

Bangladesh Rice Research Institute
Regional Station, Cumilla
Proposed Research Program 2025-26

| Sl. No. | Program Area/Project/ Experiment Title & Duration | Major Objective | Expected Output | Annual Budget (Thousand Tk) |
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| Program Area: Varietal Development | | | | |
| | Project name: Development of Transplanted Aman Rice with high yield along with desirable growth duration, acceptable grain quality and resistance to diseases and insect pests | | | |
| 1 | Hybridization | Introgression of genes from diverged genetic background into rice varieties/lines for the improvement of standard T. Aman varieties | Desirable growth duration compared to standard check varieties along with >6.0 t/ha yield potential and water stagnant tolerant lines will be developed. | 1000 GOB |
| 2 | Confirmation of F ₁ | To confirm the crosses as true hybrid | | |
| 3 | Growing of F ₂ population | Advancement of progenies to develop improved plant type, earliness, acceptable grain quality and high yield potential | | |
| 4 | Field RGA | Advancement of progenies (F ₃ to F ₆ and LST) to develop improved plant type, earliness, acceptable grain quality and high yield potential | | |
| 5 | Observational Yield Trial (OYT) | Initial yield evaluation of advanced lines compared to standard checks | | |
| 6 | Preliminary Yield Trial (PYT) | Preliminary yield evaluation of advanced lines compared to standard checks | | |
| 7 | Advanced Yield Trial (AYT) | Confirmation of yield potential in replicated trial and selection of desirable lines compared to standard checks | | |
| 8 | Pure line selection | To select best performing photosensitive plant | | |
| Program Area: Pest Management | | | | |
| 1 | Survey and monitoring of major rice diseases in Cumilla district | 1. To know the prevalence of Major rice disease 2. To assume the rice yield losses due to rice diseases | Management of major rice disease will be developed for increasing rice production and ensure food security | 50 PARTNER |
| 2 | Demonstration of rice neck blast disease management technology under farmer's field condition | 1. To minimize yield loss due to blast disease 2. To build up farmers awareness on blast disease management | | 50 GOB/PARTNER |

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| 3 | Varietal reaction and recovering ability of BIRRI released rice varieties | To know the varietal reaction against tungro disease of rice | | 50 GOB | |
| 4 | Validation and dissemination of Rice Tungro disease management technology from seedbed in Cumilla region | To validate along with dissemination the management technology of rice tungro disease in Cumilla region | | 700 LSTD | |
| 5 | 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 | | 50 GOB/PARTNER | |
| 6 | Evaluation of new chemicals against Blast disease of rice | To find out the effective chemicals suitable for Blast | | 50 GOB/PARTNER | |
| 7 | Evaluation of new chemicals against rice sheath blight disease | To find out the effective chemicals suitable for ShB | | 50 GOB/PARTNER | |
| 8 | Multi-Location Trial (MLT) of blast resistant advanced lines | To evaluate specific and general adaptability of resistant lines against rice blast disease | | 100 GOB/PARTNER | |
| 9 | Evaluation of tungro resistant advanced lines in hot spot areas in Cumilla region | To evaluate the tungro resistant advanced lines in natural farmers field condition. | | 100 GOB/PARTNER | |
| 10 | Advisory services to the farmers | 1. To assist farmers for rice production; | | 50 GOB | |
| Program Area: Crop-Soil-Water management | | | | | |
| 1 | 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 | | Limiting element, appropriate fertilizer rate, planting time, seedling management of new rice varieties will be determined. | 50 GOB/PARTNER |
| 2 | Effect of time of planting on growth and yield of BIRRI developed new T. Aman and Boro varieties. | To find out the appropriate time of planting for yield optimization | 50 GOB/PARTNER | | |
| 3 | 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 | 50 GOB/PARTNER | | |
| 4 | Long-term missing element trial for diagnosing the limiting | To observe long-term yield trend of rice. To evaluate the changes in soil properties under long- | 70 GOB/PARTNER | | |

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| | nutrient in soil in BRRRI R/S Cumilla | term rice culture To determine nutrient deficiency problems in soil. | | |
| 5 | 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 | | 50 GOB/PARTNER |
| 6 | 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 | | 50 GOB/PARTNER |
| 7 | Effects of K rates on the yield of BRRRI released new varieties in BRRRI Farm Cumilla | To update the N rates of BRRRI released new varieties in BRRRI Farm Cumilla | | 50 GOB/PARTNER |
| 8 | Determination of appropriate time of DAP application to control Algal growth | To find out the appropriate time of DAP application To control the algal growth in the rice field. | | 50 GOB/PARTNER |
| Program Area: Socio Economic and Policy | | | | |
| 1 | Stability analysis of BRRRI released rice varieties | To find out the stability index of BRRRI varieties in Cumilla Region | Stability and suitability of BRRRI released rice varieties will be determined in greater Cumilla region | 50 GOB/PARTNER |
| Program Area: Rice Farming System | | | | |
| 1 | Inclusion of Mustard in Boro-Fallow-T. Aman cropping pattern in Cumilla region | Increase cropping intensity and productivity through crop intensification in rice based cropping system | Cropping intensity will be increased and also increased farmer's productivity with an additional crop. | 50 GOB/PARTNER/ LSTD |
| 2 | Varietal improvement of Boro-Aus-T. Aman cropping pattern in Cumilla region | To maximize the productivity and farm income | | 50 GOB/PARTNER/ LSTD |
| 3 | Sustainable intensification of Boro-Fallow-T. Aman cropping pattern for irrigated medium highland ecosystem | 1.To evaluate the productivity, profitability and energy efficiency of three cropped cropping pattern 2. To assess the stability, sustainability, greenhouse gas emission, soil health and nutritional aspect of three cropped pattern in different Agro-ecological zone | | 50 GOB/PARTNER/ LSTD |
| 4 | Inclusion of Aus rice in Boro-Fallow-T. Aman cropping pattern in Cumilla region | To increase cropping intensity and productivity through crop intensification in rice based cropping system | | 50 GOB/PARTNER/ LSTD |