barely.	Gazipur
545.	Characterization of blast pathogen isolates collected from different hosts	• To investigate the various fungal morphological characteristics.	Gazipur
546.	Detection of novel QTLs for blast and BB resistance revealed by genome-wide association studies in 112 rice landraces from Bangladesh	• To detect novel loci underlying rice blast and BB resistance in local germplasm of Bangladesh.	BRRI HQ, Gazipur
547.	Isolation, Purification and Preservation of <i>Xanthomonas oryzae</i> pv. <i>oryzae</i>	• To isolate, purify and preserve the <i>Xanthomonas oryzae</i> pv. <i>oryzae</i> obtained from infected rice leaves	BRRI HQ, Gazipur
548.	Development of durable broad-spectrum BB and Blast resistant variety through mutagenesis by CRISPR/Cas9 system	• To develop broad spectrum resistant rice variety against Bacterial Blight and Blast disease using CRISPR/Cas9 system	BRRI HQ, Gazipur
549.	Detection of avirulence gene(s) existing in different eco-system	• To improve the existing differential system for rice blast resistance	Gazipur
550.	Genomic analysis of both <i>X. oryzae</i> pv. <i>oryzae</i> and <i>Pyricularia oryzae</i>	• To identify possible SNP among the sequenced isolates as well as to formulate race specific primers.	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
551.	Investigation of the expression level of targeted gene (Pi9, Pb1, Xa13 and Xa21) in the introgressed advanced lines.	• Validation of reference genes to observe the functional status of advanced lines	Gazipur
552.	Genome-wide association mapping of resistance against rice blast, bacterial blight, sheath blight and tungro diseases in Bangladesh (Project)	• To detect novel resistant loci underlying for rice blast, BB, ShB and tungro diseases in Bangladesh	Gazipur
553.	Characterization of a new resistance segregant of IRBL-9W	• To find out homozygous blast resistant line	Satkira & Gazipur
554.	Genetic basis of blast resistance in native aromatic and Zoom rice germplasm	• To identify resistance source of blast disease containing aroma.	Gazipur
555.	MLT of durable blast resistance advanced lines	• To develop durable blast resistant line	Gaz, Son & Sat
556.	Genotype and environmental interaction on neck blast incidence in blast prone area.	• To understand the pattern of neck blast incidence in relation to variety and environment	Gazipur
557.	Crop Loss Assessment of rice due to major diseases in Bangladesh	• Objective: To calculate the actual crop loss due to major diseases	Gazipur and RS, BRRI
558.	Enabling Farmers in Combating Pest and Diseases in Rice Crops: Artificial Inelegancy for Food Safety	• To apply Artificial Inelegancy in rice pests diagnoses and management; And to determine photosynthetic efficiency after pathogen infection in rice leaves using RGB value	Gazipur
559.	Development of a yield loss app	• Instant estimation of yield loss due to diseases	Gazipur
560.	Development of Early Warning System of rice blast disease	• To aware the rice growers at least 5 days earlier of blast disease infection.	Cumilla and Gazipur
561.	Climate change effect on rice disease development	• To generate data on the climate change effect on rice disease development (Climate change project, IWMD).	Gazipur
562.	Yield loss estimation of tungro devastation	• To determine the yield loss due to tungro in natural condition.	Cumilla
563.	Identification of the source of infection of rice false smut disease	• To find out the source of infection of major rice diseases; and • To find out the predisposing factors of major rice diseases	Gazipur
564.	Grain quality study of	• Quality evaluation of rice grain as affected	Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
	major rice disease infected seed	by blast, sheath blight, sheath rot and false smut disease.	
565.	Biosynthesis of nano-particles using plant extract	• To biosynthesize NPs for the management of major diseases of rice.	Gazipur
566.	Characterization of different nano-particles	• To confirm the appropriate size (1-100nm) of nanoparticles	Gazipur
567.	<i>In-vitro</i> test of nano mediated fungicides against <i>R. solani</i>	• To evaluate the antifungal effects of mediated fungicides	Gazipur
568.	<i>In vivo</i> study of green synthesized silver nano-particles against rice sheath blight disease	• To evaluate the antifungal effects of biosynthesized silver nanoparticles.	Gazipur
569.	Efficacy of green synthesized AgNPs against rice sheath blight in pot and field conditions	• To know the efficacy of green synthesized AgNPs against rice sheath blight in pot and field conditions	Gazipur
570.	Synthesis of AgNPs and ZnONPs using bacterial isolates for controlling ShB and blast	• To investigate the potency of biosynthesized NPs against blast & sheath blight	Gazipur
571.	Residual Effect of Fungicide on Microbial Community in Rice Rhizosphere	• To investigate microbial communities following use of fungicides and to detect and determine the residue of fungicides in soil and plant	Gazipur
572.	Evaluation of biocontrol agents against sheath blight	• To find out the effective biocontrol agents for sheath blight	Gazipur
573.	Determination of residual effect of fungicides in rice grain	• To find out the pesticide residue in pesticides sprayed rice	Gazipur
574.	Synthesis of nano-particles from different sources	• To find out the effective silica (SiO ₂) and silicon (Si) NPs; To develop silica nano-particles from rice husk ash	Gazipur
575.	Suppression of fungal and bacterial development by hydrogen peroxide	• To observe the effect of H ₂ O ₂ on fungal and bacterial development at different concentrations	Gazipur
576.	Effect of neem leaf mediated nano particles on seed borne disease management	• To manage bakanae, blast and brown spot disease	Barishal & Gazipur
577.	Efficacy of <i>Bacillus cereus</i> as bacterial biopesticide to manage sheath blight disease	• To manage sheath blight disease and yield increase of rice	Barishal & Gazipur
578.	Management of Bakanae Disease at field level	• To manage rice bakanae disease at field level.	Habiganj

Sl. No.	Research Title	Objectives(s)	Location(s)
579.	Estimation of yield loss due to bakanae and blast disease at field level	• To estimate yield loss due to rice blast and bakanae disease at field level.	Habiganj
580.	Evaluation of new chemical against Blast, and sheath blight diseases of rice	• To find out the effective chemicals suitable for Blast and ShB disease management.	Gazipur, and Cumilla
581.	Training on integrated management of blast, bacterial blight and tungro disease in changing climate	• To build up farmer's awareness on integrated rice disease management	Regional Stations
Program Area: Farm Mechanization & Post Harvest Technology			
FARM MECHANIZATION & POST HARVEST TECHNOLOGY DIVISION			
582.	Development of Agricultural Machines	• Development of farm machinery adaptable to rice eco-system • Reduction of human drudgery	Gazipur
583.	Evaluating and modifying of BRRI developed machines	• To verify the quality of BRRI machines • To identify the functional problems of farm machines • To improve the performance of farm machines	FMPHT div. res. workshop and BRRI farm
584.	Design and development of walking type power operated rice transplanter	• To design and develop a power-operated rice transplanter • To test the performance of the developed rice transplanter	Gazipur, Mymensingh, Netrokona Habiganj, Rangpur and Comilla
585.	Design and development of a 4-row walking-type power-operated rice transplanter	• Design of power transmission system of rice transplanter • To fabricate power operated rice transplanter according to the design • To investigate the performance of the developed rice transplanter	BRRI, Gazipur, and Farmers' field
586.	Design and development of power-operated seed sower machine for raising mat-type seedling	• Design and fabrication of a BRRI power-operated seed sower machine for mat-type seedling preparation	Alam Engineering and BRRI, Gazipur
587.	Design and development of a diesel engine-operated high-speed hydro-tiller for marshy land	• To design a variable power transmission mechanism of the diesel engine-operated hydro-tiller • To design a rotary casing of a hydro tiller suitable for marshy land • To develop a prototype based on engineering design • To evaluate the prototype in different soil conditions	BRRI, Gazipur, and Farmers' field
588.	Postharvest loss assessment of whole and head feed combine harvester under	• To assess the loss of grain. • To identify a suitable operating system to minimize the loss.	BRRI, Gazipur, and Farmers' field

Sl. No.	Research Title	Objectives(s)	Location(s)
	different soil condition		
589.	Development of mat-type seedling using a hydroponic technique	• To develop a mat-type seedling using a hydroponic technique • Performance test of developed seedling for rice transplanter	BRRI, Gazipur, and Farmers' field
590.	Design and development of a semi-automatic rice transplanter	• Design and fabricate a Semi-Automatic Rice Transplanter	BRRI, Gazipur and R K Metal, Faridpur and
591.	Performance evaluation of laser land leveler with the conventional method	• To evaluate the performance of laser land levelers and conventional systems • To find the feasibility of the laser land leveler in Bangladesh	All over Bangladesh
592.	Identification and fabrication of fast-moving spare parts of combine harvester and rice transplanter enhancing sustainable mechanization in Bangladesh	• To list down the fast-moving spare parts of the different make and model • To identify the strength and quality of the major parts • To take initiative for the fabrication of the parts	BRRI, Gazipur and Farmers' field
593.	Ground pressure and bearing capacity of combine harvester in different soil conditions	• To estimate ground pressure and bearing capacity of combine harvester in different soil conditions • To estimate the required force in cutting, threshing, cleaning, and bagging rice through combine harvester	BRRI, Gazipur, and Farmers' field
594.	Design and development of self-propelled fertilizer deep placement applicator	• To design, fabricate and develop a power-operated fertilizer deep placement applicator using the existing developed manual applicator. • To compare with other fertilizer applicators.	BRRI, Gazipur, and Farmers' field
595.	Modification of power transmission system of BRRI hydro-tiller	• To detect the causes of frequent tearing of hydro tiller chain • To modify the power transmission system for increasing the longevity of hydro tiller	BRRI, Gazipur, and Farmers' field
596.	Design and development of single-row wetland power weeder	• To design, fabricate and develop a power-operated single-row weeder suitable for weeding both in a row-to-row and line-to-line of the lowland and upland fields (line and without line sowing). • To evaluate its performance in the different multi-crop fields. • To compare with other dry and wetland paddy weeders	BRRI, Gazipur, and Farmers' field
597.	Design and development of a self-propelled multi-rows power weeder for both wet	• To design and fabricate the self-propelled weeder • To evaluate the weeding performance in	BRRI, Gazipur, and Farmers' field

Sl. No.	Research Title	Objectives(s)	Location(s)
	and dry land condition	different locations • To improve the developed weeder based on evaluation • To reduce the weeding cost in rice production	
598.	Design and development of double row skid type power weeder for wet land paddy field.	• To design and develop of the power weeder • To design and attach adjustable type skid mechanism in the power weeder • To demonstrate and validate the weeder in different soils under different rice seasons • To reduce the input cost of rice production	BRRI, Gazipur and Alam Engineering
599.	Design and development of a head feed combine harvester	• To design a head feed, combine harvester • To manufacture the designed combine harvester prototype • To evaluate the field performance of the developed combine harvester	BRRI HQ and RS
600.	Performance evaluation of BRRI whole feed combine harvester (model no- BRRI WCH 2021) under different soil conditions, crop conditions, and seasons	• To evaluate the performance of BRRI combine harvester in respect of soil condition, crop condition, and seasons • To establish a relationship between the machine performance and plough pan depth of the field • To compare the performance of BRRI combine harvester with the traditional harvesting systems.	BRRI, Gazipur, and Farmers' field
601.	Milling and Processing Technology	• To reduce loss, improve quality, and addition of value to the farm products	All over the country
602.	Test, evaluation, and modification of rubber roll de-husker for commercial use	• To modify and development of a rubber roll de-husker • To evaluate the performance of paddy de-husker	FMPHT division milling laboratory
603.	Design and development of solar seed dryer	• To design, fabricate and develop a solar dryer • To compare with traditional sun drying of paddy	FMPHT divisional lab
604.	Design and development of a compact rice mill	• To design and fabricate a compact rice mill • To evaluate the performance of fabricated rice mill	FMPHT division milling laboratory
605.	Drying and tempering effect on Kernel Strength and milling recovery of the parboiled and un-parboiled Paddy	• To determine the kernel strength of paddy in terms of drying and tempering effect. • To make a relation between kernel strength and milling recovery.	FMPHT division milling laboratory
606.	Design and development of a mini rice mill for homestead level using	• To design and developed a mini rice mill suitable for individual household • To evaluate the milling performance using different rice varieties under different	FMPHT division milling laboratory

Sl. No.	Research Title	Objectives(s)	Location(s)
		conditions • To analyze the cost of milling and the pay-back period.	
607.	Development of stores and storage technology	• To increase the shelf life of rice in store	FMPHT Lab and Gazipur
608.	Effect of ageing on milling performance of premium quality rice	• To observe the milling performance of BRRI dhan50 at different aging	FMPHT division milling laboratory
609.	Effect of the different storage structures of milled rice in long-term storage	• To find out the suitable storage structure • To investigate the influence of moisture content on storage time • To observe the prevalence of insect/diseases infestation of storage time • To determine the effect of length of storage time on the quality of milled rice	FMPHT division milling laboratory
610.	Renewable Energy Technology	• Development of renewable energy extraction technologies from solar, agri-residues, and waste products	BRRI, Gazipur
611.	Study the briquette production from rice by product	• To prepare briquettes from rice straw and husk • Characterization of different briquettes originated from agricultural residue • To measure the calorific value of the briquettes	FMPHT Lab and Gazipur
612.	Study on solar energy utilization for small agricultural machinery	• To design a mechanism for solar energy utilization • To evaluate the performance of the developed machine	FMPHT Lab and Gazipur
613.	Design, development, and performance evaluation of briquetting machine using rice husk with a different ration of maize steam	• To design and develop a briquetting machine using rice husk with different ratios of maize steam. • To determine the physical and combustion properties of the final product. • To evaluate the performance of the briquette machine.	FMPHT Lab and Gazipur
614.	Performance evaluation of a rice husk-straw pellet machine	• To evaluate the performance of a pellet machine	Alam Engineering and BRRI, Gazipur
615.	Improvement and validation of solar energy utilization system for small types of different agricultural machinery	• To improve solar energy utilization system • To improve solar panel carrier • To evaluate the performance of the developed machine using solar energy	BRRI HQ and RS
616.	Design and develop a solar powered smart bird repellent	• To design an audio player using Arduino software • To identify the scary melodies for granivorous birds	FMPHT Lab and Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
		• To test the performance	
617.	Design and development of solar power operated sprayer	• To design and fabricate a solar-power-operated sprayer • To evaluate the performance of the sprayer	BRRI, Gazipur, and Farmers' field
618.	Popularization of BRRI-developed farm machinery and Postharvest technology	• Awareness builds up about the benefit of using BRRI machines among the farmers • Motivation of the local manufacturer to manufacture the BRRI agricultural machinery	All over the country
619.	Industrial and farm-level extension of BRRI machinery and Postharvest technology	• To create awareness and demonstrate the benefit of using BRRI machines among the farmers • To motivate the local entrepreneurs to manufacture BRRI-developed machinery	All over the country
620.	Training on operation, repair, and maintenance of farm machinery	• To impart knowledge to the farmers/operators/mechanics/extension workers/entrepreneurs about the effective use of farm machinery • To develop skilled operators and mechanics	BRRI HQ and RS
621.	Precision Agriculture	• To apply ICT in Agriculture	All over the country
622.	Detection of rice leaf diseases and early diagnosis using faster regional convolutional neural networks (R-CNN)	• To develop and enhance an image processing system and deep learning techniques to advance the agricultural sector.	All over the country
623.	Application of machine learning techniques in predicting agricultural drought: A regional examination of Bangladesh	• Development of machine learning techniques in predicting standardized precipitation evapotranspiration index (SPEI)	Rajshahi
624.	6.3: Detection of Pests Affected Areas in Rice Farming Using Remote Sensing and Machine Learning Techniques	• To enhance natural pest control measures for precision rice farming • To limit the environmental hazards • To validate the results with ground truth data	All over the country
625.	Assessing the future rainfall and temperature extremes from CMIP6 GCMs and their potential risk to rice cultivation in Bangladesh	• Assessing future changes in rainfall and temperature extremes based on data from the CMIP6 global climate models (GCMs). • Evaluating the potential risks associated with these changes to rice cultivation in Bangladesh.	All over the country
626.	Future Changes in thermal bioclimatic indicators over the coastal region using bias-corrected CMIP6 models	• To assess the current state of thermal bioclimatic indicators in coastal regions, based on historical data and observations. • To evaluate the performance of the CMIP6 models in simulating thermal bioclimatic indicators in coastal regions, and to identify	All over the country

Sl. No.	Research Title	Objectives(s)	Location(s)
		any biases that may exist. • To apply bias correction techniques to the CMIP6 models to improve their accuracy in simulating thermal bioclimatic indicators in coastal regions. • To use the bias-corrected CMIP6 models to project future changes in thermal bioclimatic indicators over coastal regions under different emission scenarios. • To assess the potential impacts of these changes in thermal bioclimatic indicators on ecosystems and human communities in coastal regions. • To provide policymakers and other stakeholders with useful information on the potential impacts of climate change on coastal regions and the need for adaptation measures to address these impacts.	
627.	Multi-model ensemble of CMIP6 projections for future extreme climate stress on Boro rice in the haor region	• To assess the potential frequency and intensity of extreme climate events (flush floods, heatwaves, and cold snaps) that may stress the Boro Rice crop in the Haor region under different greenhouse gas emissions scenarios. • To use a multi-model ensemble of CMIP6 projections to provide a more robust assessment of the potential impacts of climate change on Boro Rice production in the Haor region. • To identify potential adaptation and mitigation strategies that could reduce the potential impacts of climate change on Boro Rice production in the Haor region. • To contribute to a better understanding of the potential impacts of climate change on food security in Bangladesh, and to inform policy and decision-making processes aimed at building resilience to the effects of climate change.	All over the country
WORKSHOP MACHINERY AND MAINTENANCE DIVISION			
628.	Design and development of solar powered operated sprayer	• To design and develop a solar powered operated sprayer • To conduct the performance test of the developed sprayer	BRRI, Gazipur
629.	Design and development an automated mousetrap	• To design and develop an automated mousetrap • To test the performance test of the	BRRI, Gazipur

Sl. No.	Research Title	Objectives(s)	Location(s)
		developed mouse trap	
630.	Development of mat type seedling using hydroponic technique	• To develop a mat type seedling using hydroponic technique • Performance test of developed seedling for rice transplanter	BRRI, Gazipur
Program Area: Socio Economics and Policy			
AGRI ECONOMICS DIVISION			
631.	Producers' welfare loss in Bangladesh: An assessment of rice market distortion	• To estimate the rice supply function in Bangladesh. • To assess the impact of changes in paddy market price on the welfare of rice producers.	Over all Bangladesh
632.	Impact of poverty reduction on the nutrition security in Bangladesh	• To examine the impact of poverty reduction of the farmers on the nutrition security in Bangladesh. • Suggest some policy guidelines from aforementioned findings.	Over all Bangladesh
633.	Estimation of Costs and Return of MV Rice Cultivation at the Farm Level	• Delineate input use pattern in modern Aus, T. Aman and Boro rice cultivation; • Estimate the profitability of modern Aus, T. Aman and Boro rice cultivation at farm level.	Fourteen Agricultural Regions of Bangladesh
634.	Farm Level Adoption and Evaluation of Modern Rice Cultivation in Bangladesh	• To determine the region-wise adoption rate of different MVs in Aus, T. Aman and Boro seasons, • To estimate the yield of different modern and local rice varieties in different seasons; and	Fourteen Agricultural Regions of Bangladesh
635.	Comparative Study on Hybrid and Inbred Rice Cultivation in Bangladesh	• Assessing inputs use pattern and profitability of hybrid and inbred rice cultivation in Bangladesh. • Estimating the costs and land requirements of hybrid seed production. • Identifying the strengths and weaknesses of hybrids and inbreds at the farm level.	Gopalganj, Rangpur and Cumilla
636.	Prospect and Constraints to Adoption of BRRI Released Modern Rice Varieties in Bangladesh: A Case of Rajshahi District	• To identify the drivers and constraints of adoption of rice varieties in different seasons; • To delineate the prospect for BRRI varieties for large scale adoption at the farm level.	Tanore, Rajshahi
637.	Adoption status of BRRI developed different technologies (other than rice variety) in Bangladesh	• To know adoption status of BRRI developed different technologies in selected areas • To identify the reasons of adoption and non-adoption of those technologies	Rangpur
638.	Effect of demonstration in	• To assess the magnitude of farmers	Noakhali and

Sl. No.	Research Title	Objectives(s)	Location(s)
	the adoption of newly released BRRI rice varieties and its impact on rice production	awareness and interest about the new rice varieties; • To analyze profitability of BRRI released varieties over popular existing varieties; Factor affecting adoption of BRRI released new rice cultivars; and, • To identify the problems towards the adoption of BRRI released new varieties.	Sylhet
AGRICULTURAL STATISTICS DIVISION			
639.	Stability analysis of BRRI Varieties	• To determine the stability index of BRRI varieties • To estimate location-wise stability index of BRRI varieties • To determine the stability index of BRRI varieties according to the growth duration • To find out the location-wise yield performance of BRRI varieties at different years • To find out the overall yield performance of BRRI varieties at different locations and year. • Season, year and location wise database on BRRI varieties	BRRI HQ and all R/S of BRRI
640.	Development of machine learning model for predicting rice yield loss concerning meteorological features in Bangladesh	• To assess and categorize rice yield loss in different seasons in Bangladesh. • To develop a machine learning model for predicting and classifying yield loss. • To construct a decision tree based on several meteorological parameters for determining yield loss.	All over the Bangladesh
641.	Genotype x Environment interaction of BRRI varieties	• To Identify BRRI released rice genotypes that have both high mean yield and stable yield performance across different environments for different ecosystem of Bangladesh	BRRI HQ, and all regional stations
642.	Genotype x Environment interaction of BRRI varieties	• To Identify BRRI released rice genotypes that have both high mean yield and stable yield performance across different environments for different ecosystem of Bangladesh	BRRI HQ, and all regional stations
643.	CV for estimating yield and yield contributing characters of BRRI varieties	• To determine the acceptable limit of CV for biometric characters of rice varieties • To determine the relative contribution of phenotypic characters/yield contributing characters to rice yield • To review the existing experimental data	BRRI HQ, and all regional stations
644.	New edition of Simple	• To update and publish a new edition of	All over the country

Sl. No.	Research Title	Objectives(s)	Location(s)
	Lessons from Biometry	‘Simple Lesion from Biometry’ • To incorporate novel experimental designs • To incorporate novel analytical techniques for various types of data • To incorporate the other topics related to biometry	
645.	Maintenance of Rice and related Database	• To maintain up-to-date computerized information on rice and related crops • To determine year wise GR of Rice Production in Bangladesh • To maintain up-to-date computerized information on climatic factors both BRRI regional stations and BMD stations data. • To make comparison between BRRI stations and BMD stations data. • To produce various maps from these data	All over the country
646.	Suitability mapping of BRRI varieties	• To construct suitability map of BRRI released rice varieties (BRRI dhan96 to BRRI dhan100)	All over the Bangladesh
647.	Climate mapping of temperature and rainfall of Bangladesh	• To determine expected maximum and minimum temperature and rainfall in different region for rice in Bangladesh. • To determine areas of critical maximum and minimum temperature and rainfall map of Bangladesh for rice during the period. • To estimate the return period of extreme rainfall and high temperature.	All over the Bangladesh
648.	Season wise rice area mapping of Bangladesh	• To construct season wise rice area map of Bangladesh. • To estimate season wise rice area of Bangladesh • To validate and compare the rice database from various sources	All over the Bangladesh
649.	Projected Climatic Factors (2050) Maps of Bangladesh	• To construct projected climatic factors maps of Bangladesh for 2050 • To determined projected climatic factors value district/division wise of Bangladesh for 2050. • To deliver an idea about future climate to researchers and planners	All over the Bangladesh
650.	Suitability Mapping of Various Cropping Pattern	• To construct suitability map of various cropping pattern	All over the Bangladesh
651.	Develop a dynamic web application for visualizing and analyzing the rice disease surveillance data	• To Develop a dynamic web application for visualizing and analyzing the rice disease surveillance data	BRRI HQ and all R/S of BRRI
652.	Digitalized Tour Distance	• To develop a digital tour distance	BRRI HQ

Sl. No.	Research Title	Objectives(s)	Location(s)
	Calculation System from BRRI HQ	calculation system for BRRI HQ	
653.	Update the web application to calculate the Stability Index for BRRI Stability Model	• To update the web application to calculate the stability index for BRRI stability model.	BRRI HQ
654.	Update the Platform for BRRI Developed Management Information System (MIS)	• To update the unique platform for BRRI developed MIS	BRRI HQ
655.	Digitalized quota management system of BRRI	• To update the digital quota management system for BRRI	BRRI HQ and all R/S of BRRI
656.	Digitalized salary management system of BRRI	• To update the digital salary management system of BRRI as user need.	BRRI HQ
657.	Digitalized labour management system of BRRI	• To update Labour Management System (LMSV1) of BRRI	BRRI HQ
FARM MANAGEMENT DIVISION			
658.	Efficacy of mechanical seedling transplanter and deep placement of mixed fertilizer on rice yield	• To evaluate the efficacy of newly developed mechanical rice transplanter cum fertilizer applicator • To observe the yield contributing parameters	West Bye, BRRI HQ farm, Gazipur
659.	Effect of foliar application of silicon on yield of aromatic rice		West Bye, BRRI HQ farm, Gazipur
660.	Influence of different dates of transplanting on growth, yield performance and quality of fine rice varieties	• To confirm best planting time of fine rice varieties for higher yield and quality.	West Bye, BRRI HQ farm, Gazipur
661.	Effect of storage times in different storage technologies on quality of rice	• To observe the grain quality of fine rice variety at different storage time and storage technologies. • To identify the suitable storage technologies for preservation of rice seed.	BRRI Farm Management Division, Gazipur
662.	Effect of nitrogen levels on protein quality of rice at different regions	• To find out the best nitrogen level for protein quality of rice at different regions	BRRI HQ, Gazipur, Rangpur, Rajshahi & Sonagazi
Program Area: Technology Transfer			
ADAPTIVE RESEARCH DIVISION			
TECHNOLOGY VALIDATION			
663.	Advanced Line Adaptive Research Trial (ALART).	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field in different agro-	N/A

Sl. No.	Research Title	Objectives(s)	Location(s)
		ecological zones. • To get feedback information about the advantages and disadvantages of the selected materials from farmers and Extension personnel. • To select suitable material(s) for proposed variety trial (PVT).	
664.	ALART, Superior High Yielding Rice-1 (SHR-1) in T. Aman 2023.	• Do	Kushtia (Sadar), Gazipur (WB), Patuakhali (Sadar), Bogura (Sadar), Rangpur (Mithapukur), Satkhira (Sadar), Sonagazi (Feni), Cumilla (Burichang), Gopalganj (Sadar) and Rajshahi (Godagari)
665.	ALART, Superior High Yielding Rice-2 (SHR-2) in T. Aman 2023	• Do	Kushtia (Sadar), Gazipur (WB), Patuakhali (Sadar), Bogura (Sadar), Rangpur (Mithapukur), Satkhira (Sadar), Sonagazi (Feni), Cumilla (Burichang), Gopalganj (Sadar) and Rajshahi (Godagari)
666.	ALART, Antioxidant Rice in T. Aman 2023.	• Do	Satkhira, Bogura, Cumilla, Sonagazi, Gopalganj, Barisal, Rajshahi, Rangpur, Kushtia and BRRI H/Q Gazipur
667.	ALART, Deep water Rice (DWR) in B. Aman 2023.	• Do	Faridpur (Sadar), Gopalganj (Moksedpur), Munshiganj (Louhajang), Habiganj (Baniachang), Manikganj

Sl. No.	Research Title	Objectives(s)	Location(s)
			(Harirampur), Rajshahi (Tanore), Sirajganj (Tarash 2 trial), BRRRI Gazipur (Shibbari Deep water tank)
668.	ALART for Superior High Yielding Rice, Zira type (SHR-1) Boro 2023-24:	• Do	BRRRI Gazipur, Rajshahi, Kushtia, Bhanga, Sirajganj, Habiganj, Cumilla, Rangpur, Sonagazi and Gopalganj.
669.	ALART Superior High Yielding Rice, Katari type (SHR-2), Boro 2024	• Do	BRRRI Gazipur, Rajshahi, Kushtia, Bhanga, Sirajganj, Habiganj, Cumilla, Rangpur, Sonagazi and Gopalganj.
670.	ALART, Favorable Boro Rice Long duration (FBR-LD) during Boro 2023-24.	• Do	Faridpur (Bhanga), Cumilla (Debidwar), Gopalganj (Sadar), Habiganj (Baniachong), Kushtia (Khoksa), Rangpur (Mithapukur), Feni (Sonagazi), Shirajganj (Kamarkhanda), Rajshahi (Paba), and BRRRI research farm Gazipur
671.	ALART, Favorable Boro Rice short duration (FBR-SD) during Boro 2023-24:	• Do	Faridpur (Bhanga), Cumilla (Debidwar), Gopalganj (Sadar), Habiganj (Baniachong), Kushtia (Khoksa), Rangpur (Mithapukur), Feni (Sonagazi), Shirajganj (Kamarkhanda), Rajshahi (Paba), and BRRRI research

Sl. No.	Research Title	Objectives(s)	Location(s)
			farm Gazipur
672.	ALART for Favorable Boro Rice, Biotechnology (FBR-Bio), Boro 2023-24:	• Do	Kushtia (Gangni), Faridpur (Bhanga), Cumilla (Debidwar), Feni (Sonagazi), Gopalganj (Sadar), Rajshahi (Paba), Sirajganj (Kamarkhanda), Rangpur (Mithapukur), Satkhira (Sadar) and Gazipur (WB)
673.	ALART, FBR-Late Boro, Boro 2024:	• Do	Rangpur (Sadar), Dinajpur (Parbotipur), Nilphamari (Sadar), Lalmonirhat (Sadar), Natore (Singra), Sirajganj (Tarash), Joypurhat (Sadar), Kushtia (Sadar), Manikganj (Saturia) and Gazipur (BRRI H/Q)
674.	ALART for Cold Tolerant breeding lines suitable for haor areas [ALART-CTR (Haor)], Boro 2023-24:	• Do	Gazipur (BRRI WB); Kishoreganj (Mithamoin, Itna); Netrokona (Madan and khaliajuri); Habiganj (Baniachang, Ajmeriganj and Nabiganj) and Sunamganj (Taherpur and Santiganj)
675.	ALART for Bacterial Blight Resistance Rice, Boro, 2023-24:	• Do	Satkhira, Sirajganj, Cumilla, Sonagazi, Habiganj, Barisal, Rangpur, Netrokona, Kishoreganj and BRRI H/Q Gazipur
676.	ALART for Bacterial Blight	• Do	Satkhira, Sirajganj,

Sl. No.	Research Title	Objectives(s)	Location(s)
	(BB) and Blast Resistance Rice, Boro, 2024		Cumilla, Sonagazi, Habiganj, Barisal, Rangpur, Netrakona, Kishoreganj and BRRRI H/Q Gazipur
677.	ALART, Premium Quality Rice (PQR), Boro, 2024:	• Do	Kustia (Sadar), Cumilla (Sadar), Rajshahi (Poba), Rangpur (Mithapukur), Sirajgonj (Kamarkhanda), Gopalganj (Sadar), Habiganj (Baniachang), Feni (Sonagazi), Faridpur (Bhanga) and Gazipur (BRRRI WB)
678.	ALART, Salt tolerant rice (STR), Boro 2023-24	• Do	Gazipur (BRRRI WB), Satkhira (Sadar, Shamnagar, and Kaliganj), Patuakhali (Kalapara), Feni (Sonagazi), Noakhali (Sadar and Companiganj), and Bagerhat (Sadar).
679.	Head-to-Head Adaptive Trial (HHAT) during T. Aman 2023	• To evaluate the performance of BRRRI varieties in different ecosystem.	64 districts
Technology Dissemination			
680.	Seed Production and Dissemination Program	• Motivate farmers to cultivate the recently released varieties, produce and preserve good quality seeds of those varieties. • Rapid dissemination of newly released rice varieties among the farmers • Increase availability of quality seeds at farm level • Exchange seeds from farmers to farmers	
681.	Seed production and dissemination program (SPDP) during T. Aus, 2023	• Do	29 upazila under 11 districts of Bangladesh

Sl. No.	Research Title	Objectives(s)	Location(s)
682.	Special program of BRRI dhan83 rapid dissemination in Bhola district during B. Aus, 2023	• Rapid dissemination of of BRRI hybrid dhan7	6 upazilas of Bhola district
683.	Dissemination of broadcast Aus rice variety (BRRI dhan83) in the hill districts as Jhum cultivation during B. Aus, 2023.	• Motivate farmers to cultivate the recently released varieties, produce and preserve good quality seeds of those varieties. • Rapid dissemination of newly released rice varieties among the farmers • Increase availability of quality seeds at farm level • Exchange seeds from farmers to farmers	6 upazilas of three Hill Tract districts like Bandarban, khagrachari and Rangamati
684.	Seed production and dissemination program (SPDP) during T. Aus 2023 in the Valley of the Hill districts	• Rapid dissemination of of BRRI hybrid dhan4 &6	6 upazilas of 3 districts (Khagrachari, Bandarban and Rangamati)
685.	Special program of BRRI hybrid dhan7 rapid dissemination in the different locations of Bangladesh in T. Aus, 2023.	• Do	28 upazilas of 12 districts (Chattagram, Khagrachari, Bandarban, Rangamati, Borguna, Manikganj, Gazipur, Pirojpur, Jhalokathi, Patuakhali, Bhola and Gaibandha)
686.	Seed production and dissemination program (SPDP) during Aman 2023	• Motivate farmers to cultivate the recently released varieties, produce and preserve good quality seeds of those varieties. • Rapid dissemination of newly released rice varieties among the farmers • Increase availability of quality seeds at farm level • Exchange seeds from farmers to farmers	25 upazilas of 12 districts (Tangail, Gazipur, Narshingdhi, Manikganj, Kishoreganj, Netrokona, Mymensingh, Sherpur, Gaibandha, Bagerhat, Cox's Bazar and Satkhira)
687.	Special dissemination program on BRRI hybrid dhan4 and BRRI hybrid dhan6 in the different locations of Bangladesh in Aman, 2023	• Rapid dissemination of of BRRI hybrid dhan4 &6	28 upazilas under 12 districts (Tangail, Gazipur, Narshingdhi, Manikganj, Kishoreganj,

Sl. No.	Research Title	Objectives(s)	Location(s)
			Netrokona, Mymensingh, Sherpur, Gaibandha, Bagerhat, Cox's Bazar and Satkhira
688.	Seed production and dissemination program (SPDP) during T. Aman 2023 in the Valley of the Hill districts	• Do	3 districts (Khagrachari, Bandarban and Rangamati)
689.	Seed Production and Dissemination Program (SPDP) during T. Aman, 2023 through cropping pattern	• Rapid dissemination of newly released rice varieties among the farmers • Increase availability of quality seeds at farm level	8 upazilas of 4 districts (Bogura, Joypurhat, Nilfamari and Thakurgaon)
690.	Seed Production and Dissemination Program (SPDP) during T. Aman, 2023 under TRB	• Do	20 pabila of 8 districts (Gazipur, Netrakona, Mymensingh, Tangail, Kishoreganj, Chuadanga, Jhenidah, Khulna, Bagura, Gaibandha, Narsingdhi and Bandarban)
691.	Seed production and dissemination program (SPDP) under PARTNER project during Boro 2023-24	• Do	36 upazilas of 13 districts (Tangail, Netrokona, Jamalpur, Khagrachari, Gaibandha, Sherpur, Satkhira, Gazipur, Manikganj, Munshiganj, Narshingdhi, Kishoreganj and Mymensingh)
692.	Special dissemination program on BRRI hybrid in the different locations of Bangladesh	• Do	36 upazilas of 13 districts (Tangail Netrokona Jamalpur, Khagrachari, Gaibandha, Sherpur,

Sl. No.	Research Title	Objectives(s)	Location(s)
			Satkhira, Gazipur, Manikganj, Munshiganj, Narshingdhi, Kishoreganj and Mymensingh)
693.	Seed production and dissemination program (SPDP) during Boro 2023-24) under LSTD project	• Do	8 upazilas of 4 districts (Tangail, Mymensingh, Netrokona and Joypurhat)
Promotional Activities			
694.	Farmers Training (FT)	• To update knowledge and skills of farmers and field workers on modern rice varieties and rice production technologies. • To enhance dissemination of new technologies among the farmers.	44 FT were conducted in 13 districts
695.	Field Day (FD)	• To create awareness and interest among farmers, SAAOs, local leaders, elite persons, NGO workers and DAE personnel about BRRI varieties and technologies. • To promote dissemination and get feedback about BRRI technologies from farmers.	23 FDs were arranged during 2023-24.
696.	Farmer seed center (FSC)	• To increase availability of quality seeds at field level. • To build up storage facilities for seeds at farmers' level. • To encourage farmers to store quality seeds	3 Farmer seed center (FSC) were established in Gazipur and Gaibandha
QUALITY SEED PRODUCTION			
697.	Seed Production at BRRI Farm	• To conduct adaptive research trials	A total of 5270 kg quality seeds of different BRRI varieties were produced at BRRI farm during the reporting period
TRAINING DIVISION			
698.	Rice production and communication training course for BRRI scientists.	• To acquire and enrich knowledge on: • Modern rice production technologies • Identification of field problems of rice cultivation and its solutions • Research planning and execution. • Data collection, analysis and interpretation • Report/scientific article writing and presentation • Service rule and job description and • Help extension personnel for quick	Training Division

Sl. No.	Research Title	Objectives(s)	Location(s)
		dissemination of rice production technologies	
699.	Hands on Training on Modern Rice Production Technologies (Yield Maximization)	• To train the extension agents so that they can: • Able to use and disseminate modern rice production technologies and • Identify and solve the field problems of rice cultivation and help the farmers to increase productivity.	Training Division
700.	Training on research data management using spread sheet	• At the end of the course the participants will have developed their skills in; • Proper data collection methods and • Organize and analyzed data properly using spread sheet.	Training Division
701.	Training on advance research data management using R studio	• At the end of the course the participants will have developed their skills in; • Organizing scientific paper • Preparing each part of the paper to communicate scientific information effectively	Training Division
702.	Training on genome editing in plants using CRISPR/Cas9 system	• To understand the basic concept of genome editing system • To apply the bioinformatic tools for genome editing system • To train participants in high-throughput techniques for genome editing application • To understand the ethics and biosafety of genome editing system	Training Division
703.	Training on bioinformatics	• To trained the scientists so that they can • Get introduced to the basic concepts of bioinformatics and significance in biological data analysis. • Explain about the methods to characterize and manage the different types of biological data • Classify different types of biological databases.	Training Division
704.	Farmers Training	• To trained the farmers so that they can • Apply the modern techniques of rice production • Identification of field problems of rice cultivation and its solutions	Training Division
BRRI Regional Station			
RS Cumilla			
Program Area (01): Varietal Development Program (VDP); Program for T. Aman season 2023-24			
705.	Hybridization	• Introgression of genes from diverged genetic background into rice varieties/lines	BRRI, Cumilla

Sl. No.	Research Title	Objectives(s)	Location(s)
		for the improvement of standard T. Aman varieties	
706.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Do
707.	Growing of F ₂ population	• Selection of progenies with emphasis on earliness, plant type, grain type and high yield potential compared to standard check varieties	Do
708.	Field RGA	• Advancement of progenies to develop improved plant type, earliness, acceptable grain quality and high yield potential	Do
709.	Observational Yield Trial (OYT)	• Initial yield evaluation of advanced lines compared to standard checks	Do
710.	Preliminary Yield Trial (PYT)	• Preliminary yield evaluation of advanced lines compared to standard checks	Do
711.	Secondary Yield Trial (SYT)	• Secondary yield evaluation of advanced lines compared to standard checks	Do
712.	Maintenance breeding	• Conservation of advanced lines and pre-breeding materials	Do
Program Area (02): Pest Management			
713.	Survey and monitoring of major rice diseases in Cumilla district	• To know the prevalence of Major rice disease • To assume the rice yield losses due to rice diseases	BRRI Cumilla
714.	Demonstration of rice neck blast disease management technology under farmer's field condition	• To minimize yield loss due to blast disease • To build up farmers awareness on blast disease management	Cumilla
715.	Varietal reaction and recovering ability of BRRI released rice varieties	• To know the varietal reaction against tungro disease of rice	BRRI Cumilla
716.	Validation of Rice Tungro disease management technology from seedbed in Cumilla region	• To validate the management technology of rice tungro disease in Cumilla region	NangalKot/ Chandina/ Debidwar in Cumilla
717.	Tracking the infection source(s) of rice false smut disease	• To identify whether the seed/soil and/ or the air is/are the carrier of the pathogen or not	BRRI Cumilla
718.	Evaluation of new chemicals against Blast disease of rice	• To find out the effective chemicals suitable for Blast disease of rice.	BRRI Cumilla
719.	Evaluation of new chemicals against Sheath blight disease of rice	• To find out the effective chemicals suitable for ShB disease of rice.	BRRI Cumilla
720.	Multi-Location Trial (MLT) of blast resistant advanced lines	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks	Debidwar, Cumilla
721.	Evaluation of tungro	• To evaluate the tungro resistant advanced	Cumilla

Sl. No.	Research Title	Objectives(s)	Location(s)
	resistant advanced lines in hot spot areas in Cumilla region	lines in natural farmers field condition.	
722.	Evaluation of direct seeded rice for less infection of tungro disease in hot spot area in Cumilla	• To evaluate less infection of tungro disease in direct seeded rice	Cumilla
723.	Advisory services to the farmers	• To assist farmers for rice production;	Cumilla, B Baria, Chandpur
Program Area (03): Crop-Soil-Water management			
724.	Effect of nursery management on the performance of rice variety grown under water stagnant condition.	• To find out optimum seed density • To find out optimum age of rice seedling in waterlogged condition • To identify proper seeding rate in water stagnant condition	BRRRI Cumilla
725.	Effect of seedling age and fertilizer management on growth and yield of rice variety.	• To find out optimum age of rice seedling to maximize yield. • To optimize urea split application with varying seedling age	BRRRI Cumilla
726.	Effect of time of planting on growth and yield of BRRRI developed new T. Aman and Boro varieties.	• To find out the appropriate time of planting for yield optimization	BRRRI Cumilla
727.	Effects of Potassium fertilization at different growth stages on growth and yield of rice.	• To find out the effect of potassium fertilization at different growth stages of Rice	BRRRI Cumilla
728.	Long-term missing element trials for diagnosing the limiting nutrient in soil in BRRRI R/S Cumilla	• To determine nutrient deficiency problems in soil. • To observe long-term yield trend of rice. • To evaluate the changes in soil properties under long-term rice culture	BRRRI Cumilla
729.	Effects of N rates on the yield of BRRRI released new varieties in BRRRI Cumilla	• To update the N rates of BRRRI released new varieties	BRRRI Cumilla
730.	Effects of P rates on the yield of BRRRI released new varieties in BRRRI Farm Cumilla	• To update the P rates of BRRRI released new varieties	BRRRI Cumilla
731.	Effects of K rates on the yield of BRRRI released new varieties/ advanced lines in BRRRI Farm Cumilla	• To update the N rates of BRRRI released new varieties/ advanced lines in BRRRI Farm Cumilla	BRRRI Cumilla
732.	Determination of appropriate time of DAP application to control Algal	• To find out the appropriate time of DAP application • To control the algal growth in the rice field.	BRRRI Cumilla

Sl. No.	Research Title	Objectives(s)	Location(s)
	growth		
733.	Effect of DAP and urea rates on growth and yield of rice	• To find out a suitable combination of DAP and Urea for desired rice yield	BRRI Cumilla
Program Area (04): Socio Economic and Policy			
734.	Stability analysis of BRRI released rice varieties	• To demonstrate the suitability of BRRI varieties in Cumilla Region	BRRI Cumilla
Program Area (05): Technology Transfer			
735.	Field demonstration of different BRRI released new rice varieties in Cumilla region (GoB, PPNB, TRB)	• To demonstrate and disseminate BRRI varieties in greater Cumilla region	Cumilla, B. Baria, Chandpur
736.	Farmer's and SAAOs training on modern rice cultivation and disease management technology (PPNB/GoB)	• To increase farmers/SAAOs/Officers knowledge	Cumilla, B. Baria, Chandpur
737.	Field day on modern rice cultivation (GoB & PPNB)	• To increase farmers knowledge	Cumilla, B. Baria, Chandpur
Program Area (06): Rice Farming System			
738.	Improvement of Boro-Fallow-T. Aman cropping pattern in Cumilla region.	• Increase cropping intensity and productivity through crop intensification in rice-based cropping system	Cumilla
RS, Kushtia			
Program Area: Varietal Development			
Aus, 2023			
739.	Advanced Yield Trial (AYT#1), High Day & Night Temperature, T. Aus, 2023	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
740.	Regional Yield Trial (RYT#BB), Bacterial Blight Resistance Rice, T. Aus, 2023	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
741.	Regional Yield Trial (RYT#BB), Bacterial Blight Resistance Rice (Path), T. Aus, 2023	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
742.	Regional Yield Trial (RYT), Favourable conditions, T. Aus, 2023	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
Aman 2023			
743.	Regional Yield Trial of Antioxidant Enriched Rice (RYT#Antioxidant-1)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
744.	Regional Yield Trial of	• To select the best-performing advanced	BRRI, R/S Farm,

Sl. No.	Research Title	Objectives(s)	Location(s)
	Antioxidant Enriched Rice (RYT#Antioxidant-2)	breeding lines with higher grain yield over the existing HYVs in on-station conditions.	Kushtia
745.	Regional Yield Trial, Drought Tolerant Rice (RYT#DTR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
746.	Regional Yield Trial, Katari Type Rice (RYT#Katari)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
747.	Regional Yield Trial, Rainfed Lowland Enriched Rice (RYT#RLR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
748.	Regional Yield Trial, Rainfed Lowland Enriched Rice (RYT#RLR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
749.	Regional Yield Trial, Stagnant Water Rice (RYT#SWR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
750.	Regional Yield Trial, Rainfed Lowland Enriched Rice (RYT#ZER)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
751.	Regional Yield Trial, Jira-type Enriched Rice (RYT#Jira-type)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
752.	Regional Yield Trial, False Smut Resistant Rice (RYT#FSR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
753.	Regional Yield Trial, Bacterial Blight Resistant Rice (RYT#BB)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
754.	Regional Yield Trial, Low amylose Content Rice (RYT#Low-amylose)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
755.	AGGRi Network Trial, (Stage-1)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
756.	AGGRi Network Trial, (Stage-2)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
Boro, 2023-24			
757.	Regional Yield Trial, Salt tolerance Rice (STR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
758.	Regional Yield Trial, Short-Medium Duration Rice (SMD)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
759.	Regional Yield Trial, Disease Resistant Rice	• To select the best-performing advanced breeding lines with higher grain yield over	BRRI, R/S Farm, Kushtia

Sl. No.	Research Title	Objectives(s)	Location(s)
	(DRR)	the existing HYVs in on-station conditions.	
760.	Regional Yield Trial, Favorable Boro Rice (RYT#BAR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
761.	Regional Yield Trial, Disease Resistant Rice (DRR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
762.	Regional Yield Trial, Disease Resistant Rice (DRR-1)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
763.	Regional Yield Trial, Disease Resistant Rice (DRR-2)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
764.	Regional Yield Trial, Disease Resistant Rice (DRR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
765.	Regional Yield Trial, Extra Long Slender Resistant Rice (ELS)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
766.	Regional Yield Trial, Medium Durated Rice (RYT#MD)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
767.	Regional Yield Trial, Short Durated Rice (RYT#SD)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
768.	Regional Yield Trial, Favourable Boro#Bio (FBR-Bio)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
769.	Regional Yield Trial, Fine grain (RYT#Fine grain)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
770.	Regional Yield Trial, Premium Quality Rice (RYT#PQR#1)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
771.	Regional Yield Trial, Premium Quality Rice (RYT#PQR#2)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
772.	Regional Yield Trial, Premium Quality Rice (RYT#PQR#3)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
773.	Regional Yield Trial, Zinc Enriched y Rice (RYT#ZER)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
774.	On-Farm Yield Trial, Salt Tolerance Rice (OFYT#STR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	Bheramara
775.	On-Farm Yield Trial, GE	• To select the best-performing advanced	Chuadanga

Sl. No.	Research Title	Objectives(s)	Location(s)
	interaction (OFYT#G/E)	breeding lines with higher grain yield over the existing HYVs in on-station conditions.	
776.	On-Station Yield Trial, GE interaction (OSYT#G/E)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
777.	Advanced Yield Trial, Disease Resistant Rice (AYT#DRR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
778.	Advanced Yield Trial, Disease Resistant Rice (AYT#2#DRR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
779.	Regional Yield Trial, Heat Tolerance Rice (RYT#HTR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	Alampur, Kushtia
780.	Regional Yield Trial, Heat Tolerance Rice (RYT#HTR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
781.	Advanced Yield Trial, Heat Tolerance Rice (AYT#HTR)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
782.	Advanced Yield Trial, Early Morning Flowering (AYT#EMF-1)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
783.	Advanced Yield Trial, Early Morning Flowering (AYT#EMF-2)	• To select the best-performing advanced breeding lines with higher grain yield over the existing HYVs in on-station conditions.	BRRI, R/S Farm, Kushtia
784.	Hybridization, T. Aman 2023, Boro 2023-24	• To generate breeding lines acceptable grain quality and short duration	BRRI, R/S Farm, Kushtia
785.	ALART for BRRI dhan49 type Short slender grain (SHR-1), T. Aman, 2023	• To select Swarna grain type high yielding materials under recommended management practices in farmer's field. • To get feedback information on short slender grain type from farmers and extension personnel. • To select suitable genotypes for proposed variety trial.	Boria, Sadar, Kushtia
786.	ALART for Swarna type grain (SHR-2), Aman 2023	• To select Swarna grain type high yielding materials under recommended management practices in farmer's field. • To get feedback information on short slender grain type from farmers and extension personnel. • To select suitable genotypes for proposed variety trial.	Boria, Sadar, Kushtia
787.	ALART for Development of Antioxidant enriched rice varieties, T. Aman, 2023	• Evaluation of anthocyanin enriched aromatic breeding lines for high yield potential and adaptability in different agro-	Bypass, Sadar, Kushtia

Sl. No.	Research Title	Objectives(s)	Location(s)
		climatic conditions in order to develop a variety. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and Extension personnel. • To select suitable genotypes for proposed variety trial.	
788.	ALART for Superior High Yielding Rice [SHR-1 (Zira type)], Boro 2023-24	• To evaluate fine grain high yielding breeding lines under integrated improved management practices in different agro-climatic conditions of Bangladesh. • To maximize proper filling of grains in a panicle under integrated management practices and by harvesting crop at 95% maturity (highly shattering tolerance).	Alampur, Sadar, Kushtia
789.	ALART for Superior High Yielding Rice [SHR-2 (Katari type)], Boro 2023-24	• To evaluate fine grain high yielding breeding lines under integrated improved management practices in different agro-climatic conditions of Bangladesh. • To maximize proper filling of grains in a panicle under integrated management practices and by harvesting crop at 95% maturity (highly shattering tolerance).	Alampur, Sadar, Kushtia
790.	ALART for Short Duration of Favorable Boro Rice (FBR-SD), Boro 2023-24	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field as short duration genotypes in different agro-climatic condition in Bangladesh. • To get feedback information about the advantages and disadvantages of the selected materials from farmers and extension personnel. • To select suitable materials for proposed variety trial	Bathanpara, Gangni, Meherpur
791.	ALART for Late Boro Rice (FBR-LB), Boro 2024	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field in different late Boro growing areas of Bangladesh. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and Extension personnel. • To select suitable genotypes for proposed variety trial.	Alampur, Sadar, Kushtia
792.	ALART for Favorable Boro Rice, Biotechnology (FBR-	• To evaluate the yield potential and adaptability of the advanced rice genotypes	Bathanpara, Gangni, Meherpur

Sl. No.	Research Title	Objectives(s)	Location(s)
	Bio), Boro 2023-24	at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and Extension personnel. • To select suitable genotypes for proposed variety trial.	
793.	ALART of long duration Favorable Boro Rice (FBR-LD), Boro 2023-24	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field in different long duration Boro growing areas of Bangladesh. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and Extension personnel. • To select suitable genotype for proposed variety trial.	Hasimpur, Khoksa, Kushtia
794.	ALART for Premium Quality Rice (PQR), Boro 2023-24	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected genotypes from farmers and Extension personnel.	Kathulia, Sadar, Kushtia
Program Area: Rice Farming Systems			
795.	Performance of different cropping patterns for year-round vegetable production under agro-forestry systems with exotic date palm (<i>Phoenix dactylifera</i>).	• To ensure year-round vegetable supply for farm family • To increase whole farm productivity	Meherpur
796.	Evaluation of different rice-based cropping patterns under agro-forestry systems with exotic date palm (<i>Phoenix dactylifera</i>).	• To ensure food sufficiency for farm family • To increase whole farm productivity	Meherpur
797.	Determination of optimum planting window of newly released T. Aman rice varieties in three cropped cropping patterns	• To find out the effective rice varieties with appropriate planting time for increasing yield potential of T. Aman rice.	BRRI, R/S Farm, Kushtia
798.	Interpolation of Premium Quality and Nutritional Rice Varieties in Existing Mustard – Boro – T. Aman	• To increase system productivity and profitability of existing cropping system • To maximize the land use efficiency and production efficiency of the existing pattern	Boria, Kushtia

Sl. No.	Research Title	Objectives(s)	Location(s)
	Cropping System		
799.	Increasing the system productivity of Boro – Fallow - T. Aman cropping pattern through inclusion of Mustard in High Ganges River Floodplain	• To increase total productivity • To increase oil production	Digha, Kushtia
Program Area: Crop-Soil-Water Management			
800.	Effect of Missing Nutrient Elements on Growth and Grain Yield of Rice in BRRI, R/S Farm, Kushtia	• To examine the effects of missing nutrient elements on the growth and grain yield of rice. • To determine the residual soil fertility and find out management options for solution.	BRRI, R/S Farm, Kushtia
801.	Determination of optimum planting window of newly released T. Aman rice varieties in three cropped cropping patterns	• To find out the effective rice varieties with appropriate planting time for increasing yield potential of T. Aman rice varieties	BRRI, R/S Farm, Kushtia
Program Area: Socio-Economics and Policy			
802.	Stability analysis of BRRI varieties (T. Aman)	• To maintain season, year and location wise database on the yield performance of BRRI varieties.	BRRI, R/S Farm, Kushtia
803. 5	Stability analysis of BRRI varieties (Boro)	• To maintain season, year and location wise database on the yield performance of BRRI varieties.	BRRI, R/S Farm, Kushtia
RS Habiganj			
804.	Hybridization	• To develop photosensitive varieties suitable for low-lying areas in Haor ecosystem.	BRRI Regional Station, Habiganj
805.	Observational Yield Trial	• To observe yield of the breeding lines.	
806.	Advanced Yield Trial (AYT)	• To identify the promising deep-water rice genotypes with higher yield potential and wider adaptability under deep water ecosystem.	BRRI Regional Station, Habiganj
807.	Regional Yield Trial	• To develop False smut, Blast, and Premium Quality Rice varieties.	BRRI Regional Station, Habiganj
808.	Improvement of local popular cultivars	• To improve of local popular cultivars through development of high-yielding varieties with cold tolerance, acceptable grain & nutritional quality.	BRRI Regional Station, Habiganj
809.	Effect of time of planting on Boro rice varieties at Haor region of Bangladesh	• To investigate the yield potential of different Boro rice varieties under varying seedling ages and transplanting times.	BRRI Regional Station, Habiganj
810.	Evaluation of BRRI developed Boro rice varieties for cold tolerance	• To observe reproductive phase cold tolerance at natural cold condition.	BRRI Regional Station, Habiganj
811.	Evaluation of rice genotypes for lodging	• To observe the lodging tolerance of rice genotypes.	BRRI Regional Station, Habiganj

Sl. No.	Research Title	Objectives(s)	Location(s)
	tolerance		
812.	Screening for preharvest spouting of Boro rice	• To evaluate pre-harvest sprouting (PHS) tolerance of 30 BRRI developed modern Boro varieties in the field condition.	BRRI Regional Station, Habiganj
813.	Advanced Line Adaptive Research Trail (ALART)	• On-farm evaluation of advanced breeding lines compared to standard checks for testing their specific and general adaptability.	Habiganj (Baniachong, Ajmeriganj, Nabiganj), Sunamganj (Shantiganj, Taherpur)
RS Rangpur			
Program Area: Varietal Development Program (VDP)			
Development of rice varieties suitable in Rangpur region			
814.	Hybridization	• Introgression of genes from diverged genetic background into rice varieties/lines for the improvement of standard T. Aman varieties	BRRI, Rangpur
815.	Confirmation of F ₁	• To confirm the crosses as true hybrid	Do
816.	Observational Yield Trial (OYT)	• Initial yield evaluation of advanced lines compared to standard checks	Do
817.	Maintenance breeding	• Conservation of advanced lines and pre-breeding materials	Do
Breeding of Photoperiod-sensitive rice varieties (PSR) for Lowland and Charland ecosystem			
818.	Pedigree nurseries (F3)	• Advancement of progenies to develop improved plant type, earliness, acceptable grain quality and high yield potential	BRRI, Rangpur
819.	Observational Yield Trial (OYT)	• Initial yield evaluation of advanced lines compared to standard checks	Do
Breeding for Second Generation Rice (SGR)			
820.	Observational Yield Trial (OYT)	• Initial yield evaluation of advanced lines compared to standard checks	BRRI, Rangpur
Breeding for Basmati Rice			
821.	Observational Yield Trial (OYT)	• Initial yield evaluation of advanced lines compared to standard checks	BRRI, Rangpur
Development of hybrid rice parental lines and hybrids			
822.	Constituting of Source Nursery	• Identification of prospective maintainers and restorers from diverse genetic origin through testcross	BRRI, Rangpur
823.	Testcross nursery	• Confirmation of maintainers and restorers from the crossed entries. • Selection of heterotic rice hybrids. • Conversion of prospective maintainers into new CMS lines.	Do
824.	Back cross nursery	• Conversion of prospective maintainers into new CMS lines	Do

Sl. No.	Research Title	Objectives(s)	Location(s)
Program Area: Crop-Soil-Water management			
825.	Effect of time of planting on growth and yield of BRRI developed new T. Aman and Boro varieties.	• To find out the appropriate time of planting for yield optimization	BRRI, Rangpur
826.	Long-term missing element trials for diagnosing the limiting nutrient in soil	• To determine nutrient deficiency problems in soil. • To observe long-term yield trend of rice. • To evaluate the changes in soil properties under long-term rice culture	BRRI, Rangpur
Program Area: Socio Economic and Policy			
827.	Stability analysis of BRRI released rice varieties	• To demonstrate the suitability of BRRI varieties • in Rangpur Region	BRRI, Rangpur
Program Area: Technology Transfer			
828.	Field demonstration of different BRRI released rice varieties in Rangpur-Dinajpur Region (GoB, LSTD and PARTNER)	• To demonstrate and disseminate BRRI varieties in greater Cumilla region	Rangpur-Dinajpur Region
829.	Farmer's training on modern rice cultivation and disease management technology (GoB and PARTNER)	• To increase farmers knowledge	Rangpur-Dinajpur Region
830.	Field day on modern rice cultivation (GoB and PARTNER)	• To increase farmers knowledge	Rangpur-Dinajpur Region
Program Area: Rice Farming System			
831.	Improvement of Boro-Fallow-T. Aman cropping pattern in Rangpur region	• Increase cropping intensity and productivity through crop intensification in rice-based cropping system	BRRI, Rangpur
RS Barishal			
832.	Hybridization (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
833.	F1 confirmation (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
834.	Generation Advancement of F2 and F5 generations through RGA techniques (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
835.	Generation Advancement, F2 (Hybrid) (Boro)	• To develop rice varieties for a favorable ecosystem	Charbadna farm BRRI R/S, Barishal
836.	Generation Advancement, F7 (Hybrid) (Boro)	• To develop rice varieties for a favorable ecosystem	Charbadna farm BRRI R/S, Barishal
837.	Observational Yield Trial	• To develop rice varieties for favorable	Charbadna farm

Sl. No.	Research Title	Objectives(s)	Location(s)
	(OYT#1) (Boro)	ecosystem	BRRI R/S, Barishal
838.	Observational Yield Trial (OYT#2) (Boro)	• To develop rice varieties for a favorable ecosystem	Charbadna farm BRRI R/S, Barishal
839.	Preliminary Yield Trial (PYT# 01) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
840.	Advanced Yield Trial AYT-1 FBR (Sagordi) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
841.	Advanced Yield Trial (AYT-2) FBR (Sagordi) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
842.	Advanced Yield Trial (AYT-3) FBR (Sagordi) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
843.	Advanced Yield Trial (AYT-4) FBR (Sagordi) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
844.	Advanced Yield Trial (AYT-5) FBR (Sagordi) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
845.	Advanced Yield Trial (AYT-6) FBR (Sagordi) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
846.	Advanced Yield Trial (AYT-7) FBR (Sagordi) (Boro)	• To develop rice varieties for a favorable ecosystem	Sagordi farm, BRRI R/S, Barishal
847.	Advanced Yield Trial (AYT- 8) (Boro)	• To develop rice varieties for a favorable ecosystem	Charbadna farm BRRI R/S, Barishal
848.	Hybrid Seed Production (Boro)	• To produce quality hybrid seed	Charbadna farm BRRI R/S, Barishal
849.	Performance Study of Released Hybrids Comparing with Standard Checks Boro 2023-24	• To find out the best hybrid rice variety for the Barishal region.	
850.	Hybridization (Aman)	• To develop tidal submergence tolerant rice variety	Sagordi farm, BRRI R/S, Barishal
851.	F1 confirmation (Aman)	• To develop tidal submergence tolerant rice variety	Sagordi farm, BRRI R/S, Barishal
852.	Generation Advancement of F3 and F4 generations through RGA techniques (Aman)	• To develop tidal submergence tolerant rice variety	Sagordi farm, BRRI R/S, Barishal
853.	Preliminary yield trial (PYT) (Aman)	• To develop tidal submergence tolerant rice variety	Charbadna farm BRRI R/S, Barishal
854.	Advanced Yield Trial (AYT-1) (Aman)	• To develop tidal submergence tolerant rice variety	Charbadna farm BRRI R/S, Barishal
855.	Advanced Yield Trial (AYT-2) (Aman)	• To develop tidal submergence tolerant rice variety	Charbadna farm BRRI R/S, Barishal

Sl. No.	Research Title	Objectives(s)	Location(s)
856.	Advanced Yield Trial (AYT-3) (Aman)	• To develop tidal submergence tolerant rice variety	Charbadna farm BRRI R/S, Barishal
857.	Characterization and Utilization of Local Germplasms	• To collect and maintain the germplasms of Barishal region for further research purpose	Sagordi farm, BRRI R/S, Barishal
858.	Exploring sediment deposition from tidal water in Barishal regional station	• To know the deposition of sediment and nutrition status of it.	Sagordi farm, BRRI R/S, Barishal
859.	Long-term missing element experiment for diagnosing limiting nutrients in tidal wetland soil	• To diagnose the limiting nutrients in tidal wetland soil	Sagordi farm, BRRI R/S, Barishal
860.	Study on Site Specific and Cost -Effective Integrated Weed Management (IWM) Techniques for Modern Rice Varieties in Barishal Region	• To identify the site-specific and cost-effective integrated weed management (IWM) techniques for rice cultivation.	Sagordi farm, BRRI R/S, Barishal
861.	Effect of time of planting of newly developed BRRI varieties in Barishal region at T. Aman 2023 and Boro 2023-24	• To know the yield performance based on time planting of BRRI varieties.	BRRI R/S, Barishal
862.	Suitable varietal combination for Fallow-Aus-T.Aman cropping pattern in Barishal region (Aus)	• To increase rice production area by adopting a suitable cropping pattern	BRRI R/S, Barishal
863.	Evaluation of New Chemicals Against Rice Blast (Boro)	• To evaluate the efficacy of fungicides against rice blast disease	BRRI R/S, Barishal
864.	Judicial Application of Fungicides for Blast Disease Management Under Field Condition (PARTNER) (Boro)	• To validate and disseminate neck blast disease management practices in the Barishal region	BRRI R/S, Barishal
865.	Experiment on Stability Analysis of BRRI released modern rice varieties will be conducted in collaboration and cooperation with ASD (Aus, Aman, Boro)	• To find out stable one (s) of the BRRI released modern rice varieties in location specific as well as across the country	Charbadna farm BRRI R/S, Barishal
866.	Demonstration of Modern Rice Varieties (Aus, Aman, Boro)	• To quick expansion of Modern Rice Varieties.	BRRI R/S, Barishal
867.	Field day (Aus, Aman,	• To inspire farmers to adopt BRRI modern	BRRI R/S, Barishal

Sl. No.	Research Title	Objectives(s)	Location(s)
	Boro)	rice varieties	
868.	Farmers Training on Rice Technology (Aus, Aman, Boro)	• To increase Farmers' knowledge and skills on rice production packages	BRRI R/S, Barishal
869.	Breeder Seed (BS) Production (Aus, Aman, Boro)	• To produce quality Breeder seed	BRRI R/S, Barishal
870.	Truthfully labelled Seed (TLS) Production (Aus, Aman, Boro)	• To produce quality TLS seed	BRRI R/S, Barishal
RS Rajshahi			
Program Area (01): Varietal Development Program (VDP)			
871.	Hybridization	• High yield & acceptable grain type with aroma	BRRI, Rajshahi
872.	Confirmation of F ₁	• High yield & acceptable grain type (Jira type)	Do
873.	Growing RGA Population	• Development of high yield and acceptable grain quality rice	Do
874.	Regional Yield Trial	• Evaluation of genotypes for specific and general adaptability	Do
875.	Collection and maintenance of local landraces	• To characterize the local genotypes for Rajshahi region and to maintain the local germplasm for using in crossing program	Do
Program Area (02): Pest Management			
876.	Survey and Monitoring of insect pests and natural enemies in light trap.	• To study the pest and their natural enemy incidence patterns in rice fields and to create a database to develop a forecasting system	BRRI, Rajshahi
Program Area (03): Crop-Soil-Water management			
877.	Validation of agricultural drought forecasting for mitigating drought in T. Aman rice at Rajshahi region	• To validate drought by using forecasted rainfall and evaporation • To mitigate drought by applying supplemental irrigation • To determine suitability of drought model for forecasting, and • To determine yield performance after mitigating drought	BRRI, Rajshahi
878.	Irrigation Scheduling of Rice (<i>Oryza sativa</i> L.) based on Weather Forecasting in Rajshahi during Boro season	• To predict water demand through water balance simulation model for rice cultivation • To compare performance of water balance simulation model with AWD and conventional methods • To validate water balance simulation model with CROPWAT 8.0 model, and • To recommend the better method for irrigation scheduling of rice	BRRI, Rajshahi

Sl. No.	Research Title	Objectives(s)	Location(s)
Program Area (04): Socio Economic and Policy			
879.	Stability Analysis of BRRI released Aus, Aman and Boro Varieties	• To observe the general and specific adaptability and stability of the BRRI released rice varieties at BRRI Regional Station, Rajshahi.	BRRI, Rajshahi
Program Area (05): Technology Transfer			
880.	Field demonstration of different BRRI released new rice varieties in Rajshahi region (PARTNER, LSTD & GoB)	• To demonstrate and disseminate BRRI varieties in Rajshahi region.	Rajshahi, Natore, Nougaoon, Chapainobabganj
881.	Farmer's training on modern rice production technology (PARTNER, LSTD & GoB)	• To increase farmers knowledge.	Rajshahi, Natore, Nougaoon, Chapainobabganj
882.	Field day on modern rice cultivation (GoB, LSTD & PARTNER)	• To increase farmers knowledge	Rajshahi, Natore, Nougaoon, Chapainobabganj
Program Area (06): Rice Farming System			
883.	Evaluation of crop productivity under four crops cropping patterns in farmer's field	• To identify the profitable cropping patterns in Rajshahi region.	BRRI, Rajshahi
884.	Evaluation of crop productivity and soil health under conservation tillage system in maize-mungbean-rice cropping pattern	• To increase profitability and productivity	Do
885.	Evaluation of zero tillage Mustard based cropping patterns in Barind region	• To identify the extent of resource conservation and to increase the crop productivity.	Do
886.	Evaluation of three and four cropped cropping patterns for Rajshahi region	• To identify profitable cropping patterns for Rajshahi region.	Do
887.	Validation of pair row potato/pair row Maize-T. Aus-T. Aman cropping pattern in Northern region of Bangladesh	• To validate the profitable cropping pattern under farmers field condition and to increase the Aus rice production.	Bagatipara, Natore
888.	Improvement of Productivity in Potato-Boro-T. Aman cropping pattern through varietal replacement	• To validate the profitable cropping pattern in Barind tract	Puthia, Rajshahi
RS Sonagazi			
Program Area (01): Varietal Development Program (VDP)			

Sl. No.	Research Title	Objectives(s)	Location(s)
889.	Hybridization (both T. Aman and Boro season)	• Introgression of genes from diverged genetic background into rice varieties/lines for the improvement of local and standard BRRI varieties.	BRRI R/S Sonagazi
890.	Confirmation of F ₁ (both T. Aman and Boro)	• To confirm the crosses as true hybrid	Do
891.	Backcross breeding (T. Aman)	• To introgress the desirable traits into recurrent parents	Do
892.	Pure Line Selection of Renguin (T. Aus)	• To make pure and uniform the variety through pure line selection.	Do
893.	Observational Yield Trial (OYT) (T. Aus)	• Initial yield evaluation of advanced lines compared to standard checks	Do
894.	AGGRi network trials (ANT) for salt-stress prone environment (both T. Aman and Boro)	• To understand salinity resistant and to select superior lines	Noakhali
895.	Advanced Yield Trial (AYT) (T. Aus)	• To test the yield performance and to advance evaluation of promising breeding lines.	BRRI R/S Sonagazi
896.	Regional Yield Trial (RYT) (T. Aus, T. Aman & Boro) (3 RYTs- T. Aus, 14 RYTs- T. Aman & 12 RYTs-Boro)	• To evaluate specific and general adaptability of the advance breeding lines as compared with standard checks in on-station.	Do
897.	Multi-Locations Yield Trial (MLT) of Breeding lines (5 MLTs- Boro)	• To assess the yield of promising breeding lines at different locations for their adaptability	Do
898.	Multi-location Yield Trials (MLT) of Promising Hybrids (both T. Aman and Boro)	• To assess the yield of promising hybrids at different locations for their adaptability	Do
899.	Advanced Line Adaptive Research Trial (ALART) (3 ALARTs- T. Aman & 11 ALARTs- Boro)	• To test the yield performance and to evaluate the yield potential and adaptability of superior breeding lines.	Feni & Noakhali
900.	Proposed Variety Trial (PVT) (2 PVTs- T. Aman & 2 PVTs - Boro)	• On-farm evaluation of advance breeding lines compared to standard checks for testing their specific and general adaptability.	BRRI R/S Sonagazi
Program Area (02): Pest Management			
901.	Survey and monitoring of major rice diseases (both T. Aman and Boro)	• To know the prevalence of Major rice disease 2. To assume the rice yield losses due to rice disease	Feni, Noakhali, Chattogram & Rangamati region
902.	Monitoring of insect pests and natural enemies by using light trap (T. Aus, T. Aman and Boro)	• To know the prevalence of Major insects • To assume the rice yield losses due to rice insects	BRRI R/S Sonagazi
903.	Reduction of insecticide use	• To manage insect pests with less or no use	BRRI R/S

Sl. No.	Research Title	Objectives(s)	Location(s)
	in rice production for safe food production (both T. Aman and Boro)	- of insecticide. • To compare insect pests and natural enemy status in insecticide free and insecticide spray field. • To investigate the compensation abilities of different rice varieties due to insect damage.	Sonagazi
904.	Advisory services to the farmers (T. Aus, T. Aman and Boro)	• To assist farmers for rice production;	Feni, Noakhali, Chattogram & Rangamati region
Program Area (03): Crop-Soil-Water management			
905.	Determination of suitable seedling age for transplanting by uprooting plants from dibbled field at saline char land (T. Aus)	• To identify suitable seedling age for splitting tillers of dibbled plot of rice at saline char land • To find out yield capacity of splitting tillers transplanted plots	BRRI R/S Sonagazi
906.	Effect of planting date on the performance of modern rice varieties at southeast of Bangladesh (both T. Aman and Boro)	• To identify a suitable planting window of rice cultivars to maximize grain yield	Do
907.	Effect of nitrogen levels on protein quality of rice at different regions (T. Aman)	• To find out the best nitrogen level for protein quality of rice at different regions	Do
908.	Determination of N, P, K fertilizer doses through SSNM for New varieties/ALART materials in different Ecosystems	• To find out the effect of SSNM for New varieties of Rice	Do
909.	Effect of Nano Potassium Fertilizer on Rice Cultivation	• To find out the effect of Nano Potassium Fertilizer on Rice Cultivation	Do
910.	Efficacy of IFFCO Nano Urea on Rice Cultivation	• To find out the efficacy of IFFCO Nano Urea on Rice Cultivation	Do
911.	Efficacy of Khazra Nano Zinc on rice cultivation	• To find out the efficacy of Khazra Nano Zinc on rice cultivation	Do
912.	Evaluation of NPK Combo Compound Fertilizer on Boro Rice	• To evaluate the NPK Combo Compound Fertilizer on Boro Rice	Do
Program Area (04): Socio Economic and Policy			
913.	Field demonstration of different BRRI released new rice varieties funded by GoB and different projects under Feni, Noakhali, Chattogram & Rangamati	• To demonstrate and disseminate BRRI varieties	Feni, Noakhali, Chattogram & Rangamati region

Sl. No.	Research Title	Objectives(s)	Location(s)
	region during the reporting year (total =2740 demonstrations) (GoB=450, Karmasuchi=660, Partner=400x3=1200, LSTD=100x3=300, Hybrid=130)		
914.	Farmer's training on modern rice technologies funded by GoB and different projects under Feni, Noakhali, Chattogram & Rangamati region during the reporting year (Total=118 Farmer's trainings) (GoB=40, Karmasuchi=66, Partner=8, LSTD=2)	• To increase farmers knowledge on modern rice technologies	Feni, Noakhali, Chattogram & Rangamati region
915.	Field day on modern rice technologies funded by GoB and different projects under Feni, Noakhali, Chattogram & Rangamati region during the reporting year (Total=54 Field days) (GoB=19, Karmasuchi=26, Partner=2, LSTD=5, Hybrid=2)	• To increase farmers knowledge	Feni, Noakhali, Chattogram & Rangamati region
Enrichment of Seed Stock			
916.	Breeder seeds production (total=32.25 tons) (GoB= 12.75 tons & Karmasuchi= 19.50 tons) (T. Aman & Boro)	• To increase the breeder seeds for different GOs/NGOs/Organizations/ Companies	BRRI R/S Sonagazi
917.	Truthfully labelled seeds (TLS) (total=52.25 tons) (GoB/ Karmasuchi) (T. Aus, T. Aman & Boro)	• To increase the TLS for Farmers	Do
918.	F1 seeds production of BRRI hybrid dhan5 (total=1050 kg F1 seeds) (Boro)	• To increase the F1 seeds for GOs/NGOs/Organizations/ Companies	Do

Sl. No.	Research Title	Objectives(s)	Location(s)
RS Gopalganj			
Program Area (01): Varietal Development Program (VDP);			
Program for T. Aman season 2023-24			
919.	Collection of local rice germplasm	• To collect cultivated local rice germplasm from the Faridpur and Khulna regions and • To conserve the collected rice germplasm for safekeeping	Gopalganj, Narail and Bagerhat District.
920.	Phenotypic characterization of newly collected local rice germplasm from Faridpur and Khulna region	• To increase seed and characterize rice landraces as per 'germplasm descriptors and evaluation form' of GRSD, BRRI.	BRRI R/S Gopalganj
921.	Phenotypic and genotypic characterization of pigmented rice germplasm	• To characterize rice landraces as per 'germplasm descriptors and evaluation form' of GRSD, BRRI. • To characterize pigmented rice germplasm using molecular markers.	Gopalganj BRRI R/S Gopalganj
922.	Preliminary yield trial of deepwater rice germplasm	• To evaluate the yield performance of seven deepwater rice germplasm for comparison with standard check	Gopalganj
923.	Preliminary yield trial of Jhum rice genotypes	• To evaluate the yield performance of two Jhum rice genotypes for comparison with standard check	Gopalganj
924.	Breeding for developing high-yielding Transplanting Aman rice varieties (Hybridization)	• To develop a breeding population with desirable characteristics with emphasis on water stagnation tolerance, anaerobic tillering, and good grain quality.	Gopalganj
925.	Breeding for developing high-yielding shallow flooded Deepwater rice varieties (Hybridization)	• To develop a breeding population with desirable characteristics of deepwater Aman rice	Gopalganj
Program Area (03): Crop-Soil-Water management			
926.	Effect of transplanting date on growth and yield of latest BRRI varieties in Gopalganj	• To find out the suitable transplanting date of different BRRI-developed rice varieties in terms of maximum benefit.	BRRI R/S Gopalganj
927.	Collection and chemical analysis of peat soil	• To analysis of the soil nutrients • To evaluate rapid peat sampling methods	BRRI R/S Gopalganj
Program Area (05): Technology Transfer			
928.	Field demonstration of different BRRI released new rice varieties in Gopalganj region (GoB, PARTNER, LSTD & Hybrid Project)	• To disseminate the modern HYVs and Hybrids varieties in Faridpur and Khulna region	Different upazilas of Faridpur and Khulna Region
929.	Farmer's training on modern rice cultivation and disease management	• To increase farmers knowledge	Different upazilas of Faridpur and Khulna Region

Sl. No.	Research Title	Objectives(s)	Location(s)
	technology (GoB & PARTNER project)		
930.	Field day on modern rice cultivation. (GoB, PARTNER, LSTD & Hybrid Project)	• To increase farmers knowledge	Different upazilas of Faridpur and Khulna Region
Program Area (06): Rice Farming System			
931.	Improvement of Boro-Fallow-Fallow Cropping pattern in Gopalganj District	• To increase productivity by improving the existing cropping pattern	Tungipara and Kotalipara upazila of Gopalganj
RS Bhanga			
932. 933.	Breeding for developing high yielding Transplanting Aman rice varieties (Hybridization)	• To develop breeding population with desirable characters with emphasis on water stagnation tolerance, anaerobic tillering, earliness and good grain quality.	BRRI R/S Bhanga
934.	Breeding for developing high yielding shallow flooded Deep water rice varieties (Hybridization)	• To develop breeding population with desirable characters of deep water Aman rice	BRRI R/S Bhanga
935.	Breeding for developing Anoxia tolerant rice varieties	• To develop high yielding anoxia and water stagnation tolerant rice genotypes for direct seeding condition to fit Onion/wheat- Jute-Relay T. Aman pattern	BRRI R/S Bhanga
936.	Breeding of high yielding rice varieties for high input responsive in single boro favorable ecosystem	• To develop rice varieties for high input responsive in single Boro favorable ecosystem	BRRI R/S Bhanga
937.	Confirmation of F ₁ s	• To confirm the crosses as true hybrid	BRRI R/S Bhanga
938.	FRGA	• Generation Advance	BRRI R/S Bhanga
939.	Collection and Characterization of local rice landraces	• -To collect and characterize local rice landraces for breeding purpose and conserve in the Genebank of BRRI	BRRI R/S Bhanga
940.	Screening and identification of anaerobic germination (AG) tolerance rice germplasm of Bangladesh.	• To identify donor for anaerobic germination tolerance	BRRI R/S Bhanga
941.	Head-to-Head Trial: VRS (Variety Replacement Strategy)	• To evaluate the adaptation of BRRI released Rice varieties in different region of the country. • To compare the modern rice variety with local variety. • To select appropriate variety for specific region. • To disseminate the modern varieties throughout the country.	Different upazilas of Faridpur Region
942.	Demonstration trial of	• To disseminate the modern HYVs and	Different upazilas

Sl. No.	Research Title	Objectives(s)	Location(s)
	BRRi developed HYVs and Hybrids varieties	Hybrids varieties in Faridpur region	of Faridpur Region
943.	Farmer's Training and Field Day	• To increase farmers knowledge	Different upazilas of Faridpur Region
944.	Stability analysis of BRRi released rice varieties	• To demonstrate the suitability of BRRi varieties in Faridpur region	BRRi R/S Bhanga
945.	Effects of planting time on <i>Aus</i> rice in char land area of Faridpur region (On going)	• To achieve sustainable rice production at char land environment. • To adjust planting time for saving/protect <i>Aus</i> crop from early flood.	Char land area of Faridpur region
946.	Development of weed control techniques in Boro-Fallow-Fallow cropping pattern	• To develop cost effective and eco-friendly weed control practices for sustainable weed management in Boro-Fallow-Fallow cropping systems.	BRRi R/S Bhanga
947.	Effect of herbicide on Azolla infestation in Faridpur region	• To reduce the abundance of Azolla at BRRi R/S Bhanga	BRRi R/S Bhanga
948.	Effect of Trichocompost on nutrient and disease management in rice	• To find out the efficacy of Trichocompost for nutrient management in rice • To find out the effectiveness of Trichocompost for disease management	Bhanga
949.	Introduction of intercropping system in different cropping pattern for medium high land area in Faridpur region	• To increase cropping intensity and productivity in Faridpur region	Faridpur
950.	Evaluation of different Aman rice varieties under Wheat-Jute-T. Aman cropping pattern in Faridpur region	• To find out the suitability of newly released Aman rice varieties under Wheat-Jute-T. Aman cropping pattern • To increase the system productivity and farmers' income	Faridpur
951.	Validation of improved cropping pattern technology Boro-Transplanted deepwater Aman in the single Boro area of Faridpur region	• To increase the system productivity and farmers' income	Shariatpur/Faridpur
952.	Fine tuning of the improved cropping pattern technology Lentil + Muskmelon-Jute-T. Aman in Faridpur region	• To increase the system productivity and farmers' income	Faridpur
RS Satkhira			
953.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines with respective check-in on-station condition	On-station
954.	Advanced Yield Trial of	• Yield and growth durations of blast	On-station & On-

Sl. No.	Research Title	Objectives(s)	Location(s)
	blast resistant lines	resistant lines at BRRI, Satkhira in T Aman/Boro.	farm
955.	Multi-location Trial of blast resistance breeding lines (MLT-Blast)	• To evaluate the blast resistance and yield of breeding materials with respective check in various locations	On-station & On-farm
956.	Advanced Line Adaptive Research Trial (ALART)	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmers' field • To get feedback information about the advantages and disadvantages of the selected materials from farmers and Extension personnel • To select suitable material(s) for Proposed Variety Trial (PVT)	On-farm
957.	Assessment of specific and general adaptability for selection of suitable hybrid rice genotypes in saline-prone areas for Boro season	• To find out suitable hybrid rice genotypes in saline prone areas for Boro season	On-farm
958.	Effects of long-term missing nutrients on rice yield	• To identify yield limiting nutrients of rice	On-station
959.	Nitrogen rates and varietal effects on rice yield and greenhouse gas emissions and CO ₂ absorption in coastal ecosystems of Bangladesh	• To assess the effects of rice cultivars and nitrogen doses on rice yield and greenhouse gas (GHG) emissions in the coastal environment • To find out suitable rice cultivars for lowering GHG emissions with reduced negative environmental impacts	On-station
960.	Effects of Bio-coated Urea on rice yield in Boro season in the south-western costal ecosystem	• To evaluate the efficacy of formulated Bio-coated Urea (BCU) in the saline soil	On-station
961.	Judicial N management in Boro rice for increasing yield	• To understand the uptake of N during vegetative growth in relation to plant population and environment.	On-station
962.	Stability Analysis of BRRI Varieties at Satkhira	• To find out the suitability and adaptability of the particular variety	On-station
963.	Rice Area Production Mapping (RAPM) and estimation of rice yield in different seasons of Bangladesh: Crop cuts method	• To find out the on-farm yield of BRRI released rice varieties in Khulna and Jashore regions • To analyze the yield performance of BRRI released rice varieties • Mapping of rice cultivation area according to season	On-farm
964.	Monitoring Soil-Water Salinity of BRRI Farm,	• To know the salinity status of BRRI-RS, Satkhira	On-station

Sl. No.	Research Title	Objectives(s)	Location(s)
	Satkhira		
965.	Monitoring Weather Status of BRRI Farm, Satkhira	• To know the weather status of BRRI-RS, Satkhira	On-station
966.	Head-to-head adaptive trial (HHAT) of Modern Rice Varieties	• To find out the adaptability of BRRI released rice varieties in various regions of Bangladesh • To compare modern rice varieties with popular local varieties • Selection of rice variety/varieties suitable for a particular region • To analyze farmers' response to modern rice varieties and take necessary actions accordingly	On-farm
967.	Seed production and dissemination program (SPDP)	• To disseminate BRRI varieties rapidly among the farmers of Khulna and Satkhira region	On-farm
968.	Optimizing Nitrogen management of Boro rice for improved production in rice-fish non-saline gher-ecosystem	• To find out the appropriate N dose for optimum Boro rice production in Rice-fish non-saline gher ecosystem	On-farm
969.	Performance of saline tolerant BRRI varieties in the southern coastal gher-ecosystem of Bangladesh	• To find out the yield performance of BRRI released saline tolerant rice varieties in gher system	On-farm
970.	Line Stage Trial (LST)	• To assess FRGA/RGA derived advanced breeding lines for uniformity at heading and desirable agronomic and grain type traits	On-farm, On-station
971.	Observational Yield Trial (OYT)	• Identification of genetically fixed advanced lines suitable for saline areas	On-farm, On-station
972.	Preliminary Yield Trial (PYT)	• Initial evaluation of breeding lines for yield and other agronomic characteristics in replicated trial	On-farm, On-station
973.	Advanced Yield Trial (AYT)	• Confirmatory evaluation of selected genotypes for yield and other agronomic characteristics	On-farm, On-station
974.	Regional Yield Trial (RYT)	• To evaluate specific and general adaptability of the advance breeding lines with respective check-in on-station condition	On-farm, On-station
975.	International Rice Soil Stress Tolerant Nursery (IRSSTN)		On-farm, On-station
976.	Asian Food and Agriculture Cooperation Initiative (AFACI) program	• Initial evaluation of yield, salt tolerance and other agronomic characteristics of selected materials in replicated trial.	On-farm, On-station

Sl. No.	Research Title	Objectives(s)	Location(s)
977.	AGGRi Network trial	• To select the superior breeding lines in salinity stress environment of Bangladesh	On-farm
RS Sirajganj			
978.	Regional Yield Trial (Kataritype grain) during T.Aman 2023	• To evaluate fine grain Kataritype high yielding breeding lines under integrated improved management practices in different agro-climatic conditions of Bangladesh.	BRRI Farm, Sirajganj
979.	Regional Yield Trial (Ziratype grain) during T.Aman 2023	• To evaluate fine grain Ziratype high yielding breeding lines under integrated improved management practices in different agro-climatic conditions of Bangladesh.	BRRI Farm, Sirajganj
980.	Regional Yield Trial (Antioxidant enriched rice) during T. Aman 2023	• To evaluate anthocyanin enriched breeding lines for high yield potential and adaptability in different agro-climatic conditions.	BRRI Farm, Sirajganj
981.	Regional Yield Trial (Low Amylose enriched rice) during T. Aman 2023	• To evaluate specific and general adaptability of the genotypes in on-station condition	BRRI Farm, Sirajganj
982.	Regional Yield Trial (Photosensitive rice) during T.Aman 2023	• To evaluate photosensitive breeding lines for yield potential and adaptability test under different agro-climatic conditions of Bangladesh.	BRRI Farm, Sirajganj
983.	Regional yield Trial (Rainfed Lowland Rice) in T. Aman 2023	• To evaluate specific and general adaptability of the genotypes in on-station condition	BRRI Farm, Sirajganj
984.	Regional Yield Trial (false smut) in T. Aman 2023	• To evaluation of false smut resistant breeding lines for high yield potential and adaptability in different agro-climatic conditions.	BRRI Farm, Sirajganj
985.	Regional Yield Trial (Zinc Enriched Rice) in T. Aman 2023	• To evaluate zinc enriched breeding lines for yield potential and adaptability test under different agro-climatic conditions of Bangladesh.	BRRI Farm, Sirajganj
986.	Regional Yield Trial (Long Duration tall Rice) in T. Aman 2023	• To evaluate long duration tall breeding lines for yield potential and adaptability test under different agro-climatic conditions of Bangladesh.	BRRI Farm, Sirajganj
987.	Regional Yield Trial (Favorable Boro Rice) 2023-24	• To evaluate specific and general adaptability of the genotypes in on-station condition	BRRI Farm, Sirajganj
988.	Regional yield Trial for Blast and bacterial blight resistance Rice during Boro 2023-24	• To evaluate specific and general adaptability of the genotypes in on-station condition	BRRI Farm, Sirajganj
989.	Regional Yield Trial (Zinc	• To evaluate Zinc Enriched breeding lines	BRRI Farm,

Sl. No.	Research Title	Objectives(s)	Location(s)
	Enriched Rice) during Boro 2023-24	for yield potential and adaptability test under different agro-climatic conditions of Bangladesh.	Sirajganj
990.	Regional Yield Trial (Fine grain Rice during Boro 2023-24	• To evaluate fine grain high yielding breeding lines under integrated improved management practices in different agro-climatic conditions of Bangladesh.	BRRI Farm, Sirajganj
991.	Advanced line adaptive research trial, Direct seeded Broadcast Aman, deep areas (100-150 cm water depth), 2023	• To evaluate the yield potential and adaptability of the advanced rice genotypes at farmer's field in different agro-ecological zones. • To get feedback information about the advantages and disadvantages of the selected materials from farmers and Extension personnel. • To select suitable material(s) for proposed variety trial (PVT).	Shahjadpur, Sirajganj
992.	Advanced line adaptive research trial (BRRI dhan49 type short slender grain) T. Aman 2023	• Do	Bogura Sadar, Bogura
993.	Advanced line adaptive research trial (Swarna type grain), T. Aman 2023	• Do	Bogura Sadar, Bogura
994.	Advanced line adaptive research trial (Antioxidant Enriched Rice), T. Aman 2023	• Do	Bogura Sadar, Bogura
995.	Advanced line adaptive research trial (BB & Blast resistant Rice), Boro 2023-24	• Do	Kamarkhand, Sirajganj
996.	Advanced line adaptive research trial (BB resistant Rice), Boro 2023-24	• Do	Kamarkhand, Sirajganj
997.	Advanced line adaptive research trial (Late Boro Rice), Boro 2023-24	• Do	Bogura Sadar, Bogura
998.	Advanced line adaptive research trial (Short Duration Rice), Boro 2023-24	• Do	Kamarkhand, Sirajganj
999.	Advanced line adaptive research trial (Favorable Boro Rice, Biotechnology), Boro 2023-24	• Do	Kamarkhand, Sirajganj
1000.	Advanced line adaptive	• Do	Kamarkhand,

Sl. No.	Research Title	Objectives(s)	Location(s)
	research trial (Long Duration Rice), Boro 2023-24		Sirajganj
1001.	Advanced line adaptive research trial (Premium Quality Rice), Boro 2023-24	• Do	Bogura Sadar, Bogura
1002.	Advanced line adaptive research trial (Superior High Yielding Ziratype Rice), Boro 2023-24	• Do	Kamarkhand, Sirajganj
1003.	Advanced line adaptive research trial (Superior High Yielding Katari type Rice), Boro 2023-24	• Do	Bogura Sadar, Bogura
1004.	Advanced line adaptive research trial (BB resistant Rice), Aus 2024	• Do	Kamarkhand, Sirajganj
1005.	Effect of different trap designs for the management of rats in the rice field during Aus and T.Aman 2023	• To find out the effectiveness of different trap designs on rat catch	BRRI Farm, Sirajganj
1006.	Long-term Missing Element Trial at BRRI R/S Sirajganj, T.Aman, 2023 and Boro 2023-24	• To evaluate changes in soil physico-chemical & biological properties • To study the effect of long-term nutrient omission on rice yield • To determine management options for solution of soil problem	BRRI Farm, Sirajganj
1007.	Scheduling of Phosphatic fertilizer on the growth of Algae and yield of rice, T. Aman, 2023 and Boro 2023-24	• To monitor the effect of TSP and DAP fertilizer on algal growth • To observe the algal effect on rice growth and yield	BRRI Farm, Sirajganj



BANGLADESH JUTE RESEARCH INSTITUTE

BJRI

Bangladesh Jute Research Institute

Sl. No.	Research Title	Objective(s)	Location(s)
AGRICULTURE WING			
AGRONOMY DIVISION			
Crop Management Department			
1.	Determination of appropriate sowing time on fibre yield and yield attributes of advanced breeding lines BJC-5002 & C-2262 of white jute	To ascertain the optimum sowing time of advanced breeding lines BJC-5002 & C-2262 of white jute for higher fibre yield.	Manikganj, Rangpur and Jashore
2.	Effect of sowing time on fibre yield and yield attributes of Tossa jute at the age of 100 days	The study will provide information on yield and yield attributes of BJRI tossa jute about different sowing times when it will be harvested at 100 days.	Manikganj, Rangpur and Jashore
3.	Assessment of low-density sowing on the yield attributes and yield performance of jute (<i>Corchorus olitorius</i>)	Assessment of low-density sowing on the yield attributes and yield performance of Jute (<i>Corchorus olitorius</i>)	Kishoreganj
4.	Assessment of low-density sowing on the yield attributes and yield performance of jute (<i>Corchorus olitorius</i>)	To provide information to the breeder for the recommendation of sowing time during variety release	Dinajpur, Kishoreganj and Jashore
5.	Influence of climate change on fibre yield and yield attributes of kenaf as affected by variety	To generate information on sowing time for fibre yield & yield attributes of kenaf in changing climatic situations for higher production.	Kishoreganj and Rangpur
6.	Effect of date of sowing on seed yield and yield attributes of BJRI Deshi Pat Shak 1(BJC-390) as influenced by spacing	To generate information on the yield and quality of different tossa jute varieties at optimum spacing and population density	Manikganj, Rangpur and Jashore
7.	Determination of suitable sowing and harvesting time for optimum leaf production (shak) of BJRI Pat Shak 1	To find out the suitable sowing and harvesting time for maximum BJRI Pat Shak 1 production to get maximum return.	Manikganj, Rangpur and Jashore
8.	Study on the effect of weedicide samples for weed control in jute field	To find out the effectiveness of weedicide samples for weed control in the jute field under field condition	Tarabo and Manikganj
Soil Science Department			
9.	Assessment of fertilizer Requirement of capsularis	To determine the suitable doses with different levels of fertilizers on growth and yield of capsularis	Manikganj, Chandina and Rangpur

Sl. No.	Research Title	Objective(s)	Location(s)
	advance line C-2262 for fibre production	advance line C-2262 for fibre production.	
10.	Study on the nutrients requirement (NPKS) of capsularis advance line C-5002 for fibre production	To determine the suitable doses with different levels of fertilizers on growth and yield of capsularis advance line C-5002 for fibre production.	Manikganj, Chandina and Rangpur
11.	Optimizing Potassium for managing plant lodging and yield of <i>olitorius</i> jute	To find out the optimum requirement of Potassium and all of nutrients to achieve higher quality fiber and the maximum yield of BJRI Tossa 8.	Jashore, Madarganj, Rangpur and Kishoreganj
12.	Feasibility evaluation of flue gas desulfurization gypsum as fertilizer for Jute cultivation	- To clarify whether FGD gypsum can be a sustainable sulfur fertilizer source for Jute cultivation. - To evaluate the feasibility of switching to FG DG from gypsum for Jute cultivation.	Patuakhali
13.	Influence of vermicompost, Biochar and Poultrymanure on BJRI Tossa Pat 8 for fibre production	- To evaluate the growth and yield capability of BJRI developed tossa jute variety Tossa Pat - To find out the appropriate nutrient management option for proper growth and higher yield of tossa jute and - To find out the suitable interaction between variety and fertilizer management in respect of growth and yield of tossa jute.	Manikganj, Jashore and Faridpur
14.	Effects of different sources of organic manures and chemical fertilizers on growth & yield of BJRI developed kenaf variety and improve soil health	- To find out the appropriate suitable interaction & nutrient management option for proper growth and higher yield of BJRI kenaf variety. - To improve the soil health.	Kishoreganj and Tarabo
15.	Study on observation of nutrient accumulation of selected kenaf cultivar.	To observe the nutrients and heavy metals accumulation of different selected kenaf cultivars.	Kishoreganj and Manikganj.
16.	Interactive influential effects of Lime, Gypsum, and Magnesium on acid soil for plant nutrient availability in jute growing areas	- To study the effects of lime, gypsum and magnesium sulphate on the fibre yield of jute and acidity indices and their residual effect on nutrient status in soil - What are the main changes in soil chemical properties amended with lime, gypsum, magnesium sulphate and lime + gypsum+ magnesium sulphate.	Manikganj, Rangpur and Dinajpur.
17.	Effect on the simultaneous application of tea waste and NPK fertilizers to enhance	To determine the basic properties of tea waste and Optimization of the tea waste doses for jute seed production.	Manikganj, Faridpur and Dinajpur.

Sl. No.	Research Title	Objective(s)	Location(s)
	the characteristics of sandy soil and how it affects jute seed production	- To quantify the effect of tea waste on the biochemical properties of sandy soil and the changes of physio-chemical properties of soils and - To evaluate the effects of tea waste on seed production of Jute.	
18.	Combined effect of vermicompost and inorganic fertilizers on the yield and seed quality of Jute	- To determine the optimum dose of vermicompost combined with inorganic fertilizer. - To promote organic farming for quality jute seed production.	Kishoreganj, Manikganj and Madarganj.
19.	Growth, yield and quality of kenaf seed as influenced by vermicompost, biochar and poultry manure	To find out the optimum doses of fertilizer and interaction for maximum output as well as to keep the soil fit for the years to come.	Faridpur, Jashore and Dinajpur
20.	Influence of different organic and inorganic fertilizer level on maximizing productivity, seed quality and economics of BJRI kenaf 5	- To find out the suitable interaction and nutrient management option for proper growth and higher seed yield of BJRI kenaf 5. - To improve the soil health in long term basis.	Kishoreganj, Dinajpur, and Manikganj
21.	Assessment of different organic salinity management technologies for jute cultivation at coastal saline soils	To find out best one of available salinity management practice for Jute cultivation at coastal saline soils.	Patuakhali.
22.	Effect of raised bed planting and k and mulch application on the mitigation of soil salinity and yield of late jute seed	To identify effective ameliorant, and effect of mulching in improving growth and yield of late jute seed of BJRI Tossa Pat 5 on saline soil.	Patuakhali
23.	Manure application in the jute rhizosphere and reduces toxic metal from the field.	- To explore metals accumulation and distribution in soil and jute plants - To investigate the effects of manure improvement on microbial community and as a biotransformation's genes in the jute rhizosphere; and real-time quantitative polymerase chain reaction (qPCR)	Faridpur, Jessore And Patuakhali,
24.	Assessment of fertilizer recommendation for Maize-Jute-T.Aman cropping pattern for increasing system productivity in different AEZs of Bangladesh	- To evaluate the current fertilizer recommendations for the Maize-Jute-T.Aman cropping pattern in different AEZs of Bangladesh - To evaluate the performances of the Maize-Jute-T.Aman cropping pattern under different fertilizer treatments. - To evaluate the feasibility of increasing income through increasing cropping intensity and productivity	Manikganj, Rangpur and Dinajpur.

Sl. No.	Research Title	Objective(s)	Location(s)
		by growing three crops in a year in the same piece of land.	
25.	Updating fertilizer recommendation for Jute-T.Aman-Onion cropping pattern at greater Faridpur region	A fertilizer recommendations will be made for Jute-T.Aman-Onion cropping pattern in different AEZ of Bangladesh	Manikganj and Faridpur.
Physiology Department			
26.	Dry matter accretion with ages of advance <i>olitorius</i> breeding line O-043-7-9 (Red)	- Dry matter partitioning of advance <i>olitorius</i> breeding line O-043-7-9 (Red) will be found out. - Appropriate harvest time of advance <i>olitorius</i> breeding line O-043-7-9 (Red) will be found out for maximum economic benefits. - Crucial growth period for O-043-7-9 (Red) will be found out.	JAES, Manikganj
27.	Screening of jute germplasm for drought tolerance	Drought tolerant jute genotype will be screened out.	Net House, BJRI and JAES, Manikganj
28.	Screening of jute germplasm for water logging tolerance	To find out the suitable waterlogged tolerant jute germplasm.	Head Office, BJRI
29	Screening of Kenaf (<i>Hibiscus cannabinus</i>) germplasm for yield under different water logging conditions	Different germplasm may perform differently which will help in further varietal development.	Jute Research Regional Station, Rangpur
30.	Screening of jute germplasm for less photosensitivity	Less photosensitive jute genotypes will be identified	JAES, Manikganj and JRRS, Rangpur
31.	Screening of different jute germplasm for salinity tolerance	To find out the suitable saline tolerant germplasm/accessions.	Saline zone (Kalapara, Patuakhali)
32.	Screening of jute germplasm with erect leaf for higher fibre yield	Erect leaf jute genotype will be screened out.	JAES, Manikganj
33.	Effect of different containers available to farmers on shelf life of kenaf seed	- Effect of different containers on shelf life of kenaf seed will be identified. - At farmers' level, best containers for kenaf seed storage will be identified.	Physiology laboratory, BJRI
34.	Effect of de-topping on reproductive phenology and seed quality in different Kenaf varieties	- Effect of de-topping on reproductive phenology and quality of kenaf seed. - Optimum time of de-topping during Kenaf seed production.	JAES, Manikganj
35.	Study on morpho-phenology of BJRI released 'pat shak' varieties at different location of BJRI	To study morphological and phenological attributes of 'pat shak' varieties round the year	JAES, Manikganj; JRRS, Rangpur; JRSS, Jashore

Sl. No.	Research Title	Objective(s)	Location(s)
36.	Determination of suitable flowering response of BJRI released latest tossa jute varieties for changing environment at different location of BJRI	To find out suitable sowing time for maximum yield	JAES, Manikganj; JRRS, Rangpur; JRSS, Patuakhali
37.	Effect of Plant Growth Regulators on Yield and Quality of Late Season Tossa Jute Seed	Different plant growth regulators may affect differently which will help to find out the effect of different plant growth regulators on seed yield and quality of olitorius jute under 'late jute seed production technique'	JRRS, Rangpur
BREEDING DIVISION			
Capsularis Department			
38.	Hybridization among the selected genotypes of white jute	To accumulate desirable traits from diverse parents	BJRI, Dhaka
39.	Confirmation of F ₁ s of white jute	To confirm F₁s progenies as true hybrids	BJRI, Dhaka
40.	Evaluation of segregating materials and selection of superior plants/lines of white jute	To evaluate and select the desirable plants from the segregating generation	BJRI, Dhaka
41.	Inter-specific hybridization among different species of jute by using plant growth hormones	To identify jute genotype(s) having good fiber yield and qualities	BJRI, Dhaka
42.	Rapid generation advance (RGA) in white jute	To speed up the breeding cycle for faster variety development and reducing breeding costs (resources, labor and space etc.)	BJRI, Dhaka
43.	Anatomical studies of some advanced lines of white jute	To identify jute genotype(s) having good fiber yield and qualities	BJRI, Dhaka
44.	Screening of selected white jute germplasm for low temperature, drought and salinity tolerance	To isolate desirable low temperature, drought and salinity tolerant genotypes	BJRI Sub-Station, Patuakhali
45.	Evaluation and selection of superior white jute mutants	To create genetic variation among the desired progeny	BJRI, Dhaka
46.	Preliminary yield trial of some genotypes of white jute for vegetable purposes	To find out high yielding and nutrient rich vegetable type white jute genotypes	Manikganj, Rangpur and Monirampur
47.	Advanced yield trial of advanced lines of white jute for short days and low-temperature tolerance	To find out the lines for higher fiber yield in different regions	Manikganj, Rangpur and Chandina stations
48.	Zonal yield trial of advanced lines of white jute for higher yield	To find out the lines for higher fiber yield at different regions	Rangpur, Chandina and Manikganj

Sl. No.	Research Title	Objective(s)	Location(s)
49.	On-farm yield trial of high-yielding breeding lines of white jute	To develop new varieties with higher yield	Manikganj, Rangpur, Faridpur, Monirampur, Kishoreganj and Chandina
50.	Maintenance of nucleus seed stock of white jute	To maintain the genetic purity of different varieties	Manikganj, Rangpur, Monirampur and Chandina
51.	Maintenance of advanced lines of white jute	To maintain different strains to be used as parents for improvement of white jute	Manikganj, Rangpur, Monirampur and Chandina
Olitorius Department			
52.	Hybridization among the selected genotypes of tossa jute	To accumulate desirable traits from diverse parents	BJRI, Dhaka
53.	Confirmation of F ₁ s of tossa jute	To confirm F₁ progenies as true hybrids	BJRI, Dhaka
54.	Evaluation of segregating materials and selection of superior lines of tossa jute	To evaluate and select the desirable plants from the segregating generation	BJRI, Dhaka
55.	Anatomical study of tossa jute for quality fibers	To identify jute genotype(s) having good fiber yield and qualities	Manikganj and Dhaka
56.	Creation of tossa jute mutants (M ₁) and Selection of mutants at M ₂ generation for higher yield and quality of fibre	To identify jute genotype(s) having good fiber yield and qualities	Manikganj and Dhaka
57.	Evaluation of tossa jute mutants (Gamma ray) at different generations	To create genetic variation among the desired progeny	Monirampur, Jashore
58.	Rapid generation advance (RGA) in tossa jute	To speed up the breeding cycle for faster variety development and reducing breeding costs (resources, labor and space etc.)	BJRI, Dhaka
59.	Searching for CMS line in tossa jute to develop hybrid	To identify the male sterile line for hybrid development	BJRI, Dhaka
60.	Identification of Chemical Hybridizing Agents (CHAs) with optimum dose to create male sterility in tossa jute for hybrid variety development	To identify the effective CHA and its optimum dose for male sterility (MS) in jute	BJRI, Dhaka
61.	Regulation of vascular cell division on tossa jute	To find out the effect of specific dose of selected hormones on bast fiber production	BJRI, Dhaka

Sl. No.	Research Title	Objective(s)	Location(s)
62.	Improvement of tossa jute through somaclonal variation	To find out the desired line through somaclonal variation by producing callus tissue	BJRI, Dhaka
63.	Analysis of genetic variability for growth and yield parameters of tossa jute	To assess genetic variability, heritability and genetic advance of 10 tossa jute varieties	Manikganj
64.	Screening of tossa jute germplasm against waterlogged condition	To isolate desirable, waterlog tolerant genotypes	BJRI, Dhaka
65.	Screening of tossa jute genotypes against salt stress using petri plate method	To isolate desirable salt tolerant genotypes	Monirampur, Jashore
66.	Advancement of jute genotypes for short day and low temperature tolerance	To identify photo & thermo-insensitive jute genotypes	Manikganj
67.	Observation yield trial of selected tossa jute materials	To select high-yielding superior tossa jute genotypes	Manikganj
68.	Screening of short duration and high yielding tossa jute genotype to fit in three cropping patterns	To isolate early sowing, short cycled tossa jute genotypes	Manikganj
69.	Screening of vegetable tossa jute	To isolate vegetable type tossa jute genotypes	BJRI, Dhaka
70.	Selection of tossa jute mutants (M ₂) for higher yield and quality of fiber	To select genotypes of mutant generations with stress tolerance, quick maturity, short duration, good fiber quality and high yield	BJRI, Dhaka
71.	Preliminary yield trial of promising lines of tossa jute	To evaluate yield and yield contributing characters of the lines	Manikganj, Faridpur and Rangpur
72.	Preliminary yield trial of selected lines tolerant under submerged condition	To find out better fiber yielding genotypes after inundation at field condition	Faridpur
73.	Advanced yield trial of tossa jute breeding lines	To find out the lines for higher fiber yield in different regions	Manikganj, Rangpur and Monirampur
74.	Zonal yield trial of high yielding breeding lines of tossa jute	To find out the lines for higher fiber yield at different regions	Rangpur, Monirampur, Faridpur, Manikganj, Kishoreganj and Cumilla
75.	Maintenance of nucleus seed stock of tossa jute	To maintain the genetic purity of different varieties	Manikganj, Rangpur, Monirampur
76.	Maintenance of parents of tossa jute	To maintain different strains to be used as parents for improvement of tossa jute	Manikganj, Rangpur and Monirampur

Sl. No.	Research Title	Objective(s)	Location(s)
Kenaf and Mesta Department			
77.	Hybridization in Kenaf and Mesta	To accumulate desirable traits from diverse parents	BJRI, Dhaka
78.	Confirmation of F ₁ s	To confirm F₁s progenies as true hybrids	BJRI, Dhaka
79.	Set A: Evaluation of segregating lines of Kenaf and Mesta	To evaluate and select the desirable plants from the segregating generation	BJRI, Dhaka
	Set B: Evaluation of segregating lines of kenaf	To identify genotypes (parents and offspring) with good combining abilities	Chandina, Cumilla
80.	Screening of Kenaf germplasm for higher fiber yield	To identify jute genotype(s) having good fiber yield and qualities	BJRI, Dhaka
81.	Rapid Generation Advance (RGA) protocol development in Kenaf	To speed up the breeding cycle for faster variety development and reducing breeding costs (resources, labor and space etc.)	BJRI, Dhaka
82.	Anatomical study of Kenaf and Mesta promising lines	To identify jute genotype(s) having good fiber yield and qualities	Manikganj and Monirampur
83.	Set A: Preliminary yield trial (PYT) of Kenaf breeding lines	To evaluate yield and yield contributing characters of the lines	Manikganj and Monirampur sub stations
	SET B: Preliminary yield trial (PYT) of kenaf mutant lines	To evaluate yield and yield contributing characters of the kenaf mutant lines	Manikganj and Monirampur sub stations
84.	On farm yield trial of Kenaf breeding line	To evolve quick growing and high yielding Kenaf varieties with distinct characters	Manikganj, Rangpur, Faridpur, Monirampur, Kishoreganj and Chandina
85.	Maintenance of nucleus seed stock of Kenaf and Mesta	To maintain the genetic purity of different varieties	Manikganj and Rangpur
86.	Maintenance of parents of Kenaf and Mesta	To maintain different strains to be used as parents for improvement of Kenaf and Mesta	Manikganj and Monirampur
GENETIC RESOURCES AND SEED DIVISION			
Gene Bank Department			
87.	Collection of jute, kenaf, mesta and allied fibre germplasm for conservation in BJRI Gene Bank	To collect jute and allied fibre germplasm for conservation in BJRI Gene Bank.	Gazipur, Mymensingh, Sherpur, Netrokona and Kisharganj
88.	Characterization of deshi jute (<i>Corchorus capsularis</i> L.) germplasm	To characterize, identify and documentation of <i>Corchorus capsularis</i> germplasm for utilization in genetic improvement programme.	Patuakhali and JAES, Manikganj Station.

Sl. No.	Research Title	Objective(s)	Location(s)
89.	Characterization of tossa jute (<i>Corchorus olitorius</i> L.) germplasm	• To characterize, identify and documentation of <i>Corchorus olitorius</i> germplasm for utilization in genetic improvement programme.	Monirampur, Jessore and JAES, Manikganj
90.	Characterization of kenaf (<i>Hibiscus cannabinus</i> L.) germplasm	• To characterize, identify and documentation of kenaf (<i>Hibiscus cannabinus</i>) germplasm for utilization in variety improvement programme.	Kishoreganj and JAES, Manikganj Station.
91.	Evaluation for morpho-agronomic attributes, disease and pest status of selected kenaf germplasm	• To identify of superior kenaf germplasm for varietal improvement programme.	Chandina and Patuakhali Station.
92.	Evaluation for morpho-agronomic attributes, disease and pest status of selected tossa jute (<i>Corchorus olitorius</i>) germplasm	• To identify of superior tossa jute germplasm for varietal improvement programme.	Dinajpur and Jessore station.
93.	Regeneration and distribution of jute and allied fibre germplasm	• To regenerate and multiply more quality seeds with higher percentage of germination for storage in BJRI Gene Bank.	Central station (Dhaka) and JAES, Manikganj
94.	Monitoring the viability of jute and allied fibre germplasm and for their maintenance	• To monitor the viability of jute and allied fibre germplasm for ensuring the quality seed stored in BJRI Gene Bank at 40 C and -200 C	Gene Bank Lab, BJRI, Dhaka
Cytogenetics Department			
95.	Molecular characterization of Kenaf germplasm through DNA finger printing	• To know primer polymorphism and genetic diversity of kenaf germplasm	Cytogenetics department lab, BJRI, Dhaka
96.	Mutagenic effects of ethyl methane sulphonate (EMS) on ...morpho-physiological traits of jute and kenaf	• To generate mutant lines using EMS treatment, aiding breeding programs to develop resilient and improved jute and kenaf varieties.	Cytogenetics department lab, BJRI, Dhaka
97.	In vitro regeneration of kenaf through pollen culture for creating haploid (F1) plants	• To study focuses on the in vitro regeneration of kenaf through pollen culture to create haploid (F1) plants.	Cytogenetics department lab, BJRI, Dhaka
Breeder Seed Department			
98.	Production of nucleus seed stock of jute kenaf and mesta	• To maintain nucleus seed stock of released varieties of jute, kenaf and mesta.	Dhaka, Manikganj, Monirampur and Nasipur
99.	Production of breeder seed of deshi jute, tossa jute, kenaf and mesta	• To produce Breeder seed of different varieties of jute and kenaf.	Manikganj, Rangpur, Kisharganj, Chandina, Faridpur,

Sl. No.	Research Title	Objective(s)	Location(s)
			Monirampur and Nasipur.
100.	Safe keeping of breeder and foundation seed produced at different farms.	To gain the better seed quality of jute and allied fibre crops.	Chitla (Meherpur), Nasipur (Dinajpur), Karimganj and Kotiadi (Kishoreganj)
101.	Breeder seed yield and quality of Tossa jute produced by two regions of Bangladesh	To find out the comparative seed yield performance of BJRI Tossa pat 8, BJRI Tossa pat 5, O-9897 and JRO-524	Kishoreganj and Patuakhali.
102.	Breeder Seed Characterization of BJRI Popular Released Varieties of Jute, Kenaf and Mesta	To characterize of BJRI popular released varieties of jute, kenaf and Mesta.	Breeder Seed Department lab, BJRI, Dhaka
Molecular Biology Department			
103.	Bioinformatics-based approaches for identification and characterization of Disease resistance (R) genes in both <i>Corchorus</i> species	To identify the disease resistance (R) genes in both <i>Corchorus</i> species and analysis the function of those genes.	Molecular Biology Lab, BJRI, Dhaka
104.	Bioinformatic investigation of drought tolerant candidate genes in both jute species	To identify the drought tolerant candidate genes in both <i>Corchorus</i> species and analysis the function of those genes.	Molecular Biology Lab, BJRI, Dhaka
105.	In Silico approaches for identification and characterization of Day-length insensitive genes in both <i>Corchorus</i> species	To identify the Day-length insensitive genes in both <i>Corchorus</i> species and analysis the function of those genes.	Molecular Biology Lab, BJRI, Dhaka
PEST MANAGEMENT DIVISION			
Plant Pathology Department			
106.	Seed health study of jute, kenaf and mesta collected from different sources	To determine the status of different seed borne pathogens in seed samples of jute, kenaf and mesta collected from different stations of BJRI	Plant Pathology laboratory, BJRI
107.	Screening of germplasm of jute against stem rot and anthracnose	To identify some selected lines against stem rot in artificially inoculated sick bed under field condition	JAES (Manikganj), Kishoreganj, Tarabo (Narayanganj)
108.	Monitoring of advance line of jute, kenaf and mesta against stem rot and anthracnose	To identify some advance lines against stem rot in artificially inoculated sick bed under field condition	Kishoreganj, Rangpur
109.	Phenotypic screening of kenaf germplasm for	To identify some advance lines against stem rot in artificially	Natural field of Kishoreganj

Sl. No.	Research Title	Objective(s)	Location(s)
	resistance to <i>Mesta yellow vein mosaic virus</i>	inoculated sick bed under field condition	
110.	Evaluation of new spray fungicides against seed borne fungal pathogens of jute, kenaf and mesta	• Supplied fungicides will be evaluated for controlling fungal diseases as per requirement of Sub - PTAC	JAES (Manikganj) and Kishoreganj
111.	Effect of different levels of potassium (K) on incidence of field diseases and yield of newly released olitorius jute variety BJRI tossa pat 8 and an exotic variety JRO 524	• To increase the yield and yield contributing characters in natural field condition	Faridpur regional station
112.	Efficacy of different seed treating fungicides for controlling seed borne pathogens of jute	• To determine the effectiveness of seed treatment for increasing the quality of seed of <i>Corchorus capsularis</i>	Plant Pathology laboratory and Experimental field of BJRI
113.	Survey on diseases of jute and allied fibre crops	• To know the different disease incidences of jute and allied fibre crops in different agro-ecological zones of jute and allied fibre crops	Regional stations and Sub stations of BJRI and its' surroundings farmers' field
Entomology Department			
114.	Study on the pest status of promising lines of jute and allied fibre crops in different locations (Ento-1/2023)	• To know the pest susceptibility of the promising lines comparing with a standard variety in different locations • To help the breeders to evolve pest tolerant/ resistant varieties	Manikganj, Kishoreganj, Faridpur, Rangpur, Cumilla and Jashore
115.	Screening of jute germplasm for tolerance/ resistance against yellow mite and jute apion (Ento-2/2023)	• To find out the sources (line) of resistance against yellow mite and apion of jute • To help the breeders to develop the high yielding resistance varieties.	Kishoreganj and Cumilla
116.	Screening of Kenaf and Mesta germplasm for tolerance/resistance against spiral borer and mealybug (Ento-3/2023)	• To find out the sources (line) of resistance against spiral borer and mealybug • To help the breeders to develop the high yielding resistance varieties	Cumilla and Faridpur regional station
117.	Efficacy of new acaricides on jute yellow mite under field condition (Ento-4/2023)	• To determine the efficacy of new acaricides recommended by Sub-PTAC for standardization. • To evaluate the effective and economic acaricides for controlling jute yellow mite.	Tarabo, Narayanganj; JAES, Manikganj
118.	Efficacy of insecticides against jute hairy caterpillar under field & laboratory condition (Ento-5/2023)	• To determine the efficacy of new insecticides recommended by Sub-PTAC for standardization	Tarabo, Narayanganj; JAES, Manikganj

Sl. No.	Research Title	Objective(s)	Location(s)
		To evaluate the effective and eco-friendly insecticides for controlling jute hairy caterpillar	
119.	Effectiveness of some selected botanicals to control jute yellow mite (Ento-6/2023)	- To explore new botanical acaricides alternative to chemical against jute yellow mite - To evaluate the effectiveness of selected plant materials against jute yellow mite.	Central station, Dhaka
120.	Effect of different biopesticide for controlling insect of kenaf and mesta (Ento-7/2023)	- To explore suitable biopesticides for farmer's use to control mealybug. - To evaluate the effectiveness of selected biopesticides against mealybug.	Tarabo, Narayanganj
121.	Incidence of insect-mite in jute ecosystem and insect-weather relationships in all jute growing region of Bangladesh (Ento-8/2023)	To collect information about the nature of incidence, intensity and peak period of insects and mite pest in the JAF crop for the development of forecasting system	Faridpur
122	Survey on insect and mite pest of fibre and seed crops of jute and allied fibre (Ento-9/2023)	To collect information about the nature of incidence, intensity and peak period of insects and mite pest in the JAF crop for the development of forecasting system	All BJRI Stations and adjacent farmers field
FIBRE QUALITY IMPROVEMENT DIVISION			
Post-Harvest Processing Department			
123.	Isolation and identification of jute retting bacterial strains from different natural sources and study of their retting properties (FQ11/2024)	i. To isolate efficient pectinolytic bacterial strains ii. To prepare effective bacterial inoculum package for retting of jute and allied fibre (JAF) crops iii. To reduce the retting period and improve fibre quality	Sample collecting location: Manikganj Rangpur, Faridpur and Monirampur Expt. execution location: Laboratory of FQID, Dhaka
124.	Determination of retting time and fibre properties of different advanced breeding lines of jute FQ1-2/2024	To help the breeders providing of necessary information for releasing new jute varieties	JAES, Manikganj; JRSS, Faridpur and JRSS, Monirampur
125.	Determination of retting time and fibre properties of different advanced breeding lines of kenaf and Mesta (FQ1-3/2024)	To help the breeders providing of necessary information for releasing new kenaf and Mesta varieties	JAES, Manikganj; JRSS, Faridpur and JRSS, Monirampur

Sl. No.	Research Title	Objective(s)	Location(s)
126.	Optimization of ribbon retting techniques (FQI4/2024)	To find out suitable submersing interval of jute ribbons ii. To determine optimum retting time	JAES, Manikganj and JRRS, Rangpur
127.	Study on different Retting technique of jute on dry land (FQ1-5/2024)	To evaluate the retting time and fibre properties following different retting treatments under dry land condition	JAES, Manikganj
128.	Improvement of existing auto power jute ribboner (FQ1-08/2024)	- To improve the existing auto power ribboner cost effectively for better efficiency - To modify the ribboner to produce intact sticks instead of broken one for jute, kenaf, and mesta	Central Station, Dhaka and JAES, Manikganj
JUTE FARMING SYSTEMS DIVISION			
129.	Development of jute based four crops pattern against existing farmers' pattern Mustard-Fallow-Jute-T. Aman	To develop a four-crop cropping pattern and increase productivity and farmers' income	Manikganj
130.	Performance of farmer's alternate cropping pattern Onion-Jute-Perilla against the existing farmer's cropping pattern Fallow-Jute-T. Aman in medium high land of Faridpur	- To find out a suitable cropping pattern and potential benefits - To increase productivity and higher income of the farmers	Faridpur
131.	Performance of farmer's alternate cropping pattern Mustard-kenaf-Perilla against the existing farmer's cropping pattern Fallow-Jute-T. Aman in medium high land of Manikganj	- To find out a suitable cropping pattern introducing new crop with potential benefits - To increase productivity and higher income of the farmers.	Manikganj
132.	Development of Farmer's Alternative cropping pattern Sunflower-Jute-T. Aman against existing Farmers' pattern Fallow- Fallow- T. Aman in coastal area of Patuakhali	- To find out a suitable cropping pattern and potential benefits - To increase productivity and higher income of the farmers.	Patuakhali
133.	Development of Farmer's Alternative cropping pattern Watermelon-Jute-T. Aman against existing Farmer's cropping pattern Watermelon-Fallow-T. Aman in coastal area of Patuakhali	- To find out a suitable cropping pattern in coastal region by introducing new crop with potential benefits - To increase productivity and higher income of the farmers.	Patuakhali
134.	Development of alternate cropping pattern against the existing farmers' pattern	To find out a suitable cropping pattern for these areas	Kishoreganj

Sl. No.	Research Title	Objective(s)	Location(s)
	Boro-Fallow-Fallow in hoar areas of Kishoreganj	To increase productivity and higher income of the farmers	
135.	Performance of alternate cropping pattern Soybean-jute-T. Aman against farmer's cropping pattern Soybean-Fallow-T. Aman in medium high land of Noakhali region	- To find out a suitable cropping pattern introducing new crop with potential benefits - To increase productivity and higher income of the farmers.	Noakhali
136.	Profitability evaluation of pat shak under loft (macha) as intercrop alongside papaya-based agroforestry	- To integrate pat shak into the Bottle Gourd-Bean-White gourd cropping pattern - To introduce improved technology, new crop varieties and engage non-working individuals in agricultural activities	Kolatia, Keraniganj
137.	Performance evaluation of Pat shak, Roselle and Taro as intercrop under litchi-based agroforestry	To integrate pat shak and roselle into taro cultivation under litchi-based agroforestry	Nanar char, Rangamati
138.	Performance evaluation of Pat shak, Roselle and Elephant foot yam as intercrop under litchi-based agroforestry	To integrate jute leafy vegetables (pat shak) and Roselle into Elephant foot yam cultivation under litchi-based agroforestry	Raikhali, Rangamati
139.	Study on cost and return of tossa jute crop cultivation at farm level in different areas of Bangladesh	To find out the cost and return of tossa jute crop cultivation	Manikganj, Faridpur, Jashore, and Rangpur
140	Profitability of the tossa seed cultivation at contract growers' level in selected areas of Bangladesh	To assess the cost and return of late jute seed cultivation	Jashore and Tarabo
141.	Assessing Farmers' Perceptions towards Jute Production and the Necessity of Effective Linkages amongst the Stakeholders in Aiming to Increase Jute Yield in Bangladesh's Southern Area	To determine farmers' attitudes toward jute cultivation and identify existing stakeholder linkages to explore current challenges and opportunities	Babuganj upazila, Barishal district
142.	Technology transfer workshop and field days on improved technologies for JAF crops	- To transfer new technology through workshop to the different stakeholders - To motivate the farmers and popularize the technologies through training, field trial and field days - To observe the farmers' opinion on new technologies at farmers' environment	BJRI, Dhaka, Rangpur, Jashore, Manikganj, Faridpur, Patuakhali, Dinajpur, Kishoreganj,

Sl. No.	Research Title	Objective(s)	Location(s)
			Cumilla and Tarabo
143.	Technology transfer through field trial, blocks and jute villages for fiber production	To validate and popularize newly released variety and technologies	Dinajpur, Kishoreganj, Jashore, Rangpur, Manikganj, Faridpur, Chandina, Tarabo and Patuakhali
144.	Technology transfer through field trial and jute blocks for seed production	To validate and popularize newly released variety and technologies	Faridpur, Rangpur, Manikganj, Kishoreganj, Monirampur, Cumilla, Dinajpur, Tarabo and Patuakhali
145.	Popularization of different JAF crop varieties of BJRI at farmers' level	To make the variety popular among the farmers'	Dhaka, Manikganj, Rangpur, Faridpur, Kishoreganj, Monirampur, Chandina, Nashipur, Tarabo and Patuakhali
TECHNOLOGY WING			
Textile Physics Division			
146.	Studies on The Electrical Properties of Low Temperature Plasma Treated Jute	- To see the changes of electrical properties of raw jute fibre by low temperature plasma treatment of jute in order to diversify the uses of jute - To see the changes of thermal properties of raw jute fibre by low temperature plasma treatment of jute in order to diversify the uses of jute - To see the changes of optical properties of raw jute fibre by low temperature plasma treatment of jute in order to diversify the uses of jute	Department of Physics, BUET, Department of Materials & Metallurgical Engineering, BUET, Atomic Energy Centre (AEC), Dhaka, BCSIR, Dhaka
147.	Physio-Mechanical and Electrical Properties of Jute, Kenaf, Mesta and Pineapple Leaf Fiber Reinforced HDPE Composite	- To fabricate Jute-HDPE, Kenaf - HDPE, Mesta-HDPE and Pineapple leaf-HDPE composite using hot press method. - To Analyze the Mechanical, Thermal and Physical performance of the	BJRI (Textile Physics), BCSIR (IFRD and Pilot plant BUET (Material

Sl. No.	Research Title	Objective(s)	Location(s)
		fabricated composites and materials selection	and Metallurgical)
148.	Development of the existing jute based absorbent cotton for sanitary product development	- To development pulp from jute and garment - Jute based fabrics development - Jute based sanitary product development	Testing and standardization department, Biochemistry department of BJRI, BSTI, BUET and BCSIR
149.	Effect of Nano-Clay on Crystallinity Index, Thermal and Mechanical Properties of Jute Composite	- Chemical treatment of Tossa and White Jute fiber with different NaOH (1-5%) concentrations, - Modification of Polyester with nano-clay and optimize its effect on reinforcement - Fabrication of Tossa and White Jute reinforced modified polyester composites of different fiber content. - Systematic study to understand the effect of fiber variety and chemical treatment on the physical, mechanical and thermal properties of the jute fiber reinforced with nano-clay polyester composite.	Textile Physics Division, BJRI, DUET, Savar, BCSIR, Dhaka, Bangladesh Atomic Energy Commission, Dhaka Center
150.	Evaluating the Effects of Acetylation and Permanganate Treatment on the Physical, Mechanical, and Thermal Properties of Jute Fibers	- To increase physical, mechanical and thermal properties of jute fiber. - To improve the quality of jute fiber. - To investigate the effect of different chemical treatment on jute fiber.	Textile physics division, BJRI BCSIR AUST BUTEX
151.	Investigating the Mechanical and Thermal Properties of UV Protecting Agent Treated Jute Fiber Reinforced Polypropylene Composite	- To analyze the UV blocking properties of jute and jute-based product - To improve the UV blocking properties of Jute and Jute based product - To fabricate a UV protected jute reinforced polymer composite - To analyze the physical, mechanical and thermal properties of the fabricated composite	Textile Physics Division, BJRI BCSIR, Dhaka
152.	Effect of Glycerin Incorporation in Unsaturated Polyester Resin of Jute-Cotton Union Fabric Reinforced Composite	- To increase diversified usages of jute fibres - To produce jute-cotton union fabric reinforced composites	Textile Physics Division, BJRI BUTEX, Dhaka BCSIR, Dhaka DUET

Sl. No.	Research Title	Objective(s)	Location(s)
		- To reduce the thermal conductivity of jute-cotton union fabric reinforced composites - To reduce the brittleness of jute-cotton union fabric reinforced composites	
153.	Analyzing the Physical and Mechanical Characteristics of Mesta Fiber	- To determine the physico-mechanical properties of mesta fibres - To examine and compare the physical and mechanical characteristics across different mesta fiber varieties developed at BJRI. - To increase diversified usage of mesta fibres	Textile Physics Division, BJRI Chemistry Division, BJRI Breeding Division, BJRI DUET
154.	Testing and Standardization of Various Physical and Mechanical Properties of Jute Fabrics after Different M:L Ratio Treatment for Sustainable Environment	- To reduce water consumption and prevent environmental pollution. - To reduce chemical consumptions, energy consumptions and production cost of jute goods.	Textile Physics Division, BJRI BUTEX BGMEA University, Dhaka. BCSIR, Dhaka
155.	Effect of Alkali Treatment on the Physical-Mechanical Properties of BJRI Tossa Pat 8 (Robi-1) at Different Temperature	- To determine the physico-mechanical properties of BJRI newly developed variety of (Robi-1) - To analysis the test results raw and treated jute.	Textile Physics Division, BJRI BUTex, Dhaka BCSIR, Dhaka Chemistry Division
156.	Effect of graphene-based and other surface treatments on the mechanical properties of jute fiber composites	- To enhance the mechanical properties of graphene-based jute fiber reinforced polypropylene composites - To measure the change of thermal and structural properties of graphene-based jute fiber reinforced polypropylene composites - To make a comparison between graphene based and raw jute fiber reinforced polypropylene composites	Textile Physics Division BJRI BCSIR Bangladesh Atomic Energy Commission
157.	Up-Gradation and Digitalization of a Modified Lee's Disk Thermal Conductivity Measuring Instrument	- Digitalize the existing thermal conductivity meter to minimize errors and complex manual mathematical calculation with saves time. - Draw a heating curve to find heating rate - Draw a cooling curve to find cooling rate	Textile Physics Division, BJRI

Sl. No.	Research Title	Objective(s)	Location(s)
PILOT PLANT & PROCESSING DIVISION			
158.	Utilization of enzyme treated jute fabric	- To improve softening quality of the jute product - To remove hairiness of the jute product - To increases strength of the product - To improve overall physical properties of the jute product	Microbiology and Biochemistry Laboratory Wet Processing Laboratory
159.	Production of handmade paper through bioconversion jute fabri	- To convert waste fabric into handmade paper - To create scope for proper jute waste utilization - To apply bio-conversion process for ensuring environment friendly process - To support aim of making zero waste technology	Microbiology and Biochemistry Laboratory Wet Processing Laboratory
160.	Studies on Salt Free Dyeing of Jute with a View to Reducing Process Cost and Environment Pollution.	- To explore a novel dyeing procedure of jute. - To trim down the processing expenditure of jute colouration. - To shrink the pollution rate due to jute dyeing. - To promote diversification of jute commodities.	Pilot Plant and Processing Division, BJRI.
161.	Bio fuel briquettes by torrefaction of jute waste	- Convert jute industry waste to energy efficient potable fuel through thermochemical treatment. - Eliminate the low energy content volatiles and create consistent solid feedstock with better physical, chemical, and biochemical composition. - Reduce greenhouse gas emission from burning the jute waste briquettes. - Form solid briquettes suitable for mass handling and storage. - Design a potable burner for efficient burning of the briquettes.	Pilot Plant and Processing Division, BJRI Chemical Engineering Department, BUET
162.	Development of Disposable Paper Cups from Jute Waste.	- To produce environment friendly and bio biodegradable cup - To introduce innovative paper cup from jute waste. - To maintain Safety and Hygiene for better health - To utilize the waste fiber from jute industry	Pilot plant and processing division BCSIR

Sl. No.	Research Title	Objective(s)	Location(s)
163.	Studies on Physic-Chemical Properties of Different Type of Jute Lignin for Textile Uses	- To measure total lignin content from BJRI Tossa jute robi-1 in jute fiber and stick. - To identify the physic-chemical properties of jute lignin. - To increase usages of jute lignin in diversified field.	Pilot Plant and Processing Division, BJRI BCSIR BUET
164.	Development of Herbal Soap from Jute Extract (Leaves and Mesta Calix).	- To produce herbal jute soap with the leaves and mesta calix. - To increase usage of jute plant materials in diversified fields.	Pilot Plant and Processing Division, BJRI BCSIR BUET
165.	Development of a Special Softening Reagent for Jute Based Fabrics and Products to Increase Their Diversified Usage and Market Potentiality.	- To increase diversified usage of jute fabric - To identify homemade nonhazardous softening agent for dyed jute fabric - Comparative study between homemade and commercial softening agent will be done. - Market potentiality of the treated fabric will be analyzed.	Pilot Plant and Processing Division, BJRI Textile physics Division, BJRI BUTEX, Dhaka BUET, Dhaka JTPDC, BJRI
166.	Development of purl fabric by using flatbed knitting machine.	- To produce different types of purl fabrics. - Testing of different parameters of purl fabrics. - To produce eco- friendly jute fabrics.	Pilot Plant and Processing Division, BJRI Bangladesh University of Textile, Dhaka
167.	Investigating the Anti-Inflammatory and Itch-Reducing Properties of Moringa oleifera-Infused Mesta Jute Fiber for Enhanced Fabric Performance	- To assess the anti-inflammatory qualities of Mesta jute fibers infused with Moringa oleifera extract. - To evaluate how well the infused fibers work to lessen skin irritation when in touch with the skin. - To maximize the anti-inflammatory and itching-reducing benefits of Moringa oleifera extract by optimizing its concentration. - To create jute fabric samples with the optimal fibers impregnated with moringa. - To contrast the characteristics of jute fabric treated with and without moringa.	Pilot plant and processing division Textile physics Division Bangladesh Centre for Scientific and Industrial Research Bio-Chemistry and Microbiology division
168.	Effects of Lignin Contents on Dye Absorption and Dye Stability of Jute Fibre and Fabrics	- To create a baseline for the investigation, characterize jute fibers with variable lignin levels. - Examine how lignin content affects the dye absorption and stability of jute fibre and fabrics efficiency of common textile dye	Pilot Plant and Processing Division, BJRI Department of Microbiology and

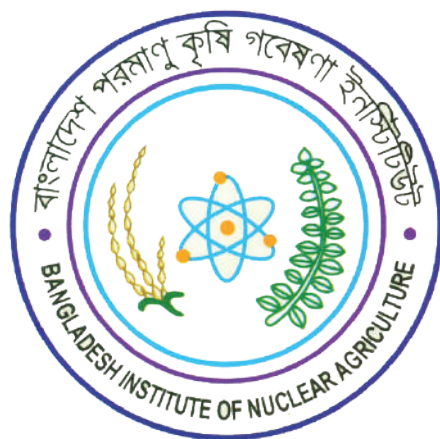
Sl. No.	Research Title	Objective(s)	Location(s)
			Biochemistry, BJRI Textile Physics Division, BJRI Chemistry Division, BJRI
169.	Study on Sustainability of Woven Jute Geo Textiles in Geo engineering by Treated Bitumen Emulsion of	- To identify the duration of biodegradability of jute geo textiles on various GSM bitumen emulsion. - To find the possible area of Jute geo textiles so that it can easily cope up with different location.	Pilot Plant and Processing Division, BJRI University of Textiles, Dhaka
CHEMISTRY DIVISION			
170.	Study for minimizing the cost of pulp, paper cellulose and viscose from jute	- To develop an eco-friendly and economically viable pulp, paper, cellulose and viscose production methods from jute - To find out suitable eco-friendly storage system for management of jute - To reduce the use of hard wood, soft wood and bamboo etc. - To find out diverse use of pulp as well as jute in the world market - To save the environment from the pollution of synthetic fibre	Fibre Chemistry
171.	Extraction and synthetization of various useful chemicals and natural polymer derivatives from jute and allied fibrous materials to produce value added products.	- To extract and produce and useful chemicals and polymer derivatives from jute fibre, jutes stick, jute wastage. - To verify produced chemicals and derivatives with commercial ones.	Fibre Chemistry
172.	Preparation of nano cellulose from jute fibre and sticks	- To produce nanocellulose from jute fibre and sticks. - To verify those produced nanocellulose with commercial ones	Fibre Chemistry
173.	Chemical and Physical studies on different samples of jute and allied fibres/sticks in order to increase diversified end uses of jute.	- To analyze chemical composition of jute and allied fibre. - To provide technical services for the determination of cellulose hemi-cellulose, lignin, oil content & ash content of supplied samples from different industries, universities.	Fibre Chemistry
174.	To investigate the physical and chemical properties of charcoal and activated carbon for various applications in several fields	To develop a new technology by using jute stick to produce activated carbon and various types ink from charcoal.	Industrial Chemistry

Sl. No.	Research Title	Objective(s)	Location(s)
		- To find out the alternative raw materials of hardwoods and it will save the environment pollution. - To solve the deforestation problem - To utilize a large amount of jute, stick as an agricultural waste of Bangladesh	
175.	Improvement of flameproof process with waterproof and fire-retardant chemicals on jute fabrics for diversified uses.	- To develop textile finishing/proofing processes for jute products by chemicals means - To find out suitable finishing methods for imparting durable waterproof and flameproof finishes on jute yarns and jute fabric.	Industrial Chemistry
176.	Synthesis and characterization of various chemical agents for the treatment of jute to apply in technical textiles.	Development of different chemical agents for preparation of functional jute fibres, yarn and fabric	Industrial Chemistry
DYEING AND PRINTING DIVISION			
177.	Study on the dyeing properties of jute cotton blended fabrics	- To determine the dyeing properties of jute-cotton blended fabric. - To investigate the effect of different dyestuff and softening agents on the dyed fabrics	Dyeing & Printing Division, BJRI
178.	Studies on the effect of pigment and indigo dye on jute and jute blended fabrics and products	- To apply the pigment and indigo dyes on jute and jute blended fabrics - To investigate the effect of both colors on jute and jute blended fabrics as well as their characterization.	Dyeing & Printing Division, BJRI
179.	Studies on the effect of reactive dye on jute and jute blended fabrics	- To apply the reactive dye on jute and jute blended fabrics - To investigate the effect of reactive dyes on jute and jute blended fabrics with its parametric study	Dyeing & Printing Division, BJRI
MECHANICAL PROCESSING DIVISION			
180.	Effect of blending jute with kenaf fibres to produce blended yarn.	Improvement of traditional jute processing system for the production of jute-kenaf blended yarn	Spinning Department, Mechanical Processing Division, BJRI
181.	Comparative Study of Fibre Properties and Spinning Performance of Jute Yarn through Conventional	- To determine the quality of jute fibre obtained from two methods of jute fibre retting. - To observe the quality with different retting techniques	Spinning department, Mechanical Processing Division and regional station

Sl. No.	Research Title	Objective(s)	Location(s)
	Retting and Ribbon Retting Method.	- To determine fibre and yarn quality based on physical and mechanical properties. - To determine the spinning performance of obtained jute fibre.	of Bangladesh Jute Research Institute
182.	Study on the spinning performance of Robi-1, JRO-524 & O9897 jute varieties at BJRI	- To identify a suitable variety for a suitable jute product and to increase use of jute also - To measure color, luster, softness, strength and spinning performance and yarn properties of above said jute varieties.	Spinning department, Mechanical Processing Division, Bangladesh Jute Research Institute
183.	Visit the different Jute mills and organizations for sharing scientific processing techniques and methods for jute and jute goods	- In the mechanical processing division, there are an experimental spinning mill, a weaving mill and a mechanical workshop. Different organizations come to BJRI for processing their fibres in scientific way or experimental basis. - Private jute mills imported new machines from china and Indian origin. So, we have to go their mills and visit the new machinery for development of BJRI.	All jute mills, research organizations and different universities in our country and abroad
184.	Technical services to different entrepreneur and training to academic organizations to promote jute and jute goods	- To train the technical personnel/entrepreneurs of jute industries on developed processing technology of this division. - Practical training on jute processing system and machinery for the students of different government/private universities of the country. - To transfer the knowledge of maintenance and development of jute processing machinery to the entrepreneurs/industries.	Spinning, weaving and work shop of Mechanical processing division, Bangladesh Jute Research Institute.
185.	Bio-Polishing and It's Enzymatic Effect of Different of Types Jute-Cotton Union Fabrics and Determination of the Antimicrobial and Mechanical Properties of Pretreated and Treated Products.	- To develop method of Bio-polishing by enzymatic means for jute-cotton union fabrics; - To determine the mechanical properties of pretreated and treated products for jute-cotton union fabrics; - To determine the antimicrobial activity of pretreated and treated products for jute-cotton union fabrics.	Mechanical Processing Division, Bangladesh Jute Research Institute, Dhaka, Bangladesh

Sl. No.	Research Title	Objective(s)	Location(s)
186.	Study on the properties of fabric made with Jute-wool blended yarn and its diversified uses.	• Improvement of union fabric with Jute-wool blended yarn.	Weaving and Spinning Department, Mechanical Processing Division, BJRI.
187.	Design and Development of a Resin Transfer Moulding (RTM)/ Vacuums Assisted Resin Transfer Moulding (VARTM) machine using locally available spare parts and materials.	• To produce RTM/VARTM machine using locally available spare parts and materials • To make composite manufacturing easy, environment friendly and cost-effective through mechanization • To achieve self-reliance and excellence in technology	Machinery Development and Maintenance Department, Mechanical Processing Division, BJRI
188.	Study of conventional jute machinery in Mechanical Processing Division	• Study the spinning and weaving machinery to understand the working condition. • Modify the machine to have better performance.	Experimental Spinning Mill and Weaving Department, Mechanical Processing Division, BJRI.
JUTE TEXTILE WING			
189.	Sustainable development for socio-economic and environmental prospect of jute/cotton blended yarn dyed fabrics.	• To develop jute-cotton blended dyed yarn • To develop fabrics of different designs from jute-cotton blended dyed yarn • To enhance the diversified use of jute-cotton blended products.	Jute Textile Research Wing, BJRI. Technological Research Wing, BJRI
190.	Preparation and characterization of dyed woolenized jute yarns.	• To determine the Physical properties (Mean count variation, Twist, Moisture content%) on four types of yarn with three different count variations (8,10, 12 lbs/spindle) • To determine the Mechanical properties such as Tensile strength, Extension at the break, Elongation of yarn, Count strength product (CSP), and Quality Ratio on the four types of yarn to observe the performance in three different count variations • To determine the Chemical properties such as alkali (NaOH) treatment on three different counts of jute yarn • To determine the Evenness properties	a. Jute Textile research wing, BJRI b. Technological Research Wing, BJRI c. Bangladesh University of Textiles (BUTEX)

Sl. No.	Research Title	Objective(s)	Location(s)
		To determine the four types of yarn's overall quality.	
191.	A zero discharge in the study the effect of enzyme and silicon finish on blended jute goods.	- To improve sewability - To improve soft hand, feel and hair free jute fabric. - To enhance the suitability of the jute fabric. - To save environment by no discharge - To save cost and chemicals	Product Development Division, Jute-Textile Wing, BJRI, BUTex, Textile Mills of BTMA.
192.	Study on dyeing of jute-cotton blended fabric produced from various ratio of jute-cotton blended yarn with reactive dyes.	- To analyze the effect of parameter variable on dyeing of jute-cotton blended fabric dyed reactive dyes. - To optimize the dyeing process of jute-cotton blended fabric of different ratios dyed with reactive dyes. - To ease the dyeing process of jute-cotton blended fabric of different ratios dyed with reactive dyes.	Jute Textile Research Wing, BJRI. Technological Research Wing, BJRI
193.	Strength enhancement of jute cotton blended yarn: including a small portion of manmade fibre	- To enhance the mechanical properties of existing blended yarn - To produce jute, cotton and polyester blended yarn and - To compare between the properties of jute, cotton and polyester blended yarn and jute cotton blended (50:50) yarn.	JTPDC Laboratory.
194.	Problem find out and solution of textile machineries	Problem solution of existing machinery	Jute-Textile Research Wing of BJRI



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Sl. No.	Research Title	Objective(s)	Location(s)
8.	Screening of Advanced Rice lines for salinity tolerance at seedling and reproductive stage	• To select desirable salt stress tolerant rice lines	Glasshouse, BINA HQ
9.	Growing F ₂ , F ₃ & F ₄ population rice through Field RGA	• Advancement of generation through field RGA • Line stage testing of the advanced crossing populations	BINA HQ farm
10.	Growing M ₂ of salt tolerant rice variety Binadhan-10	• To select desirable rice mutants for fine grain and salt tolerance	BINA HQ farm
11.	Growing M ₂ Generation of premium quality line EFSD-59	• To select desirable mutants for higher grain yield	BINA HQ farm
12.	Introgression salt tolerant gene of Binadhan-10 with SAL-52 and Binadhan-10 with SAL-73	• To create variability in F ₁	BINA HQ farm
13.	Growing of M ₁ Generation of rice landraces Nonabokra, Mondeshwar and Rajashail	• To create variability in the genetic background of Nonabokra, Moneshwar and Rajashail for salt tolerance	BINA HQ farm
14.	Observation yield trial of Chinigura and Kataribhog rice mutants	• To select rice mutants for higher grain yield and aroma	BINA HQ farm Mymensingh
15.	Growing M ₁ generation of BRRI dhan34, BRRI dhan90, Tepiboro and Bansful	• To create genetic variability in the background of aromatic rice landraces/varieties	BINA HQ farm Mymensingh
16.	Growing F _{4:5} generation of Kataribhog × Binadhan-17	• To select lodging tolerant, high yielding and 'Chinigura' and 'Kataribhog' grain type aromatic rice lines	BINA HQ farm Mymensingh
17.	Growing F ₂ generation of aromatic rice	• To select lodging tolerant, high-yielding aromatic rice lines	BINA HQ farm Mymensingh
18.	Hybridization of aromatic rice mutants and its parents	• To select lodging tolerant, high-yielding aromatic rice lines	BINA HQ farm Mymensingh
19.	Advanced yield trial of NERICA rice mutants suitable for T. Aus	• To evaluate the yield and yield attributing characters	BINA HQ farm Mymensingh, Chapainawabganj and Ishurdi
20.	Observation yield trial of rice lines/mutant suitable for T. Aus	• To select rice mutants/lines for higher grain yield	BINA HQ farm Mymensingh
21.	Selection of high yielding direct seeded rice lines (Aus season); Stage 1 (Set 2) trial	• To select direct seeded rice lines for higher grain yield	Kantinagar, Kushtia

Sl. No.	Research Title	Objective(s)	Location(s)
22.	Selection of high yielding direct seeded rice lines (Aus season); Stage 2 (Set 1) trial	• To select direct seeded rice lines for higher grain yield	Kantinagar, Kushtia
23.	Screening of M ₃ rice mutants of Binadhan-17 for heat tolerance at reproductive stage	• To select heat tolerant rice lines	BINA HQ farm Mymensingh
24.	Growing M ₁ generation of BRRI dhan89 and BRRI dhan92	• To create genetic variability in the same genetic background	BINA HQ farm Mymensingh
25.	AGGRi Network trial of 2023 wet season (Stage 1 trial)	• To evaluate the yield and yield attributing characters	BINA HQ farm Mymensingh
26.	AGGRi Network trial of 2023 wet season (Stage 2 trial)	• To evaluate the yield and yield attributing characters	BINA HQ farm Mymensingh
27.	IRRI-NARES Network Trial of 2023-24 Dry Season (Stage 1 trial)	• To evaluate the yield and yield attributing characters	BINA HQ farm Mymensingh
28.	IRRI-NARES Network Trial of 2023-24 Dry Season (Stage 2 trial)	• To evaluate the yield and yield attributing characters	BINA HQ farm Mymensingh
29.	Advanced yield trial of rice mutants/lines suitable for favorable boro season	• To select direct seeded rice lines for higher grain yield	Mymensingh, Rangpur and Ishurdi
30.	Advanced yield trial of rice lines suitable for rainfed lowland ecosystem	• To select direct seeded rice lines for higher grain yield	Mymensingh, Cumilla and Ishurdi
31.	Advanced yield trial of stem borer nursery rice lines	• To select direct seeded rice lines for higher grain yield	Mymensingh, Cumilla and Ishurdi
32.	Evaluation of rice lines against blast disease	• To select desirable lines having blast resistance	BINA HQ farm
33.	Regional yield trial of some selected blast resistant rice lines	• To assess the yield performance over locations	On station: BINA HQ farm and BINA Sub-station farms at Ishurdi, Rangpur, Nalitabari and Jamalpur On farm: Farmers' field at Digharkanda, Mymensingh, Kishoreganj, Nalitabari and Rangpur
34.	Advanced yield trial of some selected blast resistant rice lines	• To assess the yield performance over locations	On station: BINA HQ farm and BINA Sub-station farms at Rangpur, Nalitabari On farm: Farmers' field at Digharkanda,

Sl. No.	Research Title	Objective(s)	Location(s)
			Mymensingh, and Kishoreganj
35.	Growing of BC ₁ F ₁ population of rice	• To confirm BC ₁ F ₁ plants by using gene-linked (blast) molecular markers	BINA HQ farm
36.	Collection, isolation, identification, purification and preservation of different isolates of rice blast	• To store blast isolates for morphological and molecular study	Hot spot area of rice blast epidemic in Bangladesh and BINA HQ farm
37.	Molecular characterization and development of marker of rice blast fungus (<i>PyriculariaOryzae</i>) through Ribosomal its (internal transcribed spacer) sequencing	• To identify genetic identity of different isolates of blast. • To analyze the ribosomal ITS genome for describing evolutionary relationship between genes. • Development of marker to identify 19 blasts isolate samples.	BINA HQ farm
38.	On-farm and on-station trial of high yielding Boro Rice mutants	• To assess short duration and yield performance over locations	On-station; BINA HQ farm and BINA Sub-station farms at Chapainawabganj, Rangpur & Ishurdi On-farm; farmers, field at Rangpur and Ishurdi.
39.	On-farm and on-station trial of high yielding Aman Rice mutants	• To assess short duration and yield performance over locations	On-station; BINA HQ farm and BINA Sub-station farms at Rangpur & Ishurdi On-farm; farmers, field at Rangpur and Ishurdi.
40.	Advanced yield trial of rice mutants for salinity and high temperature	• To select the lines both for salinity and high temperature tolerance with higher yield	On-station: BINA HQ farm, BINA Sub-station farms at Ishurdi On-farm; farmers' field at Shaymnagar
41.	Advanced yield trial for high yielding and cold tolerant rice lines suitable for Haor areas	• To observe the performance of the lines	BINA Sub-station farms at Sunamganj. Farmer's field at Khaliyajuri and Sunamganj
42.	Advanced yield trial for high yielding and cold tolerant rice lines suitable for Northern areas	• To observe cold tolerance and performance of the lines	On-station: Farmers' field Panchgar, Thakurgoan, Nilfamari

Sl. No.	Research Title	Objective(s)	Location(s)
43.	Advanced yield trial of some mutants for short duration, high yielding grown in rainfed condition	• To select desirable lines for high yielding and short duration	4: On-Farm: BINA HQ, Mymensingh, BINA Sub-station farms at Magura, Isurdi & Rangpur.
44.	Accelerating the Genetic Gains in Rice (AGGRi): IRRI NARES breeding networks using rapid-cycle genomic selection to deliver annual genetic gains of 2% in rice	• To select desirable line for annual genetic gains	1: BINA Sub-station farm, Satkhira
45.	Advanced yield trial for short duration and high yielding Boro rice lines	• To assess earliness and yield performance over locations	BINA HQ farm, BINA Sub-station farm at Rangpur and Ishurdi
46.	Growing M ₅ mutants derived from Tulsimala	• To select short duration, high yielding lodging tolerant Tulsimala grain type mutants	BINA HQ, Mymensingh
47.	Screening of M ₃ rice mutants derived from deepwater rice	• To select higher yielding mutants with deep-water character.	BINA HQ, Mymensingh
48.	Generation advancement of segregating population through Field RGA for higher yield	• To develop early, high yielding boro rice lines	BINA HQ, Mymensingh
49.	Screening of rice mutants for drought tolerance at reproductive stage	• To identify the rice lines having high yield potential and drought tolerance	BINA HQ, Mymensingh
50.	Growing of BC ₂ F ₁ population for short duration, lodging resistant Biroi type rice lines	• To select short duration and lodging tolerant Biroi grain type rice lines	BINA HQ, Mymensingh
51.	Introgression of short duration, lodging resistant Biroi grain type characters into popular rice varieties	• To select short duration and lodging tolerant Biroi grain type rice lines	BINA HQ, Mymensingh
52.	4×4 diallel cross of NERICA-4, Binadhan-19, BRRI dhan48 and BRRI dhan98 for drought tolerance	• To select early, high yielding drought tolerant rice lines.	BINA HQ, Mymensingh
Hybrid Rice			
53.	Source Nursery	• To assemble at one place prospective maternal and paternal parents of diverse genetic origin, for making experimental rice hybrids and to use the assembled genotypes for making testcrosses with the available CMS lines.	BINA HQ farm Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
54.	CMS maintenance and evaluation nursery	• To multiply CMS seeds	BINA HQ farm Mymensingh
55.	Improvement of maintainer lines through B×B crosses	• To select improved maintainer line	BINA HQ farm Mymensingh
Varietal improvement of cereals (Wheat)			
Project: Varietal improvement of wheat using mutation and other advanced breeding techniques			
56.	Regional yield trials of high yielding wheat mutants	• To assess yield performance at drought prone areas	On-stations: BINA HQ farm, BINA Sub-station farm at Chapainawabganj & Ishurdi; On-farms, Farmers field Nachol, Godagari, and Chapainawabganj Sadar
57.	Preliminary yield trials of blast resistant wheat mutants (Collaboration with Plant Pathology Div.)	• To assess yield performance and identify the appropriate elite genotypes that resistance to blast reactions	BINA HQ farm, BINA Sub-station farms at Chapainawabganj & Ishurdi
58.	Screening of F ₂ , F ₃ & F ₄ generation for earliness and high yielding	• To select desirable traits having early and high yielding potential	BINA HQ farm
59.	Growing M ₂ generation of heat tolerant wheat lines	• To select desirable promising mutants for heat tolerance and high yield potential in late seeding	BINA HQ farm
60.	Screening of wheat germplasms for drought tolerance through morphological and molecular markers	• Identifying of superior genotypes towards heat, drought stress	BINA HQ farm
Project: Varietal improvement of minor cereals using mutation and other advanced breeding techniques			
61.	Varietal improvement minor cereals through induced mutation and other advanced breeding techniques	• Development of varieties • with high yield, short duration • high nutrient content • with biotic and abiotic stress tolerance;	BINA HQ farm
62.	Collection and characterization of minor crops	• To characterize the minor crops germplasm collected from different areas	BINA HQs farm, Mymensingh, and BINA sub-station farms at Rangpur
Varietal improvement of cereals (Oilseed crops)			
Project: Varietal improvement of Groundnut through induced mutation and other advanced breeding techniques			

Sl. No.	Research Title	Objective(s)	Location(s)
63.	On-station & on-farm yield trial with bold seeded groundnut mutants	• To assess yield performance over locations	On-station: (BINA HQ, Mymensingh, BINA Sub-station farms at Rangpur, Khagrachari & Ishurdi; On-farm: (Kaunia, Panchogar, Lalmonirhat, Hossenpur, Bhairab and Ishurdi)
64.	Regional yield trial with bold seeded mutants of groundnut	• To assess yield performance over locations	On-station: (BINA Sub-station farms at Rangpur, Khagrachari & Ishurdi; On-farm: (Kaunia, Lalmonirhat, Hossenpur, Bhairab, Ishurdi and Mymensingh)
65.	Advanced yield trial with bold seeded mutants of groundnut	• To assess yield performance over locations	On-station: (BINA HQ, Mymensingh, BINA Sub-station farms at Rangpur, Khagrachari & Ishurdi; On-farm: (Gangachara, Lalmonirhat, Ishurdi and Mymensingh)
66.	Preliminary yield trial with bold seeded mutants of groundnut	• To assess yield performance over locations	6: On-station: 3 (BINA Sub-station farms at Rangpur, Khagrachari & Ishurdi; On-farm: 3 (Kaunia, Ishurdi and Mymensingh)
67.	Screening of F ₂ & F ₃ populations for long and bigger pods with 3-4 kernels	• To select populations having long and bigger pods with 3-4 kernels	BINA HQ farm
68.	Screening of M ₂ and M ₃ populations for long and bigger pods with 3-4 kernels.	• To select populations with long and bigger pods with 3-4 kernels	BINA HQ farm
69.	Hybridization of 3-4 seeded groundnut for improvement of nutritional quality	• To develop 3-4 chambered seed with higher (O/L) ratio.	BINA HQ farm
70.	Maintenance and evaluation of groundnut germplasm	• To maintain the collected germplasm	BINA HQ farm

Sl. No.	Research Title	Objective(s)	Location(s)
71.	Nondestructive phenotyping fatty acid trait of single groundnut seeds using reflective hyper spectral imagery.	• To predict the protein and fatty acid content of groundnut by non-destructive (hyper spectrum) method	BINA HQ farm
Project: Varietal improvement of rapeseed-mustard through induced mutation and other advanced breeding techniques			
72.	On-station and on-farm yield trial with M ₈ rapeseed (<i>B. rapa</i> var. <i>toria</i>) mutants	• To evaluate the yield potentiality of mutants over locations	On-station: BINA HQ farm and BINA Sub-station farms at Rangpur, Ishurdi, Magura, Jamalpur and Nalitabari On-farm: Tangail and Manikganj
73.	Regional yield trial with M ₇ rapeseed (<i>B. napus</i>) mutant	• To select desirable mutants for higher seed yield with early maturity	BINA HQ farm and BINA Sub-station farms at Ishurdi, Magura, Noakhali and Satkhira
74.	Advanced yield trial with M ₆ rapeseed (<i>B. campestris</i>) mutant	• To select desirable mutants for higher seed yield with early maturity	BINA HQs farm, Mymensingh and BINA Sub-station farms at Rangpur, Cumilla, Nalitabari and BINA regional station Gazipur.
75.	Preliminary yield trial with M ₆ rapeseed (<i>B. napus</i>) mutant	• To select desirable mutants for higher seed yield with early maturity	BINA HQ farm and BINA Sub-station farms at Rangpur, Jamalpur and Nalitabari
76.	Screening rapeseed-mustard mutants for salinity tolerance in hydroponic culture	• To identify mustard genotypes for salinity tolerance	BINA HQ farm
77.	Screening M ₆ generation of rapeseed	• To select early maturing mutants with desirable yield attributes	BINA HQ farm
78.	Growing of F ₅ to F ₂ population of rapeseed generation	• To select early maturing lines with desirable yield attributes	BINA HQ farm
79.	Growing of M ₅ to M ₂ generation of rapeseed mutants	• To select early maturing mutants with desirable yield attributes	BINA HQ farm
80.	Growing of M ₁ generation of rapeseed	• To create genetic variability regarding earliness, low erucic acid content and higher seed yield	BINA HQ farm

Sl. No.	Research Title	Objective(s)	Location(s)
81.	Hybridization of rapeseed-mustard	• To create variability regarding seed color, early maturity, low erucic content and higher yield	BINA HQ farm
Project: Varietal improvement of sesame through induced mutation and other advanced breeding techniques			
82.	On-station and On-farm yield trial with M ₈ sesame mutants	• To evaluate yield stability of the mutants over locations	On-station: BINA HQ, Mymensingh, BINA Sub-station farms at Gopalganj & Chapainowabgonj On-farm: Ishurdi, Magura, Cumilla and Barishal
83.	On-station yield trial with M ₇ sesame mutants	• To select mutants for earliness, higher seed yield and yield related traits	BINA HQ, Mymensingh, BINA Sub-station farms at Ishurdi, Magura, Chapainowabgonj & Barishal
84.	Advanced yield trial with promising M ₇ sesame mutants	• To select mutants for higher seed yield, yield related traits and earliness	BINA HQ, Mymensingh, BINA Sub-station farms at Ishurdi, Magura, Cumilla & Nalitabari
85.	Regional yield trial with promising M ₆ sesame mutants	• To select mutants for higher seed yield, yield related traits and earliness	BINA HQ, Mymensingh, BINA Sub-station farms at Ishurdi & Rangpur
86.	Preliminary yield trial with promising M ₆ sesame mutants	• To select mutants for higher seed yield, yield related traits and earliness	BINA HQ, Mymensingh, BINA Sub-station farms at Magura, Chapainowabgonj & Barishal
87.	Screening of sesame mutants for water logging tolerance	• To identify water-logging tolerance sesame lines/mutants	BINA HQ farm
88.	Screening M ₃ , M ₄ and M ₅ population of sesame	• To select early maturing lines with desirable yield attributes	BINA HQ farm
89.	Growing M ₁ generation of sesame	• To create genetic variability regarding earliness, single husk and higher seed yield	BINA HQ farm
90.	Growing F ₂ population of sesame	• To develop early maturing, signal husk and high yielding sesame lines	BINA HQ farm
91.	Hybridization of sesame	• To develop early maturing, signal husk and high yielding sesame lines	BINA HQ farm

Sl. No.	Research Title	Objective(s)	Location(s)
Project: Varietal improvement of soybean through induced mutation			
92.	On-station and on-farm yield trial with selected M ₈ soybean mutants	• To select early maturing and high yielding mutants with shorter plant height	On-station: BINA HQ farm, BINA sub-station farms at Barishal On-farm: Farmers' field at Subornocho (Noakhali), Kamalnagar (Laxmipur), Haimchar (Chandpur), Barishal
93.	Regional yield trial with selected M ₇ soybean mutants for saline prone area	• To select early maturing and high yielding mutants with salinity tolerant	BINA HQ farm, BINA Sub-station farms at Barishal and Satkhira
94.	Preliminary yield trial with selected M ₆ soybean mutants	• To select early maturing and high yielding mutants	BINA HQ farm, BINA Sub-station farms at Barishal and Satkhira
95.	Growing of M ₅ to M ₂ generation of soybean mutants	• To select desirable mutants in respect of early maturity	BINA HQ farm
96.	Growing M ₁ population of soybean	• To create genetic variability in respect of high yielding, early maturing and dwarf type plant	BINA HQ farm
Project: Varietal improvement of sunflower through induced mutations			
97.	Advanced yield trial of dwarf inbred line of M ₅ Sunflower mutant	• To select mutants for earliness and dwarf with higher seed yield	BINA HQ farm, BINA sub-station farm at Satkhira, Barishal & Noakhali
98.	Preliminary yield trial with promising M ₆ Sunflower mutants	• To select mutants for higher seed yield and earliness	BINA HQ farm and BINA Sub-station farm at Jamalpur & Nalitabari
99.	Screening M ₅ generation of sunflower	• To select early maturing lines with shorter plants having droopy heads and desirable yield attributes	BINA HQ farm
100.	Growing of M ₄ to M ₂ generation of sunflower mutants	• To select early maturing lines with shorter plants having droopy heads and desirable yield attributes	BINA HQ farm
101.	Growing of M ₁ population of sunflower	• To create genetic variability regarding early maturing lines with shorter plants having droopy heads and desirable yield attributes	BINA HQ farm

Sl. No.	Research Title	Objective(s)	Location(s)
102.	Maintenance of sunflower germplasms	• To maintain breeding materials for future uses	BINA HQ farm
Project: Varietal improvement of perilla through induced mutations			
103.	Growing of M ₂ generation of perilla mutants	• To select desirable mutants in regarding earliness and yield contributing trait	BINA HQ farm
Pulse Crops			
Project: Varietal improvement of Mungbean using mutation breeding techniques			
104.	Evaluation of promising summer mungbean mutant for earliness, higher seed yield & disease tolerance	• To evaluate the mutant for earliness, higher seed yield and disease tolerance over locations	BINA Sub-station Ishurdi and farmer's field Natore
105.	Advanced yield trial of mungbean lines for earliness, higher seed yield and disease tolerance	• To select desirable mutants for earliness, higher seed yield and disease tolerance (MYMV)	BINA Sub-station Ishurdi & Magura
106.	Growing M ₅ generation of mungbean for synchronous pod maturity	• To select desirable mutants for earliness, higher seed yield and insect tolerance	BINA Sub-station Ishurdi
107.	Growing M ₃ generation of mungbean for synchronous pod maturity	• To select desirable mutants for synchronous pod maturity with higher seed yield	BINA Sub-station Ishurdi
Project: Varietal improvement of chickpea for problem areas through induced mutation			
108.	Advanced yield trial of chickpea mutants	• To assess yield and yield contributing characters and select the promising mutant (s)	BINA Sub-stations Magura & Ishurdi
109.	Preliminary yield trial of some selected mutants of Chickpea	• To assess yield and yield contributing characters and select the promising mutant (s)	BINA sub-stations Magura & Ishurdi
110.	Growing M ₂ generation of chickpea	• To select desirable mutants for bolder seed size, higher seed yield and disease tolerance	BINA Sub-station Ishurdi
111.	Screening of exotic Chickpea lines for early maturity, disease tolerance and higher seed yield	• To assess yield performance with earliness and disease tolerance	BINA Sub-stations Magura & Ishurdi
Project: Varietal improvement of pigeon pea using mutation breeding techniques			
112.	Growing M ₅ generation of pigeon pea	• To select desirable mutants for earliness, higher seed yield and disease tolerance	BINA HQ farm
113.	Growing M ₂ generation of pigeon pea	• To select the mutants for short plant height, earliness, higher seed yield and disease tolerance	BINA HQ farm
Project: Varietal improvement of garden pea using mutation breeding techniques			

Sl. No.	Research Title	Objective(s)	Location(s)
114.	Growing M ₄ generation of garden pea	• To select desirable mutants for earliness, higher seed yield and disease tolerance	BINA Sub-station Ishurdi
115.	Growing M ₂ generation of garden pea	• To select mutants for earliness, higher seed yield and disease tolerance	BINA Sub-station Ishurdi
116.	Growing M ₁ generation of garden pea	• To select mutants for earliness, higher seed yield and disease tolerance	BINA Sub-station Ishurdi
Project: Varietal improvement of lentil through induced mutation and advanced breeding techniques			
117.	On-farm and on-station yield trial with four mutants of lentil	• To assess the yield potential of the lines over locations	BINA Sub-station Ishurdi, Magura, and Chapainawabganj
118.	Regional yield trial with four promising mutants of lentil	• To assess the yield potential of the lines	BINA Sub-station Ishurdi, Magura, Chapainawabganj & Gopalganj
119.	Advanced yield trial with four promising mutants of lentil	• To assess the yield potential of the lines	BINA Sub-station Ishurdi, Magura, Chapainawabganj
120.	Morphological study for root and shoot traits in lentil mutants in hydroponic system and pot culture	• To identify early vigours mutants for using in drought screening	BINA HQ, Mymensingh
Project: Varietal improvement of grasspea through induced mutation and advanced breeding techniques			
121.	On-farm and on-station yield trial with three promising mutants of grasspea	• To assess the yield potential of the lines over locations	BINA Sub-stations farms and farmer's field at Ishurdi, Magura, Chapainawabganj & Gopalganj
122.	Preliminary yield trial of some selected mutants of grasspea	• To assess yield and yield contributing characters and select the promising mutant(s)	BINA Sub-station Magura & Ishurdi
Project: Varietal improvement of blackgram through induced mutation and advanced breeding techniques			
123.	On-farm and on-station yield trial with three promising mutants of blackgram	• To assess the yield potential of the lines	BINA Sub-stations farms and farmer's field at Ishurdi, Magura, Chapainawabganj & Gopalganj
124.	Advanced yield trial with five promising blackgram mutants	• To assess the yield potential of the lines	BINA Sub-stations farms and farmer's field at Ishurdi,

Sl. No.	Research Title	Objective(s)	Location(s)
			Magura, Chapainawabganj
Jute			
Project: Varietal improvement of Jute using mutation and other advanced breeding techniques			
125.	Growing M ₂ generation of Tossa Jute	• To select desirable mutants for early (90-100 days), low lignin traits with high fiber yield potential	BINA HQ farm
126.	Improvement of jute through Hybridization	• F1 growing for short duration (90-100 days), high fiber yield potential with vigor seed quality.	BINA HQ farm
127.	Characterization of jute germplasms through morphological and molecular markers	• To identify early (90-100 days), low lignin traits with high fiber yield potential with vigor seed quality.	BINA HQ farm
BIOTECHNOLOGY DIVISION			
128.	Expression, detection and Cloning of <i>OsMGD</i> gene for salinity and drought tolerance crop variety development	• To identify new stress tolerant genes in <i>Oryza</i> species and related germplasm	Biotechnology Lab, BINA HQ
129.	Expression and cloning of <i>CaChiVI2</i> gene in <i>Capsicum annuum</i> L. for resistance against heat stress	• To identify and prepare gene construct of heat stress tolerant <i>CaChiVI2</i> gene from <i>Capsicum annuum</i> L.	Biotechnology Lab, BINA HQ
130.	Identification, genomic distribution, and expression profiling of <i>CDPK</i> genes in white jute under saline stress	• Expression profiling of <i>CDPK</i> genes under saline stress conditions and their functional roles in salinity tolerance.	Biotechnology Lab, BINA HQ
131.	Optimization of <i>in vitro</i> germination, callus induction, root formation, and acclimatization of BJRI 10 jute (<i>Corchorus capsularis</i> L.) plantlets	• To optimize the callus induction and root formation protocols for BJRI 10 jute plantlets and to enhance the efficiency of genetic transformation techniques for introducing desirable traits into these plantlets.	Biotechnology Lab, BINA HQ
132.	Transfer of salinity and drought tolerant genes into rice through <i>Agrobacterium</i> mediated gene transformation	• To determine the optimal concentration of 2,4-D for maximizing callus formation and the ideal concentrations of Kinetin and NAA for enhancing callus regeneration in Binadhan-17	Biotechnology Lab, BINA HQ
133.	Optimization of regeneration protocol for Binadhan 17	• To determine the optimal concentration of 2,4-D for maximizing callus formation and the ideal concentrations of	Biotechnology Lab, BINA HQ

Sl. No.	Research Title	Objective(s)	Location(s)
		Kinetin and NAA for enhancing callus regeneration in Binadhan-17	
134.	Transformation of <i>OsNHX2</i> Gene in Binadhan 17 through <i>Agrobacterium</i> -Mediated Transformation	• To successfully introduce the <i>OsNHX2</i> gene into Binadhan 17 using <i>Agrobacterium</i> -mediated transformation.	Biotechnology Lab, BINA HQ
135.	Development of high amylose containing rice line through mutagenesis of <i>Wx</i> gene using CRISPR/Cas9	• To develop high amylose containing rice line.	Biotechnology Lab, BINA HQ
136.	Development of high yield aromatic rice lines through mutagenesis of <i>OsBADH2</i> gene using CRISPR/Cas9	• To develop high yielding aromatic rice lines	Biotechnology Lab, BINA HQ
137.	CRISPR/Cas-9-Targeted Mutagenesis of <i>BanFAE1</i> Genes confers Low-Erucic Acid in <i>Brassica napus</i>	• To develop high yielding low-erucic Acid mustard lines.	Biotechnology Lab, BINA HQ
138.	Growing of T ₂ –T ₄ generation of rice lines developed through tissue culture	• To induce genetic variability in BRRIdhan-89, BRRIdhan-29, and Fatema using 0.2% EMS treatment, and to select plants based on earliness, disease resistance, and yield for seed collection and further genetic improvement in the next generation.	Biotechnology Lab, BINA HQ
139.	Advanced yield trial with high yielding and short duration rice lines	• To select high yielding and short duration rice lines	BINA HQ, Mymensingh
140.	Development of lodging resistance and high yield premium quality rice variety through marker assisted selection	• To develop premium quality fine grained rice variety.	Biotechnology Lab, BINA HQ
141.	Isolation, characterization and symbiotic performance evaluation of Rhizobium Strains from root nodules of Chickpea (<i>Cicer arietinum</i>)	• To induce genetic variability in BRRIdhan-89, BRRIdhan-29, and Fatema using 0.2% EMS treatment, and to select plants based on earliness, disease resistance, and yield for seed collection and further genetic improvement in the next generation.	Biotechnology Lab, BINA HQ

Sl. No.	Research Title	Objective(s)	Location(s)
142.	Amplification of cry genes from rhizospheric bacteria	• To know the genetic diversity of cry genes and clone cry genes for genetic transformation.	Biotechnology Lab, BINA HQ
HORTICULTURE DIVISION			
Project: Varietal development of fruits through induced mutation and other advanced techniques			
143.	Collection and screening of major fruits (Jackfruit, mango, lemon, jujube, guava) germplasm	• Collection of seeds/ propagating materials from different regions of the country and abroad • Screening the fruits germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc.	BINA HQ farm
144.	Evaluation of mango germplasm at BINA HQ, Mymensingh	• Screening the mango germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc	BINA HQ farm
145.	Evaluation of exotic jackfruit germplasm	• Screening the exotic jackfruit germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc	BINA HQ farm
146.	Screening of M ₁ V ₁ population of Mango	• To evaluate the desirable mutants for developing varieties with high yield potential, less fiber and sweetness	BINA HQ farm
147.	Collection and screening of minor fruits (Custard apple, jamun, sapota, Bael, wood apple, fig, Pummelo) germplasm	• Collection of seeds/propagating materials of minor fruits from different regions of the country and abroad • Screening of collected minor fruits germplasm based on high yield potential, adaptability, shape, size, color, taste and quality	BINA HQ farm
148.	Evaluation of Custard apple germplasm	• Screening the custard apple germplasm based on high yield potential, adaptability, shape, size, color, taste and quality etc	BINA HQ farm
149.	Evaluation of Pummelo germplasm	• To evaluate the potential germplasm for developing varieties with high yield potential	BINA HQ farm
150.	Screening of M ₁ V ₁ population of Jamun	• To evaluate the desirable mutants for developing varieties with high yield potential	BINA HQ farm
151.	Screening of M ₁ V ₁ population of Pomegranate	• To evaluate the desirable mutants for developing varieties with high yield potential	BINA HQ farm

Sl. No.	Research Title	Objective(s)	Location(s)
152.	Screening of M ₁ V ₁ R ₁ population of sweet orange	• To evaluate the desirable mutants for developing varieties with high yield potential	BINA HQ farm
153.	Collection and screening of exotic fruits germplasm (Avocado, persimmon, longan, apple, cashew nut, grape, peach, Chinese mandarin, rambutan, dragon fruit)	• Collection of seeds/ propagating materials of exotic fruits from different regions of the country and abroad • Screening of collected exotic fruits germplasm based on high yield potential, adaptability, shape, size, color, taste and quality	BINA HQ farm
154.	Evaluation of exotic longan germplasm	• To evaluate the potential germplasm for developing varieties with high yield potential	BINA HQ farm
155.	Screening of M ₁ V ₁ population of Sapota,	• To evaluate the desirable mutants for developing varieties with high yield potential	BINA HQ, Mymensingh
156.	Growing of M ₁ V ₁ population of lime	• To evaluate the desirable mutants for developing varieties with high yield potential, shape, size, color, taste and quality	BINA HQ, Mymensingh
157.	Screening of Pome-granate germplasm on growth, yield and quality attributes	• To evaluate the potential germplasm for developing varieties with high yield potential	BINA HQ farm
158.	Mutagenesis of lemon leaf by using gamma irradiation and leaf cut method under glass house and field condition	• To investigate the effect of gamma radiation and EMS on the success, survivability, growth and yield of lemon.	BINA HQ farm
Project: Varietal development of vegetables through induced mutation and other advanced techniques			
159.	Regional Yield Trial of Promising Cherry Tomato line	• To assess the yield performances of tested line	BINA HQ farm
160.	Reverse breeding of commercial hybrid of tomato	• To select male sterile and potential restorer lines form commercial hybrid	BINA HQ farm
Project: Varietal development of vegetables through induced mutation and other advanced techniques			
161.	Collection and Screening of Homozygous line of onions through SSR Markers	• To find out the Homozygous line of onion suitable in hybrid seed production	BINA HQs farm, Mymensingh
162.	Collection and Screening of native, exotic and mutant onion germplasm to identify	• To find out the CMS lines of onion suitable in hybrid seed production	BINA HQs farm, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
	CMS line using molecular markers		
163.	Optimization of GA ₃ and H ₂ O ₂ dosages in annualization of onion	• To determine the dosages of GA ₃ and hydrogen peroxide in breaking down dormancy for annualizing the onion.	BINA HQs farm, Mymensingh
164.	Hybridization among CMS and restorar (R line) and evaluation of the heterotic hybrids of onion	• To find out the best performing B lines for producing hybrid seeds annually	BINA HQ farm
165.	Field evaluation of the onion hybrids in different locations	• To know the adaptability of the newly developed CMS based onion hybrids in diverse locations	BINA HQs farm, Mymensingh, GPB research field at BAU and BINA Substation, Rangpur
166.	Advanced yield trial of M ₆ mutants of onion (seed to bulb)	• To assess the performance of different onion mutants • To select promising mutant(s) for desirable characters (Yield, pungency and storage capacity)	BINA HQ farm; BINA Sub-station farm at Magura and Rangpur
167.	Screening of M ₄ onion generation for high yield and quality (Bulb to seed)	• To select early maturing lines with high yielding potential, good storability, tolerance to purple blotch disease and thrips	BINA HQs farm, Mymensingh
168.	Growing M ₂ generation (seed to bulb) of winter and summer onion	• To screen the population based on high yield potentiality with better storage performance and pungency	BINA HQs farm, Mymensingh
169.	Screening of M ₁ V ₃ garlic generation for higher yield and quality	• To select early maturing lines with high yielding potential, good storability, tolerance to leaf blight disease and thrips	BINA HQs farm, Mymensingh
170.	Screening of M ₁ V ₂ generation of Garlic	• To select early maturing lines with high yielding potential, good storability, tolerance to leaf blight disease and thrips	BINA HQs farm, Mymensingh
171.	Growing of M ₁ V ₁ generation of Garlic	• To create genetic variability for high yield potentiality, good storability and pungency	BINA HQs farm, Mymensingh
172.	Growing of M ₃ generation of Chilli suitability for summer season	• To screen short duration high yielding summer chilli population with optimum pungency	BINA HQs farm, Mymensingh
173.	Growing M ₃ generation of winter chilli	• To select desirable plants for with high yield potential & good pungency	BINA HQs farm, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
174.	Growing M ₂ generation of chilli for waterlogging tolerance	• To screen waterlogged tolerant chilli variants at natural field condition in kharif season	BINA HQs farm, Mymensingh
175.	Expression and detection of waterlogged induced genes of chilli through RT-PCR (Reverse transcriptase polymerase chain reaction) and Real time PCR machine	• To identify waterlogged genes in chilli (<i>Capsicum annum</i>).	BINA HQs farm, Mymensingh
176.	Development of CMS lines in chilli by exploitation of cms gene	• To introgress cms gene from the source to the new lines • To find out the best restorer	BINA HQ farm
177.	Preliminary yield trial of M ₁ V ₄ mutant of Turmeric	• To assess the mutant with check varieties on the basis of yield potentiality, flesh color, curcumine content and cooking qualities	BINA HQs farm, Mymensingh; BINA sub-stations Rangpur and Magura
178.	Collection and screening of turmeric germplasm	• To find out the suitable genotype for higher yield with better quality and tolerant to leaf blotch disease	BINA HQ farm
179.	Screening of M ₁ V ₂ generation of Turmeric	• To screen desirable characters (Duration, yield and tolerance to disease) of turmeric population	BINA HQ farm
180.	Growing M ₁ V ₃ mutants of zinger	• To select ginger mutants on the basis of yield potentiality, pungency and tolerance to rhizome rot disease	BINA HQ farm
181.	Preliminary yield trial of promising ginger lines	• To evaluate the yield and yield components attributes of ginger lines • To find out the best one (s) for further study	BINA HQ farm
182.	Bringing polyploidiness in ginger through colchicines treatment	• To develop polyploidy in ginger for yield potentiality and tolerant to rhizome rot disease	BINA HQ farm
183.	Advanced yield trial of M ₆ mutants of black cumin	• To assess the yield potentiality and earliness	BINA HQs farm, Mymensingh; BINA Sub-station farms at Rangpur, Magura and Gopalganj
184.	Growing of M ₂ generation of black cumin	• To screen the population based on yield potentiality, earliness and oil characteristics	BINA HQ farm
185.	Growing M ₃ generation of coriander	• To screen the segregating population on the basis of high	BINA HQ farm

Sl. No.	Research Title	Objective(s)	Location(s)
		yield (leaves) in summer season and delay flowering	
186.	Screening of M ₂ generation of Coriander	• To Select coriander population with desirable characters (Duration, yield and tolerance to gall disease)	BINA HQ farm
187.	Screening of M ₂ generation of Fenugreek	• To create genetic variability for desirable characters (duration, yield and tolerance to disease)	BINA HQ farm
Project: Varietal development of flowers through induced mutation and other advanced techniques			
188.	Growing of M ₁ V ₅ generation of the pink and red Gladiolus mutant	• To develop gladiolus variety with various floret colours, long spikes with higher number of florets and longer vase life	BINA HQs Farm, Mymensingh and Sreepur farm, Gazipur
189.	Growing of M ₁ V ₂ generation of the selected Gladiolus germplasm	• To develop gladiolus variety with various floret colours, long spikes with higher number of florets and longer vase life.	BINA HQs Farm, Mymensingh
190.	Screening of M ₁ V ₂ generation of Rose	• To develop rose variety with attractive flower colours, flower yield and longer vase life	BINA HQs Farm, Mymensingh
191.	Growing of M ₁ V ₂ generation of Chrysanthemum and Gerbera	• To develop flowers variety with attractive flower colours, flower yield and longer vase life	BINA HQs Farm, Mymensingh
192.	Collection, Screening and Characterization of collected gladiolus germplasm	• To select suitable Gladiolus germplasm for develop gladiolus variety with various attractive floret colours, long spikes with higher number of florets and longer vase life.	BINA HQs Farm, Mymensingh
Project: Performance of fruits and ornamentals for roof top gardening			
193.	Collection, screening, selection and varietal improvement of exotic fruits for roof top gardening through automatic drip irrigation system	• To select suitable fruits for rooftop gardening for year round supply of fresh produce and effective utilization of water and space	Rooftop, Horticulture Division, BINA HQ
194.	Collection, screening and selection of exotic flowers suitable for growing in Bangladesh	• To identify suitable flower varieties of exotic sources with attractive flower colours, flower yield and longer vase life	Rooftop, Horticulture Division, BINA HQs
Project: Development of postharvest technology for extending shelf-life of fruits, spices and vegetables through gamma irradiation and other techniques			
195.	Enhancing postharvest storage life of Potato using gamma irradiation	• To determine the optimum dose of gamma irradiation for	Postharvest Laboratory,

Sl. No.	Research Title	Objective(s)	Location(s)
		extension shelf life of potato without deteriorating quality. • To reduce enormous postharvest losses of potato during storage and marketing	Horticulture Division, BINA HQs
196.	Effect of gamma irradiation on post-harvest storage life and quality of onion bulbs under ambient condition	• To determine the optimum dose of gamma radiation to extend storage life of onion bulbs under ambient conditions without deteriorating quality and safety; • To reduce enormous postharvest losses of onions during storage and marketing	Postharvest Laboratory, Horticulture Division, BINA HQs
197.	Enhancing postharvest storage life of Country bean using gamma irradiation, chemical treatment and modified atmosphere packaging	• To examine the efficacy of gamma irradiation and sanitizer on extension of shelf life and retention of quality of beans • To standardize the types and thickness of MAP to reduce postharvest loss and extend shelf life of the beans.	Postharvest Laboratory, Horticulture Division, BINA HQs
198.	Extension of shelf life of Dragon fruit using gamma irradiation, chemical treatment and modified atmosphere packaging	• To determine optimum dose of gamma irradiation and chemical for extension storage life and quality of Dragon fruits.	Postharvest Laboratory, Horticulture Division, BINA HQs
199.	Vase life extension of pink mutant Gladiolus and Gerbera using different vase solutions	• To find out a suitable preservative for longer vase lives of gladiolus and gerbera	Postharvest Laboratory, Horticulture Division, BINA HQs
200.	Effects of gamma irradiation and edible coating compounds on shelf life and quality of fresh cut pineapples under refrigerated condition	• To examine the efficacy of gamma irradiation, • To standardize the types and concentration of preservatives and • To suggest postharvest technology package(s) for fresh cut pineapple	Postharvest Laboratory, Horticulture Division, BINA HQs
201.	Shelf-life extension of pineapple candy using gamma irradiation and concentration of sugar solution	• To examine the efficacy of gamma irradiation of pineapple candy • To standardize the concentration of sugar solution of pineapple candy and	Postharvest Laboratory, Horticulture Division, BINA HQs

Sl. No.	Research Title	Objective(s)	Location(s)
		• To suggest postharvest technology package(s) for pineapple candy	
202.	Shelf life extension of pineapple Jam using gamma irradiation	• To examine the efficacy of gamma irradiation of pineapple jam • To standardize the concentration of sugar solution of pineapple jam and • To suggest postharvest technology package (s) for pineapple jam	Postharvest Laboratory, Horticulture Division, BINA HQs
203.	Effects of gamma irradiation and drying periods on shelf life and quality of dehydrated pineapples	• To examine the efficacy of gamma irradiation of dehydrated pineapple • To standardize the time of dehydration of dehydrated pineapple • To suggest postharvest technology package(s) for dehydrated pineapple	Postharvest Laboratory, Horticulture Division, BINA HQs
Project: Micro propagation and regeneration protocol development of horticultural crops			
204.	Development of inbred line of bitter gourd	• To develop hybrid variety	Horticulture field, BINA HQs
205.	Standardization of <i>in vitro</i> propagation procedure of oriental liliun using bulb scale	• To develop protocol for rapid propagation of oriental liliun in <i>in vitro</i> condition	Tissue culture Laboratory, Horticulture Division, BINA
206.	Effect of gamma irradiation on <i>in vitro</i> regenerated tomato plants for development of heat tolerant variety	• To create genetic variability against heat stress	Tissue culture Laboratory, Horticulture Division, BINA
207.	Evaluation of somaclonal variant from <i>in vitro</i> regenerated tomato plants in the field condition through agro morphological traits	• Selection of somaclonal tomato variant with higher yield and nutritional qualities	Horticulture field, BINA HQs
SOIL SCIENCE DIVISION			
Project: Determination of critical limit of nutrients for major soils and crops using nuclear techniques			
208.	Determination of critical limit of Sulphur for Soybean (<i>Glycine max.</i>) (Pot trial)	• To determine the critical limit of Sulphur (S) in soil for Soybean	BINA HQs, Mymensingh
Project: Integrated Plant Nutrition System (IPNS) for soil fertility management and increased crop production using nuclear techniques			

Sl. No.	Research Title	Objective(s)	Location(s)
209.	Potential effect of different sources of liming materials for increase soil pH and increase crop production	• To increase the soil pH of the low pH soil	BINA Sub-station, Rangpur
210.	Effect of organic amendments for rice production in saline soil of Bangladesh	• To mitigate the adverse effects of soil salinity through organic amendments (wooden ash, rice straw, rice husk ash) • To increase the yield of rice in coastal saline areas of Bangladesh	Farmer's field, Harinkhola, Tala, Satkhira
211.	Effect of nano fertilizer to increase nutrient use efficiency (NUE) and crop yield	• To investigate the effect of nano fertilizer on the crop yield and nutrient use efficiency (NUE)	BINA HQs, Mymensingh
212.	Improvement of nutrient use efficiency (NUE) and crop productivity through nitrogen rates and irrigation in a rice-rice cropping system	• To investigate the Nitrogen recovery (REN) and nitrogen (N) use efficiency under different Nitrogen rate treatments. • To investigate the interaction between N application rate and irrigation management on yield and N use efficiency (NUE)	BINA Sub-station, Nalitabari, Sherpur
Project: Development of nutrients rich vermicompost for increasing crop production and soil fertility			
213.	Integrated effects of phosphorus and potassium rich vermicompost (PK-VC) with inorganic fertilizer on T. aman rice	• To investigate the integrated effect of phosphorus and potassium rich vermicompost (PK-VC) with chemical fertilizers (CF) on T. aman rice • To reduce the usage of chemical fertilizers for rice cultivation by using of PK-rich vermicompost	BINA farm, Mymensingh
214.	Effects of different doses of fertilizer and Vermicompost (VC) on Boro rice	• To investigate the integrated effect of vermicompost with chemical fertilizers (CF) on Boro rice • To reduce the usage of chemical fertilizers for Boro rice cultivation by using of vermicompost	BINA farm, Mymensingh
Project: Fertilizer management for relay/zero tillage cropping system			
215.	Effects of different doses of fertilizer on relay cropping pattern T. aman -Mustard (Relay crop) - Boro rice	• To find out the effects of different doses of chemical fertilizers with the integrated use of vermicompost in 3 crops cropping	BINA Substation farm, Ishurdi

Sl. No.	Research Title	Objective(s)	Location(s)
		pattern [T. aman-Mustard (relay crop) - Boro] • To find out optimum fertilizer doses of mustard under relay crop as well as the whole cropping system	
216.	Effects of different doses of fertilizers on relay cropping system in T.aman-Mustard (Relay crop)-T. aus cropping system	• To investigate the effects of various fertilizer doses on mustard in relay cropping system as well as whole cropping pattern (T.aman-Mustard-T. aus)	BINA Sub-station farm, Gopalganj
Project: Improvement of carbon sequestration and crop production using chemical and organic fertilizers through ¹³ C tracer techniques			
217.	Effect of organic fertilizer application timing and dose on soil and crops	• To determine soil physical, chemical and biological properties of initial soils • To determine soil aggregate, microbial biomass and carbon fractionation of post-harvest soil • To determine yield and yield contributing characters of crops	Location: BINA Sub-station of Rangpur
Project: Development of suitable management practices to increase crop production and improve soil health			
218.	Comparative studies of tillage practices on carbon emission, mineral nitrogen and yield and yield attributing characters of mustard	• To evaluate the effect of the combined use of chemical and organic fertilizers, including chemical fertilizer alone, on the yield and yield-attributing characteristics of mustard	BINA HQs, Mymensingh
Project: Response of micronutrient application on cropping pattern			
219.	Effect of organic and inorganic fertilizers as supplement of micronutrients on rice based cropping pattern	• To determine the best combination of organic and inorganic fertilizers to supplement micronutrient application for maximizing yield for the T. aman - Boro rice cropping pattern in AEZ 9.	BINA HQs, Mymensingh
Project: Assessment of different environmental pollutant in agricultural soil and crops			
220.	Effect of heavy metals on water spinach (Ipomoea aquatica) cultivated in contaminated soil (Pot Experiment)	• To assess the physico-chemical properties of contaminated soil • To investigate the heavy metals and accumulation in different parts of vegetables, transfer factor and the possible health risk index in human in both farm and	BINA HQs, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
		industrial contaminated soils of Bangladesh	
Project: Improvement of soil physical properties and crop productivity with various management practices in major AEZ			
221.	Effects of liming and organic manure on crop production in acid soil	To evaluate the responses of acidic soil to the combined application of dolomite and vermicompost (VC) and yield of rice	BINA HQs, Mymensingh
Project: Improvement of carbon sequestration and crop production using chemical and organic fertilizers through ¹³ C tracer techniques			
222.	Effect of biochar and vermicompost on soil carbon fractions and soil aggregation in rice based cropping pattern (T.aman-Mustard- Boro) of char land soil and increased crop production	- To improve the soil organic carbon, aggregation and microbial biomass using different organic amendments - To observe the effects of different organic amendments on crop yields.	Char land, Bhabokhali, Mymensingh
Project: Enhancement the crop productivity and soil fertility in smart agriculture through nano-fertilizers			
223.	Effects of nano-urea fertilizer on nitrogen uptake and yield of rice crop in pot culture	- To improve NUE - To improve NH₃ volatilization or to reduce N loss - To increase crop yield	BINA Headquarter, Mymensingh
Project: Methane gas emissions from Boro rice in synchronized cropping site			
224.	Effect of alternate wetting and drying (AWD) on yield, water requirement, and methane gas emissions from Boro rice in synchronized cropping site	To identify the suitable water management options for water-saving, reduction of methane gas emissions and sustainable yield	Farmer's field, Nokla, Sherpur
Project: Study of different cultivation systems on soil N use efficiency and greenhouse gas emissions from flooded and upland soil using nuclear techniques			
225.	Effects of rice establishment methods, and N rates on soil N use efficiency and greenhouse gas emissions in rice-rice cropping pattern	To identify the suitable rice establishment method, and N rate for maximizing crop yield and reduce greenhouse gas emissions	BINA HQs farm, Mymensingh
Project: Development of climate smart Rhizobial/ Bradyrhizobial biofertilizers for pulse, oilseed and vegetable production using microbiological, molecular and nuclear techniques			
226.	Isolation and characterization of rhizobial strains from root nodules of mungbean, lentil, blackgram, chickpea, soybean, groundnut, cowpea,	- To isolate, screening and selection of efficient Rhizobium /Bradyrhizobium strains for pulse crops in laboratory condition. - To determine the BNF potentials of strains and investigate the	Microbiology Laboratory of Soil Science Division, BINA Headquarters, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
	felon and french bean in laboratory	effect of isolated rhizobial strains on crop yields.	
227.	Effect of Bradyrhizobium strains on nodulation and yield of mungbean varieties in field condition	• To evaluating the effectiveness of inoculated Bradyrhizobium strains on nodulation and yield of BINA released mungbean varieties at BINA Sub-station farm, Ishurdi.	Microbiology Laboratory of Soil Science Division, BINA Headquarters, Mymensingh
228.	Effect of rhizobial inoculants in combination with vermicompost and Mo on soybean in pot condition	• To determine the effect of rhizobial inoculants in combination with vermicompost and Mo on soybean at BINA Headquarters, Mymensingh	In front of peat complex of Soil Science Division, BINA Headquarters, Mymensingh
229.	Integrated effects of rhizobial inoculant with vermicompost on groundnut in pot condition	• To determine the effects of rhizobial inoculant with vermicompost on groundnut in pot condition at BINA Headquarters, Mymensingh.	Infront of peat complex of Soil Science Division, BINA Headquarters, Mymensingh
Project: Biofertilizer production and distribution			
230.	Production and distribution of BINA biofertilizers in 2023-2024	• To produce quality biofertilizer for better pulse and oilseed production.	Biofertilizer Laboratory and peat complex of Soil Science Division, BINA Headquarters, Mymensingh
CROP PHYSIOLOGY DIVISION			
231.	Effect of high temperature and quality at flowering stages of Aman rice lines /genotypes	• To assess the effect of high temperature at flowering stage of Aman rice varieties	BINA HQs, Mymensingh
232.	Molecular characterization of some cold tolerance of rice genotypes	• To find out cold tolerant rice genotypes based on SSR markers	BINA HQs, Mymensingh
233.	Effect of cold stress on growth and development of Boro rice genotypes at field condition	• To assess the effect of cold stress on growth and development of rice plant and to identify cold stress tolerant rice genotypes.	BINA HQs, Mymensingh
234.	Polyethylene glycol induced drought stress affects morphological traits and antioxidant enzymatic activities in rice genotypes	• To investigate the effects of PEG-induced drought stress on growth, morphological traits and enzymatic activities in rice	BINA HQs, Mymensingh
235.	Evaluation of Aman rice lines to drought stress based on physiological criteria	• To observed morpho-physiological differences in mechanism of drought tolerance in rice; To generate information	BINA HQs, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
		of Aman rice lines tolerant to drought for breeders	
236.	Screening of advanced lines of grass pea for drought tolerance based on physiological parameters	• To screen the advanced grass pea lines on physiological characteristics under drought stress condition	BINA HQs, Mymensingh
237.	Screening of advanced lentil lines for drought tolerance based on physiological criteria	• To screen the advanced lentils lines based on physiological characteristics under drought stress condition	BINA HQs, Mymensingh
238.	Evaluation of five soybean genotypes based on morpho-physiological characters under water stress condition	• To assess the effects of water stress on morphological, physiological and yield attributes of soybean genotypes	BINA HQs, Mymensingh
239.	Identification of sesame genotypes for water logging tolerance based on physiological criteria	• To assess the effect of water logging on sesame growth and development; and to identify water log tolerant genotypes of sesame	BINA HQs, Mymensingh
240.	Evaluation of chili (<i>Capsicum frutescens</i> L.) genotypes for waterlogging tolerance at reproductive stage based on physiological criteria	• To assess the effect of water logging at seedling stage and to identify water logging stress tolerant chili genotypes	BINA HQs, Mymensingh
241.	Identification of mustard (Rape seed) genotypes for water logging tolerance during seedling stage based on physiological criteria	• To assess the effect of water logging during seedling stage on mustard growth and development and to identify water logged tolerant genotypes of mustard	BINA HQs, Mymensingh
242.	Evaluation of soybean genotypes for salinity tolerance based on physiological criteria	• To assess the effect of salinity stress on growth and yield of soybean mutants/varieties; To identify salinity stress tolerant soybean mutants	BINA HQs, Mymensingh
243.	Estimation of Physico-chemical properties of different grain, pulse and oilseed crops mutants/varieties	• To estimate the physical properties, biochemical properties and nutritional properties of rice, wheat grain, seeds of pulse and oilseed crops mutants	BINA HQs, Mymensingh
244.	Physiological and biochemical responses of rapeseed genotypes for salinity tolerance at seedling and reproductive stage	• To investigate the salinity tolerant genotypes and to find out the mechanism under salinity stress	BINA HQs, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
ENTOMOLOGY DIVISION			
Project-1: Integrated Management of major insect pests of different crops			
245.	Eco-friendly management approaches against fall armyworm (<i>Spodoptera frugiperda</i>) of maize	• To develop an environment-friendly management approach against fall armyworm of maize	Mymensingh
246.	Evaluation of different management approaches against mite and thrips complex of chili	• To develop suitable insect management technology against mite and thrips complex of chili.	Mymensingh
247.	Evaluation of Different IPM Components for management of cotton jassid and bollworm	• To develop an environment-friendly management approach against jassid and bollworm of cotton	Mymensingh
248.	Evaluation of some bio-pesticides and new generation insecticides against papaya mealybug (<i>Paracoccus marginatus</i>)	• To find out appropriate management approach against papaya mealybug	Mymensingh
249.	Development of bio-rational pest management approach against cucurbit fruit fly of bitter gourd	• To establish appropriate management strategy for management of cucurbit fruit fly of bitter gourd	Mymensingh
Project: Radiation Entomology			
250.	Effect of gamma radiation for controlling fruit fly (<i>Bactrocera cucurbitae</i>) of cucurbit vegetables	• To control cucurbit fruit fly by applying Sterile Insect Technique (SIT)	Mymensingh
251.	Determination of radiation dose to control pulse beetle (<i>Callosobruchus chinensis</i>) in mungbean	• To determine lethal dose of radiation for controlling pulse beetle	Mymensingh
252.	Determination of radiation dose to control rice weevil (<i>Sitophilus oryzae</i>) in storage	• To determine lethal dose of radiation for controlling rice weevil	Mymensingh
253.	Determination of radiation dose to control red flour beetle in storage	• To determine lethal dose of radiation for controlling red flour beetle	Mymensingh
Project: Screening of different advanced mutant lines of different crops against their major insect pests			
254.	Screening of BINA released popular/new rice varieties against Brown Plant Hopper	• To find out genes responsible for resistance in rice varieties against brown plant hopper (<i>Nilaparvata lugens</i> Stål)	Mymensingh
255.	Screening of BINA developed advanced rice	• To find out the genes responsible for resistance in BINA developed	Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
	lines/mutants against Brown Plant Hopper	advanced rice lines and mutants against Brown Plant Hopper (<i>Nilaparvata lugens</i> Stål)	
256.	Screening of rice lines against stem borer in the field (In collaboration with Plant Breeding Division)	• To observe the reaction of advanced rice lines against stem borer	Mymensingh
257.	Screening of advanced groundnut mutant/lines against some major insect pests in field condition	• To find out the performance of advanced groundnut mutant/lines against major insect pests	Mymensingh
PLANT PATHOLOGY DIVISION			
258.	Evaluation of advanced mutants of rice against BLB, sheath blight, blast, false smut and tungro	• To evaluate rice mutants against BLB, sheath blight, blast, false smut and tungro diseases	BINA HQ, Mymensingh
259.	Evaluation of wheat mutant against blast disease	• To develop blast resistant mutant for wheat • To evaluate the effect of Rmg8, RmgGR119 and NS2 at the heading stage	BINA HQ, Mymensingh and BINA Sub-station farm-Ishurdi, Chapainawabganj & Rangpur
260.	Resistant screening for Alternaria blight disease of mustard-rape seed through conventional and molecular approach	• To know the genetic diversity of <i>Alternaria brassicae</i> / <i>A. brassicicola</i> isolates collected from different mustard-rape seed growing areas in Bangladesh • To screen genotypes of mustard-rape seed resistance against <i>Alternaria brassicae</i> / <i>A. brassicicola</i> through conventional and resistant gene(s) based molecular marker techniques	Plant Pathology lab., BINA HQ, Mymensingh
261.	Evaluation of groundnut mutants against tikka, collar rot and rust	• To evaluate groundnut mutants against tikka, collar rot and rust	BINA HQ, Mymensingh
262.	Evaluation of mungbean mutants against root rot, Cercospora leaf spot and yellow mosaic	• To evaluate mungbean mutants against root rot, Cercospora leaf spot and yellow mosaic	BINA HQ, Mymensingh and BINA Sub-station farm Ishurdi, Magura
263.	Evaluation of jute mutants against stem rot, anthracnose and black band disease	• To screen jute mutants against stem rot, anthracnose and black band disease	BINA HQ, Mymensingh
264.	Evaluation of soybean mutants against collar rot,	• To screen Soybean mutants against collar rot, cercospora leaf spot and yellow mosaic disease	BINA HQ, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
	<i>Cercospora</i> leaf spot and yellow mosaic		
265.	Evaluation of blackgram mutants against <i>Cercospora</i> leaf spot, yellow mosaic and powdery mildew	• To evaluate blackgram mutants against <i>Cercospora</i> leaf spot, yellow mosaic and powdery mildew	BINA HQ, Mymensingh, BINA Sub-station farm-Chapainawabganj and BINA regional station- Gazipur
266.	Evaluation of Grasspea mutants against root rot, grey mould, rust, downy mildew and powdery mildew	• To evaluate grasspea mutants against root rot, grey mould, rust, downy mildew and powdery mildew	BINA sub-stations farm-Magura, Chapainawabganj and Ishurdi
267.	Formulation of <i>Trichoderma</i> in solid and liquid media	• To select the effective formulation of <i>Trichoderma</i> to develop a biofungicide.	Plant Pathology Lab., BINA HQ, Mymensingh.
268.	Evaluation of different formulations of <i>Trichoderma</i> against soil borne pathogens	• To assess the efficacy of different formulations of <i>Trichoderma</i> against soil borne pathogens	Plant Pathology Lab., BINA HQ, Mymensingh
269.	Characterization of <i>Trichoderma</i> isolates and their evaluation against major soil borne pathogens	• To find out effective <i>Trichoderma</i> isolate (s) against soil borne pathogens	Plant Pathology Lab., BINA HQ and Farmer's field Mymensingh
270.	Management of Black mold disease of onion with gamma radiation	• To control black mold disease of onion caused by <i>Aspergillus niger</i>	Plant Pathology Lab., BINA HQ, Mymensingh
271.	Ecofriendly management of collar rot of groundnut	• To develop ecofriendly disease management technology for collar rot of groundnut	BINA HQ, Mymensingh, BINA sub-stations Ishurdi and Magura.
272.	Early Detection and Diagnosis of Plant Diseases using AI-based Software in Bangladesh	• To develop an Artificial Intelligence (AI) powered software that can early detect and diagnose plant diseases in Bangladesh	Plant Pathology Lab., BINA HQ, Mymensingh
273.	Management of brown rot (<i>Ralstonia solanacearum</i>) disease of potato with gamma radiation	• To manage brown rot disease of potato caused by <i>Ralstonia solanacearum</i> gamma radiation	Plant Pathology Lab., BINA HQ, Mymensingh
274.	Integrated management of brown rot disease of potato	• To find out the best cultural and physical methods for controlling brown rot of potato • To assess the efficacy of some chemicals for controlling brown rot pathogen, <i>R. solanacearum</i>	BINA HQ, Mymensingh, Cumilla, Rangpur

Sl. No.	Research Title	Objective(s)	Location(s)
		• To trace out the important bio-agents for controlling brown rot pathogen, <i>R. solanacearum</i> • To find out the integrated approach in controlling brown rot of potato.	
275.	Identification of plant growth promoting rhizobacteria (PGPR) against alternaria blight disease of mustard-rapeseed	• To identify and characterize naturally occurring rhizobacteria associated mustard-rapeseed rhizosphere regions belonging to different mustard growing areas of Bangladesh • To assess the plant growth promoting effects of these isolates • To characterization of prominent antagonistic bacteria for research and commercial use	Plant Pathology lab., BINA HQ, Mymensingh
276.	Development of a Nanotechnology-Based Approach for Managing Sheath Blight Disease in Rice	• To develop a nanotechnology-based approach for managing sheath blight disease in rice	Plant Pathology Lab. and field, BINA HQ, Mymensingh
277.	Management of Stemphylium blight Disease in Lentil	• To develop suitable disease management strategies against stemphylium blight disease of lentil	BINA sub-stations farm at Magura, Chapainawabgonj and Ishurdi
278.	Status and analysis of genetic variation of brown rot (<i>Ralstonia solanacearum</i>) disease of potato in Bangladesh	• To assess the status of brown rot of potato in different potato growing areas in Bangladesh • To ascertain the status of soil in terms of virginity (free from <i>R. solanacearum</i>) in some selected potato growing areas in Bangladesh • To determine the race and biovar of <i>R. solanacearum</i> exist in Bangladesh • To analyze the genetic variation of <i>R. solanacearum</i> by using molecular marker	Plant Pathology lab., BINA HQ, Mymensingh
279.	Analysis of phenotypic and genotypic variation of some export potatoes (<i>Solanum tuberosum</i>) varieties irradiated with gamma rays	• To determine the effect of gamma rays on the vegetative and yield traits of potato cultivars • To screen some irradiated potato genotypes against <i>R. solanacearum</i>	BINA HQ farm, BINA Sub-station farms (Rangpur and Cumilla)

Sl. No.	Research Title	Objective(s)	Location(s)
		• Analysis of genetic diversity of the selected potato genotypes using molecular markers	
280.	Effect of gamma radiation on biochemical changes of potatoes and identification of brown rot pathogen using conventional PCR and real time PCR	• To determine the bio-chemical changes and nutritive status of irradiated potatoes. • To develop a sensitive and an effective management strategy	Plant Pathology lab., BINA HQ, Mymensingh
281.	Detection of blast resistant gene(s) in BINA germplasm and advanced lines by using gene based molecular markers	• To detect blast resistant gene(s) in BINA germplasm and advanced lines.	Plant Pathology lab., BINA HQ, Mymensingh
282.	Detection of Bacterial blight resistant gene(s) in BINA germplasm and advanced lines by using gene based molecular markers	• To detect bacterial blight resistant gene(s) in BINA germplasm and advanced lines	Plant Pathology lab., BINA HQ, Mymensingh
283.	Identification of plant growth promoting antagonistic bacteria against blast and BB diseases of rice	• To identify and characterize naturally occurring plant bacteria associated with different crops • To assess the plant growth promoting effects of these isolates • To Characterization of prominent antagonistic bacteria for research and commercial use	Plant Pathology lab., BINA HQ, Mymensingh
284.	Study on genetic diversity and pathogenicity of Alternaria blight of Mustard-rapeseed in Bangladesh	• To know the genetic diversity of Alternaria brassicae/A. brassicicola isolates collected from different mustard-rapeseed growing areas in Bangladesh.	Plant Pathology lab., BINA HQ, Mymensingh
285.	Molecular identification of <i>Fusarium</i> spp. associated with bakanae disease of rice in Bangladesh and assessment of their pathogenicity	• To assess the variability of <i>Fusarium</i> from Bakanae disease infected rice in Bangladesh • To identify species by amplification and sequencing of the EF-1a gene • To evaluate the pathogenicity of the isolates on the susceptible rice cultivar	Plant Pathology Lab., BINA HQ, Mymensingh
286.	Genetic Diversity and Pathogenicity Analysis of Rice False Smut Disease in Bangladesh	• To investigate the genetic diversity and pathogenicity of <i>U. virens</i> in Bangladesh	Plant Pathology Lab., BINA HQ, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
287.	Genetic Diversity analysis of Stemphylium blight Disease of Lentil using SSR markers	• To investigate the genetic diversity of the Stemphylium blight disease	Plant Pathology Lab., BINA HQ, Mymensingh
288.	Detection of Aflatoxins in Groundnut and Cashewnut Using Enzyme-Linked Immunosorbent Assay	• To investigate the level of aflatoxins in groundnut and cashewnut	Plant Pathology Lab., BINA HQ, Mymensingh
289.	Characterization of endophytic bacteria isolated from indigenous rice seeds in Bangladesh: their potential as biocontrol agents and plant growth promoters	• To isolate endophytic bacteria from indigenous rice seeds in Bangladesh • To Screen bacterial isolates for various traits of plant growth promotion including IAA production, inorganic phosphate solubilization, siderophore production etc. and antagonisms to major phytopathogens • To evaluate performance of some selected strains on growth promotion and yield of rice • To identify and characterize potential strains using 16S rRNA gene sequencing and submit their sequence data to genebank	Plant Pathology Lab., BINA HQ, Mymensingh
AGRONOMY DIVISION			
290.	Determination of optimum transplanting date for maximizing yield of Boro rice mutants/variety in Mymensingh	• To find out optimum transplanting date for maximizing yield of boro rice mutants/variety	BINA HQ farm
291.	Determination of optimum transplanting date for maximizing yield of <i>Aman</i> rice mutants/variety	• To find out optimum transplanting date for maximizing yield of <i>Aman</i> rice mutants/variety	BINA HQ farm
292.	Effect of sulfur on different ages of seedlings on tillering dynamics for transplanting of T. <i>Aman</i> rice variety- Binadhan-17	• To find out the effect of sulfur dose on seedling age for maximizing tillering efficiency and yield of Binadhan-17 variety in <i>Aman</i> season.	BINA HQ farm
293.	Effect of salicylic acid on growth, yield and yield contributing characters of rice in saline prone area	• To find out the effect of salicylic acid (SA) on the growth, yield and yield contributing characteristics of rice under saline prone area	Saronkhola, Bagerhat
294.	Assessment of yield gap of BINA released Boro rice varieties in Barishal	• To find out the yield limiting factors for BINA released boro rice varieties in Barishal	Babugonj, Barishal, and Nalcity, Jhalokati

Sl. No.	Research Title	Objective(s)	Location(s)
295.	Yield maximization of Mustard-Boro-T. Aman cropping patterns in Sherpur	• To find out the yield limiting factors in Mustard (Binasharisha-11)-Boro (Binadhan-24/BINA dhan25)-T. Aman (Binadhan-17) cropping patterns	BINA Substation,Nalitabari
296.	Improved cropping pattern Mustard-Boro-T. Aman cropping pattern with BINA released varieties uses for synchronized farming in Nalitabari	• To identify yield limiting factors in Mustard-Boro-T. Aman cultivation under synchronized farming	BINA Substation,Nalitabari
297.	Yield maximization of (Mustard-Boro-T. Aman) cropping patterns in Chapainawabganj	• To find out the yield limiting factors of Mustard-Boro-T. Aman cultivation in Chapainawabganj	BINA Substation,Chapaina wabganj
298.	Yield maximization of (Mustard-Boro-T. Aman) cropping pattern in Noakhali	• To find out the yield limiting factors of Mustard-Boro-T. Aman cultivation in Noakhali	Surbornochar, Noakhali
299.	Yield maximization of (Mustard-Boro-T. Aman) cropping pattern in Sunamganj	• To find out the yield potentials of Mustard-Boro-T. Aman varieties in Sunamganj	Taherpur,Sunamganj
300.	Effect of plant growth regulators on growth, yield and yield contributing characters of mustard	• To find out the effect of plant growth regulators on growth, yield and yield contributing characters of mustard	Tarail, Kishoreganj
301.	Evaluation of late sowing potentials of Binasarisha-9 and Binasarisha-11 in Mymensingh	• To find out late sowing potentials of Binasarisha-9 and Binasarisha-11	Fulbaria, Mymensingh and Tarail, Kishoreganj
302.	Yield maximization of Mustard-Boro-T. Aman cropping patterns in Mymensingh	• To find out the yield potentials of BINA released Mustard-Boro-T. Aman varieties in different cropping patterns	Gafargaon, Mymensingh
303.	Yield maximization of Boro (BINA dhan25)-Aus rice (Binadhan-19/Binadhan-21) in T. aman (Binadhan-17)-cropping patterns in Mymensingh	• To find out the yield potentials of BINA released Mustard-Boro-T. Aman varieties in T. aman-Boro-Aus cropping pattern	Fulbaria, Mymensingh
304.	Yield maximization of Mustard (Binashorisha-11)-Boro (BINA dhan25)-T. Aman (Binadhan-23) cropping pattern in Barishal	• To find out the yield potentials of BINA released Mustard-Boro-T. Aman varieties	Babuganj, Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
305.	Improved cropping pattern with BINA released varieties Mustard (Binasarisha-9)-Mungbean (Binamoog-8)-T. Aman (Binadhan-23) for synchronized farming in Barishal regions	• To find out performance of BINA released mustard, mungbean and rice varieties in Barishal under Mustard (Binasarisha-9) and Mungbean (Binamoog-8)-T. Aman (Binadhan-23) pattern	PatuakhaliSadar
306.	Evaluation of late sowing potentials of Binasarisha-9 and Binasarisha-11 in saline prone area Satkhira	• To find out the effect of late sowing potentials of Binasarisha-9 and Binasarisha-11 in saline prone regions	Shyamnagor, Satkhira
307.	Assessing yield gap of pulse and oil seed crops in Satkhira	• To find out the yield gap limiting factors of BINA released pulse and oil seed crops	Tala, Satkhira
308.	Yield maximization of BINA released rice varieties (Boro - Aus-T. Aman) cropping pattern in Satkhira	• To find out the yield potentials of BINA released rice varieties under (T. aus, T. aman and Boro) cropping pattern in Satkhira	Tala, Kalaroa, Shyamnagor
309.	Improved cropping pattern with BINA released varieties used for synchronized farming in Satkhira under Mustard-Boro-T. Aman cropping pattern	• To improve the suitable cropping pattern using BINA released varieties through synchronized farming	Shyamnagor, Satkhira
310.	Determination of efficient herbicide suppressing weed species in Aus rice cultivation	• To select the efficient herbicide for Aus rice cultivation	BINA HQ farm
311.	Field trial of Novixid herbicide to suppress on different weed species in boro rice cultivation	• To determine the efficiency of Novixid herbicide	BINA HQ farm
312.	Field trial of KSB Bolt herbicide to suppress on different weed species in boro rice cultivation	• To determine the efficiency of KSB Bolt herbicide	BINA HQ farm
313.	Field trial of Butachem herbicide to suppress different weed species in boro rice cultivation	• To determine the weed control efficiency of Butachem herbicide	BINA HQ farm
314.	Field trial of Rifit 500EC & Rifit Plus 37EW herbicide in Rice against grass and sedge of boro season	• To find out the weed control efficiency of herbicide for Boro rice cultivation	BINA HQ farmand Bina Substation, Rangpur

Sl. No.	Research Title	Objective(s)	Location(s)
315.	Effect of nano-particles on rapeseed through seed treatment and foliar application under saline prone area	• To find out the effect of nanoparticles on the yield of mustard in saline prone areas	Shyamnagor, Satkhira
316.	Effect of seed soaking and foliar application with Zinc Oxide (ZnO) nano-fertilizer on growth and yield of wheat under drought prone area	• To find out the effect of ZnO nanoparticles on the yield of wheat in drought areas	Nachol, Chapainawabganj
317.	Evaluation of yield performance of intercropping combinations between sesame and mungbean in hill tracts	• To find out optimum intercrop combinations between sesame and mungbean yield in hill tracts	Panchari, Khagrachari
318.	Improved multilayer cropping combinations between Aonla, Pineapple and Binalebu-1 in hill tracts	• To find out suitable multilayer cropping combinations between aonla, pineapple and Binalebu-1 in hill tracts	Satbaipara, Khagrachari
319.	Effect of herbicide on weed management in Aus rice cultivation on the hill slope of Khagrachari	• To select suitable weed management techniques in aus season	Matiranga, Khagrachari
320.	Improvement of better seed production and storage techniques	• To find out suitable seed production and storage techniques at farm	BINA HQ farm
321.	Quality seed production, storage, distribution and availability to farmers	• To increase availability of TLS requirements of different BINA released crop varieties	Agronomy division with 13 Substations
AGRICULTURAL ENGINEERING DIVISION			
322.	Evaluation of some Aus and Boro lines under different 'soil moisture stress/drought tolerance level'	• To study the response of the cultivars to different levels of soil moisture stress	BINA HQs, Mymensingh
323.	Irrigation management for sunflower mutants	• To determine optimum irrigation requirement and time of application for increasing yield and water productivity of sunflower mutants	BINA HQs, Mymensingh
324.	Optimization of soil moisture for direct seeded (No tillage) mustard sowing	• To determine optimum soil moisture condition for higher yield of mustard under zero tillage condition	BINA HQs and Charland of Mymensingh
325.	Response of Binasharisha-9 to water-logging at different growth stages	• To study the effect of water-logging at different growth stages of Binasharisha-9	BINA HQs, BINA substation Satkhira and Barishal

Sl. No.	Research Title	Objective(s)	Location(s)
326.	Future climate change and its impact on hydrological components	• To predict the groundwater recharge due to change in climate at different regions of Bangladesh	Different AEZ (data based)
327.	Impact of climate change on future water demand in crop production	• To quantify the crop water demand due to change in climate at different regions of Bangladesh	Different AEZ (data based)
328.	Growing of BINA developed varieties for input data generation of Decision Support System (for climate change Studies)	• To study the growth & yield response of BINA developed cultivars to different levels of irrigation regimes and weather factor. • To generate input data for decision support system. • To generate data for climate change impact on the cultivars	BINA HQ farm, and BINA sub-station Ishurdi
329.	Development of an efficient solar smart irrigation system for vegetable production in Gher embankment	• To develop an efficient solar smart irrigation system for vegetable production in Gher embankment • To increase proficient use of surface water with minimum involvement of manpower for vegetable production in Gher embankment	Satkhira-Khulna region
330.	Automatic irrigation management system for Rice Production	• To evaluate performance of automatic irrigation management system for rice production.	BINA HQs, Mymensingh
331.	Automatic irrigation management system for non-rice crops (Maize/ Wheat/ Sunflower/Mungbean/ Soybean)	• To evaluate the performance of automatic irrigation management system for non-rice crop (Maize/ Wheat/Sunflower/Mungbean/ Soybean) • To assess water savings under automated irrigation system compared to normal practice	BINA HQs, Mymensingh
332.	Irrigation management for hybrid Maize for higher yield and water productivity	• To determine optimum irrigation management strategy for increasing yield and water productivity of hybrid Maize.	Jamalpur (Char Nawbhangha), Nalitabari, Natore, BINA HQs
333.	Irrigation management of Garlic cultivars for higher yield and water productivity under zero tillage condition	• To develop appropriate irrigation management practice for higher yield of garlic under zero tillage condition	Natore & Chalan Bill
334.	Development of efficient irrigation practice for BINA	• To enhance efficient use of rainwater and maximize water productivity of citrus crop	Khagrachori

Sl. No.	Research Title	Objective(s)	Location(s)
	developed citrus crops for hilly area of Bangladesh		
335.	Development of Power Sprayer based sprinkler irrigation system/practice for vegetable crops	• To develop an efficient irrigation system for vegetable production in hill area • To enhance efficient use of Jhiri water and maximize water productivity	Khagrachori
336.	Sensor and Decision Support system (DSSAT/AquaCrop model) for Maize irrigation	• To determine optimum irrigation for increasing yield and water productivity in maize cultivation	BINA HQ, Mymensingh
337.	Performance evaluation of smart insect controller	• To evaluate performance of developed smart insect controller.	BINA HQs, Mymensingh
338.	Performance evaluation of Bio-char machine	• To evaluate performance of developed Bio-char preparation machine.	BINA HQs, Mymensingh
339.	Development of low-cost garlic planter	• To develop a low-cost power tiller operated garlic planter	BINA HQs, Mymensingh
340.	Development of low-cost grain dryer	• To develop a low-cost power grain dryer	BINA HQs, Mymensingh
341.	Development of pineapple leaf fiber extraction machine	• To develop pineapple leaf fiber extraction machine	BINA HQs, Mymensingh
342.	Partitioning evapotranspiration using stable isotope in Maize/Wheat/ Sunflower field	• To partition ET (into evaporation and transpiration) in Maize/ Wheat field	BINA HQs, Mymensingh
343.	Monitoring groundwater table fluctuation at BINA HQ and its substations (for long-term sustainability study)	• To gather long-term water-table data • To study the seasonal and long-term groundwater dynamics at the study locations	BINA HQs and its sub-stations (data based)
344.	Effect of Bio-char in soil moisture conservation and irrigation need	• To determine irrigation water savings due to application of Biochar • To quantify water use efficiency due to application of Biochar	BINA HQs, Mymensingh
345.	Effects of biochar on soil properties in irrigated organic vegetable production	• To study the effects of Biochar on soil properties • To quantify the effects of Biochar on vegetable yield	BINA HQs, Mymensingh
346.	System development/ establishment of drip and sprinkler irrigation for high value crops.	• To reduce use of water in agriculture • To increase fertilizer, use efficiency	BINA HQs, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
347.	Irrigation management practices on high value crops (Capsicum/ strawberry/ okra/tomato).	• To reduce the cost of irrigation on unit land	BINA HQs, Mymensingh
348.	Use of satellite images in determining leaf area index for determining efficient/ effective water use estimation.	• To map and manage water resources, drought and flooding risk precisely by using RS and GIS.	BINA HQs, Mymensingh
ADAPTIVE RESEARCH AND EXTENSION DIVISION			
349.	Advanced lines adaptive research trial (ALART) of T. Aman mutants of rice (<i>Collaboration with PBD and BINA sub-stations</i>)	• To assess the overall performance of T. Aman mutants in farmers' field of different areas; and • To provide feedback information to concern scientist about the mutants	Mymensingh, Chapainawabganj, Satkhira, Manikganj
350.	Block farming of T. Aman rice during 2023	• To demonstrate performance of BINA developed popular T. Aman rice varieties in selected areas; and • To encourage farmers for extensive cultivation of BINA developed T. Aman varieties.	Binadhan-12: Mymensingh, Khagrachori (9) Binadhan-13: Mymensingh (2) Binadhan-16: Gopalganj (3), Khagrachori (9), Noakhali (10), Gazipur (2), Chapainawabganj (5), Sunamganj (10) Binadhan-17: Mymensingh (15), Kishoreganj (15), Gazipur (3), Rangpur (8), Pabna (4), Magura (7), Satkhira (10), Cumilla (5), Jamalpur (7), Gopalganj (3), Sunamganj (15), Noakhali (5), Chapainawabganj (20) Binadhan-20: Barisal (4), Jamalpur (7), Gopalganj (3), Sunamganj (15), Chapainawabganj (3) Binadhan-22: Mymensingh (5), Rangpur (8), Magura

Sl. No.	Research Title	Objective(s)	Location(s)
			(1), Satkhira (5), Sunamganj (3), Chapainawabganj (10) Binadhan-23: Satkhira (5), Barishal (4), Noakhali (4)
351.	Advanced lines adaptive research trial (ALART) of Boro rice mutants of rice (<i>Collaboration with PBD and BINA-sub-stations</i>)	- To assess the overall performance of Boro rice mutants in farmers' field of different areas; and - To provide feedback information to concern scientist about the mutants.	Breeders' recommendations
352.	Farmers' observation trials of Binadhan-17 in Boro season pls exclude it as it is a Aman variety	- To assess the overall performance of Binadhan-17 at farmers' field in Boro season especially in Haor and Beel areas; and - To provide feedback information to concerned scientist about the variety.	Mymensingh, Kishoreganj, Sunamganj
353.	Head-to-head adaptive trial (HHAT) of newly released rice varieties	- To assess the overall performance of Binadhan at farmers' field and - To provide feedback information to concerned scientist about the said variety.	Binadhan-24: Gazipur (2) BINA dhan25: Mymensingh (2), Kishoreganj (2), Khagrachori (3), Jamalpur (6), Barisal (3), Satkhira (2), Sunamganj (40), Rangpur (1) Binadhan-17: Cumilla (2), Rangpur (2) Binadhan-19/21: Rangpur (1) Binadhan-22: Rangpur
354.	Block farming of Boro rice during 2023-2024	- To demonstrate performance of BINA developed popular Boro rice varieties in selected areas; and - To encourage farmers for extensive cultivation of BINA developed Boro rice varieties.	Binadhan-10: Mymensingh (3), Kishoreganj (2), Satkhira (30), Barisal (12), Gopalganj (3), Khagrachori (3) Binadhan-14: Gazipur (2), Jamalpur, Gopalganj (3), Chapainawabganj (10) Binadhan-24: Mymensingh (5), Kishoreganj (5), Gazipur (2), Rangpur,

Sl. No.	Research Title	Objective(s)	Location(s)
			Satkhira (5), Cumilla (3), Barisal (2), Jamalpur (5), Sunamganj (8), Noakhali BINA dhan25: Mymensingh (15), Kishoreganj (10), Gazipur (10), Rangpur (3), Pabna (2), Magura (7), Cumilla (5), Jamalpur (2), Satkhira (5), Gopalganj (5), Khagrachori (5), Chapainawabganj (15), Barisal (12), Noakhali (5)
355.	Block farming of Aus rice during 2024	• To demonstrate performance of BINA developed popular Aus rice varieties in selected areas; and • To encourage farmers for extensive cultivation of BINA developed Aus rice varieties.	Binadhan-19: Mymensingh (10), Kishoreganj (10), Gazipur (2), Pabna (2), Magura (7), Satkhira (5), Cumilla (3), Jamalpur (3), Gopalganj (2), Khagrachori (5), Noakhali (3), Chapainawabganj (20), Rangpur (2) Binadhan-21: Mymensingh (30), Kishoreganj (15), Gazipur (2), Magura (2), Satkhira (3), Cumilla (2), Jamalpur (3), Gopalganj (2), Sunamganj (4), Khagrachori (5), Noakhali (3), Chapainawabganj (10), Rangpur (2)
356.	Head-to-head adaptive trial (HHAT) of newly released oil crop varieties	• To assess the overall performance of oil crop at farmers' field; and • To provide feedback information to concerned scientist about the said variety.	Binasharisha-4: Gopalganj, Binasharisha-9: Gopalganj (1) Binasharisha-11: Mymensingh (5), Kishoreganj (2), Jamalpur(3), Barisal (3), Gopalganj,

Sl. No.	Research Title	Objective(s)	Location(s)
			Satkhira (2), Sunamganj (8) Binasharisha-12: Mymensingh (5), Kishoreganj (2), Jamalpur (3), Gopalganj (1), Magura (3), Noakhali (10) BINA chinabadam11: Noakhali (10), Mymensingh (10)
357.	Block farming of newly released mustard variety, Binasarisha-11	• To assess the overall performance of Binasarisha-11 at farmers' field; and • To provide feedback information to concerned scientist about the said variety.	Mymensingh (15), Kishoreganj (10), Gazipur (10), Rangpur (1), Pabna (2), Cumilla (3), Barisal (6), Jamalpur (10), Chapainawabganj (10), Magura (6), Satkhira (2), Noakhali (3)
358.	Block farming of rapeseed variety, Binasarisha-9 during 2023-2024	• To demonstrate performance of Binasarisha-9 in selected areas; and • To encourage farmers for extensive cultivation of Binasarisha-9.	Mymensingh (10), Kishoreganj (5), Gazipur (4), Rangpur (2), Pabna (3), Magura (6), Satkhira (5), Cumilla (4), Barisal (2), Jamalpur (6), Khagrachori (9), Chapainawabganj (5), Sunamganj (5)
359.	Block farming of rapeseed variety, Binasarisha-9 in zero tillage during 2023-2024	• To demonstrate performance of Binasarisha-9 in selected areas; and • To encourage farmers for extensive cultivation of Binasarisha-9.	Mymensingh (3), Kishoreganj (2), Gazipur (2), Rangpur (3), Jamalpur (2)
360.	Block farming of rapeseed variety, Binasarisha-4 during 2023-2024	• To demonstrate performance of Binasarisha-9 in selected areas; and • To encourage farmers for extensive cultivation of Binasarisha-9.	Mymensingh (1), Kishoreganj (1), Cumilla (4), Barisal (4)
361.	Block farming of rapeseed variety, Bina sarisha12 during 2023-2024	• To demonstrate performance of Bina sarisha12 in selected areas; and • To encourage farmers for extensive cultivation of Bina sarisha12	Mymensingh (2), Kishoreganj (1), Jamalpur (5), Barisal (2)

Sl. No.	Research Title	Objective(s)	Location(s)
362.	Advanced lines adaptive research trial (ALART) of groundnut mutants (<i>Collaboration with PBD and BINA-sub-stations</i>)	• To assess the overall performance of groundnut mutants in farmers' field of different areas; and • To provide feedback information to concern scientist about the mutants.	Kishoreganj, Lalmonirhat, Sirajganj and Bandarban
363.	Block farming of groundnut varieties during 2023-2024	• To demonstrate performance of BINA developed popular groundnut varieties in selected areas; and • To encourage farmers for extensive cultivation of BINA developed groundnut varieties.	Binachinabadam-4: Mymensingh (5), Kishoreganj (5), Pabna (1), Magura (3), Sunamganj (3), Noakhali (3), Barisal (2) Binachinabadam-6: Mymensingh (3), Kishoreganj (2), Rangpur (2), Jamalpur (1), Gopalganj (3), Sunamganj (3), Khagrachori (2) Binachinabadam-10: Mymensingh (5), Kishoreganj (5), Magura (1), Gazipur (2), Gopalganj (2) Binachinabadam-8: Mymensingh (3), Kishoreganj (2), Rangpur (2), Pabna (2), Magura (1), Satkhira (5), Jamalpur (1), Khagrachori (3), Chapainawabganj (5), Noakhali (3)
364.	Block farming of sesame varieties during 2023-2024	• To demonstrate performance of BINA developed popular sesame varieties in selected areas; • To encourage farmers for extensive cultivation of BINA developed popular sesame varieties.	Binatil-1: Pabna (2), Magura (1), Binatil-2: Mymensingh (5), Kishoreganj (5), Gazipur (2), Pabna (5), Magura (7), Satkhira (2), Cumilla (3), Barisal (2), Gopalganj (3), Sunamganj (6), Khagrachori (2), Noakhali (6), Chapainawabganj (10), Jamalpur (1)

Sl. No.	Research Title	Objective(s)	Location(s)
			Binatil-4: Mymensingh (5), Kishoreganj (5), Gazipur (2), Pabna (1), Magura (1), Barisal (12), Jamalpur (1), Sunamganj (2), Noakhali (3), Chapainawabganj (5), Satkhira (1)
365.	Block farming of soybean varieties during 2023-2024	• To demonstrate performance of BINA developed popular soybean varieties in selected areas; • To encourage farmers for extensive cultivation of BINA developed popular soybean varieties.	Binasoymbean-2: Kishoreganj (2) Binasoymbean-3: Kishoreganj (2), Barisal (2), Sunamganj (2) Binasoymbean-5: Cumilla (2), Noakhali (4) Binasoymbean-6: Kishoreganj (2), Barisal (2)
366.	Head-to-head adaptive trial (HHAT) of recently released mungbean variety, Binamoog-11	• Investigate the performance of newly released varieties compared to popular old mega variety; • Select suitable variety/varieties for target environments; • Validate the adaptability of modern mungbean varieties at different mungbean environments; and • Rapid dissemination of newly released promising mungbean varieties.	Barisal (3), Mymensingh (1), Kishoreganj (1), Pabna (1)
367.	Block farming of mungbean varieties during 2024	• To demonstrate performance of BINA developed popular mungbean varieties in selected areas; • To encourage farmers for extensive cultivation of BINA developed popular mungbean varieties.	Binamoog-8: Mymensingh (2), Kishoreganj (1), Pabna (2), Magura (1), Barisal (5), Chapainawabganj (5)
368.	Head-to-head adaptive trial (HHAT) of newly released lentil variety, Binamasur-12	• Investigate the performance of newly released varieties compared to popular old mega variety;	Mymensingh (2), Kishoreganj (1), Pabna (5), Magura (4)

Sl. No.	Research Title	Objective(s)	Location(s)
		• Select suitable variety/varieties for target environments; • Validate the adaptability of modern lentil varieties at different lentil environments; and • Rapid dissemination of newly released promising lentil varieties	
369.	Block farming of lentil varieties during 2023-2024	• To demonstrate performance of BINA developed popular lentil varieties in selected areas; • To encourage farmers for extensive cultivation of BINA developed popular lentil varieties.	Binamasur-5: Pabna (2), Chapainawabganj (5) Binamasur-8: Mymensingh (2), Kishoreganj (2), Pabna (5), Magura (7), Satkhira (5), Gopalganj (3), Chapainawabganj (10) Binamasur-9: Magura (1) Binamasur-10: Mymensingh (2), Kishoreganj (2), Pabna (2), Magura (1), Barisal (5), Chapainawabganj (10)
370.	Block farming of chickpea, blackgram and grasspea varieties during 2023-2024(<i>The block farming will be conducted in collaboration with DAE & BINA Sub-stations</i>)	• To demonstrate performance of BINA developed popular chickpea, blackgram and grasspea varieties in selected areas; • To encourage farmers for extensive cultivation of BINA developed popular pulse crop varieties	Binasola-4: Pabna (4), Chapainawabganj (8) Binasola-8: Pabna (5) Binamash-2: Mymensingh (4), Kishoreganj (2), Chapainawabganj (8) Binakhesari-1: Mymensingh, Pabna (10), Magura, Satkhira (5), Barisal (2), Gopalganj (3), Chapainawabganj (5) Binakhesari-2: Pabna, Barisal
371.	Advanced lines adaptive research trial (ALART) of jute mutants (<i>Collaboration with PBD & BINA Sub-stations</i>)	• To assess the performance of jute mutant lines in different areas; and • To provide feedback information to concern scientist about the mutants	As per Breeder recommendations
372.	Block farming of onion, garlic and turmeric varieties	• To demonstrate performance of BINA developed popular onion,	Binapiaz-1: Pabna (5)

Sl. No.	Research Title	Objective(s)	Location(s)
	during 2023-2024(<i>The block farming will be conducted in collaboration with DAE & BINA Sub-stations</i>)	garlic and turmeric varieties in selected areas; • To encourage farmers for extensive cultivation of BINA developed popular spices varieties	Binarasun-1: Mymensingh (1), Pabna (4) Binahalud-1: Mymensingh (6), Kishoreganj (2), Khagrachori (2)
373.	Block farming of lemon varieties, Binalebu-1 and Binalebu-2 during 2023-2024 (<i>The block farming will be conducted in collaboration with DAE & BINA Sub-stations</i>)	• To demonstrate performance of Binalebu-1 & 2 in different areas; • To identify the suitable areas for large scale dissemination; and • To encourage farmers for cultivation of Binalebu-1 & 2.	Mymensingh (2), Kishoreganj (1), Khagrachori (5)
374.	Variety wise demonstration of BINA developed varieties all over the country (<i>The demonstrations will be conducted in collaboration with DAE & BINA Sub-stations</i>)	• To demonstrate performance of BINA developed varieties in different areas; • To identify the suitable areas for large scale dissemination; and • To encourage farmers for cultivation of BINA developed varieties	Different districts covering under head office, substations and regional station
375.	Cropping pattern at different AEZ (<i>Collaboration with BINA sub-stations/regional office</i>)	• To increase cropping intensity and crop yield through designing suitable cropping patterns.	Different districts covering under head office, substations and regional station
376.	Farmers' observation trials with Bina-biofungicide for controlling soil borne diseases of pulse and oil crops (<i>Collaboration with PPD and BINA sub-station</i>)	• To assess the performance of Bina-biofungicide against foot rot disease of lentil and soybean in different areas; and • To provide feedback information to the concern scientist.	Magura and Ishurdi
377.	Farmers' observation trials of water saving cropping pattern in drought prone Barind area (<i>Collaboration with AED and Sub-station</i>)	• To assess profitability of water saving cropping pattern; and • To encourage farmers cultivating water saving cropping pattern in Barind area.	Chapainawabganj, Naogaon
378.	Farmers' observation trials with Biofertilizers developed at BINA for increasing yield of legume crops (<i>Collaboration with SSD and sub-stations</i>)	• To assess performance of Biofertilizers in legume crops; and • To encourage farmers using Biofertilizer for cultivation of legume crops.	Binasoymbean-3, 6: Noakahli (1), Laxmipur (1), Chandpur (1) Binamoog-8, 9: Barishal (2), Magura (3), Pabna (3) Binamasur-8: Magura (4), Pabna (4)

Sl. No.	Research Title	Objective(s)	Location(s)
379.	Factors affecting adoption of Binadhan-10 and Binasarisha-9 in some selected areas (<i>In collaboration with Agril. Economics Div. and BINA sub-stations</i>)	• To ascertain the adoption of Binadhan-10 and Binasarisha-9 in some selected areas; • To analyze the causes of adoption/rejection of Binadhan-10 and Binasarisha-9 by the farmers; and • To suggest policy guidelines or recommendations	Binadhan-10: Cox's Bazar, Chattagram, Jhalokathi, Bagerhat, Khulna and Satkhira Cox's Bazar, Chattagram, Jhalokathi, Bagerhat, Khulna and Satkhira Binasarisha-9: B'Baria, Cumilla, Mymensingh, Manikganj, Tangail, Jamalpur, Pabna, Sirajganj
380.	Validation and up-scaling of BINA developed popular varieties/technologies	• A total of 320 block farming with different cereal, oilseed, pulse, spice varieties and 3 gardens with horticultural crop varieties will be carried out at three villages (Dhapunia, Satiantola and Begunbari) in surrounding areas of BINA HQs, Mymensingh	Different districts covering under head office, substations and regional station
381.	Organize farmers' training on BINA developed varieties/technologies	• To improved DAE personnel and farmers' knowledge about BINA developed varieties/technologies; and • To publicize BINA generated technologies through workshop, training and field days.	All over the country
382.	Organize SAAO training on BINA developed varieties/technologies	• To improved SAAOs' knowledge about BINA developed varieties/technologies; and • To publicize BINA generated technologies to its end users.	All over the country
383.	Organize Seed dealers and SME farmers training on BINA developed varieties/technologies	• To improved seed dealer and SME farmer knowledge about BINA developed varieties/technologies; and • To publicize BINA generated technologies to its end users.	All over the country
384.	Organize field days on BINA developed varieties/technologies	• To improved farmers' knowledge about BINA developed varieties/technologies; and • To encourage farmers to adopt BINA generated technologies through field days	64 districts

Sl. No.	Research Title	Objective(s)	Location(s)
385.	Organize farmers yard discussion on BINA developed varieties/ technologies	• To improved farmers' knowledge about BINA developed varieties/ technologies; and • To encourage farmers to adopt BINA generated technologies through field days.	64 districts
386.	Organize workshop on BINA developed varieties/ technologies to DAE, BADC, Seed dealer, progressive farmer and NGO personnel	• To improve knowledge about BINA developed varieties/ technologies to DAE personnel, NGOs, seed producers and progressive farmers; and • To publicize BINA generated technologies to its end users.	
AGRICULTURAL ECONOMICS DIVISION			
387.	Yield gap analysis of Binadhan-11 in some selected areas of Bangladesh	• To estimate the yield gap of Binadhan-11 at the farm level; • To identify the factors affecting the yield of the variety; and • To suggest some policy guidelines to minimize the yield gap.	Rangpur, Kurigram, Lalmononirhat, Mymensingh and Jamalpur districts.
388.	Financial profitability of Binadhan-17 in some selected areas of Bangladesh	• To estimate the profitability of Binadhan-17 growers; • To assess the factors affecting production of Binadhan-17; and • To identify the major constraints to Binadhan-17 production.	Mymensingh, Rangpur, Kurigram, Gaibandha and Bogura districts.
389.	Production and marketing system of Binasarisha-11 in some selected areas of Bangladesh	• To estimate the costs and return of Binasarisha-11 in the study areas; • To find out the key players involved in the marketing system of Binasarisha-11; • To determine the marketing cost, margin and marketing efficiency at different levels and • To identify the major production and marketing problems of Binasarisha-11.	Rangpur, Jamalpur and Magura districts.
390.	Costs and return analysis of Binahalud-1 in some selected areas of Bangladesh	• To identify the socio-economic profile of Binahalud-1 growers • To estimate the costs and return and • To find out the major constraints of Binahalud-1 production.	Khagrachari, Mymensingh and Tangail districts.

Sl. No.	Research Title	Objective(s)	Location(s)
391.	Area coverage of BINA developed rice, pulse, oilseed and horticultural varieties in Bangladesh	• To examine the area coverage of BINA developed rice, pulse & oilseed varieties; • To identify major constraints of BINA developed rice, pulse & oilseed varieties cultivation; and • To suggest some policy guidelines.	64 districts of Bangladesh.



BANGLADESH SUGARCROP RESEARCH INSTITUTE

BSRI

BANGLADESH SURGARCROP RESEARCH ISNTITUTE

Sl. No.	Research Title	Objectiv(s)	Location(s)
BREEDING DIVISION			
1.	Hybridization for high sugar high yield short duration and self detrash varieties of sugarcane	• Developing improved varieties of sugarcane in relation to higher cane (>100 t/ha) and sugar (pol% cane >13) yield • Selecting short duration (10 months) and lodging tolerant variety of sugarcane • Selecting self-detrashing variety of sugarcane	BSRI, Ishurdi, Pabna
2.	Evaluation of sugarcane clones as site specific gur variety	• Selecting promising clone(s) with high gur recovery as site specific gur variety	BSRI, Ishurdi, Chapai Nawabganj and Barishal
3.	Evaluation of sugarcane clones as site specific chewing variety	• Selecting sugarcane clone(s) with improved chewing attributes • Developing location specific chewing cane variety	Bandarban, Gazipur, Jashore, Cumilla, Kurigram and Chapai Nawabganj
4.	Development of salt tolerant varieties of sugarcane	• Developing salt tolerant (12-15 dS/m) clones for southern region • Selecting clones free from salt in juice	BSRI, Ishurdi, Pabna
5.	Development of drought tolerant varieties of sugarcane	• Developing sugarcane varieties tolerant to drought stress • Selecting high yield potential clones under rainfed condition	BSRI, Ishurdi and Rajshahi
6.	Genetic enhancement of sugarcane (<i>Saccharum</i> sp. Hybrids) for resistant to red rot disease	• Developing red rot resistant clones through interspecific hybridization • Selecting progenies resistant to red rot disease.	BSRI, Ishurdi, Pabna
7.	Preservation of sugarcane pollen and evaluation of pollen viability for cross synchronization	• Viability assessment of stored sugarcane pollen for cross synchronization • Optimizing pollination technique and identifying potential storability of sugarcane pollen • Determining compatibility upon crossing with preserved pollen	BSRI, Ishurdi, Pabna
8.	Collection characterization and conservation of indigenous and exotic germplasm of sugarcane	• Collecting, characterizing and evaluating indigenous and exotic germplasm for using as parent materials and commercial varieties • Assessing the genetic diversity • Identifying and documenting the accessions	BSRI, Ishurdi, Pabna
9.	Varietal improvement of sugarcane through induced mutation	• Developing sugarcane variety having high sucrose content and • Developing sugarcane varieties tolerant	BSRI, Ishurdi, Pabna

Sl. No.	Research Title	Objectiv(s)	Location(s)
		to red rot and smut diseases	
10.	Photoperiodic regulation of flowering in sugarcane	• Inducing flower at early in mid and late flowering genotypes; • Inducing flower at late in early flowering genotypes; • Inducing flower in sparse flowering genotypes and • Synchronizing the flowering time of different genotypes	BSRI, Ishurdi, Pabna.
11.	Evaluation of promising sugarcane clones under different yield trials at varying agro-climatic conditions	• Determining the performance of the clones under varying agro-climatic conditions • Selecting location specific variety and • Determining the ratooning potential of the clones	BSRI, Ishurdi; Rajshahi; RSRS, Thakurgaon; Carew & Co., Joypurhat and Jamalpur
12.	Breeder seed multiplication of promising clones/ varieties of sugarcane	• Producing breeder seeds of potential varieties and clones • Maintaining purity of existing varieties • Distributing quality seeds to different stakeholders	BSRI, Ishurdi, Pabna
13.	Morphological characterization of stevia germplasm	• Determining the morphological diversity among stevia gemplasms • Evaluating biomass accumulation, morphological characters and physiological indices for assessing its breeding potential	BSRI, Ishurdi, Pabna
14.	Improvement of date palm using artificial pollination and molecular breeding	• Improving local date palm for quality juice and fruit yield • Optimizing tissue culture plant regeneration protocol for date palm	BSRI, Ishurdi, Pabna
15.	Characterization and documentation of local and exotic date palm	• To assess the genetic diversity • To register the accession and avoid duplication • To establish the relationship between the species • To computerize the data for a better crossing program • To establish the core collection	BSRI, Ishurdi, Pabna
16.	Selection of palmyra palm germplasm based on juice yield and quality	• Identifying palmyra palm genotypes based on juice yield and quality • Selecting parents for hybridization program	BSRI, Ishurdi, Pabna
BIOTECHNOLOGY DIVISION			
17.	Characterization and documentation of sugarcane using molecular markers	• Identification of sugarcane varieties, active germplasm and developed somaclones through DNA Fingerprinting; • Determination of genetic diversities	Biotechnology Laboratory

Sl. No.	Research Title	Objectiv(s)	Location(s)
		among the sugarcane varieties, active germplasm and somaclones using molecular markers; • Tagging of marker against identified character; and • Developing Marker Assisted Selection (MAS) method for sugarcane.	
18.	Genetic enhancement of sugarcane through development of stress tolerant somaclones and their field evaluation	• Development of somaclones under selection pressure using NaCl, polyethylene glycol and mutagenic agents; and • Evaluation and selection of somaclones for salinity and drought as well as sugarcane somaclones with desirable traits.	Biotechnology Laboratory, BSRI Farm
19.	Genetic transformation of salt and drought tolerant genes in sugarcane	• Collection and maintenance of Agrobacterium strains with salt and drought tolerant genes; • Transformation of salt and drought tolerant genes in sugarcane; • Confirmation of transformation and expression of salt and drought tolerant genes in sugarcane; and • Transgenic sugarcane development.	Biotechnology Laboratory
20.	Micropropagation for vegetative seed production of sugarbeet	• Identifying the suitable sources of explants for micropropagation; • Finding out the suitable media for micropropagation; • Developing tissue culture protocols for micropropagation of Sugarbeet; and • Hardening plantlets for transplanting.	Biotechnology Laboratory
21.	Micropropagation of sugarcane varieties for rapid multiplication and high-quality seeds (HQS) production	• Optimizing variety specific media for micropropagation; • Production of micropropagated plants for high quality seed; • Evaluating field performances of micropropagated plants; and • Evaluating genetic stability in micropropagated plants using DNA Fingerprinting.	Biotechnology Laboratory, BSRI Farm
22.	Tissue culture for multiplication of Arabian Date Palm and Palmyra Palm	• Identification of suitable sources of explants; • Finding out the suitable media; • Production of plantlets; and • Developing tissue culture protocols for Arabian Date Palm and Palmyra Palm.	Biotechnology Laboratory
23.	Development of somaclones of stevia	• Identification of suitable sources of explants;	Biotechnology Laboratory

Sl. No.	Research Title	Objectiv(s)	Location(s)
	through tissue culture techniques and subsequent molecular diversity analysis	• Finding out the suitable media; • Production of plantlets; • Production of plantlets; and • Developing desirable non flowering stevia plantlets and molecular diversity analysis.	
AGRONOMY AND FARMING SYSTEMS DIVISION			
24.	Agronomic evaluation of bsri developed promising sugarcane clones at different planting dates	• To study the comparative performance of different promising clones; • To find out the optimum date of planting for advanced promising clones of sugarcane; • To generate agronomic information to meet up the requirement of National Seed Board.	BSRI Farm
25.	Sequential intercropping of oil crops with sugarcane	• To select the best variety of mustard for intercropping with sugarcane; • To select the suitable combination of oil crops intercrop in sugarcane.	BSRI Farm
26.	Ratooning ability of newly released sugarcane varieties in response to planting material in high ganges river floodplain soils (aez 11)	• Selecting suitable cane variety(s) for ratoon in High Ganges River Floodplain Soil. • To find out highest production potential of planting materials from different source of setts/settlings for ratoon cane.	BSRI Farm
27.	Yield and quality of sugarbeet under different harvesting date	• To find out the maturity time of sugarbeet genotypes. • To find out the optimum harvesting date of sugarbeet.	BSRI Farm
28.	Weed control efficiency of some herbicide in sugarcane	• To study the performance of herbicides in controlling weeds in sugarcane field; • To find out the economic advantage of weed control by herbicide.	BSRI Farm & RSRS Thakurgaon
29.	Critical period of crop weed competition in sugarcane	• To find out the critical period of crop-weed competition in sugarcane field; • To find out the effect of weed on growth and yield of sugarcane.	BSRI Farm
30.	Productivity of sugarcane with different high value intercrops	• To select the suitable high value intercrops with sugarcane. • To assess the productivity of sugarcane with different intercrops. • To increase crop production and economic benefit per unit area of sugarcane field.	BSRI Farm
PHYSIOLOGY AND SUGAR CHEMISTRY DIVISION			
31.	Screening sugarcane genotypes under zyt-i, ii & iii against drought stress	• Selecting sugarcane clones with superior tolerance to drought; • Finding out morphological and	Godagari, Rajshahi RSRS, Thakurgaon BSRI, Yard

Sl. No.	Research Title	Objectiv(s)	Location(s)
		physiological basis for drought tolerance to sugarcane and Identifying parents to use in further crossing programme to develop drought tolerant varieties.	
32.	Screening sugarcane genotypes under zyt-i, ii & iii against water-logging stress	- Selecting sugarcane clones with superior tolerance to water-logging; - Finding out morphological and physiological basis for water-logging tolerance to sugarcane and - Identifying parents to use in further crossing programme to develop water-logging tolerant varieties.	Chilmari, Kurigram Ishurdi, Pabna BSRI Farm BSRI Yard
33.	Screening sugarcane genotypes under zyt-i, ii & iii against flood stress	- Selecting sugarcane clones with superior tolerance to flood; - Finding out morphological and physiological basis for flood tolerance to sugarcane and - Identifying parents to use in further crossing programme to develop flood tolerant varieties.	Lalpur, Natore Sirajgonj BSRI Yard
34.	Screening sugarcane genotypes under zyt-i, ii & iii against salinity stress	- Selecting sugarcane clones with superior tolerance to salinity; - Finding out morphological and physiological basis for salinity tolerance to sugarcane and - Identifying parents to use in further crossing programme to develop salinity tolerant varieties.	Ashasuni, Shatkhira BSRI Yard
35.	Germination potentiality of advanced sugarcane clones under low temperature stress condition	Evaluating BSRI bred advanced sugarcane clones having inbuilt potential to germinate under lower ambient temperature.	BSRI Yard
36.	Screening sugarcane clones based on maturity behavior and <i>goor</i> manufacture	- Determining maturity behaviour of sugarcane clones and find out peak maturity period. - Screening sugarcane clones suitable for gur production. - Determining the quality of gur after preparation.	BSRI Farm
37.	Effect of integrated use of organic and chemical fertilizer on cane quality for sustainable sugarcane farming	- To determine the quality of cane juice and gur due to application of combined use of organic and chemical fertilizers. - To determine economic use of fertilizer for juice and quality gur production. - To find out combined effects of organic and chemical fertilizers on juice and gur	BSRI Farm

Sl. No.	Research Title	Objectiv(s)	Location(s)
		quality.	
38.	Determination nutritional status of gur produced from bsri released popular sugarcane varieties	• To find out different nutrient elements of gur	BSRI Lab
39.	Studies on growth and development of date palm and palmyra palm	• To find out the germination and establishment of Date Palm and Palmyra Palm seedlings and • To observe the growth and development phase of Date Palm and Palmyra Palm trees	BSRI Farm
40.	Studies of preservation techniques sugarcane juice	• Optimizing the techniques for preservation of ready-to-serve bottled sugarcane juice of consumer acceptability and • Observing shelf life of preserved sugarcane juice.	BSRI Lab
PATHOLOGY DIVISION			
41.	Screening of sugarcane genotypes under pyt, ayt, zyt-i, zyt-ii, zyt-iii, advanced and tissue culture derived clones against red rot	• Identifying and selecting the sugarcane genotypes having higher level of resistance against red rot disease. • Recommending new resistant varieties/tolerant clones for final release to the growers and to preserve in the gene bank for breeding purposes	BSRI, Ishurdi and RSRS, Thakurgaon
42.	Screening of sugarcane genotypes against wilt disease	• Identifying and selecting the sugarcane genotypes having superior resistance to wilt disease • Recommending new resistant varieties/tolerant clones for final release to the growers	BSRI, Ishurdi
43.	Screening of sugarcane genotypes under ayt, zyt-i, zyt-ii and zyt-iii against smut disease	• Identifying and selecting the sugarcane germplasms having superior resistance to smut disease • Recommending new resistant varieties/tolerant clones for variety development	BSRI, Ishurdi
44.	Screening of sugarcane genotypes against pineapple disease	• Identifying and selecting the sugarcane germplasms having superior resistance to pineapple disease • Recommending new resistant varieties/tolerant clones for variety development	BSRI, Ishurdi
Programme Area: Disease Management			
45.	Performance of different	• Determining the performance of new	BSRI, Ishurdi

Sl. No.	Research Title	Objectiv(s)	Location(s)
	sett treating chemicals in controlling sett rot disease of sugarcane	chemicals over existing recommended sett treating fungicides in controlling sett rot disease of sugarcane • Recommending more fungicides in controlling sett rot disease of sugarcane	
46.	Exploring the suitable soaking time of sugarcane setts for chemical treatment	• Determining the suitable longer period of sett soaking with Autostin fungicide. • Finding out the toxic effects if any for longer period of sett soaking with Autostin fungicide	BSRI, Ishurdi
47.	Management of red rot of sugarcane through chemical and biological means	• Investigating the efficacy of different chemicals and bio control agents throughout the cropping season • Finding out the most suitable management practice (chemical and/or biological) of red rot to suggest the farmers	BSRI, Ishurdi
48.	Management of <i>Orobanche</i> in sugarcane cultivation	• Finding the appropriate management practices of controlling <i>Orobanche</i> parasite under field condition • Finding out an eco-friendly package against <i>Orobanche</i> parasite management	Faridpur Sugarmill, Faridpur
49.	Identification and documentation of date palm, palmyra palm and stevia diseases in Bangladesh	• Identifying different diseases of date palm, palmyra palm and stevia in Bangladesh • Investigating and documenting the pathogens that are responsible for such diseases in those crops	BSRI, Ishurdi
50.	Monitoring of sugarcane diseases in the mill and non-mill zones	• Maintaining up to date knowledge for the incidence of existing and new diseases if any in mill and non-mill zones • Suggesting appropriate control measures in time for current and future outbreak of diseases • Determining the distribution and severity of some more common disease in Bangladesh	BSRI Ishurdi, NBSM, JSM, RJSM, MKSM, Chuadanga, Chapai-nawabganj, Barisal, Joypurhat, Jamalpur, Narail, Sirajganj, Habiganj and Chittagong Hill Tracts
51.	Production, quality control and distribution of disease-free clean seed of sugarcane	• Supplying the disease-free clean seeds for the requirement of different divisions of BSRI and out-station experiments. • Distributing the disease-free clean seeds to the mills and non-mill zones for further multiplication. • Minimizing the disease incidence of sugarcane throughout the country.	BSRI, Ishurdi

Sl. No.	Research Title	Objectiv(s)	Location(s)
ENTOMOLOGY DIVISION			
52.	Screening of selected sugarcane clones in ZYT I, II and III for resistance against some major pests in the field	• Screening advance clones for possible resistance to top shoot borer, early shoot borer, rootstock borer, stem borer, pyrrilla leaf hopper, black leaf hopper, scale insect, mealy bug, termites and white grubs • Comparing selected clones with the standard varieties to fulfill the requirement of National Seed Board (NSB).	BSRI, Ishurdi, Pabna RSRS, Thakurgaon
53.	Assessment of selected bio-agents against major insect pest of sugarcrop	• Production of mass quantity of bio-agents and ensuring their availability for field release • Maintaining bio-agents stock in the laboratory and • Evaluating their field performance against major insect pests of sugarcane and tropical sugarbeet.	IPM laboratory, Entomology Division, BSRI
54.	Evaluation of new molecules for management of major insect pests of sugarcane	• Comparing the effectiveness of new insecticides; • Documenting intensity of insect pests' infestation against different insecticides; • Finding suitable and effective insecticides and • Getting more chemical control measure for the farmers.	BSRI, Ishurdi, Pabna (SB), RSRS, Thakurgaon (SB), RSRS, Thakurgaon (WG), Bhabanipur Farm, NBSM Ltd, Natore (TM), Akandabaria farm, Carew & Co. Ltd., Habibpur farm, TSM Ltd, Thakurgaon (WG), RSRS, Thakurgaon (TSB), BSRI, Ishurdi, Pabna (TSB)
55.	Integration of bio-intensive pest management (BIPM) components against sugarcane stem borer	• Finding the effective management practice(s) against stem borer • Assessing of different management options and • Monitoring of population abundance in different treatment regime	BSRI, Ishurdi, Pabna
56.	Efficacy of green insecticides against the incidence of sugarcane mealy bug	• Finding effective management practices for sugarcane mealy bugs insect and • Estimating the effects of mealy bugs insect on yield of sugarcane.	BSRI farm, Ishurdi, Pabna; RSRS, Thakurgaon
57.	Characterization and virulence of entomopathogenic fungi isolated from agricultural	• To isolate, screen, and identify entomopathogenic fungi species based on a combination of morphological characteristics and molecular data	BSRI, Ishurdi, Pabna BRRI, Gazipur

Sl. No.	Research Title	Objectiv(s)	Location(s)
	soils towards sugarcrop insect pests	analysis. - To assess the virulence of the selected isolates of the EPFs on the mortalities of sugarcrop insect pests through laboratorybioassay. - To assess the field efficacy and persistence on leaves of the potential candidates of EPFs against sugarcrop insect pests.	NIB laboratory, Savar, Dhaka
58.	Seasonal incidence of major pests of sugarcane and their natural enemies	- Determining the population density/fluctuation throughout the year/cropping season - Finding the prevalence of their natural enemies and - Recording the new insect pests and their natural enemies	SubornocharNoakh ali Farm,
59.	Development mass rearing technique of sugarcane stem borer <i>Chilotumidicostalis</i> Hamps an under laboratory condition	To develop favourite diet for rearing technique of Sugarcane stem borer <i>chilotumidicostalis</i> Hampson and ensuring their availability for radiation and inherited sterility research purpose.	Entomology Divison Laboratory, BSRI, Ishurdi, Pabna
60.	Management of Varroa mite in honeybee, <i>Apismellifera</i> colonies	- Development of effective management practice(s) against Varroa mite and - Assessing of different management options	Biological Control Laboratory, BSRI, Ishurdi, Pabna, Honey Growers field, Pabna
61.	Controlling Small hive beetle in honeybee, <i>Apismellifera</i> colonies	- Development of effective management practice(s) against small hive beetle and - Assessing of different management options	Biological Control Laboratory, BSRI, Ishurdi, Pabna, Honey Growers field, Pabna
62.	Effects of natural raw honey on blood glucose level of type 2 diabetes mellitus	- To know the Bee honey consumption effects on Diabetes Mellitus and - To know the specific amount of honey to be consumed.	BSRI, Ishurdi, Pabna
63.	Performance of sugar substitutes for honey bee colony during offseason and monitoring of its effectiveness	- Evaluating of different food supplement of bees during dearth period and - Monitoring the effectiveness of different food supplement in bee colonies.	Biological Control Laboratory, BSRI, Ishurdi, Pabna
64.	Effects of different treatments on the crystallization of natural mustard raw honey	- To find out the suitable preservatives for preventing crystallization of mustard raw honey. - To increase the shelf life of honey by preventing crystallization of honey.	BSRI Entomology Laboratory, Ishurdi, Pabna
65.	Effects of different approaches in controlling	Finding the effective management practices and	BSRI farm, Ishurdi, Pabna, Goyeshpur,

Sl. No.	Research Title	Objectiv(s)	Location(s)
	red palm weevil in date palm	• Monitoring of population abundance in different treatments.	Pabna
SOILS AND NUTRITION DIVISION			
66.	Nutrient requirement for sustainable sugarcane production under different aezs	• Finding out the optimum and economic nutrient requirement for sustainable sugarcane production in different AEZs	Shibgonj, Chapainawabgonj (AEZ 26) & Chuadanga (AEZ 11)
67.	Determination of carew's organic fertilizer requirement for sugarcane cultivation	• Evaluating and developing an economically suitable package with Carew's organic fertilizer and inorganic fertilizers for sustaining yield of sugarcane and intercrop. • Improving soil health through integrated use of Carew's organic fertilizer and inorganic fertilizer for maintaining stable soil fertility, microbial population and apparent nutrient balance in soil.	BSRI farm (Ishurdi) and RSRS farm (Thakurgaon) & Chuadanga
68.	Ipsn based nutrient management for cultivation of sugarcane with intercrops	• To develop integrated nutrient management strategy for sugarcane with intercrops based cropping patterns. • To determine the effect of integrated nutrient management practices of sugarcane based cropping pattern on soil properties. • To evaluate the economics of integrated management practices of sugarcane based cropping pattern.	BSRI Farm (AEZ 11) and RSRS Gazipur (AEZ 28)
69.	Effect of fertilizer management on sweet sorghum yield and quality	• To study the effect of fertilizer management on sweet sorghum yield and quality. • To determine the fertilizer management practice for year round cultivation of sweet sorghum for syrup and ethanol production.	BSRI Farm (AEZ 11)
70.	Nutrient management of sugarcane for different spacing	• Determining fertilizer requirement of sugarcane for different row spacing. • Comparing soil fertility status and economics of different row spacing for sugarcane cultivation.	BSRI Farm and RSRS Thakurgaon
71.	Growth yield and quality of chewing cane as influenced by organic source of nutrients	• To determine the growth, yield and quality of chewing sugarcane as influenced by organic source of nutrient.	BSRI Farm, Ishurdi (AEZ 11) and RSRS Farm, Thakurgaon
72.	Yield maximization of sugarcane by integrated nutrient management practices in noakhali region	• Finding out the effect of integrated nutrient management on sugarcane productivity. • Determining soil health status due to	Subarnachar, Noakhali (AEZ 18)

Sl. No.	Research Title	Objectiv(s)	Location(s)
	(aez 18)	integrated nutrient management practices	
73.	Effect of integrated nutrient management on growth, biomass yield, quality and nutrient content of stevia (stevia rebaudianaber.)	Finding out the economically suitable integrated nutrient management practice for stevia production in Bangladesh	BSRI Farm, Ishurdi (AEZ 11)
74.	Effect of fertilizer management on growth, yield and quality of chewing cane black ruby	- Finding the optimum and economic doses of organic and inorganic fertilizers for chewing sugarcane cultivation - Increasing soil fertility and maintenance of soil health	BSRI farm (AEZ 11)
75.	Isolation and characterization of plant growth promoting bacteria (pgpb) from sugarcane soil-plant system	- Isolation of PGPB from rhizosphere, rhizoplane, roots and stem of the sugarcane. - Determination of biochemical and genetic characterization of bacteria - Investigation of performance of PGPB on sugarcane growth, yield and quality.	BSRI Microbiology laboratory
76.	Biological n ₂ -fixation by free-living and associative bacteria in sugarcane genotypes of bangladesh	- To identify / screen out suitable sugarcane genotypes favoured with biological N₂-fixing system under N-stressed field condition. - To investigate the occurrence of diazotrophic bacteria in sugarcane genotypes. - To estimate the input of N, via BNF, into the sugarcane genotypes under study.	BSRI farm, Ishurdi (AEZ 11)
77.	Effect of diazotrophic bacterial bio-fertilizer on growth and yield of sugarcane	- To determine the nitrogen fixing capacity and growth hormone production of diazotrophs. - To evaluate the effect of diazotrophs on growth and yield of sugarcane.	BSRI farm, Ishurdi (AEZ 11)
TRAINING AND TECHNOLOGY TRANSFER DIVISION			
78.	Adoption of modern sugarcane production technologies in selected sugar mills and non-mill zones	- To determine the extent of adoption of BSRI developed modern sugarcane production technologies in the sugar mills and non-mill zones; - To identify the bottlenecks that retard adoption of modern sugarcane production technologies; and - To ascertain the differences in adoption of modern sugarcane production technologies between the growers of sugar mills & non-mills zones.	Mill zone (TSM, NBSM and Carew & Co) Non-mill zone (Chapai Nawabgonj, Sirajganj, Gazipur)

Sl. No.	Research Title	Objectiv(s)	Location(s)
ON-FARM RESEARCH DIVISION			
79.	On-farm trial of promising sugarcane clones at different aezs under farmers' field condition	- To evaluate field level performance of advanced clones/lines in different AEZs. - To obtain farmers reaction about the advanced clones/lines.	Rajshahi Joypurhat Chuadanga Thakurgaon
80.	Performance of newly released bsri sugarcane varieties at char land ecosystem	- To identify suitable BSRI released varietie(s) for Charlands - To assess the economic profitability of BSRI released varieties in theCharlands	Rajshahi Sirajganj
81.	Adaptive trial of chewing canein different region of bangladesh	- To evaluate the performance of chewing cane in the farmer's field - To select suitable high yielding chewing varieties for higher production and income at farmer's level	Rajshahi Gazipur Satkhira Bagura Pabna Sirajganj
82.	Performance of maize as intercrop with sugarcane in different planting times	- To evaluate performance of sugarcane with maize as intercrop at different planting times - To observe the suitability of maize as intercrop with sugarcane. - To increase productivity and interim economic benefit per unit area and time in sugarcane field.	Chuadanga Pabna
83.	Performance of different crop in various cropping pattern under date palm (<i>phoenix sylvestris</i>) based agro-forestry system	- To evaluate the performance of selected crops in association with date palm trees throughout the year - To identify suitable cropping patterns to fit under date palm-based agroforestry systems - To increase the productivity of date palm based cropping systems.	Chuadanga
84.	Performance of different sugarcane varieties under guava based agroforestry system	- To evaluate the performance of chewing cane variety in association with Guava trees - To identify suitable chewing cane variety to fit under Guava based agro-forestry systems - To increase the productivity of Chewing Cane-Guava based cropping systems.	Chuadanga
85.	On-farm trial of different intercrop with sugarcane in low ganges river flood plain soil	- To assess the effect of different intercrops on tillering ability & yield of sugarcane - Increasing productivity and interim economic benefit per unit area from sugarcane field.	Pabna
AGRICULTURAL ECONOMICS DIVISION			
86.	Financial profitability of sugarcane <i>gur</i> production	To examine socioeconomic characteristics of sugarcane <i>gur</i>	Chapainawabganj district

Sl. No.	Research Title	Objectiv(s)	Location(s)
	in non-mill zone areas of bangladesh	producers; and • To assess the profitability of sugarcane <i>gur</i> production.	
87.	Profitability of nipa palm <i>gur</i> production in southern areas of bangladesh: farming practices and livelihood perspective	• To document farming practices and farmers' perception of nipa palm <i>gur</i> production; • To estimate the financial profitability of nipa palm <i>gur</i> production; • To explore the determinants of adopting nipa palm <i>gur</i> production by the farmers and • To address the impact of nipa palm <i>gur</i> production on farmers' livelihood;	Patuakhali and Borguna district
88.	Growth and trend analysis of sugarcane area, production and yield: a scenario of sugarcane security in bangladesh	• To investigate the sugarcane area, production and yield based on regional and total basis; and • To suggest some policy recommendations based on research findings.	All mill zone and non-mill zone of Bangladesh
AGRICULTURAL ENGINEERING DIVISION			
89.	Design and development of a sugarcane planter	• Designing and development of a sugarcane planter; • To perform low cost and timeliness operation of sugarcane planting.	BSRI
90.	Iot-based precision fertigation system with ml under diverse residue management practices for sustainable sugarcane farming	• Developing and evaluation of an integrated IoT-Based fertigation system • Developing and apply ML algorithms for efficient fertigation management • Assessing the impact of integrated fertigation and residue management on productivity and soil health	BSRI Farm
91.	Food dryer and storage system with air dehumidification	• To develop a dryer to produce quality dry food products increasing energy use efficiency of dryer; • Developing a storage system of semi solid jaggery	BSRI
92.	Conservation Agriculture approach for sustainable sugarcane farming in Bangladesh	• Evaluation of conservation tillage on sugarcane farming • Finding out effects of residue management and intercropping	BSRI Farm
93.	Design and development of a single set cutting machine	• Designing and development of a single set cutting machine; • To produce low-cost set and seed of sugarcane.	BSRI
94.	Demonstration of bsri developed technologies for sugarcrop in mill and non-mill zone	• Dissemination of selected BSRI developed machineries among the farmers; • Improving the workmanship of the	Joypurhat, Chuadanga, Faridpur, Chapainawabgang

Sl. No.	Research Title	Objectiv(s)	Location(s)
		machines/tools getting feedback from the demonstration; • Creating interest among the farmers on the use of these machines; • To stimulate local manufacturers for manufacturing these machines.	
RSRS, Gazipur			
95.	Enhancement of chewing cane tiller production through exogenous application of ethrel and gibberellic acid	• To improve sprouting, tiller population, yield attributes and yield of chewing cane • To identify the best way to increase sprouting and tiller population and • To find out the economic acceptability of the new technology	RSRS farm, Gazipur
96.	Effect of sugarcane bagasse biochar on soil health and sugarcane production	• Reducing the use of inorganic amendments in sugarcane production and • Improving soil health as well as soil fertility	RSRS farm, Gazipur
97.	Performance of chewing cane varieties with intercrop onion under Madhupur tract (AEZ 28)	• To select suitable chewing cane variety under AEZ 28 • To popularize chewing cane in Madhupur Tract • To find out the best combination of onion with chewing cane	RSRS farm, Gazipur
98.	Comprehensive assessment of multi spectral, thermal and vegetation indices for drought monitoring in sugarcane using UAV imagery	• To determine drought severity in sugarcane by analyzing the variations in multi-spectral, thermal and vegetation indices • To identify the relationship between drought and sugarcane yield and develop models to predict yield losses based on UAV derived data	RSRS farm, Gazipur
99.	Evaluation of sugarcane growth and yield parameters through multi spectral, thermal and vegetation indices from UAVs in waterlogged condition	• To identify the most effective multi-spectral and thermal indices for monitoring and quantifying sugarcane growth under waterlogged conditions • To develop models or algorithms to predict yield based on the UAV derived data	RSRS farm, Gazipur
100.	Effect of time and level of earthing up on tiller production of plant and ratoon cane	• To find out the optimum time and level of earthing up of plant and ratoon • cane and • To find out the economic acceptability of the new technology	RSRS farm, Gazipur
101.	Yield performance of Arabian date palm at Gazipur	• To find out the growth pattern of Arabian date palm year to year and • To find out the sequence of yield	RSRS farm, Gazipur

Sl. No.	Research Title	Objectiv(s)	Location(s)
		potential	
102.	Assessment of heavy metal toxicity of sugarcane juice and soil in Gazipur	• Determination of heavy metal concentration in soil. • Quantification of heavy metal concentration in sugarcane juice.	RSRS farm, Gazipur
103.	Pesticide residue and nutrient assessment of BSRI released chewing sugarcane varieties	• To identify and quantify the pesticides present in sugarcane juice • To assess the nutritional content in sugarcane juice	RSRS farm, Gazipur
104.	Survey on pest status and incidence of Arabian date palm (<i>Phoenix dactylifera</i>) AT Gazipur	• To find out and document Arabian date palm insect pest status at Gazipur • To monitor severity and populations in individual tree to inform grower treatment decisions	RSRS farm, Gazipur
RSRS, Thakurgaon			
105.	Performance of latest sugarcane varieties grown in different locations in old himalayan piedmont plain	• To select suitable sugarcane varieties for increasing yield and quality of in AEZ I, and • To increase farmers' earning through cultivation of latest sugarcane variety(s).	PSM, TSM and STSM
106.	Ratooning potentiality of bsri bred newly released sugarcane varieties in different locations of old himalayan piedmont plain	• To screen out the ratooning potential sugarcane variety(s) for AEZ I • To popularize ratooning practice in AEZ I	PSM, TSM and STSM
107.	Evaluation of chewing sugarcane genotypes at old himalayan piedmont plain	• To select suitable chewing varieties for increasing the yield and quality of sugarcane in AEZ I, and • To increase farmers' earning through chewing sugarcane cultivation.	RSRS Farm, Thakurgaon
108.	Productivity and profitability of sugarcane with oil seed crops as first mungbean as second intercrop	• To select suitable oil seed crop(s) as intercrop with sugarcane, • To get interim monetary return, and • To sustain sugarcane farming by producing more crops from the same land.	Patuadangi farm, Thakurgaon
109.	Productivity of sugarcane with onion as intercrop in flatbed and ridge & furrow planting methods in old himalayan piedmont plain	• To select the best planting method of sugarcane suitable for onion garlic intercropping • To ease onion intercropping and sustain sugarcane farming.	Patuadangi farm, Thakurgaon
110.	Effect of de-trashing on the infestation of stem borer and scale insect of sugarcane at old himalayan piedmont plain	• To know the effect of de-trashing on stem borer infestation in sugarcane field, • To know the effect of de-trashing on scale insect infestation in sugarcane field, and • To reduce insecticide, use and minimize production cost in sugarcane field.	Patuadangi farm, Thakurgaon

Sl. No.	Research Title	Objectiv(s)	Location(s)
111.	Determination of optimum row spacing for sugarcane in old himalayan piedmont plain	- To select the best row spacing for sugarcane in the areas of AEZ-1, - To harvest more yield and monetary benefit from sugarcane field.	Patuadangi farm, Thakurgaon
RSRS, Subarnachar, Noakhali			
112.	Performance of winter vegetable as intercrops with sugarcane in single row system in AEZ 18	- To test the suitable intercrops for sequential intercropping in single row sugarcane at Subarnachar area - To identify the effect of sequential intercropping on growth yield and quality of sugarcane	RSRS, Subarnachar, Noakhali.
113.	Performance of chewing varieties under young meghna estuarine floodplain (AEZ 18)	- To select suitable chewing varieties in subarnachar area - To select location specific chewing varieties for costal area	RSRS, Subarnachar, Noakhali,
114.	Selection of sugarcane varieties suitable for goor production under subarnachar area	- To test the adaptability of BSRI released sugarcane goor varieties at Subarnachar, Noakhali area - To identify location specific suitable variety for commercial cultivation	RSRS, Subarnachar, Noakhali.
115.	Efficacy of spacing with organic and inorganic fertilizer on growth and yield of stevia in AEZ 18	- To find out suitable row and plant spacing of stevia - To assess the productivity of stevia - To find out yield potential of stevia under different fertilizer combination	RSRS, Subarnachar, Noakhali
BSRI Sub-Station, Rajshahi			
116.	Field performance of some newly released sugarcane varieties and their ratooning potentiality	- To observe the suitability of BSRI recommended varieties in RJSM areas - To select the good ratooner varieties for this area - To study the comparative performance of different latest varieties	Horian, Rajshahi
117.	Performance of different winter crops with single row of chewing cane	To ensure higher production and maximum profit through cultivation of intercrops with sugarcane	Charghat, Rajshahi
118.	Performance of BSRI newly released varieties in char lands of Rajshahi	- To find out the performance of newly released varieties in the Char land of Rajshahi. - To find out the economic profitability of BSRI released varieties in the Char land of Rajshahi.	Charghat, Rajshahi
119.	Selection of suitable Sugarcane varieties for goor production in Chapainawabganj	- Evaluating the performance of BSRI released sugarcane varieties in non-mill zone - Selecting the location specific sugarcane varieties for goor production	Sibgong, Nawabganj

Sl. No.	Research Title	Objectiv(s)	Location(s)
BSRI Substation, Chuadanga			
120.	Exploring the suitability of bsriakh41 as sugar producing variety in carew and company (bangladesh) ltd. Sugar mill area	• To observe the suitability of BSRI Akh 41 in sugarmill areas	South Chadpur, Darshana, Chuadanga and Akterpur, Uthly, Chuadanga. (2 locations)
121.	Efficacy of different fungicides as sett-treating chemicals in controlling sugarcane smut disease	• To determine the efficacy of the different fungicide as sett treating chemical against smut disease	Modna, Darshana, Chuadanga and BSRI Ishurdi. (2 locations)
BSRI Substation, Rahmatpur, Barishal			
122.	Selection of sugarcane varieties suitable for gur production in saline belt under southern region	• To select suitable cane varietie(s) with high yield and recovery for gur production in saline belt of southern region.	Barishal Region
123.	Performance of chewing varieties in saline belt under Southern region	• To select suitable cane varieties for chewing in saline area of southern region. • To popularize chewing varieties in saline area of southern region.	Barishal Region
124.	Effect of tidal water on growth and yield of sugarcane	• Selecting the suitable cane varieties for tidal and disaster-prone area under southern region. • Popularizing the BSRI varieties in coastal belt under southern region	Patuakhali
125.	Effect of fertilizer on yield and quality of nipa palm gur	• To determine the standard nutrient condition of Nipa palm. • To standardize fertilizer dosage for Nipa juice and Gur production	Kalapara, Patuakhali
126.	Sugarcane based integrated farming in sorjan system under southern region	• Increasing sugarcane productivity through Sorjan system • To popularize sugarcane based Sorjan farming under southern region	BSRI Substation, Barishal
BSRI Substation Sirajganj			
127.	Ratooning potentiality of some newly released BSRI bred sugarcane varieties at Jamuna char land under AEZ 4	• Studying the performance of newly released sugarcane varieties at Jamuna char land under AEZ 4 • Screening the ratooning potentiality of BSRI bred newly released sugarcane varieties at Jamuna char land	i) Shoilabari, SirajganjSadar ii) Brahmonboyra, sirajganj
128.	Production of sugarcane with different intercrops for increasing the livelihood of char land people in Sirajganj	• Identifying the suitable intercrop with sugarcane for Jamuna char land. • Popularizing the intercrops which can be practiced with sugarcane among the farmers to increase their livelihood at char land in Sirajganj.	i) Charpara, SirajganjSadar ii) Shoilabari, SirajganjSadar
129.	Productivity of sugarcane	• Selecting suitable winter and summer	i) Dholdob,

Sl. No.	Research Title	Objectiv(s)	Location(s)
	with some winter vegetables as first intercrop and mung bean as second intercrop with single & paired row planting system under AEZ 4	vegetables as first & second intercrop with sugarcane. • Increasing productivity and interim economic benefit of sugarcane field. • Popularizing the paired row planting system under AEZ 4	SirajganjSadar ii) PoshchimGupirpara , SirajganjSadar
BSRI Substation, Chunarughat			
130.	Performance of winter crop as intercrops on sugarcane cultivation in wider row system	• To find out suitable intercrops for sequential intercropping in wider system in this area • To identify the potentiality of sugarcane variety for yield as plant cane	Vill: Ladia P.O. Muchikandi Upazilla: Chunarughat Dist. Habigonj
131.	Development of a bio-rational based management approach against the incidence of sugarcane sucking pests	• Finding effective management practices for sugarcane sucking pests and • Estimating the effects of sucking pests on yield of sugarcane.	Vill: Karishabosti P.O. Gazipur Upazilla: Chunarughat Dist. Habigonj
132.	Survey, monitoring and documentation of insect pests of <i>stevia rebaudiana</i> (bertoni) and their natural enemies in bangladesh	• Identifying and seasonal fluctuation the of insect pests of <i>Stevia rebaudiana</i> • Documenting the natural enemies of insect pests of <i>Stevia rebaudiana</i> .	Vill: Karishabosti P.O. Gazipur Upazilla: Chunarughat Dist. Habigonj
BSRI Substation, Jamalpur			
133.	Performance of different intercrops with sugarcane in paired row system	• To select suitable intercrops for sequential intercropping in paired row sugarcane. • To studying the effect of sequential intercropping on growth, yield and quality of sugarcane.	Jamalpur and Sherpur
134.	Effect of vermicompost on sugarcane yield and carbon accumulation in soils	• To quantify the effect of vermicompost on sugarcane growth and yield. • To determine the carbon accumulation in soils from vermicompost application.	Jamalpur
135.	Comparative evaluation of growth, yield and quality of few milling cane varieties under waterlogged and normal condition	• To determine the growth, yield and quality attributes of sugarcane under waterlogged and normal condition • To evaluate the differences between of sugarcane cultivars performance in waterlogged and normal condition	Jamalpur
BSRI Substation, Joypurhat			
136.	Performance of some BSRI recommended sugarcane varieties as plant and ratoon crop in Tista Meander Floodplain soil	• To select suitable sugarcane varieties in Tista Meander Floodplain Soil • To study the comparative performance of different latest sugarcane varieties	Vadsha, Kotowalibag and Vadsa, Ramvadrapur, Joypurhat
137.	Effect of chemical fertilizers and poultry litter on growth and yield of	• To find out the effects of chemical fertilizer and poultry litter on growth and yield of sugarcane and	BuluparaJoypurhats adar, Joypurhat

Sl. No.	Research Title	Objectiv(s)	Location(s)
	sugarcane and soil chemical properties	To evaluate the effects of integrated use of chemical fertilizers and poultry litter on soil chemical properties and plant nutrient content	
BSRI Substation, Gaibandha			
138.	Evaluation of BSRI bred sugarcane varieties under water-logging condition at active tista floodplain soils in Bangladesh	- To select suitable cane varieties with tolerance to water-logging condition in AEZ3 - To find out morphological and physiological changes due to prolonged wet condition	BSRI sub-station, Gaibandha
139.	Performance of newly released milling sugarcane varieties at active tista floodplain soils in Bangladesh	- To select suitable latest milling sugarcane varieties for higher yield in AEZ2 - To increase farmers' earning through cultivating latest milling sugarcane varieties	Shibganj, Bogura
140.	Evaluation of chewing sugarcane genotypes at tista meander floodplain soils in Bangladesh	- To select suitable cane varieties with high yield for chewing in AEZ 3 - Increasing farmers' income through chewing cane cultivation	Bogura and Rangpur
BSRI Substation, Bandarban			
141.	Performance of chewing sugarcane varieties/genotypes under Northern and Eastern hills	- To select the suitable cane varieties for chewing in hill tracts region. - Compare the yield (t/ha) of various sugarcane varieties/genotypes.	Lemujhiri Para, BandarbanSadar
142.	Selection of suitable sugarcane varieties for gur production under Bandarban Hill Tracts of Bangladesh	- To identify the suitable sugarcane varieties with high yield potential and quality gur production. - To assess the adaptability of different sugarcane varieties to the Hill Tracts specific climatic and soil conditions.	Bakichoramukh, Balaghata, BandarbanSadar



**BANGLADESH WHEAT AND MAIZE
RESEARCH INSTITUTE**

BWMRI

BANGLADESH WHEAT AND MAIZE RESEARCH INSTITUTE

Sl. No.	Research Title	Objective(s)	Location(s)
1.	Hybridization	• Transfer desirable traits from donor parents to the recipient parent with good agronomic background targeting to develop high yield potential, disease resistant variety with wide adaptation	Dinajpur, Gazipur, Jamalpur and Rajshahi
2.	Confirmation of single and top crosses	• Confirming hybrids derived from crosses between two genetically dissimilar parents • Generation of F2 seeds and making top and back crosses utilizing F1 plants	Dinajpur, Gazipur, and Jamalpur
3.	Evaluation and Selection in different filial generations (F2 to F6)	• Ensuring fixation of desirable additive genes in the advancing filial generations • Select desirable families/individual plants in each filial generation following selected bulk method • Reaching omozygosity/stability after hybridization	Dinajpur, Gazipur, and Jamalpur
4.	Germplasm maintenance	• Evaluating lines from different national and international sources • Maintaining promising lines and preserve for future use	Dinajpur
5.	Bangladesh wheat screening nursery, Set I (BWSN-I)	• To Evaluating all selected advanced lines from national crossing program for high yield potential with biotic and abiotic stress tolerance • Selecting promising lines for evaluation in preliminary yield trial	Dinajpur, Gazipur, and Jashore
6.	Bangladesh wheat screening nursery, Set II (BWSN-II)	• Evaluating all selected genotypes/lines from different national and international nurseries for high yield potential • Selecting promising lines for evaluation in preliminary yield trial	Dinajpur, Jamalpur, and Rajshahi
7.	Bangladesh wheat screening nursery, Set III (BWSN-III)	• Evaluating all selected genotypes/lines from different national and international nurseries for high yield potential • Selecting promising lines for evaluation in preliminary yield trial	Dinajpur, Jamalpur, and Rajshahi

Sl. No.	Research Title	Objective(s)	Location(s)
8.	Bangladesh wheat screening nursery, Set IV (BWSN-IV)	- Evaluating all selected genotypes/lines from different national and international nurseries for high yield potential - Selecting promising lines for evaluation in preliminary yield trial	Dinajpur, and Rajshahi
9.	Bangladesh wheat screening nursery, Set V (BWSN-V)	- Evaluating all selected genotypes/lines from different national and international nurseries for high yield potential - Selecting promising lines for evaluation in preliminary yield trial	Dinajpur and Jamalpur
10.	Preliminary yield trial (PYT)	- Evaluating yield potential of the promising lines selected from BWSNs under different agro-climatic conditions - Selecting promising lines for Advance Yield Trial	Dinajpur, Gazipur and Jashore
11.	Advance yield trial (AYT)	- Evaluating yield potential of the advance lines under different locations - Selecting promising lines for evaluation in Candidate Variety Demonstration	Dinajpur, Gazipur, Jashore, Jamalpur and Rajshahi
12.	Candidate variety demonstration (CVD)	- Evaluating performances of the promising advance lines in large plots - Selecting candidate varieties for on farm and on station multi-location testing.	Dinajpur and Jashore
13.	Distinctness, Uniformity and Stability (DUS) Test	- Studying the identifying characters of advance lines before release - Studying the uniformity and stability of the identifying characters - Establishing distinctness of the candidate varieties from the existing varieties with at least one character	Dinajpur and SCA, Gazipur
14.	On-Station Demonstration (OSD)	Demonstrating wheat varieties to the visitors under optimum and late seeding conditions	Dinajpur, Gazipur, Jashore, Jamalpur and Rajshahi
15.	10 th Early heat tolerance wheat screening nursery (10 th EHTWSN)	- Evaluating selected promising genotypes for early heat tolerance and high yield potential in early seeding - Selecting promising lines for inclusion in preliminary yield trial and/or using as parent	Dinajpur
16.	Screening of wheat genotypes under artificial	To screen wheat genotypes in the salinity stress	Dinajpur

Sl. No.	Research Title	Objective(s)	Location(s)
	salt stress	To identify and select salt tolerant genotypes based on the morpho-physiological traits	
17.	Molecular Screening of blast and leaf rust resistance wheat genotypes using molecular markers	To find out blast and leaf rust resistance wheat genotypes	Dinajpur
18.	Wheat line conversion to the BLA system	To convert a line to the BLA system and create variability	Dinajpur
19.	Hybrid Wheat Evaluation Nursery	To test adaptability and performance of locally developed hybrid wheat with the aims to release hybrid wheat variety in Bangladesh condition	Dinajpur
20.	Hybrid Wheat Production through BLA technology	- To produce elite wheat hybrids F1 locally adapted Bangladesh condition. - To extend the benefits of hybrid wheat to researchers, wheat breeders, farmers, and consumers in Bangladesh by establishing a hybrid wheat seed industry.	Dinajpur
21.	Wheat BLA line production	- To produce blue seeds as a maintainer line of the respective BLA line. - To produce sterile white seeds that will be used as a female parent in hybrid production.	Dinajpur
22.	Collaborative Studies with International Organizations Elite Spring Wheat Yield Trial (44 th ESWYT) International Bread Wheat Screening Nursery (56 th IBWSN) High Temperature Wheat Yield Trial (22 nd HTWYT) Semi-arid Wheat Yield Trial-EM (1 st SAWYT) Semi-arid Wheat Yield Trial-NM (31 st SAWYT) Semi-Arid Wheat Screening Nursery (41 st SAWSN) High Zinc Wheat Yield Trial-EM (2 nd HZWYT) High Zinc Wheat Yield	Germplasm exchange program between BWMRI and international organizations is established as a part of collaborative study. The materials are mainly received from CIMMYT, Mexico; Nepal and other countries. Materials are being developed in Bangladesh are also being sent to different institutions to test their performance and future use in their program. Genotypes selected from these yield trial and screening nursery will go to Bangladesh wheat screening nursery (BWSN) for further evaluation.	Dinajpur, Gazipur, Jashore, Jamalpur and Rajshahi

Sl. No.	Research Title	Objective(s)	Location(s)
	Trial (14 th HZWYT) High Zinc Advance Nursery (15 th HZAN) Stress Adaptive Trait Yield Nursery-DRGT (13 th SATYN-Heat) Wheat Yield Consortium Yield Trial (11 th WYCYT)		
23.	Maintenance of first and second-year lines of recommended varieties	- To maintain purity of nucleus seeds of newly released varieties - To produce pure seeds for breeder seed production	Dinajpur
24.	Breeder seed production of recommended wheat varieties	To produce breeder seed for BADC and private enterprises	Dinajpur, Panchagarh, Thakurgaon
25.	Participatory Variety Selection (PVS) of wheat: Mother trials	- Demonstrating the performance of the disease resistant and high yielding promising advanced lines and new varieties to the farmers under their own management conditions. - Providing scope to the farmers for selecting the varieties/lines suitable for their own socio-economic conditions	Dinajpur, Panchagarh, Thakurgaon, Jamalpur and Rajshahi
26.	Accelerating wheat breeding program through cutting-edge genomics and phenomics	- Early generation selection for grain yield and quality using genomic prediction and high-throughput phenotyping in the wheat breeding program - Improved prediction models for multi-environment predictions within national programs - Increased breeding capacity of national wheat breeding program	Jamalpur and Jashore
27.	Maintenance and characterization of locally developed maize inbred lines (9 sets)	- To characterize the inbred lines for their different morphological traits in future breeding programs. - To increase the gene pool and best use	Dinajpur
28.	Maintenance of exotic inbred lines of maize (2 sets)	To characterize and increase the number of seeds used in future breeding program	Dinajpur
29.	Advancing s_6 to s_7 generation of IM- 8013 (1 set)	To generate new inbred lines	Dinajpur
30.	Demonstration trial of	To evaluate the performance of	Dinajpur, Gazipur,

Sl. No.	Research Title	Objective(s)	Location(s)
	released and promising hybrids and OPVs with commercial hybrids over locations	BWMRI released hybrids over commercial hybrids	Jamalpur, Jessore, Rajshahi
31.	Observation yield trial of promising hybrids with commercial hybrid over locations	• To the yield performance of promising hybrids with commercial hybrid at large plots	Dinajpur, Gazipur, Jamalpur, Jessore, Rajshahi
32.	Evaluation of single cross hybrids of field corn at different locations	• To identify stable, high-yielding hybrids	Dinajpur, Jessore, Gazipur and Jamalpur
33.	Comparative yield trial of imported and local maize hybrids	• To evaluate the yield trial of imported and local maize hybrids over locations	Dinajpur, Jessore, Gazipur and Jamalpur
34.	Phenotyping of the HTMA (Heat Tolerant Maize for Asia) hybrids during kharif season (3 Sets)	• To evaluate and characterize the performance of HTMA hybrids in kharif season	Dinajpur, Jessore
35.	Regional on-farm trial (ROFT) of heat-tolerant maize hybrids (2 sets)	• To evaluate the performance of HTMA hybrids in on-farm station during kharif season	Dinajpur, Gazipur and Jessore
36.	Seed production of new hybrids of field corn in isolation (2 sets)	• To increase the seed stock of promising experimental hybrids of maize for demonstration and future use.	Dinajpur
37.	Development of popcorn, sweet corn and pro-vitamin A hybrids	• To produce and identify superior single-cross combinations with high heterotic effects	Dinajpur
38.	Seed production of the parental lines of different released maize hybrids (6 sets)	• To maintain the inbred lines of BARI- and BWMRI-releasing hybrids for further use.	Dinajpur
39.	Seed production of BWMRI/BARI hybrid maize (4 sets)	• To increase the seed stock of the BWMRI/BARI-released hybrid varieties of maize to be used for demonstration and future use	Thakurgaon and Dinajpur
40.	Maintenance and seed production of composite maize varieties (2 Sets)	• To increase the seed stock, to supply breeders' seeds to BADC and others, and to maintain the composite variety	Debiganj, Rajshahi
41.	Bangladesh coordinated maize (BCM) trial during rabi season	• To generate robust data through multilocation (on-farm/on-station) trials on best-bet/final-stage hybrids selected from on-station trials	Dinajpur (Nashipur), Jessore, Kushtia (Bittipara) and Nilphamari (Joldhaka)

Sl. No.	Research Title	Objective(s)	Location(s)
42.	Bangladesh coordinated maize (BCM) trial during kharif season	• To generate robust data through multilocation (on-farm/on-station) trials on best-bet/final-stage hybrids selected from on-station trials	Dinajpur (Nashipur), Jessore, Kushtia (Bittipara) and Nilphamari (Joldhaka)
43.	Long-term bed planting trial for improving crops productivity and soil fertility in wheat-mungbean-rice cropping pattern	• Crop residue management and beds, along with efficient N fertilization strategies, are likely to be key components of new farming practices that can increase and maintain yields from the intensive RW system in Bangladesh	BWMRI, RS, Rajshahi
44.	Response of newly evolved wheat, maize and rice varieties under conservation agriculture systems	• To select the suitable wheat, maize and rice varieties under conservation agriculture system and establish this pattern in drought prone area.	BWMRI, RS, Rajshahi
45.	Effects of newly developed herbicides on the growth and yield of wheat	• To select suitable newly developed herbicides and weed control efficiency on the growth and yield of wheat.	BWMRI, RS, Rajshahi
46.	The effect of variety and time of de-topping on grain and forage yield of maize	• The present study was undertaken with the objective of examining the time of de-topping effects on grain and forage yield of maize varieties.	BWMRI, Dinajpur
47.	Evaluation of pre-emergence herbicide to control weeds in wheat	• To find out an effective pre-emergence herbicide for the control of weeds in wheat field.	BWMRI, Dinajpur
48.	Evaluation of different herbicides to control weeds in maize field in kharif season	• This experiment was carried out to find out the proper agronomic management along with post-emergence herbicides to reduce the costs and risks of intensive weed control in maize field.	BWMRI, Dinajpur
49.	Effect of different spacing and nitrogen levels on green cob and forage yield of baby corn	• The experiment was carried out to study the effect of planting spacing and nitrogen on yield performance of Baby corn.	BWMRI, Dinajpur
50.	Response of newly evolved maize varieties to fertilizer	• To find out the suitable fertilizer doses for newly evolved maize varieties with a view to getting higher yield and economic return.	BWMRI, RS, Jamalpur
51.	Effect of different post emergence herbicides to control weeds in wheat	• The study was undertaken to find out effective post emergence herbicides for higher wheat production.	BWMRI, RS, Jamalpur

Sl. No.	Research Title	Objective(s)	Location(s)
52.	Screening of wheat genotypes against salinity at early vegetative stage in hydroponic system	The aim of this study was to investigate the variation among genotypes and to select suitable variables for salinity tolerance.	BWMRI, RS, Gazipur
53.	Field evaluation of some selected wheat genotypes for salinity tolerance in southern Bangladesh	The trial was under to find out wheat germplasm with salinity tolerance adapted to Southern Bangladesh.	Kolapara, Patuakhali and Amtoli, Barguna
54.	Verification of sowing time of newly released maize varieties	The study was taken to conduct the multiplication trials to find out the optimum sowing time of newly released maize varieties.	BWMRI, Dinajpur and BWMRI, RS, Rajshahi
55.	Effect of Different Levels of Nitrogen on Productivity and NUE of Maize Hybrids	- To find out the NUE of newly developed maize hybrids - To evaluate the productivity of maize hybrids on different nitrogen doses	Research Field, BWMRI, Dinajpur
56.	Effects of Nano Urea (Liquid) on Phenology, Growth and Yield of Wheat	- To examine the impact of foliar application of nano Urea on wheat yield and find out the balance dose for sustainable wheat production - To assess the economic viability and save environment from pollution	Research Field, BWMRI, Dinajpur
57.	Effects of Nano Urea (Liquid) on Phenology, Growth and Yield of Maize	- To examine the impact of foliar application of nano urea on maize yield and find out the balance dose for sustainable maize production - To assess the economic viability and save environment from pollution	Research Field, BWMRI, Dinajpur
58.	Effects of Nano DAP on Phenology, Growth and Yield of Wheat	- To examine the impact of foliar application of nano DAP fertilizer on wheat yield and find out the balance dose for sustainable wheat production - To assess the economic viability and save environment from pollution	Research Field, BWMRI, Dinajpur
59.	Effects of Nano DAP on Phenology, Growth and Yield of Maize	- To examine the impact of foliar application of nano DAP fertilizer on maize yield and find out the balance dose for sustainable maize production - To assess the economic viability and save environment from pollution	Research Field, BWMRI, Dinajpur
60.	Effect of NEB (Nitrogen Efficiency for Bioavailability) on the growth and yield of Maize	- To evaluate the effectiveness of NEB for maximum yield of maize - To determinate the proper ratio of NEB for optimum yield of maize	Research Field, BWMRI, Dinajpur

Sl. No.	Research Title	Objective(s)	Location(s)
61.	Evaluation of wheat germplasm against Bipolaris leaf blight under field conditions	• To find out resistant/tolerant germplasm against BpLB under field conditions	Dinajpur, Jamalpur, Jashore
62.	Evaluation of wheat genotypes for resistance to Bipolaris leaf blight under inoculated field conditions	• To evaluate adult plant resistance wheat lines to Bipolaris Leaf blight under inoculated condition	Dinajpur
63.	Evaluation of wheat genotypes for resistance to leaf rust under inoculated field conditions	• To evaluate the response of wheat lines for resistance to leaf rust under inoculated condition	Dinajpur
64.	Efficacy of fungicides in controlling Bipolaris leaf blight of wheat	• To evaluate the efficacy of some new fungicides in controlling BpLB disease of wheat	Dinajpur
65.	Efficacy of fungicides in controlling leaf rust of wheat	• To evaluate the efficacy of some new fungicides in controlling leaf rust disease of wheat	Dinajpur
66.	Monitoring and evaluation in international wheat disease nurseries	• To evaluate the wheat lines from CIMMYT-Mexico for resistance to spot blotch, stem rust, Fusarium head blight diseases under natural field conditions	Dinajpur, Jamalpur, Jashore
67.	Surveillance of rusts and blast of wheat in Bangladesh	• To know the status of wheat rust and blast disease in fields • To identify signs of emergence of the virulent strains of wheat rust and blast	Major wheat growing areas of Bangladesh
68.	Evaluation of wheat germplasm against wheat blast under field/inoculated conditions	• To find out resistant/tolerant germplasm against wheat blast under inoculated field conditions	Dinajpur, Jashore
69.	Evaluation of elite wheat lines for resistance to blast under inoculated conditions	• To find out resistant/tolerant line(s) against wheat blast under inoculated conditions	Jashore
70.	Efficacy of foliar fungicides in controlling wheat blast	• To evaluate the effectiveness of new fungicides in controlling wheat blast	Dinajpur, Jashore
71.	Determining status of seed-borne fungi including <i>Magnaporthe oryzae</i> pathotype <i>Triticum</i> causing wheat blast	• To determine the prevalence of seed-borne fungal pathogens along with wheat blast pathogen in the tested seeds	Dinajpur, Jashore, Jamalpur, Gazipur & Rajshahi

Sl. No.	Research Title	Objective(s)	Location(s)
72.	Molecular detection of wheat blast fungus using MoT3 assay	• Confirmation of Triticum pathotype of wheat blast fungus using MoT3 primer	Dinajpur
73.	Wheat blast: Precision Phenotyping Platform	• To find out resistant/tolerant sources against wheat blast under disease conducive environment	Jashore
74.	Sporulation capacity of <i>Magnaporthe oryzae</i> (MoT) in different culture media and identifying virulent isolate	• To find out the most suitable culture media for sporulation of the fungus and identify the most virulent isolate	Dinajpur
75.	Development of differential lines against wheat blast	• To develop/buildup differential line(s) against blast disease	Dinajpur
76.	Assessment of genetic diversity and population structure of <i>Magnaporthe oryzae</i> of wheat and some other hosts blast isolates through whole genome sequencing	• To identify the genetic diversity and the range of the host population structure of the <i>Magnaporthe oryzae</i> (MoT)	Dinajpur
77.	Surveillance and monitoring of diseases of maize in Bangladesh	• To identify the maize diseases and assess disease severity in fields	Major maize growing areas of Bangladesh
78.	Efficacy of fungicides in controlling leaf blight of maize	• To evaluate the efficacy of fungicides in controlling leaf blight disease of maize	Dinajpur
79.	Disease evaluation of maize genotypes in different maize trials of BWMRI	• To evaluate the Maize lines from BWMRI maize breeding division against different disease under natural condition	Dinajpur
80.	Evaluation of maize genotypes against Fusarium stalk rot under field conditions	• To evaluate maize lines against Fusarium stalk rot disease under field conditions	Dinajpur
81.	Efficacy of new fungicides in controlling leaf rust of Maize	• To evaluate the efficacy of some new fungicides in controlling leaf rust disease of maize	Dinajpur
82.	Chemical management of Fusarium stalk rot of maize	• To evaluate the efficacy of fungicides in controlling Fusarium stalk rot disease of maize	Dinajpur
83.	In vitro inhibitory effect of fungicides, bio-agents and botanicals on morpho-	• To find out effective fungicide (chemical/bio-agent) for controlling Fusarium spp.	Dinajpur

Sl. No.	Research Title	Objective(s)	Location(s)
	physiological characters of <i>Fusarium</i> species, the cause of Fusarium stalk rot of maize		
84.	Efficacy of seed treating fungicides in reducing prevalence of seed-borne pathogens and control of seedling diseases of wheat and maize	• To assess the effectiveness of seed-treating fungicides in reducing seed-borne pathogens and controlling seedling diseases in wheat and maize	Dinajpur
85.	Evaluation of maize genotypes against Bacterial stalk rot under field conditions	• Evaluate maize lines against Bacterial stalk rot disease under field conditions	Dinajpur
86.	Isolation and Identification of the causal agent of Bacterial Stalk Rot of maize	• To isolate the bacterial pathogen responsible for Bacterial stalk rot disease	Dinajpur
87.	Morphological and molecular characterization of insect pests of maize and their natural enemies	• Identification and documentation of insect pests of maize and their natural enemies	BWMRI, Dinajpur
88.	Morphological and molecular characterization of insect pests of wheat and their natural enemies	• Identification and documentation of insect pests of wheat and their natural enemies	BWMRI, Dinajpur
89.	Screening of BWMRI released composite and hybrid maize varieties/lines against Fall Armyworm in confined condition	• To find out the susceptible/ resistant genotypes and their characteristics	BWMRI Insectarium, Dinajpur
90.	Efficacy test of new and some selected insecticides against Fall Armyworm	• To test the efficacy of new insecticides	BWMRI, Dinajpur
91.	Development of biorational management package to control fall armyworm of maize in Kharif season	• To observe the IPM package to combat fall armyworm in Kharif season	BWMRI, Dinajpur
92.	Validation trials on the developed IPM package for maize in farmers' fields	• To validate the IPM package in the farmers' fields and sharing the knowledge with progressive farmers	Chuadanga, Dinajpur
93.	Efficacy of Biopesticides against Fall Armyworm on Maize	• To assess the effectiveness of different biopesticides in controlling Fall Armyworm on maize	BWMRI, Dinajpur

Sl. No.	Research Title	Objective(s)	Location(s)
94.	Development of two-wheel tractor operated multi-till seeder for maize under conservation agricultural practices	• Development of two-wheel tractor operated multi-till seeder • Performance evaluation of the developed MTS in the field condition for Maize under CA Practices • Evaluation of the expenditure of crop production by CA Practices comparison with conventional crop production systems.	BWMRI, Nashipur, Dinajpur
95.	Improvement and fine tuning of seed box of existing inclined type seed metering system of maize planter	• To decrease missing rate or confirm 100% seed dropping for planting of maize • To test and evaluate the performance of the developed implements.	BWMRI, Nashipur, Dinajpur
96.	Performance test of mini power tiller operated weeder for weeding of maize	• To evaluate the field efficiency of the mini power tiller-operated weeder in maize cultivation. • To assess labor cost savings compared to traditional weeding methods.	BWMRI, Nashipur, Dinajpur
97.	On-farm trial of BWMRI released wheat varieties	• To evaluate the varietal performance of BWMRI released wheat varieties • To popularize new wheat varieties and replace local variety(s) • To reduce the dependency on local varieties	Three upazilas: Haripur, Baliadangi, and Ranishankoil in the Thakurgaon district
98.	Effect of Dolomite Lime on the Yield of Wheat and Maize in Acidic Soils	• To study the effect of dolomite on the correction of Soil pH and yield performance of wheat and maize	Thakurgaon and Panchagarh district
99.	On-Farm Demonstration of BWMRI Released Wheat Varieties in Different AEZs of the Country	• Country-wide popularizing and disseminating of BWMRI released wheat varieties	Dinajpur, Thakurgaon, Panchagarh, Kurigram, Lalmonirhat, Faridpur, Gopalganj, Barishal, Patuakhali, Borguna, Bhola, Feni, Habiganj, Khagrachari, Rajshahi, Natore, Pabna, Chapainawabganj,

Sl. No.	Research Title	Objective(s)	Location(s)
			Chuadanga, Meherpur, Jhinaidah, Khulna, and Jamalpur.
100.	On-Farm Demonstration of BWMRI Released Maize Varieties in Different AEZs of the Country	• Country-wide popularizing and disseminating of BWMRI released wheat varieties	Dinajpur, Thakurgaon, Panchagarh, Tangail, Manikganj, Kishorganj, Barishal, Patuakhali, Faridpur, Feni, Habiganj, Borguna, and Chapainawabganj



SOIL RESOURCE DEVELOPMENT INSTITUTE

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SOIL RESOURCE DEVELOPMENT INSTITUTE

Sl. No.	Research Title	Objective(s)	Location(s)
SOIL CONSERVATION & WATERSHED MANAGEMENT CENTRE, BANDARBAN			
1.	Analyzing the performance of Piper chub (Chui Jhal) SN Agroforestry Practices in the context of Chittagong Hill Tracts.	- To assess the growth and productivity of <i>Piper chaba</i> in agroforestry systems in Chattogram Hill Tracts - To analyze the economic viability and profitability of incorporating <i>Piper chaba</i> in agroforestry practices.	Soil Conservation & Watershed Management Centre
2.	Performance Assessment of Khasia Betel Leaf as an Agroforestry Practice in Chittagong Hill Tracts.	- To assess the growth and productivity of Khasia Betel Leaf plants in an agroforestry system - To evaluate the economic viability of Khasia Betel Leaf cultivation in Chattogram Hill Tracts	Soil Conservation & Watershed Management Centre
3.	Studying the performance of water melon in rainy season on hill slopes using soil conservation techniques.	- To find out the suitability of water melon without irrigation (rainy season) at hill slopes. - To compare soil loss, runoff and nutrient mining under different hedge species & different slopes. - To find out a significant source of income.	Soil Conservation & Watershed Management Centre
4.	Studying Brome Grass for Controlling Soil Kerosene and Its Economic Value Eight Hundred.	- To find out a significant source of income. - To prevent frequent landslides, retain ground moisture and to increase soil fertility. - To provide green forage for livestock. - To rehabilitate the endangered animals and to keep ecological balance.	Soil Conservation & Watershed Management Centre
5.	Effect of indigenous & zero tillage cultivation methods of pine meal and soil on kerosene, runoff, nutrient mining in hilly areas.	- To estimate & compare soil loss, runoff and nutrient mining under indigenous and zero tillage cultivation systems of pineapple. - To calculate effect of soil loss on soil chemical properties. - To create awareness about soil conservation & watershed management among hill dwellers.	Soil Conservation & Watershed Management Centre
6.	Studying Brushboard Check Prices for Minimizing Kerosene Hazard and Resilience of Gullid Land.	- To reduce the velocity of run-off. - To prevent deepening and widening of the gully. - To collect sedimentation and to recharge the water table.	Soil Conservation & Watershed Management Centre
SALINITY MANAGEMENT AND RESEARCH CENTER, BATIAGHATA, KHULNA			
7.	Effect of Different types of organic matter on Soil Salinity and Yield of	To examine how various forms of organic matter affect the soil salinity level	Salinity management and Research Center

Sl. No.	Research Title	Objective(s)	Location(s)
	Sweet gourd in Coastal Saline Soil	To analyze how organic matter amendments affect crop yield and soil characteristics over the long run	
8.	Avoiding soil salinity through different sowing method of sweet gourd in coastal saline soil	- To develop sustainable agricultural practices for coastal saline soils - To determine the optimal rate of soil salinity for maximum salinity reduction and yield enhancement	Salinity management and Research Center
9.	Effect of different strength of soil salinity on growth and yield of cauliflower	- To improve crop yields and soil health through saline treatment - To develop modern agricultural practices for coastal saline soils	Salinity management and Research Center
10.	Effect of different strength of soil salinity on growth and yield of cabbage	- To determine the threshold level salinity level that significantly affects cabbage growth and yield - To evaluate the physiological and biochemical responses of cabbage plants to different salinity levels	Salinity management and Research Center
11.	Effect of different strength of soil salinity on growth and yield of knol khol	- To identify salinity tolerant knol khol cultivars or genotypes - To develop effective salinity management strategies for knol khol cultivation in saline affected areas	Salinity management and Research Center
12.	Effect of different strength of soil salinity on growth and yield of red beet	- To identify the best saline tolerant red beet cultivars - To develop Improved irrigation practices for red beet cultivation in saline affected areas	Salinity management and Research Center
13.	Effect of ground water table & salt concentration on top soil salinity	- To quantify the influence of different salt concentrations in groundwater on top soil salinity - To identify the optimal groundwater depth and salt concentration to minimize top soil salinity	Salinity management and Research Center



BANGLADESH TEA RESEARCH INSTITUTE

BTRI

BANGLADESH TEA RESEARCH INSTITUTE

Sl. No.	Research Title	Objectives	Location
SOIL SCIENCE DIVISION			
1.	Comparative study of conservation and conventional agriculture practice in small holding tea cultivation in response to climate change.	- To efficient use of external and natural resources. - To economic profitable and viable for small holders. - To reduce the mortality rate of new plantation in dry season.	Bilashcherra Experimental Farm
2.	Effect of different pruning operation on tea soil properties and nutrient uptake by tea plants vis a vis starch reservation.	- To know the properties of tea soil (Physical, chemical and some microbial) before and after pruning operations. - To know the status of nutrient uptake by tea plants. - To know the status of starch reservation due to pruning operations.	BTRI Farm, BTRI Fatikchhari Substation, Jagcherra Tea Estate and Ghazipore Tea estate.
3.	Potentiality of different oil cakes as a soil amendment for improving soil properties and yield of tea.	- To find out the optimum dose and proper time different oil cakes. - To compare the efficacy of two oil cakes Mustard oil cake and Neem cake as soil amendments. - To improve soil health and yield of tea.	BTRI Farm
4.	Comparative studies of soil properties under different vegetation in the tea estates of Chattogram region.	- To assess and compare physical and chemical properties of soil under different land vegetation in the tea garden of Chattogram valley. - To provide suggestion about the land in the tea gardens under other type of vegetation and fallow land to bring them under tea plantations.	Chittagong region
5.	Formulation of an Organic Fertilizer cum Pesticides: FCP (Organo 2 in 1) and study the efficiency on tea plant.	- For formulation a new pattern of a fertilizer. - To determine the quality and effectiveness of the organic fertilizer. - To determine the effectiveness of the organic fertilizer as bio pesticide. - To improve the soil health and growth of tea as well as increase the yield of tea.	BTRI Farm
6.	Status of Boron in the tea garden soils and its effects on the yield of mature tea	- To determine the status of boron in the tea garden soils. - To identify the effects of boron on the yield of tea. - To estimate the optimum dose of boron for mature tea plantation.	BTRI Farm

Sl. No.	Research Title	Objectives	Location
BIOCHEMISTRY DIVISION			
7.	Effect of storage time and packaging materials on the quality of black tea (2022-2024)	- To determine how the flavor attributes of tea changes over time during storage. - To identify the best packaging material for the storage of tea. - To determine the shelf life of tea under a specific packaging material.	Biochemistry Division, BTRI, Srimangal, Moulvibazar
8.	Effect of Brassinosteroids on the yield and quality improvement by influencing formation of biochemical components in tea (2022-2023)	To improve the yield and quality of the tea by the application of phytohormone Brassinosteroids.	Biochemistry Division, BTRI, Srimangal, Moulvibazar
BOTANY DIVISION			
9.	B1-28: Selection of Vegetative Clones at Amo T. E., Section No. 8	- To isolate desirable mother bushes from the existing variable seedling population. - To identify promising plants having yield and quality potential through exploiting existing variability	Amo Tea Estate
10.	B1-31: Selection of Vegetative Clones at Baraoorah T. E., Section No. 8	N/A	Baraoorah Tea Estate
11.	B2-40: Yield and Quality Trial of Six Test clones – MZ/39, E/4, D/13, B2T1, BR2/97 and SDL/1 against Standard BT2	To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
12.	B2-41: Yield and Quality Trial of Four Test clones Selected from Amo T. E.; Test clones – A/8/37, A/8/55, A/8/62 and A/8/66 against Standard BT2	To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
13.	B2-42: Yield and Quality Trial of Four Test clones Selected from Phulcherra, Amo and Shumshernugger T. Es.; Test clones – A/17/16, Ph/9/1, Ph/9/9 and Sh/B/6/46 against Standard BT1.	To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
14.	B2-43: Yield and Quality Trial of Four Test clones Selected from Phulcherra and Hybrid Progeny; Test clones– Ph/9/4, Ph/9/25, Ph/9/40 and BS/67 against Standard BT5.	To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
15.	B2-44: Yield and Quality Trial of Three Test clones Selected from Amo and Phulcherra T. Es.; Test	To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field

Sl. No.	Research Title	Objectives	Location
	clones– A/8B/1, Ph/9B/1, Ph/9/11 and against Standard BT1.		
16.	B2-45: Yield and Quality Trial of Three Test clones Selected from Amo, Phulcherra and Shumshernugger T. Es.; Test clones- A/8/61, Ph/9/68A, Sh/D/11/18 (retrial from Expt. B2-26) and One Introduced Clone SC/12/28 against Standard BT2	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
17.	B2-46: Yield and Quality Trial of Four Test clones Selected from BTRI Farm (Dulia Section); Test clones – D1/18, D/6, D/10 and D/12 against Standard BT5	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
18.	B2-47: Yield and Quality Trial of Four Test clones Selected from Phulcherra T. E. and BTRI Germplasm Bank; Test clones- Ph/9/92, BS/3, Ph/9/108 and G/61/8 against Standard BT15.	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
19.	B2-48: Yield and Quality Trial of Four Test clones Selected from Shumshernugger and Amo T. Es. Test clones – A/8/124, Sh/10/2, A/8/125 and A/11/38 against Standard BT2.	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
20.	B2-49: Yield and Quality Trial of Four Test clones Selected from Shumshernugger T.E. (Sh/10/5, Sh/D/13/4 and Amo T. Es. Test clones – A/8/128, BS/91/6, against Standard BT2	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
21.	B2-50: Yield and Quality Trial of Three Test Clones Selected from Baraoorah T.E. and Shumshernugger T.E. Test Clones – B/8/79, Sh/9/43 and B/8/93 against Standard BT2 and BT17	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
22.	B2-51: Yield and Quality Trial of Two Test Clones Selected from Amo T.E., and Shumshernugger T.E.; Test Clones – A/8/194 and Sh/9/65 against Standard BT2, BT17 and BTS1. (BTRI, 2015-	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field

Sl. No.	Research Title	Objectives	Location
	2032).		
23.	B2-52: Yield and Quality Trial of Four Test Clones Selected from Amo T.E., Baraoorah T.E., and Shumshernugger T.E.; Test Clones– B/8/97, B/8/101, Sh/9/71 and A/8/217 against Standard BT2 (BTRI, 2017-2034).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
24.	B2-53: Yield and Quality Trial of Four Test Clones Selected from Amo T.E., Baraoorah T.E., and Shumshernugger T.E.; Test Clones– B/8/131, B/8/144, Sh/9/85 and A/8/254 against Standard BT2 (BTRI, 2017-2034).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
25.	B2-54: Yield and Quality Trial of Four Test Clones Selected from Rajghat T.E. (Biddyabil Division), Amrail T.E., and Madhabpur T.E.; Test Clones– P/RJG/8/80, P/AML/14/98, P/RJG/11/106 and P/MDP/13/70 against Standard BT2 (BTRI, 2019-2036).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
26.	B2-55: Yield and Quality Trial of Four Test Clones Selected from Rajghat T.E. (Biddyabil Division), Kurmah T.E., and Champarai T.E.; Test Clones– P/RJG/6/57, P/KRM/11/46, P/RJG/6/48 and P/CHM/18/79 against Standard BT2 (BTRI, 2019-2032).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
27.	B2-56: Long term Yield and Quality Trial of Four Test Clones (Multi-location trail) at Amo Tea Estate	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
28.	B2-57: Long term Yield and Quality Trial of Four Test Clones (Multi-location trail) at Hafiz Tea Estate	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
29.	B2-58: Yield and Quality Trial of Four Test Clones Selected from Chandbagh T. E., Teliapara T.E., (Satchori Division), Kapnapahar T. E., Madhabpur T. E.; Test Clones– P/CHB/18/67, P/TLP/5/58,	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field

Sl. No.	Research Title	Objectives	Location
	P/KPR/56 and P/MDP/12/41 against Standard BT20 (BTRI, 2019-2032).		
30.	B2-59: Yield and Quality Trial of Four Test Clones Selected from Monipore T. E., Amrail T. E., Rajghat T.E. (Biddyabil Division); Test Clones– P/MPR/16a/99, P/AML/12/20, P/MPR/16a/78 and P/RJG/6/19 against Standard BT15 (BTRI, 2019-2032).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
31.	B2-60: Yield and Quality Trial of Three Test Clones Selected from Bethelpara para and Lairunpi para from Ruma Upazila of Bandarban District; Test Clones– P/RU/LAI/13, P/RU/BTL/49 and P/RU/LAI/53 against Standard BT19 (BTRI, 2020-2033).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
32.	B2-61: Yield and Quality Trial of four Test Clones; Test Clones– P1, P2, P3 and P4 against Standard BT2 (BTRI, 2021-2033).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
33.	B2-62: Yield and Quality Trial of Three Test Clones; Test Clones– A1, A2 and A3 against Standard BT13 (BTRI, 2021-2033).	• To select promising test clones having desirable characteristics i.e. yield, quality, tolerant to insect, disease, drought etc.	BTRI experimental field
34.	B3-1.1: Controlled Pollination between Selected Clones/Agrotypes and Selection of Generative Clones for the Establishment of Clonal Seed Reserve (1964-)	• To identify suitable generative clones or agrotypes for hybrid seed (biclonal seed) production having desirable characteristics	BTRI experimental field
35.	B3-1.3: Establishment of polyclonal seedbaries according to the proposed model by the Institute and observation on the open pollinated progenies.	• To identify suitable generative clones or agrotypes for hybrid seed (biclonal seed) production having desirable characteristics	BTRI experimental field
36.	B3-1.5: Establishment of a Biclonal Seedbarie with Clones TV18 and BT3.	• To identify suitable generative clones or agrotypes for hybrid seed (biclonal seed) production having desirable characteristics	BTRI experimental field
37.	B3-8: Survey and Conservation of Gene Resources of Tea in Bangladesh (BTRI, 1981-)	• To collect and ex-situ conservation of genetic resources of tea (tea germplasm) from home and abroad in order to use in future for varietal improvement	BTRI experimental field
38.	B3-11: a. Survey and isolation of	• To collect and ex-situ conservation of	BTRI

Sl. No.	Research Title	Objectives	Location
	mother bush of breeding value in Parkul Tea Estate Seed Barie	genetic resources of tea (tea germplasm) to use in future for varietal improvement	experimental field and Parkul Tea Estate
39.	B3-11: b. Survey and isolation of mother bush of breeding value in Monipore Tea Estate Seed Barie	• To collect and ex-situ conservation of genetic resources of tea (tea germplasm) to use in future for varietal improvement	BTRI experimental field and Monipore Tea Estate
40.	B3-11: c. Survey and isolation of mother bush of breeding value in Merina Tea Estate Seed Barie	• To collect and ex-situ conservation of genetic resources of tea (tea germplasm) to use in future for varietal improvement	BTRI experimental field and Merina Tea Estate
41.	B3-12: Morphological characterization of BTRI released clones, some test clones and wild genotypes.	• To identify accessions with desired traits and select entries for more precise evaluation and to develop interrelationships between, or among traits and between groups of genotypes	BTRI experimental field
42.	B3-13: Study of phenological attributes and floral morphology of some selected tea germplasm in Bangladesh	• N/A	BTRI experimental field
43.	B4-10: Effect of drought on morpho-physiological and water relations traits in tea clones at nursery level	• To screen of drought tolerant variety of tea at the nursery level and in the field condition.	BTRI experimental field
44.	B4-11: Effect of drought on morpho-physiological and water relations traits in tea clones at field level.	• N/A	BTRI experimental field
45.	B4-12: Sustainable protocol development of artisan tea and different kinds of value-added tea.	• To develop sustainable protocol of artisan tea and different kinds of value-added tea manufacturing.	BTRI experimental field
46.	B4-16. Estimation of simple equation for measuring Leaf Area of BTRI released individual clones and biclones (2021-).	• To estimate a simple equation for measuring Leaf Area of BTRI released individual clones and biclones	BTRI experimental field
47.	B4-17. Effect of number of tea leaf pubescence and rate of fermentation on made tea quality of BTRI released clones & biclones (2021-).	• To quantify the relationship between number of tea leaf pubescence and rate of fermentation on made tea quality	BTRI experimental field
48.	B4-19: Effect of nursery-tipping on the development of stem girth in different tea saplings / seedlings.	• To study the effect of nursery-tipping on the development of stem girth	BTRI experimental field
49.	B4-20: Effect of different media on	• To study the effect of different media on tea	BTRI

Sl. No.	Research Title	Objectives	Location
	tea seed germination	seed germination	experimental field
50.	B1-28: Selection of Vegetative Clones at Amo T. E., Section No. 8	- To isolate desirable mother bushes from the existing variable seedling population. - To identify promising plants having yield and quality potential through exploiting existing variability	Amo Tea Estate
AGRONOMY DIVISION			
51.	Development of a new pruning cycle for higher sustainable tea yield in the context of present climate change (2012-2025)	- To identify the best pruning cycle in the context of present climate change. - To check the possibility of reducing the percentage of LP in the cycle keeping the tea bush healthy and productive.	BTRI Main Farm, BTRI, Srimangal, Moulvibazar
52.	Implementation of grafting technique to produce composite tea plant in the nursery for increasing yield and drought resistance capacity of the plant (2020-2023)	To develop comparatively more drought tolerant tea plants as well as to increase its yield.	BTRI Main Farm, BTRI, Srimangal, Moulvibazar
53.	Mechanization in pruning and its impact on the yield of tea (2019-2023)	- To check the impact of pruning mechanization on the yield of tea. - To find out the best pruning policy using pruning/trimming machines.	BTRI Main Farm, BTRI, Srimangal, Moulvibazar
54.	Effect of light pruning (L.P.) completed at different months on growth and yield of tea (2022-2024)	To find out the best time period of light pruning (L.P) for maximizing yield of tea in the context of present climate change.	Bilashcherra Experimental Farm, BTRI, Srimangal, Moulvibazar
55.	Effect of different irrigation techniques to irrigate young tea, planted at the hot slope in tillah area (2023-2025)	- To observe the efficacy of different irrigation techniques over the control in southern part of tillah area. - To find out the most effective and economic irrigation techniques for hot slope of tillah area.	Bilashcherra Experimental Farm, BTRI, Srimangal, Moulvibazar
56.	Effect of different plucking rounds and plucking systems on yield and quality of tea at Northern Tea growing area of Bangladesh (2022-2024)	To find out the best plucking system for northern Bangladesh which will ensure the quantity as well as quality of made tea.	Regional Office, Bangladesh Tea Board, Panchagarh
57.	Development of a new pruning cycle for higher sustainable tea yield in the context of present climate change (2012-2025)	- To identify the best pruning cycle in the context of present climate change. - To check the possibility of reducing the percentage of LP in the cycle keeping the tea bush healthy and productive.	BTRI Main Farm, BTRI, Srimangal, Moulvibazar
ENTOMOLOGY DIVISION			
58.	Biopesticides as promising	To evaluate the efficacy of different sticky	Bilashcherra

Sl. No.	Research Title	Objectives	Location
	alternative to chemical pesticides for sustainable management of thrips in tea	traps with pheromone lure against thrips in tea. • To determine the efficacy of bio-rational insecticides against thrips in tea. • To find out the comparative efficacy of tested bio-insecticides.	Experimental Farm, BTRI
59.	Formulation of a new organic fertilizer cum pesticide (FCP) and study the efficiency of foliar spray on tea plants	• To determine the effectiveness of the new organic fertilizer (FCP) as a biopesticide for controlling major pests of tea.	Nematology Field Laboratory & Nematology Laboratory, BTRI
60.	Isolation, mass culture, and application of entomopathogens against major insect pests in tea	• To isolate and identify potential strains of native entomopathogens • To develop mass culture techniques and suitable formulations of those entomopathogens • To evaluate their efficacy against major insect pests in tea under laboratory and field condition.	Main Farm & Bilashcherra Experimental Farm, BTRI
61.	Survey and monitoring of new insect pests in tea due to change in climate: Causes and Remedies	• To identify the species of insect pest • To study the nature of damage the insect pest • To study the bio-ecology of the weevil and management of the insect pest	Main Farm & Bilashcherra Experimental Farm, BTRI
62.	Screening of pesticides against major insect pests in tea	• To determine the effectiveness of different groups of insecticides against major pests in tea. • To find out a wide range of alternative and economic pesticides to avoid pest resistance. • To ensure a variable choice of effective pesticides by the management.	Main Farm & Bilashcherra Experimental Farm, BTRI
PLANT PATHOLOGY DIVISION			
63.	Investigations on Phytotoxicity of commonly used fungicides for controlling tea diseases in Bangladesh.	• To determine fungicidal accumulation in the plant cells and tissues. • To assess the residue of fungicide in tea shoots.	BTRI main farm
64.	Cross Inoculation and Host Range Studies of some important tea pathogens in tea ecosystem.	• To specify the alternate, accede of tea pathogens by the multi sets of plants in tea ecosystem. • To screen out compatible and incompatible reactions. • To identify of races of pathogens in tea ecosystem.	BTRI main farm
65.	Screening of BTRI clones against	• To find out the tolerance level of BTRI	BTRI main

Sl. No.	Research Title	Objectives	Location
	different diseases of Tea (2021-2025)	released tea clones against some major diseases of tea in Bangladesh.	farm
66.	Screening of new fungicides and herbicides against different diseases and weeds in tea.	To evaluate and standardize new fungicides and herbicides against different tea diseases and weeds.	BTRI main farm and Bilashcherra Experimental Farm (BEF)
67.	Assessment of effective spraying quantity (rounds) of fungicides for maximum and balanced yield with economic importance.	- To fix the effective spraying quantity (rounds) - To assess the steady yield over the year round with economic importance	Bilashcherra Experimental Farm (BEF)
68.	Investigations on Phytotoxicity of commonly used fungicides for controlling tea diseases in Bangladesh.	- To determine fungicidal accumulation in the plant cells and tissues. - To assess the residue of fungicide in tea shoots.	BTRI main farm



BANGLADESH FOREST RESEARCH INSTITUTE

BFRI

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Sl. No.	Research Title	Objective(s)	Location(s)
SILVICULTURE GENETICS DIVISION			
1.	DNA barcoding for molecular characterization of threatened timber and medicinal plants <i>eg.</i> Asok, Chalmugra, Champa, Cycas, Dhup, Haldu, Kamdeb and Sampan.	• To identify the plant species based on extracting a DNA sequence from a tiny tissue sample. • To make a distinction from species, varieties or even inter varieties. • Molecular data will be generated and deposited to Gene bank.	Biotechnology and Genetic Engineering Lab., Silviculture Genetics Division, BFRI
2.	Macro & Micro-propagation and genetic analysis of variation in regenerated plants of. African teak oak (<i>Chlorophora excelsa</i>), Boilam (<i>Anisoptera scaphula</i>) and Taxodium (<i>Taxodium mucronatum</i>).	• To develop high micro-propagation efficiency for the selected species. • Production of quality planting stock in a short time. • Replication of improve genetic material through medium to long term conservation.	Plant Tissue Culture & Biotechnology and Genetic Engineering Lab., Silviculture Genetics Division, BFRI
3.	Micro- propagation of bamboo varieties through comparative phenomics.	• To develop <i>in vitro</i> protocol of new bamboo species Asper (<i>Dendrocalamus asper</i>), Sinicus (<i>D. sinicus</i>), Latiflorous (<i>D. latiflorous</i>), and Moso bamboo (<i>Phyllostachys edulis</i>). • Production of quality bamboo seedlings for large scale cultivation. • To develop new bamboo varieties through morphological characterization of regenerated plants.	Plant Tissue Culture and Biotechnology & Genetic Engineering Lab., Silviculture Genetics Division, BFRI.
4.	Improvement of Rubber Clones through Mutagenesis and Micro-propagation.	• To develop new rubber clones with increased latex production. • Production of high yielding rubber seedlings for large scale cultivation.	Plant Tissue Culture and Biotechnology & Genetic Engineering Lab., Silviculture Genetics Division, BFRI.
5.	Screening of seedling behavior of selected forest tree species (Dhakijam, Gandhi gajari, Garjan, Mahagony, Neem, Sal, Simul	• To find out the survivability of heat tolerant seedlings. • To determine the changes (morphological/ and physiological) of seedlings growth on temperature	Greenhouse and Nursery, Silviculture Genetics Division, BFRI.

Sl. No.	Research Title	Objective(s)	Location(s)
	and Udal) against high temperature under greenhouse and nursery condition.	and humidity. • To prepare a documentation/checklist of drought tolerant species.	
SILVICULTURE RESEARCH DIVISION			
6.	Growth assessment of established plantations at four Silviculture Research Station.	• To assess the growth performance of different tree species in four dendro-ecological regions of the country. • To determine the factors influencing the growth performance. • To determine the silvics of different forest tree species.	Charaljani Forest Research Station, Modhupur, Tangail; Keochia Forest Research Station, Satkania, Chattogram; Charkai Forest Research Station, Birampur, Dinajpur
7.	Assisted Natural Regeneration (ANR) Capacity and its Enhancement by Silvicultural treatments in Degraded Forests of Hazarikhil Wildlife Sanctuary, Chattogram.	• Site assessment to determine the feasibility of restoration the degraded secondary forests through Assisted Natural regeneration (ANR) • Identify the limiting factors that suppress the natural regeneration in succession process. • Assess the social implications on the restoration process through ANR. • Develop protocol of using ANR in large scale reforestation programs for BFD.	Hazarikhil Forest Research Station, Chattogram
8.	Restoration of degraded Hill and Sal Forest site through Assisted Natural Regeneration (ANR).	• To develop suitable ANR methods for degraded forestland area management.	Charaljani Forest Research Station, Modhupur, Tangail; Keochia Forest Research Station, Satkania, Chattogram
9.	Nursery and Plantation technique of six important Ficus species at Lawachara and Keochia Silviculture Research Stations.	• To develop nursery and plantation technique of six Ficus species.	Keochia Forest Research Station, Satkania, Chattogram; Lawachara Forest

Sl. No.	Research Title	Objective(s)	Location(s)
			Research Station, Moulavibazar
10.	Development of Nursery and Plantation techniques of two important threatened species Tali (<i>Palaquium polyanthum</i> Engl.) and Lomba Tasbi (<i>Miliusa longiflora</i> Hook. f. & Thomson) Finet & Gagnep.	• To develop nursery techniques of Tali and LombaTasbi. • To develop plantation techniques of Tali and Lomba Tasbi.	BFRI HQ Nursery, Chattogram; Keochia Forest Research Station, Satkania, Chattogram
11.	Growth assessment of established plantations at four Silviculture Research Station.	• To assess the growth performance of different tree species in four dendro-ecological regions of the country. • To determine the factors influencing the growth performance. • To determine the silvics of different forest tree species.	Charaljani Forest Research Station, Modhupur, Tangail; Keochia Forest Research Station, Satkania, Chattogram; Charkai Forest Research Station, Birampur, Dinajpur
SEED ORCHARD DIVISION			
12.	Development of seed Sources of Boilam, Dharmara, Haldu, Civit and Gutgutya through the establishment of seedling seed Orchard.	• To establish seed sources for five endangered species. • To conserve five endangered indigenous species.	Dulahazara Seed Orchard Centre, Chakaria, Cox's Bazar; Salna Seed Orchard Centre, Salna, Gazipur; Ichamoti Seed Orchard Centre, Rangunia and Hayanko Seed Orchard Centre, Bhujpur, Fatikchari Chattogram.
13.	Impact of plant growth regulators (PGRs) on seed germination, seedling behavior and establishment of seed orchard of three endangered forest tree species of Bangladesh.	• To assess the impact of different plant growth regulators (PGRs) on seed germination and seedling vigor of SilBatna (<i>Castanopsis indica</i>), Kamdeb (<i>Calophyllum polyanthum</i>) and Padauk (<i>Pterocarpus dalbergioides</i>) under nursery and	Ichamoti Seed Orchard Centre Rangunia, Chattogram

Sl. No.	Research Title	Objective(s)	Location(s)
		field conditions. • To establish seed orchard of SilBatna, Kamdeb and Padauk for future propagation.	
14.	Assessment of latex yield of established clonal and seedling orchard of rubber (<i>Hevea brasiliensis</i>).	• Find out the high yielding latex productive clones.	Hayanko Seed Orchard Centre, Bhujpur, Fatikchari Chattogram.
15.	Effect of seed source variation in morphology, seed germination and seedling growth performance of <i>Stereospermum chelonoides</i> (parul) and <i>Stereospermum colais</i> (dharmara)	• To identify desired seed sources of both species through screening and selection of seed sources. • To reveal considerable genetic variability with respect to seed morphology, seed germination and seedling growth characteristics	CHTs, Coxsbazar, Gazipur Moulavibazar
16.	Determination of suitable vegetative propagation techniques of Haldu, Dharmara, Sidha-jarul and Pitraj species	• To find out a suitable vegetative propagation technique of Haldu, Dharmara, Sidha-jarul and Pitraj	Dulahazara Seed Orchard Centre, Chakaria, Cox's Bazar; Salna Seed Orchard Centre, Salna, Gazipur; Ichamoti Seed Orchard Centre, Rangunia and Hayanko Seed Orchard Centre, Bhujpur, Fatikchari Chattogram.
17.	Production and Popularization of Quality Planting materials of ten important forest tree species of Bangladesh.	• To evaluate, produce and supply quality planting materials to the planters. • To develop linkage with planters for awareness and popularization about the benefits of quality planting materials.	Head Quarter Nursery, Seed Orchard Division, Bangladesh Forest Research Institute (BFRI); Salna Seed Orchard Centre, Salna, Gazipur; and Ukhya Seed Orchard Centre, Ukhya, Cox's Bazar.

Sl. No.	Research Title	Objective(s)	Location(s)
18.	Development of seed Sources of Boilam, Dharmara, Haldu, Civit and Gutgutya through the establishment of seedling seed Orchard.	• To establish seed sources for five endangered species. • To conserve five endangered indigenous species.	Dulahazara Seed Orchard Centre, Chakaria, Cox's Bazar; Salna Seed Orchard Centre, Salna, Gazipur; Ichamoti Seed Orchard Centre, Rangunia and Hayanko Seed Orchard Centre, Bhujpur, Fatikchhari Chattogram.
19.	Impact of plant growth regulators (PGRs) on seed germination, seedling behavior and establishment of seed orchard of three endangered forest tree species of Bangladesh.	• To assess the impact of different plant growth regulators (PGRs) on seed germination and seedling vigor of SilBatna (<i>Castanopsis indica</i>), Kamdeb (<i>Calophyllum polyanthum</i>) and Padauk (<i>Pterocarpus dalbergioides</i>) under nursery and field conditions. • To establish seed orchard of SilBatna, Kamdeb and Padauk for future propagation.	Ichamoti Seed Orchard Centre, Rangunia, Chattogram
FOREST BOTANY			
20.	Restoration and Sustainable Management of Pitachhara Forest Reserves at Matiranga upazila in Khagrachari Hill District.	• To develop a restoration and sustainable management strategy for secondary degraded forest. • To document a checklist of the flora and fauna. • To assess the soil seed bank, natural regeneration and recruitment status of tree species in different sites. • To compare physical and chemical properties of soil in forest reserve and adjacent forest area.	Matiranga upazila of Khagrachari district.
21.	Anatomical Properties of Five Imported Timber (Pinkado, Basalo, Pianma, Tali, Azobe) Species in Bangladesh.	• To determine the detail gross and minute anatomical features of the five imported species in Bangladesh. • To develop a hand lens key on anatomical properties of five species for determining better	Forest Botany Division, Xylarium lab.

Sl. No.	Research Title	Objective(s)	Location(s)
		utilization of the wood.	
22.	Assessment of Floristic Composition and Natural Regeneration Status of Inani National Park in Cox's Bazar, Bangladesh	• To prepare a checklist of forest trees, woody shrubs, herbs, climbers and pteridophyte of Inani National Park. • To assess the natural regeneration status of tree species in different habitats of Inani National Park. • To identify the forest disturbance, loss and degradation of the study area.	Cox's Bazar.
23.	Assessment of Invasive Alien Species and its management in Chunati Wildlife Sanctuary of Bangladesh	• Conduct surveys for IAS plant identification and documentation, their extent of distribution and pattern of occurrence and associated impacts on local forest biodiversity in Chunati WS. • To formulate a set of recommendations to build cost effective mechanism (containment, population reduction, eradication and mitigation) of preventing and/or controlling spread of IAS of Plants. • To create awareness among the local people of environmental impact of Invasive Alien Species.	Chunati Wildlife Sanctuary, Chattogram.
FOREST PROTECTION DIVISION			
24.	Identification and Evaluation of Entomopathogenic Fungi to Control Lepidopteran Pests of Some Important Forest Tree species [Teak (<i>Tectona grandis</i> L.), Koroï (<i>Albizia</i> spp.) and Agar (<i>Aquilaria malaccensis</i> L.)]	• To evaluate the bio-efficacy of entomopathogenic fungal species to control Lepidopteran pests of Agar, Teak and Koroï.	Rangamati, Bandarban, Khagrachari and Chattogram districts.
25.	Investigation of Rain Tree Mortality in Bangladesh Due to Pest and Pathogen and Their Management	• To know the present status of Rain tree mortality at major Rain tree plantation areas of Bangladesh • To find out the causal pest and pathogens associate with massive mortality of Rain tree • To develop a suitable management technique for key pest and pathogens responsible for Rain tree	Chattogram and Jashore districts

Sl. No.	Research Title	Objective(s)	Location(s)
		mortality	
26.	Seed and Seedling Diseases of Five Important Forest Tree Species in Bangladesh and their Management [Garjan (<i>Dipterocarpus</i> spp.), Champa (<i>Michelia champaca</i>), Raj koro (<i>Albizia richardiana</i>), Gamar (<i>Gmelina arborea</i>) and Telsur (<i>Hopea odorata</i>)]	• To record the incidence % of seed and seedling diseases of five important forest tree species at forest nurseries in different areas of Bangladesh • To investigate the impact of seed born pathogen on seed germination and seedlings growth	Chattogram
27.	Biological Control of Three Commercially Cultivated Medicinal Plant diseases in Bangladesh [Shimul (<i>Bombaxceiba</i> L.), Satamuli (<i>Asparagus racemosus</i>) and Tulsi (<i>Ocimum sanctum</i> L.)]	• To identify antagonistic fungi and bacteria • To develop a suitable management technique for biological control of major diseases of three commercially cultivated medicinal plants	Chattogram
28.	<i>Trichoderma</i> microbial fertilizer production from organic waste material and its evaluation on plant growth enhancement and disease control	• To convert organic waste materials (OWM) into organic manure by exploiting <i>Trichoderma</i> as effective microbes • To evaluate the formulated <i>Trichoderma</i> compost for plant growth enhancement and disease control as an alternative to chemical fertilizers	Chattogram
MANGROVE SILVICULTURE DIVISION			
29.	Phenological observation of mangrove species in the Sundarbans of Bangladesh in the context of climate change.	• To find the phenological characteristics of different mangrove species • To explore the changes of phenological parameters of different mangrove species	Bangladesh Sundarbans.
30.	Ecological monitoring through establishment of Permanent Sample Plots (PSPs) in the Sundarbans of Bangladesh.	• To determine the natural regeneration status of major mangrove species • To understand the vegetation composition of the Sundarbans • To determine different physicochemical parameters, such as salinity, siltation, soil pH of the Sundarbans and its effects on the regeneration	Bangladesh Sundarbans.

Sl. No.	Research Title	Objective(s)	Location(s)
31.	Conservation of mangrove species in the three arboretum areas of three salinity zones in the Sundarbans (Third phase).	• To conserve and demonstrate floral species in natural habitat in the Sundarban • To centralize threatened mangrove species • To enrich the biodiversity of the Sundarban	Bangladesh Sundarbans.
32.	Nursery and plantation techniques of Moth goran (<i>Ceriops tagal</i>) in the Sundarbans.	• To develop nursery and plantation techniques of moth goran. • To conserve the species and biodiversity.	Bangladesh Sundarbans.
33.	Ex-situ conservation of major mangrove species at the adjacent char land areas of the Sundarbans.	• To ex-situ conservation major mangrove species in the adjacent char land of the Sundarbans. • To expand the mangrove ecosystem and biodiversity.	Bangladesh Sundarbans.
34.	Enrichment and maintenance of mangrove museum.	• To collect and preserve the floral and faunal specimen from the Sundarbans. • To identify the unknown flora and fauna. • To demonstrate the forest specimens to the students, teachers, researchers and visitors.	Mangrove Silviculture Division, Muzgunni, Khulna-9000.
MINOR FOREST PRODUCTS DIVISION			
35.	Germplasm conservation and management practices of different medicinal plants	• To authenticate the correct identification of medicinal plants • To conserve medicinal plants for scientific study and demonstration • To develop a gene pool of medicinal plants species for propagation purposes	BFRI and Hinguli Research Station, Chattogram.
36.	Development of vegetative propagation technique for cashew nut (<i>Anacardium occidentale</i> L.)	• To develop a vegetative propagation technique • To facilitate the production of planting materials to improve the yield of cashew nut.	BFRI, Chattogram.
37.	Development of suitable nursery techniques of cocoa (<i>Theobroma cacao</i> L.)	• To develop nursery techniques for production of planting materials. • To popularize cultivation of the medicinal plants.	BFRI and Hinguli Research Station, Chattogram.
38.	Screening of host /nurse plants for raising chandan (<i>Santalum album</i>) plantation	• To select suitable host plants for raising chandan plantation. • To develop plantation and	BFRI, Chattogram.

Sl. No.	Research Title	Objective(s)	Location(s)
		management techniques for sustain yield.	
FOREST ECONOMICS DIVISION			
39.	Valuation of Ecosystem Services in Selected Village Common Forests of Khagrachari Hill District.	• To assess the forest resources of the VCFs. • To identify the components under provisioning, regulatory, cultural and Supporting services in the VCFs. • To estimate total economic value of the identified components under four Ecosystem services. • To determine the livelihood dependency of local communities on Ecosystem services. • Recommend the necessary measures for conservation of the VCFs to sustain the ecosystem services.	Dighinala, Panchari and Khagrachari Sadar
40.	Valuation of Ecosystem Services in Lawachara National Park, Moulvibazar.	• To assess the forest resources of the park. • To estimate total economic value of the identified provisioning, regulatory, cultural and supporting services. • To determine the livelihood dependency of local communities on ES. • To measure the importance of ES of the park to public and decision makers. • Recommend the necessary measures for conservation of the park to sustain the ecosystem services.	Lawachara National Park (LNP) covers an area of about 1250 ha.
FOREST INVENTORY DIVISION			
41.	Development of mathematical model for estimating stem volume of jhau (<i>Casuarina equisetifolia</i> L) plantations in Bangladesh.	• To find out mathematical volume equation and table of jhau in the coastal plantations of Bangladesh. • To prepare relationship between base diameter and diameter at breast height of jhau	The study has been conducted in the remnant the existence Jhau plantation in the sea beach areas of Chattogram and Cox's Bazar.

Sl. No.	Research Title	Objective(s)	Location(s)
42.	An Inventory of Bamboo Resources Grown in the Teknaf Wildlife Sanctuary and its Adjacent Villages.	- To assess the present status of bamboos in respect of stocking, species composition in Teknaf Wildlife Sanctuary and its surrounding villages - To estimate bamboo biomass in the study areas.	Teknaf Wildlife Sanctuary and its Adjacent Villages.
43.	Riparian Vegetation Analysis of the Halda River: Assessing Composition, Structure, and Ecological Functions for Conservation and Management	- To identify and document the plant species composition within the riparian zone of the Halda River. - To assess the structural attributes of riparian vegetation, including vegetation height, density, canopy cover, and spatial distribution patterns. - To assess the water quality parameters, providing insights into the influence of riparian vegetation and aquatic plants on water quality and nutrient dynamics.	Both sides of Halda River.
SOIL SCIENCE DIVISION			
44.	Effect of bamboo plantation on soil erosion minimization in the coastal areas of Chattogram	- To observe the effects of different bamboo species on soil erosion minimization - To assess the growth and survival of different bamboo species in the coastal areas of Chattogram	Premasia, of Banshkhali, upazila and Bogachatar, and Bakkhali of Sitakunda upazila in Chattogram district
45.	Assessment of soil quality for sustainable forest ecosystem of hill forest areas at Bandarban Hill District	- To assess the soil quality of different hill forest areas of Bandarban hill district - To observe the effects of soil quality of forest ecosystems	Alikadam upazila of Bandarban hill district
46.	Effects of shifting (jhum) on livelihood in Rangamati Hill District	- To assess the effects of slashing and burning on soil properties - To measure soil erosion due to shifting cultivation - To assess the loss of vegetation due to shifting cultivation - To find out the effects of livelihood pattern due to shifting cultivation	Wagga and Raikhali union of Kaptai upazila in Rangamati hill district
47.	Assessment of soil carbon and forest biomass carbon	To estimate the carbon stocks in soil (up to 100 cm depth) and	Kadigarh National Park of Bhaluka

Sl. No.	Research Title	Objective(s)	Location(s)
	stock at Kadigarh National Park of Bhaluka upazila in Mymensingh district	forests of Kadigarh National Park • To investigate some physical and chemical properties of soil under the study area • To compare soil carbon stocks of Kadigarh National Park with homestead and agricultural field adjacent to the park	upazila in Mymensingh district
WOOD PRESERVATION DIVISION			
48.	Efficacy of Calcium Fluoride and Magnesium Fluoride Nanoparticles (NPs) for Wood Protection.	• To make a potential nano-metal fluoride particles-based wood preservative against brown rot fungi. • To assess the efficacy of nano-metal fluoride particles as a wood preservative against brown rot fungi on four low density wood species.	Wood Preservation Division in BFRI
49.	Evaluation of copper-azole as wood preservative.	• To evaluate treating schedule of copper azole treated wood. • To determine the service life of treated wood	Wood Preservation Division in BFRI
50.	Characterization of Tetuya-koroi (<i>Albizia odoratissima</i> Benth.) wood for better utilization.	• To determine the treating schedule and the service life of treated Tetuya-koroi wood. • To determine the strength properties of manufacturing ply board. • To determine the physical and mechanical properties of Tetuya-koroi wood. • To determine the working and finishing properties of Tetuya-koroi wood.	Wood Preservation Division in BFRI
SEASONING AND TIMBER PHYSICS			
51.	Thermal treatment of rajkoroi (<i>Albizia richardiana</i>); mahogany (<i>Swietenia macrophylla</i>), and raintree (<i>Samanea saman</i>) wood and its effects on wood properties	• To investigate the effect of thermal treatment on the physico-mechanical properties of these wood • To study the chemical properties of thermally treated wood by using FTIR and XRD analysis • To investigate the biological resistance of thermally treated wood against fungal and termite attacks • To recommend the best thermal	Seasoning and Timber Physics Division, Bangladesh Forest Research Institute, Chattogram.

Sl. No.	Research Title	Objective(s)	Location(s)
		treatment condition for these wood	
WOOD WORKING & TIMBER ENGINEERING DIVISION			
PULP AND PAPER DIVISION			
52.	Development of De-inking Process from Used Paper as Fiber Material	- To explore a cost-effective and environment-friendly de-inking process of used book pulp; - To prepare eco-friendly packaging fiber material.	Bangladesh Forest Research Institute, Chattogram
53.	Suitability of pineapple leaf as an alternative source of fibrous material for hardboard making industries	- To find out alternative source of raw materials for hardboard industries; - To investigate suitability of hardboard making process from pineapple leaf; - To optimize pineapple leaf pulp for quality hardboard production; - To assess hardboard quality prepared from pineapple leaf.	Bangladesh Forest Research Institute, Chattogram
FOREST CHEMISTRY DIVISION			
54.	Super-hydrophobic coating of finished wood for more durability and self-cleaning.	To develop a super hydrophobic coating for finished wood.	Bangladesh Forest Research Institute, Sholashahar, Chattogram.
55.	Development of Latex-based Eco-Friendly Adhesive from Natural Rubber	- To synthesize novel bio-adhesives from NR and/or NRL that can meet the standard of traditional synthetic rubber-based adhesives. - To examine the effectiveness of the NRL-based bio-adhesives applied on different leather goods as well as wood-based applications.	Bangladesh Forest Research Institute, Sholashahar, Chattogram.
56.	Extraction and separation of potential phytochemicals of four medicinal plants in Bangladesh	- Extraction and separation of potential phytochemicals. - Isolation, purification, and characterization of potential phytochemicals.	Bangladesh Forest Research Institute, Sholashahar, Chattogram.
VENEER AND COMPOSITE WOOD PRODUCTS DIVISION			
57.	Suitability of medium density fiberboard (MDF) made from Rain tree (<i>Samanea saman</i>) wood.	To determine the suitability of medium density fibreboard made from Rain tree (<i>Samanea saman</i>) wood.	Veneer and Composite Wood Products Division (VCWPD), BFRI, Chattogram
58.	Characterization of Mitinga (<i>Bambusa tulda</i>) bamboo for	To determine the suitability of bamboo composite lumber made	Veneer and Composite Wood

Sl. No.	Research Title	Objective(s)	Location(s)
	making bamboo composite lumber.	from Mitinga (<i>Bambusa tulda</i>) bamboo.	Products Division (VCWPD), BFRI, Chattogram
REGIONAL BAMBOO RESEARCH AND TRAINING CENTER, Domar, Nilphamari			
59.	Introduction of site suitable bamboo species in Rangpur division of Bangladesh	• To find out the site suitable bamboo species for northern region of Bangladesh. • To enhance the bamboo diversity and raw materials for value added products in northern part of Bangladesh.	Khansama, Birampur, Boragari, Baghdokra, Kishoreganj and Hatibandha
60.	Effect of different bamboo plantation on soil erosion minimization in the char land of Teesta River	• To observe the effect of different bamboo plantation on the minimization of soil erosion • To assess the comparative growth performance of different bamboo species	Char lands of Teesta River in Bangladesh
WILDLIFE SECTION			
61.	Assessment of wildlife species diversity of Kadighar National Park, Mymensingh	• To identify the wildlife species of Kadighar National Park • To determine the abundance of the wildlife species of Kadighar National Park • To find out of food habit and relation of wildlife species with existing plants and habitat	Bhaluka, Mymensingh



COTTON DEVELOPMENT BOARD

CDB

COTTON DEVELOPMENT BOARD

Sl. No.	Research Title	Objective(s)	Location(s)
BREEDING DISCIPLINE			
1.	Non-Replicated Progeny Row Trial of Upland cotton	• To select the superior genotypes for new acquisition trials.	Cotton Research Center, Mahigonj Farm
2.	Replicated progeny row trial of mutant genotypes (<i>Gossypium hirsutum</i> L)	• To create high yielding and short duration variety. • To create drought tolerant variety.	Cotton Research Station. Balaghata, Bandarban.
3.	Replicated Progeny Row Trial of Upland cotton	• To select the superior genotypes for new acquisition trials.	Cotton Research Center, Mahigonj
4.	Preliminary yield trial of Upland Cotton	• To test the yield and quality performance of some newly promising lines through comparing their agronomic and ginning characters with existing standard cultivars.	Cotton Research Center, Rangpur, Dinajpur, Jashore & Gazipur.
5.	Advance yield trial of Upland Cotton	• To compare the agronomic, ginning and quality performance of some advanced lines with superior existing cultivars that currently being multiplied for release to farmers.	Cotton Research Center, Rangpur, Dinajpur, Jashore & Gazipur
6.	Candidate variety Trial / Zonal Yield Trial of Upland Cotton	• To test the yield and adaptability of some advanced lines with the existing cultivars at zonal level in farmers field that currently being multiplied for release to farmers	13 (Thirteen) Jashore, Jhenaidha, Chuadanga, Kushtia, Bogura, Rajshahi, Rangpur, Thakurgaon, Mymensingh, Dhaka, Rangamati, Khagrachari and Bandarban.
GERMPLASM EVALUATION			
7.	Evaluation and Characterization of Some Materials of Upland Cotton	• To select the superior genotypes for new acquisition trials. • To evaluate the yield and quality performance of some lines.	Cotton Research Center, Jagadishpur
8.	Plant growth studies of cotton at different hill slopes in CHT region and measure to be taken its morphological performances	• Selection of suitable cotton cultivation field in CHT • To find out development of plant growth stages at different hill slopping cultivation processes	Cotton Research Station. Balaghata, Bandarban.
MUTATION BREEDING			
9.	Evaluation of mutant genotypes under high density planting system	• To evaluate the performances of mutant genotypes in M6 generation under high density planting system	Cotton Research Centers,

Sl. No.	Research Title	Objective(s)	Location(s)
			Sreepur, Gazipur
AGRONOMY DISCIPLINE			
10.	Evaluation of High-Density Planting System (HDPS) in Cotton under different Cultivation Practices.	- To evaluate cultivation practice, plant spacing and sowing method in HDPS. - To observe insect and disease abundance in HDPS - To estimate economics of HDPS and cultivation practice.	Cotton Research Centre, Sreepur, Gazipur, Sadarpur, Dinajpur and Jagadishpur, Jashore.
11.	Comparative study on different weed control practices in cotton	- To determine the effect of different weed control measures on the growth and yield of cotton - To determine the efficiency of different measures in terms of labor and cost.	Cotton Research Center, Sreepur, Gazipur
12.	Time Of Relaying Chia with Cotton	To find out suitable time of relaying chia with cotton.	Cotton Research Farm, Sreepur
13.	Time Of Relaying Quinoa with Cotton	To find out suitable time of relaying Quinoa with cotton.	Cotton Research Farm, Sreepur
14.	Effect of Different Sowing Dates and Varieties on the Yield and Yield Contributing Characters of Cotton	- To evaluate effect of optimum sowing date on yield of cotton - To observe the performance of five genotypes on yield of Cotton - To determine the interaction of sowing dates and genotypes on yield and yield contributing characters of cotton. - All these parameters will also be evaluated nondestructively using GIS and Remote Sensing data.	Cotton Research Centre, Sreepur, Gazipur
15.	Effect of Verities and Irrigation on Yield and Yield Contributing Characters of Cotton	To determine water stress effects on the growth and yield of five different cotton verities along with the help of Remote sensing data.	Cotton Research Centre, Sreepur, Gazipur,
SOIL SCIENCE DISCIPLINE			
16.	Effect of Nitrogen on Yield and Yield Contributing Characters of Cotton	- To evaluate effect of nitrogen on yield and yield Contributing Characters of cotton. - All these parameters will also be evaluated nondestructively using GIS and Remote Sensing data.	Cotton Research Centre, Sreepur, Gazipur,
ENTOMOLOGY DISCIPLINE			
17.	Bio-efficacy of <i>Beaureria bassiana</i> against Boll worm	To know the effectiveness of <i>Beaureria bassiana</i> application against Boll worm (<i>Helicoverpa armigera</i>) larvae	Cotton Research Center, Sreepur, Gazipur

Sl. No.	Research Title	Objective(s)	Location(s)
18.	Baseline Information of pest and beneficial insects Bio-diversity of Cotton in Bangladesh	- To study the pest and beneficial insects diversity in cotton ecosystem in BD. - To study the population dynamics of pest and beneficial insects in cotton ecosystem.	Coton research centre Sreepur & BAU Research Field
19.	Field efficacy of some novel insecticides and biopesticides against sucking pests of cotton	- To evaluate the field efficacy of 7 novel insecticides and bio-pesticides against sucking insect pest of cotton - To observe the effects of pesticides on natural enemies.	Cotton research centre, Cotton Development Board, Sadarpur, Dinajpur.
20.	Efficacy of some insecticide for management of major pests of CDB Cotton M I Variety	To find out the most effective insecticide for control major pests of CDB Cotton M I Variety	Cotton research centre, Dinajpur. Bandarban
21.	Molecular investigation of severity of jassid infestation on different cotton varieties	- To investigate the degree of susceptibility or resistance among the cotton varieties. - To detect resistant variety against Jassid	Coton research centre Sreepur & BAU Research Field
22.	Efficacy of different chemicals on jassid management in cotton field	- To evaluate the efficacy of different synthetic insecticides - To determine the level of infestation of cotton Jassid	Coton research centre Sreepur & BAU Research Field
PATHOLOGY DISCIPLINE			
23.	Effect of different doses and time of Amistar top to control boll Rot of cotton	To identify effective doses and time of Amistar top to control ball Rot	Cotton Research center, Sreepur, Gazipur
24.	Effect of fungicides on seedling disease of cotton	- To compare the effectiveness of applied fungicides. - To reduce the mortality rate of cotton seedlings.	Cotton Research Centre, Rangpur
Research of DCRTT Project			
A. Breeding discipline:2023-2024 (DCRTT Project)			
25.	Hybrid Seed Production Program.	To Produce hybrid seed for distribution among the farmers	Cotton Research Farm, Jagodishpur, Jashore.
26.	Breeder Seed Production Program of Different Cotton Genotypes/lines through selfing.	To Produce Breeder seed for the maintenance of varietal purity	Cotton Research Farm, Jagodishpur, Jashore.
B. Agronomy discipline:2023-2024 (DCRTT Project)			
27.	Effect of plant spacing and Irrigation methods on growth yield and fibre quality of cotton in salain area.	- To find out suitable plant spacing for growth, yield and yield of cotton - To identify the irrigation technique for growth, yield and yield of cotton	Amtoly , Borguna

Sl. No.	Research Title	Objective(s)	Location(s)
28.	Effect of different Plant Spacing on Cotton Yield and Yield Contributing Characters of SAU-GH-04 by Removing of Monopodial Branch	• To find out the suitable spacing for the highest seed cotton yield	Cotton Research Center, Jagadishpur, Jashore
29.	A comparative study on effects of mulching and foliar application of drought mitigation chemicals on growth, yield and fiber quality of cotton under rain-fed conditions	• To find out adaptation technology for cotton production under rain-fed condition • To find out agronomic management technology for cotton production in Bangladesh.	Cotton research station, Chapainawabgonj, Amtoli, Borguna; Balagata, Bandarban; Cotton research farm, Sadarpur, Dinajpur; Jogodispur, Jashore and Sripur, Gazipur.
30.	Response of cotton genotypes to high density planting system (HDPS) in polyethene mulch for higher yield under rain-fed condition	• To find out high density planting system for suitable crop combination for higher productivity and economic return	Cotton research station, Chapainawabgonj.
31.	Impact of planting configurations on the productivity of cotton + mungbean and cotton + blackgram as intercropping systems	• To find out suitable intercropping practice for higher productivity and economic return	Cotton research station, Chapainawabgonj.
32.	Effects of mepiquat chloride and plant density on seed cotton yield	• To observe the effect of Mepiquat chloride (MC) on the vegetative growth and seed cotton yield in early sowing cotton	Cotton Research Centre, Mahigang, Rangpur.
33.	Effect of different harvest aid chemicals on crop duration and lint quality in cotton (G hirsutum).	• To decreased crop duration. • To complete harvest of total seed cotton at a time from cotton field,	Cotton Research Farm, Sadarpur, Dinajpur
34.	Intercropping of cotton with mugbean	• To know the compatibility of Mugbean for intercropping with cotton.	Cotton Research Centre, Sreepur, Gazipur
SOIL SCIENCE DISCIPLINE			
35.	Determination of Optimum Dose of NPKS for CDB tula M1	• To find out the optimum dose of NPKS for yield maximization of CDB tula M1	Cotton Research Farm, Sreepur, Sadarpur, Dinajpur, Jagodispur, Jasore.
36.	Effect of organic fertilizer on yield and quality of cotton and nutrient content of soil	• To estimate the effect of organic fertilizers on yield and quality of cotton. • To determine the nutrient status of the soil after harvesting of the crop. • To determine the organic matter content of the soil after harvesting of the crop.	Cotton Research Farm, Jashore.

Sl. No.	Research Title	Objective(s)	Location(s)
37.	Response of cotton to soil applied Boron combined with foliar spray in calcareous soil of Bangladesh	• To determine the effect of different doses of soil applied Boron (20% B) combined with foliar spray on the yield and quality of different cotton genotypes and to maximize the yield.	Location: Cotton Research, Training and Seed Multiplication Farm, Jagodishpur, Jashore.
D. Entomology Discipline			
38.	Effectiveness of some Insecticides against cotton Jassid	• To find out the best insecticides against cotton Jassid	Cotton Research Farm, Sreepur
39.	Evaluation of Insecticides for the Management of Cotton Jassid	• To know the effect of different insecticides on the abundance of jassid and beneficial arthropods. • To assess the cost-benefit and toxicity effect of the insecticides on jassid.	Cotton Research Farm, Sreepur
E. Pathology Discipline			
40.	Survey of Cotton Diseases in Bangladesh	• To know the occurrence and severity of cotton diseases at Different Location	5 locations(farm) and fields
41.	Induced mutation for the evaluation of desirable plant architecture in upland cotton (<i>Gossypium hirsutum</i>)	• Creation of new variabilities for quantitative and qualitative characters in upland cotton. • Remodeling of plant architecture emphasizing on dwarfness, compact canopy structure profuse boll setting and short duration. • Selection of insect resistance and high lint fiber yielding mutants with a view to develop new cotton varieties.	Cotton Research Centre, Sreepur, Gazipur
42.	Selection of drought tolerant genotypes through morphological traits and QTL mapping of upland cotton (<i>Gossypium hirsutum</i> L.)	• Selection of early picking of genotypes • Identification of genotypes tolerant in drought condition.	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Research & Seed Multiplication Farm, Cotton Development Board (CDB), Sreepur, Gazipur
43.	Evaluation of Promising Short Duration Cotton Genotypes Selected from Segregating Population	• To know the performance of fiber yield and quality traits of selected genotypes / advanced lines, (ii) to select the best genotypes from the segregating generation for the development of new short duration cotton variety	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Research & Seed Multiplication Farm, Cotton Development Board (CDB), Sreepur, Gazipur
44.	Genome-wide Association to Study Genetic basis of Fiber	• To understand the genetic mechanisms responsible for fiber	Department of Genetics and Plant Breeding,

Sl. No.	Research Title	Objective(s)	Location(s)
	Yield and Quality Traits in Upland Cotton	yield and quality traits, (ii) to identify and mine fiber yield and quality related quantitative trait loci (QTLs) and genes	BSMRAU, Gazipur and Research & Seed Multiplication Farm, Cotton Development Board (CDB), Sreepur, Gazipur
45.	Development of Mapping Population by Crossing Selected Parents with Resistance and Susceptible Traits	• To develop F1 generation	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Research & Seed Multiplication Farm, Cotton Development Board (CDB), Sreepur, Gazipur
46.	Development of 8-way Magic Population through Crossing of Selected Genotypes-I	• To get F1 generation of 4 hybrid combinations of 8 selected parental genotypes	Department of Genetics and Plant Breeding, BSMRAU, Gazipur and Research & Seed Multiplication Farm, Cotton Development Board (CDB), Sreepur, Gazipur
47.	Evaluation and performance analysis of some inbred and hybrid cotton varieties in coastal areas Survey and management of Cotton Diseases in Bangladesh	• To evaluate the varieties in saline soil. • Identify the suitable cotton varieties in coastal area. • To raising awareness among the coastal areas peoples to cultivate cotton • To fulfill the demand of cotton for the spinning mill and factories. • To increasing the number of cotton production in our country for the betterment of our textile sector.	Department of Agriculture, Noakhali Science and Technology University, Noakhali.
48.	Strategy to transfer high yielding cotton varieties to the farmers in the Sylhet region	• To ascertain methods followed in transferring cotton technology to the growers in different regions of Bangladesh; • To assess technological & non-technological adoption determinants of cotton varieties by the different categories of growers; • To determine suitable sowing time & lands for cotton cultivation in Sylhet region; • To ascertain best suited cotton variety in Sylhet condition;	Department of Agricultural Extension Education Sylhet Agricultural University Sylhet

Sl. No.	Research Title	Objective(s)	Location(s)
Joint Cotton Research Program under Bangladesh- Turkey- Islamic Development Bank RL project			
49.	Effect of spacing on the yield and yield contributing characteristics of Turkish Variety TV6	• To know the optimum spacing for maximizing cotton yield	Sreepur, Gazipur; Sadarpur, Dinajpur; Jagadishpur, Jashore and Balaghata, Bandarban
50.	Effect of spacing on the yield and yield contributing characteristics of Turkish Variety TV10	• To know the optimum spacing for maximizing cotton yield	Sreepur, Gazipur; Sadarpur, Dinajpur; Jagadishpur, Jashore and Balaghata, Bandarban
51.	Growing of F3 Hybrid seed	• To develop new cotton varieties following pedigree method	Mahigonj, Rangpur; Sreepur, Gazipur, Sadarpur, Dinajpur
52.	On-farm trial Evaluation of Turkish varieties at Farmers field	• To release promising cotton variety	13 Zones of CDB On- Farm trial



**BANGLADESH SERICULTURE RESEARCH
AND TRAINING INSTITUTE**

BSRTI

Bangladesh Sericulture Research and Training Institute

SL No	Research Title	Objective(s)	Location(s)
MULBERRY SECTION			
MULBERRY BREEDING			
1.	Collection Conservation of mulberry Genetic Resources and Development of Mulberry Varieties.	• To increase the genetic materials of mulberry for further varietal development.	BSRTI, Rajshahi.
2.	Collection conversation and evaluation of mulberry genetic resources.	• To select the develop varieties from open pollinated seeds.	
3.	Selection of developed mulberry varieties from open pollinated seeds.	• To available the mulberry genotype superior to the existing genotype.	
4.	Development of mulberry varieties through hybridization.	• To develop the high yielding mulberry varieties.	
SILKWORM SECTION			
5.	Conservation and evaluation of Silkworm genetic resources.	• To conserve and evaluate the Silkworm genetic resources in order to maintain the Silkworm germplasm bank in our country.	BSRTI, Rajshahi.



BANGLADESH FISHERIES RESEARCH INSTITUTE

BFRI

BANGLADESH FISHERIES RESEARCH INSTITUTE

Sl. No.	Research Title	Objective(s)	Location(s)
FRESH WATER STATION			
1.	Breeding, seed production and culture of endangered fish species in Bangladesh July 2023-June 2028	- To collect and domesticate Koitor poa (<i>J. coitor</i>), Garua (<i>C. garua</i>) and Mohashol (<i>T. tor</i>) - To study reproductive biology of the Koitor poa (<i>J. coitor</i>) - To conduct the breeding trail of Gaura (<i>C. garua</i>) - To develop control breeding technique of Shal Baim (<i>M. armatus</i>) - To develop nursery technique of Shal Baim, (<i>M. armatus</i>) in pond condition - To collect indigenous freshwater fish species from different regions for live gene-bank	Freshwater Station, Mymensingh
2.	Molecular characterization of infectious diseases in commercially important fishes and development of their vaccines July 2023 - June 2028	- To isolate and identify hypervirulent bacteria responsible for mass mortality of commercially culture fishes - To develop fish based inactivated whole cells vaccines with the local isolated bacteria against the emerging fish diseases - To formulate the vaccination regiment and evaluate the efficacy of the newly developed feed based whole cell vaccines	
3.	Genetic improvement of major carps (Rui & Catla) and DNA barcoding of fisheries resources in Bangladesh July 2023 - June 2028	- To improve Rohu and Catla stocks through selective breeding and justify with molecular techniques - To identify fisheries resources at the species level based on DNA barcoding data	
4.	Improvement of breeding and culture technique of Cuchia <i>M. Cuchia</i> July 2021 - June 2024	- To develop induced breeding technique of Cuchia, <i>M. cuchia</i>, using hormones - To improve fry to fingerlings of <i>M. cuchia</i> rearing technique using different types of feed - To improve brood management technique for controll breeding of <i>M. cuchia</i>	
5.	Production performance of Hairy River prawn, <i>Macrobrachium rude</i> with feed and fertilizer in pond condition July 2020 - June 2024	- To identify growth developmental stages of <i>Macrobrachium rude</i> in tank condition - To assess suitable partial harvesting period of gura chingri in poly-culture techniques - To identify <i>Macrobrachium</i> spp. at species level based on DNA barcoding from Mymensingh region of Bangladesh - To produce quality post larvae (PLs) of <i>Macrobrachium rosenbergii</i>	Freshwater Station, Mymensingh
6.	Development of YY GIFT production using marker	- To develop MAS-selected YY super-male of GIFT - To produce of quality mass seed of GIFT strain using	

Sl. No.	Research Title	Objective(s)	Location(s)
	assisted selection and quality bi-sex seed production of GIFT strain through cohort breeding July 2021 - June 2025	Rotational Breeding • To produce improve brood stock of Pabda following cross breeding and mass selection protocol • To produce quality seed of pabda and distribute to the fish farmers and hatchery owners	
7.	Development of breeding technique of Snakehead fish July 2021 - June 2024	• Collection & domestication of shol, Channa striata, gazar, Channa marulius, taki, Channa punctata fish • To study the reproductive biology of Channa striata, Channa marulius, Channa punctata • To develop controlled & induced breeding technique of shol, gazar and taki fish	
8.	Improved germplasm production of Carps, White pangas and pure line breeding of Kalibaush (<i>Labeo calbasu</i>) July 2021 - June 2024	• To upgrade & produce Quality seeds of Indian major carps, BFRI Suborno Rui, Catfishes & distribute among the farmer and /or hatchery owners • To develop live gene bank with quality brood stocks through implementation of effective breeding plan • To produce improve stocks of Kalibaus through cross breeding & mass selection techniques • To evaluate the growth performance of selected breeds with non-selected breeds of Kalibaus (Generation to generation)	
9.	Upgradation of pearl quality using different techniques in freshwater mussel July 2022 - June 2025	• To improve pearl quality by using different techniques in lab condition • To reduce mortality rate of operated freshwater mussel by using different treatment • To expand the technology through field trial of image pearl culture	
10.	Breeding biology of commercially important freshwater mollusk and development of culture technique with fish July 2021 - June 2024	• To investigate breeding biology of commercially important mollusk (mussel and snail) available in Bangladesh • To develop breeding technique and culture system of mollusk with fish in confined condition and pond ecosystem	
11.	Improving feed formulation and quality from conventional and non-conventional feed ingredients supplementation with amino acids for commercially important fish farming July 2020 - June 2024	• To evaluate the effect of limiting amino acids in the formulated diets for commercially important carp species; • To develop feed formulation and quality from feed ingredients for carp polyculture • To improve Spirulina platensis culture technique as fish feed ingredients • To evaluate the supplementation of spirulina in the formulated diets for improving growth of Carp species, Labeo rohita • To recommend the potential limiting amino acids and spirulina as feed additives in the formulated diets	Freshwater Station, Mymensingh

Sl. No.	Research Title	Objective(s)	Location(s)
12.	Production of small indigenous fish species using bottom clean aquaculture system in tank July 2023 - June 2026	• To observe the production performance of Shing (Heteropneustes fossilis), Magur (Clarias batrachus), Pabda (Ompok pabda), Gulsha (Mystus cavasius) and Tengra (Mystus tengra) in tank bottom clean aquaculture system • To analyze the economic benefit of bottom clean system	
13.	Species availability and develop a suitable technology of fermented dried fish product (Shidol) in floodplain region of Bangladesh July 2021-June 2024	• Refinement of suitable technology for the production of good quality Shidol • Evaluation of the sensory test of Shidol • Field validation of BFRI made Shidol in some selected areas of Bangladesh	Freshwater Sub-station, Santahar, Bogura
14.	Development of induced breeding and culture techniques of Gangetic endangered fish species July 2020 - June 2024	• Culture feasibility of Batashi and Pialy with other species in pond condition • Identification of reproductive biology of Khorsula (Rhinomugil corsula) and Gang tengra (Gagata youssoufi) fish • Development of induced breeding techniques of Kajuli, Khorsula and Gang tengra fish	
15.	Investigation on fish biodiversity and ecological condition of Jamuna and Atrai River in the context of climate change July 2023 - June 2026	• To assess the fish biodiversity of Jamuna and Atrai River • To study the effects of climatic factors and their associated events on the Jamuna and Atrai River ecology and biodiversity of fish • Identification of spawning and collection sites of carp fish eggs and larvae in River Jamuna	
16.	Development of breeding and culture technique of needle fish and river catfish July 2021 - June 2024	• To develop larval rearing technique of Kakila fish in captive condition • To develop breeding and larval rearing technique of bacha fish in captive condition • To develop culture technique of kakila and bacha fish in captive condition • To study the histology of the gonadal development of bacha fish round the year	Freshwater Sub-station, Jashore

Sl. No.	Research Title	Objective(s)	Location(s)
17.	Assessment of existing hatchery management practices and dissemination of BFRI evolved improved germplasm in Jashore region July 2022 - June 2025	• To assess the present status of fish seed production and hatchery management practices in Jashore • To identify the major problems and constraints in fish hatchery and nursery management • To evaluate the role of value chain actors and their functions for producing quality fish seed • To improve the existing brood stock in Jashore region through dissemination of BFRI evolved improved germplasm • To standardize the fish seed production, marketing system and value chain in Jashore	
18.	Stock improvement and germplasm dissemination of pabda, gulsha, tengra and BFRI Suborno rui July 2023 - June 2026	• To improve the existing brood stock management through maintaining proper scientific protocol • To disseminate quality germplasm of pabda, gulsha, tengra and BFRI Suborno rui in Jashore region	
19.	Culture suitability of <i>Barilius barila</i> , <i>Labeo angra</i> and <i>Labeo dero</i> under polyculture in farmer's pond of northern region of Bangladesh July 2021- June 2024	• To evaluate the production potential of <i>Barilius barila</i>, <i>Labeo angra</i> and <i>Labeo dero</i> under polyculture system in seasonal water bodies of farmers' field • To assess the water quality parameters of cultural water bodies • To assess the BCR of culture technologies • To disseminate suitable culture techniques of <i>Barilius barila</i>, <i>Labeo angra</i> and <i>Labeo deo</i> in different aqua-ecological zones in the northern part of Bangladesh	Freshwater Sub-station, Saidpur
20.	Study on the present status of aquatic biodiversity of Teesta and its adjacent rivers July 2022-June 2025	• To assess aquatic biodiversity of Teesta and its adjacent rivers • To determine spatio-temporal variability of biodiversity status of Teesta and its adjacent rivers • Complete cataloging of fish species of Teesta and its adjacent rivers	
21.	Development of breeding techniques and mass seed production of some important stream fishes in northern region of Bangladesh July 2023-June 2027	• To collect, identify and domesticate of important stream fishes • To study the reproductive biology and brood development of those fish species • To develop breeding protocol and mass seed production of those fish species • To establish nursery techniques of those successfully breed fishes	Freshwater Sub-station, Saidpur
RIVERINE STATION			
22.	Niche characterization of Meghna River basin: Eco-morphological and hydrodynamic modeling July 2021-June 2024	• To formulate GIS-based models to picturize causal influence of stochastic and deterministic factors • To develop models of geo-morphological and hydro dynamic aspects using GIS • To generate spatio-temporal models of niche viability in context of meteorological alterations, interaction	Riverine Station, Chandpur

Sl. No.	Research Title	Objective(s)	Location(s)
		between different attributes and niche degradation • To produce GIS-based models for characterization of entire niche to assess suitability	
23.	Climate change and anthropogenic actors affecting fisheries resources and livelihoods in Riverine ecosystem of Bangladesh July 2022-June 2027	• To determine the effects of climate change on biophysico-chemical parameters of water and water quality index • To determine the effects of climate change on riverine fish species diversity • To determine the effects of climate change on livelihood of riverine fishers along the Meghna River Basin in Bangladesh • To know the present status of the impact of climate change on riverine ecology, fish diversity and livelihood of the fishers with probable future impacts	
24.	Domestication and conservation of commercially important threatened riverine finfish July 2022-June 2027	• To collect the selected riverine fishes from wild sources • To study the food, feeding habits, and reproductive parameters of the collected fishes • To develop the brood management techniques of the fishes in captive conditions • To develop the induced breeding techniques of the selected fishes in captive conditions • To develop the nursery rearing techniques of the selected fishes in captive conditions • To assess the growth and yield performance of selected fishes in captive conditions	
25.	Impact of lunar periodicity, saline intrusion, rainfall and water discharge on Hilsa fisheries in a changing climate in Bangladesh July 2021-June 2024	• To determine the effects of lunar periodicity and tidal fluctuations on hilsa breeding and production • To assess the extent and intensity of saline intrusion on hilsa migration route in Bangladesh and its impact on hilsa abundance and distribution • To determine the impacts of rainfall and water discharge on hilsa production • To prepare a model to estimate the impact of rainfall and water discharge on hilsa production • To update hilsa management interventions and policy guidelines	Riverine Station, Chandpur

Sl. No.	Research Title	Objective(s)	Location(s)
26.	Development of value added hilsa products and optimization of storage condition July 2023-June 2026	• To determine the overall quality and shelf-life of ready-to-cook (RTC) hilsa fish ball soup and other products under vacuum and modified atmosphere packaging at refrigerated (4°C) storage condition • To know the effects of vacuum packaging on overall quality and shelf life of hilsa fish under ice and frozen storage condition • To determine the overall quality and shelf-life of ready-to-eat (RTE) fish crackers prepared from hilsa fish under vacuum and modified atmosphere packaging at room temperature.	
27.	Assessment of effectiveness of existing hilsa sanctuaries for sustainable production in Bangladesh July 2021-June 2024	• To reassess the previously identified spawning and nursery grounds of Hilsa • To identify new spawning and nursery grounds of Hilsa	
28.	Estimation of nutrient flux and primary productivity in the major nursery grounds of hilsa July 2020-June 2024	• To assess the primary productivity of nursery grounds of hilsa • To study the factors affecting primary productivity of nursery grounds of hilsa • To assess the carrying capacity of nursey grounds of hilsa • To assess the impact of hilsa management intervention on native pangas production	
29.	Refinement and validation of culture technology of cuchia in hill tract districts July 2021-June 2024	• To disseminate the M. cuchia culture in Chittagong hill tract districts • To popularize cuchia culture in hill tract area	Riverine Sub-station, Rangamati
30.	Assessment of natural breeding grounds of commercially important carps, chital, boal and baim in Kaptai lake July 2023-June 2026	• To know the current state of the previously identified natural breeding ground of commercially important carps in Kaptai Lake • To identify the specific breeding locations	Riverine Sub-station, Rangamati
31.	Population dynamics and stock assessment of two long-whiskered catfish species (<i>Sperata seenghala</i> and <i>Sperata aor</i>) in the Kaptai Lake July 2023-June 2026	• To estimate the population parameters of two long-whiskered catfish species (<i>Sperata seenghala</i> and <i>Sperata aor</i>) in Kaptai Lake • To assess the stock of two long-whiskered catfish species (<i>Sperata seenghala</i> and <i>Sperata haor</i>) in Kaptai Lake	
32.	Adoption of culture technique and bioactive compound analysis of commercially important	• To demonstrate the culture techniques of commercially important seaweeds in the Kuakata coastline • To analyze the proximate composition and mineral content of commercially important seaweeds in	Riverine Sub-station, Khepupara

Sl. No.	Research Title	Objective(s)	Location(s)
	seaweeds in mid-southern coast of Bangladesh July 2022-June 2025	Bangladesh • To determine and isolate bioactive compounds of commercially important seaweeds of Bangladesh	
33.	Domestication and captive breeding of brackishwater finfish species of Bangladesh July 2022-June 2025	• To study the food and feeding habit and reproductive biology of <i>Gagata gagata</i>, <i>Otolithoides pama</i>, <i>Sillaginopsis panijus</i>, <i>Coilia dussumieri</i> • To domesticate and brood development of <i>Gagata gagata</i>, <i>Otolithoides pama</i>, <i>Sillaginopsis panijus</i>, <i>Coilia dussumieri</i> • To develop the breeding and larval rearing techniques of <i>Gagata gagata</i>,	
34.	Development of mariculture practice of seabass (<i>Lates calcarifer</i>) in the southwest coast of Bangladesh (Component-C) July 2021-June 2024	• To develop cage culture technique of Seabass in coastal water of Bangladesh • To study growth and survival of Seabass in net cage	
BRACKISH WATER STATION			
35.	Population dynamics of important fish and shellfishes in the Sundarbans mangrove of Bangladesh July 2021-June 2024	• To assess the abundance and to estimate growth parameters of important fish and shellfish species • To calculate the mortality rate and exploitation level of selected species • To identify vulnerable size groups of a fish species in the Sundarbans.\ • To assess ichthyofaunal diversity in the major river of the Sundarbans • To recommend some fish stock management measures on the basis of stock assessment	Brackish Water Station, Khulna
36.	Potentiality of aquatic weed as alternative feed ingredients for the development of cost-effective fish feed for coastal aquaculture July 2021-June 2024	• To investigate the status of available aquatic weed in South-west region and make inventory based on morphometry and DNA barcode analysis • To observe the nutritional status (proximate compositions, macro & micro elements) of important aquatic weed • To examine the potentials of explored weed as dietary ingredients in fish feed	Brackish Water Station, Khulna
37.	Development of integrated multi-trophic aquaculture systems in South-West coast of Bangladesh July 2022-June 2025	• To develop IMTA based shrimp-fish-aquatic weed-mollusk culture to reduce feed cost • To optimize species combination and stocking density targeting sustainable in a IMTA system • To study environmental and economic benefits from IMTA system in local condition • To study energy flow of IMTA system in brackish water ponds condition	

Sl. No.	Research Title	Objective(s)	Location(s)
38.	Domestication, reproductive biology, breeding, and culture of indigenous brackishwater prawns under captive conditions July 2021-June 2024	• Identification of target prawn using taxonomic and barcoding approach • To domesticate brackishwater prawns under captive condition for brood stock development • To investigate the reproductive biology (fecundity, GSI, breeding time, embryonic development, etc.) of the prawns • To develop breeding and larvae rearing protocol of the prawns	
39.	Domestication, breeding and seed production of some commercially important brackishwater fishes July 2021-June 2024	• To enhance the survival rate of Chitra and Datina fish seed • To domesticate the commercially important fishes in brackishwater environment • To observe the food-feeding habit and reproductive biology of the fishes • To develop induced breeding, seed production and nursery management technique of the fishes	
40.	Effect of <i>Najas</i> sp. on physico-chemical parameters of soil, water and immunogenic properties in shrimp (<i>P. monodon</i>) farming July 2021-June 2024	• To assess the primary productivity and soil, water quality of pond • Comparative study on microbial community and shrimp health status • To assess the bioactivity of <i>Najas indica</i>	Shrimp Research Station, Bagerhat
41.	Prophylactic and nutritional properties of algal supplements as larval molting promoter and immune modulator in shrimp and prawn aquaculture July 2022-June 2025	• To develop pathogen checklist for prawn hatchery • To infer prophylactic activity of different natural sources • To develop improved larvae rearing technique using enriched artemia, higher nutrient rich compounds and probiotics • To develop medicated feed for shrimp and prawn culture	Shrimp Research Station, Bagerhat
42.	Application of nano particles (NPs) as feed additives and efficient therapeutic strategy for shrimp health management July 2022-June 2025	• To explore antimicrobial capabilities of different multifunctional NPs against infectious pathogens of shrimp • To develop an efficient feed additive for aqua feed industry • To assess the biocompatibility of using NPs	
43.	Isolation, production and development of indigenous microalgae based live feed supply chain for marine hatchery (Component-B) July 2023-June 2026	• To identify the commercially important native microalgae from the southwestern rivers of Bangladesh • To utilize live feed as ready primary feed for various shrimp and prawn larvae • To develop a portable photobioreactor model to facilitate pure live feed stock culture at field level	

Sl. No.	Research Title	Objective(s)	Location(s)
44.	Refinement of existing organic shrimp (<i>Penaeus monodon</i>) farming using eco-friendly management protocol in southwest region of Bangladesh July 2021-June 2024	• To assess the present status of organic shrimp (<i>P. monodon</i>) farming compared to standard protocol • To mitigate the gaps of existing culture practices according to the standard protocol	
45.	Biochemical analysis of bottom soil of ghers in relation to shrimp production July 2022-June 2025	• To assess the biochemical parameters of shrimp ghers bottom sediments • To determine the residual concentration of biochemicals in shrimp and their toxicological risk • To estimate the nutrient budget of shrimp ghers • To evaluate the energy budget of the shrimp ghers in relation to their production	
46.	Identification and culture practice of commercially important seaweeds in Bangladesh coast July 2021-June 2024	• To make a detailed inventory of available seaweed species in Bangladesh coast • To develop culture technique (indoor to field) of selected seaweed in suitable areas • To develop in-vitro tissue culture technique of some selected seaweed species • To develop integrated seaweed-fish culture technique	Marine Fisheries & Technology Station, Cox's Bazar
47.	Isolation, production and development of indigenous microalgae based live feed supply chain for marine hatchery July 2022-June 2025	• To isolate commercially important live feed from the Bay of Bengal • To utilize live feed as ready primary feed for various marine larvae • To develop a portable photo-bioreactor model to facilitate pure live feed stock culture	Marine Fisheries & Technology Station, Cox's Bazar
48.	Development of value-added products from marine fishes July 2023-June 2026	• To identify the marine fishes and their by-products used in value-added product development • To develop various value-added products i.e., fish ball, fish burger etc. from marine fishes • To develop ready-to-eat fish i.e., canned fish from potential marine fishes	
49.	Development of mariculture practice of some important fin fishes (Seabass, Mullet) in the south-east coast of Bangladesh July 2019-June 2024	• To evaluate the production and survivability of different initial size groups of seabass (<i>Lates calcarifer</i>) in an open seawater floating cage culture system • To optimize the nutritional requirements of seabass (<i>Lates calcarifer</i>) fingerlings in an indoor rearing system	

Sl. No.	Research Title	Objective(s)	Location(s)
50.	Breeding and culture of potential marine oyster and green mussel in the Bay of Bengal Bangladesh coast July 2021-June 2024	• To estimate Condition Index (CD) and Maturity Index (MI) of green mussel (<i>Perna viridis</i>) • To develop culture techniques of oyster (<i>Crassostera belchere</i>) and green mussel (<i>Perna viridis</i>) in Cox’s Bazar and other suitable areas • To develop breeding techniques of oyster (<i>Crassostera belchere</i>) and green mussel (<i>Perna viridis</i>) in captivity	Marine Fisheries & Technology Station, Cox’s Bazar
51.	Domestication and breeding of blue swimming crab (<i>Portunus pelagicus</i>) and horseshoe crab (<i>Tachyples gigas</i>) of the Bay of Bengal Bangladesh July 2021-June 2024	• To domesticate the blue swimming crab (<i>P. pelagicus</i>) and horseshoe crab (<i>T. gigas</i>) broodstock under captive/ hatchery conditions • To develop breeding technology of horseshoe crab (<i>T. gigas</i>) in captive/hatchery conditions • To develop larval, nursery & grow out management technique of blue swimming crab • To develop incubation technique and larval management horseshoe crab (<i>Tachyples gigas</i>)	
52.	Assessment of stock and standardization of the spawning potential ratio (SPR) of commercially important marine fish groups of Bangladesh July 2021-June 2024	• To estimate the life-history characteristics and stocks of commercially important marine fish species of Bangladesh • To estimate the Biological Reference Points (BRPs) and Spawning Potential Ratio (SPR) of marine fish species • To estimate stock of marine fish species using catch based MSY model (CMSY)	
53.	Development of breeding, seed production and nursery techniques of Seabass, <i>Lates calcarifer</i> July 2018-June 2025	• To develop the captive brood of Seabass • To study the reproductive biology of Seabass • To confirm the hormones and standardize the dosages in breeding of Seabass • To develop the seed production and larval rearing techniques of Seabass in Bangladesh	
HEADQUARTERS, MYMENSINGH			
54.	Field validation on maximizing growth and minimizing production cost of commercially important fish through alternate feeding schedule under on-farm demonstration July 2023-June 2024	• Refinement of suitability of the alternate feeding schedules for Thai Pangus (<i>Pangasianodon hypophthalmus</i>) • Refinement of suitability of the alternate feeding schedules for Tilapia (<i>Oriochromis nilitica</i>) • To analyze the economic benefit of the trials	



BANGLADESH LIVESTOCK RESEARCH INSTITUTE

BLRI

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SL No	Research Title	Objective(s)	Location(s)
ANIMAL PRODUCTION RESEARCH DIVISION			
1.	Strategic development of beef breed (s) in Bangladesh	• To develop suitable beef breed (s) using selective exotic beef sire (s) and native dams • To develop feeding and management system/package for crossbred beef progeny • To determine meat production efficiency and quality of different beef genotypes at certain ages	Cattle Research Farm, BLRI, Savar, Dhaka.
2.	Present status and performance evaluation of Jersey and their crosses available in Bangladesh	• To reveal the distribution, population size and production performance of Jersey and their crosses available in Bangladesh • To make a scientific document on Jersey and their crosses as evidence for future use	Dhaka Chittagong Pabna Sirajganj Random.
3.	Conservation and improvement of Native cattle	• Phenotypic and molecular characterization of native cattle • To reveal the growth, production and reproduction of native cattle • To study the distribution, density, population size and phenotypic characteristics of Natrokona Black, Hilly Black and NBG cattle through base line survey	Cattle Research Farm, BLRI, Savar, Dhaka Netrokona Sunamganj Kishorganj Coxbazar Munshiganj Rangpur Rajshahi
4.	Qualitative and quantitative improvement of Napier grass under on-station and on-farm condition	• Qualitative and quantitative improvement of Zara, Wrokuna and Pakchong grass under on station condition • Identification of suitable level of grain supplementation with defoliation height 100 cm (BMP) of Napier grass and its feeding impact on beef production performance of local growing bulls.	Fodder Research Field and Cattle Research Farm, BLRI, Savar, Dhaka.
5.	Field validation of stress tolerant mutant lines of Napier fodder developed by BLRI	• Establishment of salt tolerant Napier (BLRI grass -5) Nursery under on station & on- farm condition • Improvement of quality and quantity of stress tolerant Napier (BLRI grass -5) following BMP under on farm condition • Comparative production performance of stress tolerant mutant line of Napier grass following BLRI Recommended Practice under on-station conditions	Fodder Research Field, BLRI, Savar, Dhaka. Shyamnagar, Sathkira

SL No	Research Title	Objective(s)	Location(s)
		Genetic diversity analysis of BLRI developed Stress tolerant mutant line of Napier grass	
6.	Production and utilization of Gelatin from bovine hides	- Quality assessment of gelatin extracted from hides and skins - Value addition of dairy products by using gelatin	Animal nutrition and Meat Processing laboratory of BLRI, Savar
7.	Estimation of greenhouse gas emission factors and adopting Tier-2 method of IPCC Guidelines for Greenhouse gas (GHG) inventory in cattle in Bangladesh	- To investigate cattle characteristics (genotypes, average live weight, age, sex and production stage), activity data (number/ratio of different cattle subcategories) and animal waste management systems (AWMS) at farm level. - To estimate specific emission factors of cattle subcategories (dairy cattle, other mature and growing cattle) for enteric methane, and methane and nitrous oxide from their manure. - To adopt Tier-2 method of IPCC guidelines for calculating GHG emission inventory from cattle in Bangladesh.	Rajshahi Pabna Bogura Gaibandha Rangpur Thakurgaon Noagoan Joypurhat Dinajpur Kurigram Lalmonirhat
8.	Need assessment, technology intervention and livestock advisory development for increasing climate resilience in livestock production system	- To assess vulnerability and loss in livestock enterprise during extreme/prolonged climatic events - To identify farmers need of scientific knowledge, services and technology for increasing resilience and exploring options for their provisions - To develop sets of forecast-based advisories for livestock farmers both for extreme climatic events and regular production periods - Capacity building of climate-vulnerable farmers at a pilot scale.	Khulna Jamalpur Savar
GOAT PRODUCTION RESEARCH DIVISION			
9.	Conservation and Improvement of Black Bengal Goat at Bangladesh Livestock Research Institute and community level	- To conserve and improve Black Bengal goat through selective breeding at BLRI - To evaluate the performance of different coat color variants of Black Bengal goat (Solid Black, White Bengal, Dutch belt, Toggenburg and Brown Bengal) - To conserve and improve Black Bengal goat at community level	Goat Research farm, BLRI, Savar, Dhaka and Bhaluka, Mymensingh
10.	Artificial Insemination (AI) in Black Bengal goat	- To develop an economic Artificial Insemination (AI) protocol of goat - To validate the Artificial Insemination (AI) at field level	Goat research farm, BLRI, Savar, Dhaka, Goat research farm, Rajdhani

SL No	Research Title	Objective(s)	Location(s)
			Regional Station, BLRI, Bhaluka, Mymensingh and Rajshahi community area
11.	Identification and Screening of Tree Fodders for Goat Feeding	• Utilization of unconventional tree fodder • Ranking of tree leaves for small ruminants feeding	Bhaluka, Jashore, Rangpur, Chuadanga, Meherpur, Rajshahi
12.	Development of Entrepreneurship for Commercial Production of Complete Pellet Feed	• To develop small scale entrepreneurship for the production of complete pellet feed • To analyze business case for commercial complete pellet feed production	BLRI technology village, Sharifbag, Dhamrai, Dhaka
13.	Investigation of new emerging diseases of goats in Bangladesh	• To identify and determine the prevalence of Bluetongue (BT), Paratuberculosis and Q Fever in goats of Bangladesh • To establish effective mitigation plans	Dhaka, Faridpur, Jashore, Kustia, Chuadanga, Rajshahi, Thakurgaon, Gaibandha, Sylhet and Bandarban
SHEEP PRODUCTION RESEARCH DIVISION			
14.	Conservation and improvement of native sheep germplasm at Bangladesh Livestock Research Institute	• To develop a stock of superior native sheep germplasm and to continue their improvement at BLRI • To study the productive and reproductive performance of native sheep • Molecular characterization of Garole sheep of Bangladesh at BLRI	Sheep research farm, BLRI
15.	Evaluation of Exotic pure and their crossbred sheep in Bangladesh	• To evaluate the productive and reproductive performance of different crossbreds • To evaluate the adaptability of different crossbreds in hot and humid climatic conditions	Sheep research farm, BLRI
16.	Investigation of Pneumonic Pasteurellosis and PPR in sheep and their mitigation to develop a model sheep health management package	• To identify causal agents of Pneumonic Pasteurellosis in Sheep • To determine the effectiveness of available HS vaccine against Pneumonic Pasteurellosis in Sheep • Development of a sheep health management package against Pneumonic Pasteurellosis	Meherpur, Noakhali, Khulna, Rajshahi, Rangpur, Sylhet, Faridpur

SL No	Research Title	Objective(s)	Location(s)
	for ideal farming		
POULTRY PRODUCTION RESEARCH DIVISION			
17.	Conservation and Improvement of tropically adapted indigenous chicken variety in Bangladesh.	• To assess the performances of three indigenous chicken genotypes under intensive management, • To select parental birds (males and females) and breed them in an assortative plan for the production of twelfth generation (G12), • To estimate variance, covariance components and genetic parameters of economic traits of Indigenous Chicken genotypes, • To develop heat tolerant high yielding dual purpose variety suited for the extreme hot-humid climatic condition of Bangladesh	• BLRI, Savar, Dhaka
18.	Conservation and utilization of exotic meat and egg type chicken.	• To maintenance, conservation and improvement of four pure lines of chicken • To validate and popularize of BLRI developed egg & meat type chicken • To evaluate cross-breeds of native & locally adopted exotic germplasms	BLRI, Savar, Dhaka
19.	Genetic Improvement of egg production performance of BLRI-1 and BLRI-2 duck breeds for rural duck farming in Bangladesh.	• To evaluate the effect of selective breeding over nine generations on the genetic improvement of BLRI-1 and BLRI-2 d duck breeds. • To reveal the effect of dissemination of BLRI-1 and BLRI-2 duck breeds in field level. • To develop feeding standard for BLRI-1 and BLRI-2 duck breeds.	BLRI, Savar, Dhaka
20.	Development of meat type quail through pure breeding.	• To increase the sixth week body weight of Dhakai and BB-white quail through selective breeding. • To select parental birds (males and females) for the production of 13th generation birds.	BLRI, Savar, Dhaka
21.	Development if suitable semen cryopreservation protocol for BLRI improved indigenous chicken.	• To know the phenotypic characteristics of three types of indigenous cocks • To evaluate the semen characteristics of three types of indigenous cocks at different ages • To dilute the semen of three types of indigenous cocks • To develop semen cryopreservation protocol for indigenous chicken of Bangladesh	BLRI, Savar, Dhaka
22.	Determination of nutrient requirements for the development of feeding management guidelines for BLRI	• To investigate the effects of different energy and protein regimens on growth performance, carcass characteristics, and feed efficiency during the starter, grower and laying periods of BLRI improved ND and NN chicken	BLRI, Savar, Dhaka

SL No	Research Title	Objective(s)	Location(s)
	improved native chicken.	• To examine the effects of different energy and protein regimens on blood parameter and meat quality during the starter, growing and laying period of BLRI improved ND and NN chickens	
Strengthening of Poultry Research and Development Project			
23.	Assessing the effect of postbiotics of lactic acid bacteria on improving quality and safety of broiler meat.	• To develop suitable post-biotic concentration as a marinade in improving the safety of broiler meat. • To study the effect of developed post-biotic on improving physicochemical properties of broiler meat.	BLRI Head Quarter -Savar and Malaysia
24.	Study on the performances, heat stress tolerance and meat quality on meat-type hybrid duck produced through three-way crossing in Bangladesh.	• To produce a meat type hybrid duck by three-way crossing with phenotypic characterization • To investigate the carcass and meat quality parameters of hybridized duck and its parental lines • To establish Artificial Insemination technique on hybrid duck production • To assess the physiological, biochemical and immunological responses to heat stress on meat-type hybrid duck and it's parent's'	BLRI Head Quarter -Savar and Malaysia
25.	Development of meat-type chicken utilizing native and exotic genetic resources suitable for the climatic conditions of Bangladesh	• To assess productive and reproductive performance of F1 and F2 generation • To evaluate combining ability of F1 to F2 crossbred genotypes for both growth and egg production traits up to end of production • To get expected meat type crossbred chicken in F2 generation	BLRI Regional Station-Rajshahi
26.	Collection, conservation and improvement of specialized fowl (Turkey, Guinea fowl and Pigeon) production at BLRI.	• To establish a unique flock of specialized fowls comprising different varieties (Turkey, Guinea fowl and Pigeon) • To evaluate the productive and reproductive performance of different varieties of these three specialized fowls. • To evaluate the meat quality traits of different varieties of these three specialized fowls.	BLRI Head Quarter- Savar
27.	Production of value-added poultry meat and egg through dietary manipulation of selected herbal plants and isolation of bioactive component.	• To produce designer eggs enriching ω-3 fatty acid, oxidative stability and reduce cholesterol content using <i>M. oleifera</i>, <i>S. platensis</i>, <i>T. foenum</i> <i>gracicum</i> and <i>L. usitatissimum</i> as feed additives • To develop a standard operating procedure for isolation of bioactive component, saponin from selected above plant • To know the dietary sanonin on chicken diet to elucidate the effects on meat and egg quality, lipid	BLRI Regional Station-Rajshahi

SL No	Research Title	Objective(s)	Location(s)
		profile and oxidative stability	
28.	Screening and utilization of edible insect as a protein source in poultry diet.	• To use insects as an alternate protein source in poultry diet. • To reduce feed cost by using high-quality protein which are available in the nature. • To save the environment by using organic waste to produce insect meal in a large scale.	BLRI Head Quarter- Savar
29.	Quality and Safety Assessments for Poultry Meat Products in Bangladesh.	• To conduct a baseline survey on the availability of poultry meat products in Bangladesh • To evaluate the nutritional quality of poultry meat products • To determine the heavy metals of poultry meat products • To detect and quantify spoilage microorganism of poultry meat products	BLRI Head Quarter- Savar
30.	Productive and reproductive performances of ostrich in Bangladesh.	• To investigate the daily behavioral attitude of ostrich on reproduction. • To study the factors related to the incubation & hatching of ostrich egg at the hot-humid climatic condition of Bangladesh	BLRI Head Quarter- Savar
31.	Conservation and development of native geese production package by determining feed requirement with supplemental forages.	• To know the geese production scenario in some selected areas of each division • To establish a representative flock for the conservation and development of native geese varieties. • To determine the feed requirement through supplementation of selected growing fodder varieties	BLRI Head Quarter- Savar & RS-Jashore, Rajshahi & Saidpur
32.	Demonstration and validation trial of BLRI developed native duck through community-based duck rearing at Faridpur.	• To establish BLRI improved native duck production farming community at BLRI regional station areas, Bhanga, Faridpur • To improve livelihood of community farmer through rearing BLRI improved native duck	BLRI Regional Station- Faridpur
33.	Community involving economic diseases control model for chicken.	• To determine the sero prevalence and subtyping of ND in backyard chicken. • To develop a controlling guideline against ND in backyard chicken.	BLRI Head Quarter- Savar & Regional Station- Faridpur
34.	Assessing the effect of postbiotics of lactic acid bacteria on improving quality and safety of broiler meat.	• To develop suitable post-biotic concentration as a marinade in improving the safety of broiler meat. • To study the effect of developed post-biotic on improving physicochemical properties of broiler meat.	BLRI Head Quarter -Savar and Malaysia

SL No	Research Title	Objective(s)	Location(s)
35.	Study on the performances, heat stress tolerance and meat quality on meat-type hybrid duck produced through three-way crossing in Bangladesh.	• To produce a meat type hybrid duck by three-way crossing with phenotypic characterization • To investigate the carcass and meat quality parameters of hybridized duck and its parental lines • To establish Artificial Insemination technique on hybrid duck production • To assess the physiological, biochemical and immunological responses to heat stress on meat-type hybrid duck and its parent's'	BLRI Head Quarter -Savar and Malaysia
36.	Recycling of poultry wastes for environment friendly low-cost poultry production.	• To produce required amount of HWM by the processing device produced at PRC. • To evaluate the physical and chemical properties of HWM • To conduct a feeding trial by the performance of broiler for biological evaluation.	BLRI Head Quarter- Savar
37.	Identification of research gap and preparation of development programme for selected indigenous Livestock species.	• To evaluate the current scenario of native chicken and duck in the selected regions of the country. • To formulate a feasibility study report for including in the prepared development project proposal of native chicken.	BLRI Head Quarter - Savar
ANIMAL HEALTH RESEARCH DIVISION			
38.	Serological and outbreaks investigation of Peste des Petits Ruminants Disease in Bangladesh and development of vaccine seed from circulating local isolates	• To monitor the effectiveness of PPR eradication program in Bangladesh by determining the level of conferred immunity in vaccinated flocks • To conduct surveillance of PPR and PPR-like diseases to reduce the misperception of PPR disease • To identify and characterize PPR virus genotypes to understand the possible impact of currently available vaccines • Isolate and maintain PPR virus repository at SAARC PPR laboratory	Jashore, Chapai Nawabganj, Jhinaidah, Manikganj, and Dhaka district
39.	Development of duck plague vaccine seed from circulating strain	• To isolate and characterize DPV from duck plague suspected field samples • To adapt the previous and current DPV isolates in their primary fibroblast cell (CEF/DEF) or DF-1 cell line (Chicken fibroblast cell line) • To develop and standardize inactivated/live attenuated vaccine	Sunamganj, Kishoreganj, Netrokona, Bagerhat district
40.	Molecular detection and risk factors	• To identify viral causal agent including BVDV and Rota virus in farm animals including calf	Belkuchi, Sirajganj and

SL No	Research Title	Objective(s)	Location(s)
	assessment associated with Bovine Viral Diarrhoea virus infection in farm animals of Bangladesh	diarrhoea • To determine the seroprevalence of BVDV in farm animals • To assess the risk factors associated with BVDV infection and its transmission • To develop strategy for the mitigation of BVDV in farm animals	Dhamrai, Dhaka
41.	Elucidating the antimicrobial resistance pathogens evolution and combating the MDR (Enteric Pathogens) with bacteriophage in companion and farm animals	• To investigate the burden of antimicrobial resistance pathogens and pattern of resistance genes in hospital settings of companion and farm animals, and other possible transmission points. • To identify the cross over points for transmission and hotspots of antimicrobial resistance genes (ARGs). • To elucidate the mechanism of antimicrobial resistance evolution and adaptation of evolved pathogens under diverse selective pressure. • To investigate the growth retardation potentiality of bacteriophages for combating multidrug-resistant (MDR) E. coli and Salmonella spp. in poultry production.	AMR Reference Laboratory (Research), Animal Health Research Division. BLRI, Savar, Dhaka 1341
42.	Surveillance of Extremely zoonotic pathogen (Brucella species) at different areas of Bangladesh	• To detect and molecular characterize the Brucella species in livestock in Bangladesh. • To mitigate the spread and spillover of Brucella organisms in livestock farming system.	Rajshahi, Sirajganj, Dhaka & Bandarban
43.	Diversification and Magnitude of Endo-Parasite in Livestock in different agro-ecological zone of Bangladesh	• To determine the prevalence and load of endo-parasites at selected agro-ecological zones-hotspots of Bangladesh. • To develop a parasitic infestation mapping in selected agro-ecological zones-hotspots of Bangladesh.	Savar, Gazipur, Bogra, Rajshahi, Manikganj, Mymensingh, Barishal & Kishoreganj
44.	Surveillance and molecular evolution of avian influenza virus in Bangladesh	• Determination of molecular evolution of avian influenza viruses circulating in Bangladesh • Determination of the vaccine efficacy in the light of antigenic drift and shift of A/H5N1 and A/H9N2 in Bangladesh • Development of reference antigen and antisera from circulating AIVs • Identify the reference marker and develop a rapid detection kit for AIVs	Gazipur, Dhamrai, Cumilla, Bogura, Rangpur, Cox's Bazar, Barisal, Chattogram, Narsingdhi, and Sylhet
45.	Development of <i>Salmonella</i> vaccines from circulating strain	• Isolation and Identification of non-typhoidal <i>Salmonella</i> <i>Salmonella enteritidis</i> and <i>Salmonella typhimurium</i> from suspected poultry samples.	BLRI HQ, Savar, Dhaka

SL No	Research Title	Objective(s)	Location(s)
	of poultry in Bangladesh	• Molecular characterization of species-specific isolates by PCR and WGS. • Development of killed Salmonella vaccine seed	
46.	Development of an NSP ELISA kit for differential diagnosis of FMDV infected from vaccinated animals	• Determination of current circulating FMD virus serotypes • Development of an NSP ELISA kit for surveillance to support the FMD control	FMD research laboratory, Transboundary Animal Disease Research Centre, BLRI, Savar, Dhaka
Zoonosis and Transboundary Animal Diseases Prevention and Control Research Project			
47.	Development of lumpy skin disease vaccine seed from circulating strain in Bangladesh	• Molecular characterization of circulating lumpy skin disease virus in Bangladesh • Development of live attenuated lumpy skin disease virus vaccine seed from circulating strain	BLRI HQ, Savar, Dhaka Central Cattle Breeding and Dairy Farm, Savar, Dhaka
48.	Development of Avian Influenza H9N2 vaccine from circulating strain in Bangladesh	• Determination of evolutionary genetic of avian H9N2 viruses in Bangladesh • Development of inactivated AIV H9N2 vaccine seed from circulating strain in Bangladesh	BLRI HQ, Savar, Dhaka Mawna, Gazipur Paglapir, Rangpur
49.	Development of goat pox vaccine seed from circulating local isolate	• Identification and molecular characterization of goat pox virus from suspected goat pox samples. • Isolation of goat pox virus in primary lamb testis or kidney cell. • Adaptation and attenuation of goat pox virus in cell line. • Development of live attenuated goat pox vaccine seed.	BLRI HQ, Savar, Dhaka Chuadanga Sylhet Satkhira
50.	Epidemiology, molecular detection and development of intervention for combating the Inclusion Body Hepatitis in Bangladesh	• To identify the genotypes and genetic diversity of fowl adenovirus (FAdV) associated with IBH. • To determine the potential risk factors of fowl adenovirus (FAdV) associated with IBH. • To develop the killed vaccine from circulating IBH virus for the combating of IBH in poultry	BLRI Head Quarter, Savar, Dhaka Jamalpur Netrokona Norshingdi Cumill Chottagram Gazipur
BIOTECHNOLOGY DIVISION			
51.	Establishment of semen bank for BLRI improved germplasm (Cattle, Buffalo, Gayal,	• To develop efficient semen cryopreservation techniques for indigenous livestock species of Bangladesh. • To conserve BLRI improved indigenous	Artificial Insemination Laboratory, BLRI Head

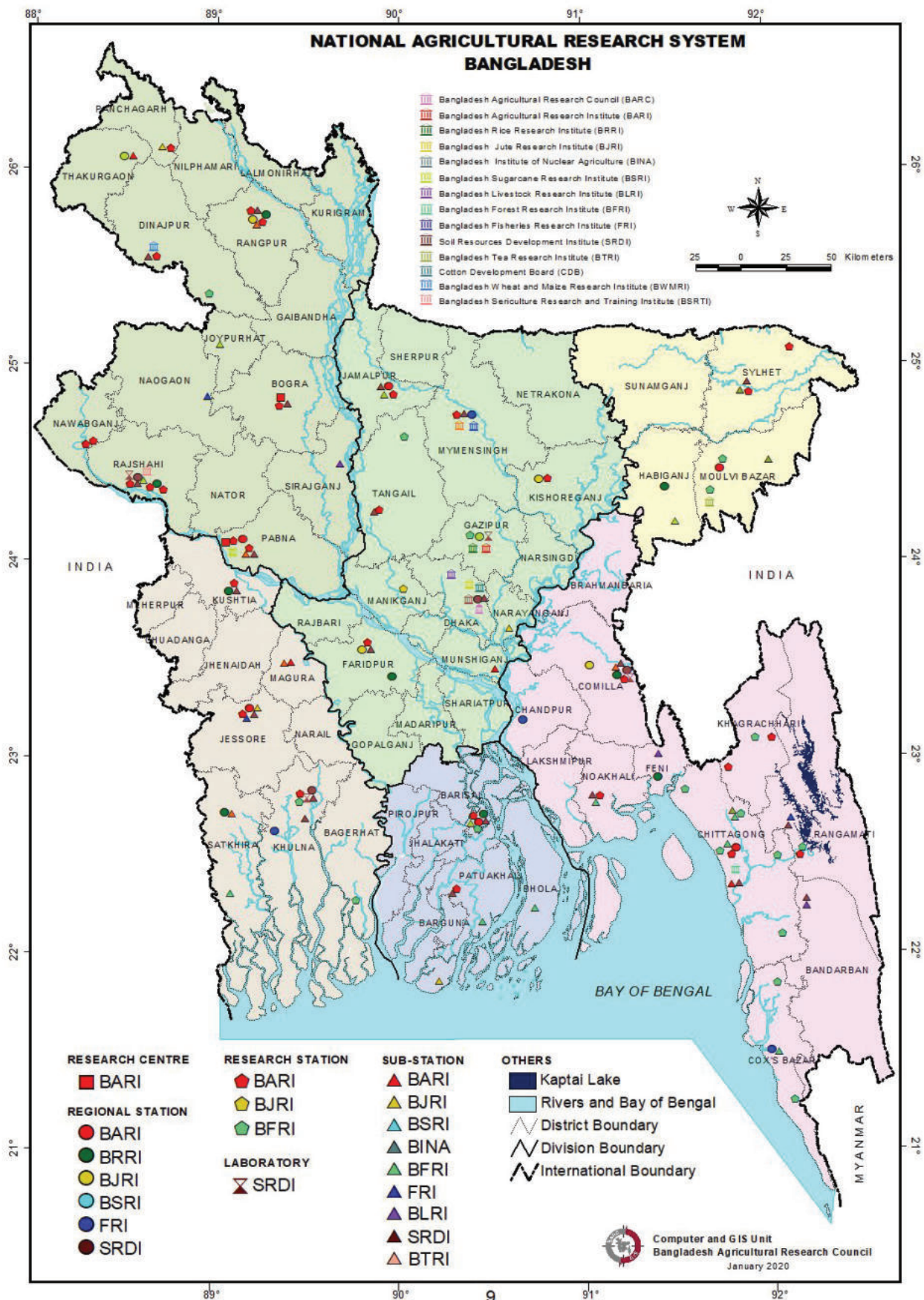
SL No	Research Title	Objective(s)	Location(s)
	Goat, Sheep and Chicken)	germplasm	Office
52.	Conservation, improvement and multiplication of Red Chittagong Cattle	• Production of RCC candidate bulls. • Conservation of pure RCC herd at BLRI and at rural community level	Pachutia khamar, BLRI Head Office; Chandanaish, Chattogram; BLRI RS, Rajshahi
53.	Production of Oxalate free Napier grass through gene editing and tissue culture technique	• To determine the oxalate content of different Napier Varieties. • Identification of genes responsible for oxalate production in Napier varieties. • To produce oxalate free Napier varieties	Nutrition & Fodder Biotechnology Laboratory, BLRI head Office
SOCIO-ECONOMIC RESEARCH DIVISION			
54.	Cost and Return Analysis of Livestock Feed, Meat, Egg and Milk in Bangladesh.	• To estimate the production cost and returns of chicken meat, eggs, milk and feed; • To identify the marketing cost and margins of middleman; • To find out price fluctuations of chicken meat, eggs, milk and feed over time and determine the reasons for price hike; • To identify the challenges and future potentials of chicken meat, eggs, milk and feed and their marketing.	Implementation by Head office, BLRI, Savar, Dhaka.
55.	Economic loss assessment of lumpy skin disease outbreak in cattle of Bangladesh.	• To identify the scenario including knowledge attitude and practices of lumpy skin disease farmers. • To estimate the direct and indirect loss of lumpy skin disease.	Implementation by Head office, BLRI, Savar, Dhaka.
56.	Socioeconomic Analysis of Antibiotic use in dairy production in Bangladesh.	• To investigate the present scenario of antibiotic use in dairy production; • To assess the producer's knowledge about the use of antibiotics in production practices.	Implementation by Head office, BLRI, Savar, Dhaka.
FARMING SYSTEM RESEARCH DIVISION			
57.	Establishment of "BLRI Technology village" at BLRI Regional station	• To disseminate BLRI developed region-based livestock technologies for increasing productivity • To measure the level of adaptation of BLRI developed technologies • To acquaintance with the "BLRI technologies village" and adaptation it's at farm community	Sharifbag village of Dhamrai Upazilla and 5 Regional Stations of BLRI
58.	Reinforcement of	• To conserve and improvement of different	BLRI Regional

SL No	Research Title	Objective(s)	Location(s)
	Regional Livestock Research at Naikhongchari	livestock, poultry and fodder germplasm suitable for hilly region • To develop a replica herd/flock of different animal and poultry species. • To develop production, rearing and disease control packages for Livestock and Poultry at hilly region.	Station Naikhongchari, Bandarban.
DAIRY RESEARCH AND TRAINING CENTER			
59.	Establishment of milk processing facilities for the development of premium dairy products (Subtitle: Determination of probiotic properties and safety assessment of identified isolates from Dahi)	• To isolate, identify, and molecular characterization of lactic acid bacteria (LAB). • To evaluate the probiotic characteristics and safety evaluation of probiotic LAB isolates.	Dairy Research and Training Center, BLRI, Savar, Dhaka-1341.
60.	Assessment of Environmental Stresses on Different Genetic Groups of Dairy Cattle and Development of Their Mitigation Strategies	• To measure the cyclic environmental stresses on different genetic groups of dairy cattle. • To know the effect of environmental stresses on the productive, reproductive, and physiological responses of dairy cattle. • To develop mitigation strategies for the environmental stresses on dairy cattle.	Dairy Research and Training Center, BLRI, Savar, Dhaka-1341.
61.	Quality and safety assessments of milk and the development of fortifying dairy products	• To develop methods to determine the concentration of antibiotic residues in milk using LCMS-MS. • To determine the time-dependent screening of antibiotic residues in milk • To evaluate the thermal treatment on the degradation of antibiotic residues in milk.	Dairy Research and Training Center, BLRI, Savar, Dhaka-1341.
62.	Production of beta-cyclodextrin for the development of low-cholesterol milk and milk products	• To standardize the protocol for the production of BCD from different starch materials using bacterial culture. • To develop low-cholesterol milk and milk products. • To develop consumer-specific fatless, low-fat, full-fat and fat-corrected milk	Dairy Research and Training Center, BLRI, Savar, Dhaka-1341.
BUFFALO PRODUCTION RESEARCH DIVISION			
63.	Impact of heat stress on buffalo productivity in Bangladesh	• To evaluate the responses of buffalo in the heat stress condition. • To develop strategies for reduction of heat stress	On Station (BLRI Buffalo Research Farm,

SL No	Research Title	Objective(s)	Location(s)
		in buffalo	Savar)
Buffalo Research and Development Project			
64.	Performance evaluation of crossbred buffalo at on-farm and on-station	• Evaluation of the productive and reproductive performance of crossbred buffaloes. • Adaptability evaluation and feeding system improvement of crossbred buffaloes	Buffalo Research farm BLRI, Savar and Ishurdi, pabna; Ramgati, Lakshmipur; Companiganj, Noakhali; Anwara, Chattogram; Fenchuganj, Sylhet; Kaliganj, Lalmonirhat; Gangachara, Rangpur; Godagari, Rajshahi; Madarganj, Jamalpur; Charfasson, Bhola; and Bauphal, Patuakhali project areas.
65.	Conservation and improvement of indigenous buffalo for milk production through open nucleus breeding program	• To improve milk production of indigenous river buffalo through selective breeding in subsistence farming condition. • To conserve indigenous buffalo for maintaining germplasm of indigenous stock as part of maintaining bio-diversity.	Do
66.	Development of buffalo fattening model for quality meat production	• To determine suitable duration of feeding buffalo for fattening program. • To develop appropriate feeding system and management practices for fattening buffalo. • To determine the production performance and quality of meat in different time of feeding. • To compare growth performance among buffaloes from different ecological zones. • To investigate the impact of red meat from buffalo on human health. • To determine the functional herd size for sustainable buffalo fattening program	Buffalo Research farm BLRI, Savar and Ishurdi, pabna; Companiganj, Noakhali; Anwara, Chattogram and Bauphal, Patuakhali project areas.
67.	Development of	• To establish feed inventory for development of	Buffalo

SL No	Research Title	Objective(s)	Location(s)
	feeding and nutritional management practices for optimization of dairy performances in Buffalo.	feed resources data base of buffalo research area under this project. • To introduce high yielding and saline tolerant fodder production and preservation techniques for buffalo research area under this project. • To improve pasture management in char land to increase supply of buffalo feed. • To develop standard feeding regime of different production stages of buffalo	Research farm BLRI, Savar and Ishurdi, pabna; Companiganj, Noakhali; Godagari, Rajshahi project areas.
68.	Epidemiological investigation of major buffalo diseases and evaluation of effectiveness of vaccines against buffaloes' diseases in Bangladesh.	• To estimate prevalence of major buffalo diseases and its causal agents in study areas over the space and time (seasonality). • To determine the potential risk factors of different diseases (FMD, HS, Anthrax, Mastitis, and Diarrhoea) of buffalo. • To evaluate the effectiveness of vaccines used in buffaloes and economic impact of proper vaccination and deworming. • To develop an effective vaccination calendar for buffalo farming in Bangladesh.	Buffalo Research farm BLRI, savar and Companiganj, Noakhali; Kaliganj, Lalmonirhat; Madarganj, Jamalpur; Charfasson, Bhola; and Bauphal, Patuakhali project areas.
69.	Adoption and Economic Evaluation of Improved Feeding Technologies of Buffalo Rearing in Some Selected Char Areas of Bangladesh	• To analyze the farmers' willingness to pay for improved feeding technologies; • To adopt improved feeding technologies for buffalo rearing; • To assess the economic impact of adopted feeding technologies; • To identify problems and opportunities for buffalo farming and adoption of improved feeding technologies; • To suggest some policy recommendations.	Buffalo Research farm BLRI, Savar and Ishurdi, pabna; Ramgati, Lakshmipur; Anwara, Chattogram; Fenchuganj, Sylhet; Gangachara, Rangpur project areas.
70.	Impact of waste management practices in buffalo farms	• To establish an improved buffalo waste management practice. • To increase profitability through innovated buffalo waste management technique.	Buffalo Research farm BLRI, Savar and Ishurdi, pabna; Companiganj, Noakhali; Godagari, Rajshahi; and Bauphal, Patuakhali project areas.

SL No	Research Title	Objective(s)	Location(s)
71.	In Vitro Embryo Production of Buffalo	• To improve efficiency of ovum picks up technology for oocyte collection from elite buffalo donor cows/heifers. • To improve efficiency of invitro buffalo embryo production. • Transfer of OPU-IVP derived embryo into recipient buffalo cows.	Buffalo Research farm BLRI, Savar.



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