

Curriculum Vitae of

Anjuman Ara

Senior Scientific Officer
Plant Pathology Division
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Personal Details:

Name Anjuman Ara
Father's name Md. Hedayetul Islam
Mother's name Nahar Islam
Spouse's name ABM Anwar Uddin
Children 2
Date of birth 15th December 1985
Nationality Bangladeshi (by birth)
Religion Islam
Permanent address Shikor, Lal masjid road, Charparbati,
Bashurhat, Companigang, Noakhali

Education

| Name of the Exam | Board/University | Ending Year | CGPA |
|--|--|-------------|---|
| Masters of Science (M.S.) in Genetics & Plant Breeding | Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur | 2012 | 3.08 out of 4 (> 80% marks obtained) |
| Bachelor of Science in Agriculture (B.Sc.Ag.Hons.) | Sher-e-Bangla Agricultural University, Dhaka | 2009 | 3.61 out of 4 (> 70% marks) |
| Higher Secondary Certificate (H.S.C.) in Science | Dhaka | 2003 | 3.60 out of 5 (> 60% marks) |
| Secondary School Certificate (S.S.C.) in Science | Dhaka | 2001 | 4.25 Out of 5 (> 60% marks) |

| Courses/ Subjects Studied | | | |
|---|--|---|---|
| At MS (GPB) Level: | At B.Sc. Ag Level (Agriculture) | At HSC Level: | At SSC Level: |
| Plant Breeding, Plant Genetic Resources, Advanced Plant Breeding, Genetics, Molecular Genetics, Quantitative Genetics, Cytogenetics, Breeding Field Crops, Plant Embryology, Plant Tissue Culture, Design of Experiments etc. | Agronomy, Soil Science, Horticulture, Genetics and Plant Breeding, Biotechnology, Entomology, Plant Pathology, Crop Botany, Agricultural Extension and Information system, Biochemistry, Agricultural Chemistry, Agro-forestry, Agricultural Economics, Agricultural Statistics, Animal Husbandry, Farm Mechanics, English, Fisheries and Rural Sociology. | English, Bengali, Physics, Chemistry, Biology, Mathematics. | English, Bengali, Physics, Chemistry, Mathematics, Higher Mathematics, Biology, Social science, Religion. |

| Job (Research) Experience: | | |
|-----------------------------------|--|-----------------------|
| Name of the Designation | Organization/Institute | Duration |
| Senior Scientific Officer | Plant Pathology Division, BRRI, Gazipur, Bangladesh | 22/1/2023-till date |
| Senior Scientific Officer | BRRI Regional Station, Rajshahi | 14/12/2020-21/1/2023 |
| Senior Scientific Officer | Plant Pathology Division, BRRI, Gazipur, Bangladesh | 24/11/2019-13/12/2020 |
| Scientific Officer | Plant Pathology Division, BRRI, Gazipur, Bangladesh | 25/7/2018-23/11/2019 |
| Scientific Officer | BRRI Regional Station, Rajshahi | 5/1/2018-25/7/2018 |
| Scientific Officer | Plant Pathology Division, BRRI, Gazipur, Bangladesh | 10/7/2013- 4/1/2018 |
| Scientific Officer | Breeder Seed Project, GRS Division, BRRI, Bangladesh | 25/4/2012-30/6/2013 |
| MS Student | Plant Breeding Division | 2010-2012 |

Job Responsibilities as a Researcher in Current Position (Plant Pathology)

Development of molecular tools for detection, diagnosis and characterization of plant pathogens.
 Isolate and identify fungal, viral and bacterial pathogen through systemic plant pathological approach;
 Work with host-pathogen interaction using light microscope;
 Field experimental techniques;
 Use molecular techniques to characterize plant pathogens;
 Development of molecular tools for detection, diagnosis and characterization of plant pathogens.
 Management of rice diseases through chemical, biocontrol agent and cultural practices.
 Isolation, inoculation and screening of rice germplasm
 Microscopic observation of different seed borne pathogens

| Special experience in project-based research activities | | | |
|--|---|-------------------------|---------------|
| Sl No | Name of the projects | Responsibilities | Period |
| 1 | Integrated Agricultural Productivity Project (IAPP)-BRRI part funded by World Bank from 2011-2016 | as a working Scientist | 2013 |
| 2 | Gene Pyramiding for bacterial blight (BB) resistance funded by BAS project | as a working Scientist | 2018 |
| 3 | “Formulation of Biopesticides to control Bakanae Disease of rice in field condition (ID-159)” funded by NATP Phase2 | Co-Investigator | 2019 |

Field of Specialization:

Isolation, screening and characterization of different rice pathogens, characterization of germplasm, resistant breeding and molecular rice breeding

Research interest:

Population Genetics of Rice Pathogens, Differential Systems for Disease Resistance, Novel *QTL*/Gene Identification for biotic stresses of rice, Development on Disease Resistance and Low Input Rice Variety, Plant Disease Management by an eco-friendly way.

Professional Training:

| SI No | Title | Organized by | Time | Duration |
|-------|---|---------------------------------------|------------------------------------|----------|
| 1 | Training on Experimental Design, Layout and Statistical Analysis | BRRI, Gazipur | 22/12/13-24/12/13 | 3 days |
| 2 | Rice Production, Communication and Office Management Training | BRRI, Gazipur | 12/4/14-17/4/14 | 6 days |
| 3 | Experimental Design and Data Analysis Training Course | BRRI, Gazipur | 17/5/15-21/5/15 | 5 days |
| 4 | Environment Friendly Techniques of Plant Protection | NATA, Gazipur | 18/1/16-21/1/16 | 4 days |
| 5 | Two-month Rice Production and Communication Training Course | BRRI, Gazipur | 29/2/16-28/4/16 | 2 months |
| 6 | Programming R for Experimental Design | BRRI, Gazipur | 18/12/16-22/12/16 | 5 days |
| 7 | Experimental Design and Data Analysis Training Course | BRRI, Gazipur | 8/4/17-10/4/17 | 3 days |
| 8 | Research Methodology | GTI, Mymensingh | 3/10/18-15/10/18 | 13 days |
| 9 | Basic Molecular Biology and Disease Resistance | BARI, Gazipur | 23/3/19-28/3/19 | 6 days |
| 10 | Scientists Training on Open-Source Software R | BARI, Gazipur | 23/4/19-27/4/19 | 5 days |
| 11 | Identification and Management of Quarantine Pests | BARI, Gazipur | 16/6/19-20/6/19 | 5 days |
| 12 | Agricultural Research Methodology | BARI, Gazipur | 16/11/19-20/11/19 | 5 days |
| 13 | Rice Physiological Development Through Trait Discovery | BARI, Gazipur | 28/12/19-2/1/20 | 6 days |
| 14 | The WTO Agreements on Agriculture, Sanitary & Phytosanitary (SPS) and Technical Barriers to Trade (TBT) | CIRDAP Int'l Conference Center, Dhaka | 5/2/20-6/2/20 | 2 days |
| 15 | Scientific Report Writing Training Course | BRRI, Gazipur | 1/11/2020-5/11/2020 | 5 days |
| 16 | N27th Foundation Training Course for NARS Scientists | NATA, Gazipur | 23/2/20-23/3/20 & 19/12/20-18/3/21 | 4 months |
| 17 | Advanced Research Data Management using R studio and Refresher of Scientific Report writing Training | BRRI, Gazipur | 30/10/2021-4/11/2021 | 5 days |
| 18 | Hands on Training for High Throughput Phenotypic System for C4 Rice Research Course | BRRI, Gazipur | 31/3/21-1/4/21 | 2 days |
| 19 | Scientific Report Writing | BIM, Dhaka | 18/9/22-23/9/22 | 6 days |
| 20 | Hybrid Rice Cultivation and Seed Production Technologies | BRRI, Gazipur | 7/5/23-11/5/23 | 5 days |

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| 21 | Phytosanitary Measures in Bangladesh | BARC, Dhaka | 5/3/24-7/3/24 | 3 days |
| 22 | Bioinformatics for Future Rice | BRRI, Gazipur | 20/4/24-3/5/24 | 14 days |
| 23 | Climate Adaptation for Sustainable Rice Production | BARC, Dhaka | 8/12/24-12/12/24 | 5 days |

Membership of the Professional Associations

| Association name | Nature of membership |
|---|----------------------|
| Bangladesh Phytopathological Society | Life Member |
| Plant Breeding and Genetics Society of Bangladesh | Life Member |

Publications

Full length Paper

International

1. **A Ara**, K M Iftekharuddaula, M M H Saikat, M A I Khan 2015. Introgression of Sub1 *QTL* into a rainfed lowland rice variety of Bangladesh using marker assisted backcross approach. International Journal of Research (IJR), Vol-2, Issue-5, ISSN: 2348-4
2. ABMA Uddin, KS Islam, M Jahan, **A Ara** & S Afrin, 2021. Insecticide Induced Resurgence of Brown Planthopper, *Nilaparvata lugens* (Stål) on Rice. International Journal of Agricultural and Applied Sciences, 2(2): 2(2):40-48 ISSN: 2582-8053 <https://doi.org/10.52804/ijaas2021.227>
3. M A Siddique, M Khalequzzaman, M Z Islam, A Bhuiya, M H K Baktiar, **Anjuman Ara**. 2018. Agro-Morphological Characterization of Geographical Indication Rice Cultivars Grown in Bangladesh. The Experiment, Vol 45(4), 2598-2610
4. M A I Khan, M R Bhuiyan, M S Hossain, P P Sen, **A Ara**, M A Siddique and M A Ali. 2014. Neck blast disease influence grain yield and quality traits of aromatic rice, C. R. Biologies 337 (2014) 635-641

National:

1. **A Ara**, SAI Nihad, MM Rashid, A Akter, ABMA Uddin, TH Ansari and MA Latif. 2022. Genetic Diversity of INGER Rice Genotypes Based on Morphological Characters and Bacterial Blight Resistance. Bangladesh Rice J. 26 (1): 17-31. doi.org/10.3329/brj.v26i1.65876
2. MM Rashid, SAI Nihad, MAI Khan, A Haque, **A Ara**, T Ferdous, MAI Hasan, MA Latif (2021). Pathotype profiling, distribution and virulence analysis of *Xanthomonas oryzae* pv. *oryzae* causing bacterial blight disease of rice in Bangladesh. *Journal of Phytopathology*.
3. ABMA Uddin, KS Islam, M Jahan, **A Ara** & MAI Khan, 2020. Factor influencing the resurgence of brown planthopper, *Nilaparvata lugens* (stål) in Bangladesh. SAARC Journal of Agriculture, 18(1): 117-128.
4. SAI Nihad, **A Ara**, MM Rashid, MAI Hasan, MAI Khan, MA Latif (2020). Genetic divergence of rice genotypes revealed by bacterial blight disease and morphological traits. *Bangladesh Rice Journal*. 24 (1), 73-84.
5. A Akter, M J Hasan, M U Kulsum, P L Biswas, M H Rahman, R R Majumder, L F Lipi, M R Quddus, S Akter, **A Ara**. 2020. Genetic Variability, Heritability, Correlation and Path Coefficient Studies for Yield and Yield Components of Some Promising Rice Hybrids. Bangladesh Rice Journal 23(2):27-34 DOI: 10.3329/brj.v23i2.48245
6. ABMA Uddin, KS Islam, M Jahan, **A Ara**, S Afrin. 2019. Farmer's Perception about Resurgence of Brown Planthopper, *Nilaparvata lugens* (Stål) in Bangladesh. Bangladesh Rice Journal. 23:21-33. [doi: https://doi.org/10.3329/brj.v23i1.46078](https://doi.org/10.3329/brj.v23i1.46078).

7. JR Rahman, MM Rashid, SAI Nihad, **A Ara**, MR Islam, ZR Moni and MAI Khan. 2019. Evaluation of new chemicals against bacterial blight of rice caused by *Xanthomonas oryzae pv oryza*. Bangladesh Journal of Agriculture 41-43: 1-10
8. T H Ansari, M Ahmed, **A Ara**, M A I Khan, M S Mian, Q S A Zahan and M Tomita. 2018. Yield loss assessment of rice due to bacterial blight at different resistant level. Bangladesh J. Plant Pathol. 34 (1&2): 71-76.
9. M K Alam, M Z A Talukder, M H Sarker, A Ahmed and **A Ara**. 2016. Comparative yield trial of imported and local hybrids of maize 2016. Intl. J. BioRes. 21(1): 7-15
10. B Nessa, MU Salam, A H M M Haque, JK Biswas, Q S A Jahan, M A I Khan, M R Bhuiyan, **A Ara**, M Monir, J Galloway, MS Kabir and MA Ali. 2016. Density and distribution of false smut balls on infected rice panicle. Bangladesh Rice Journal, Vol-20, No-2, ISSN 1025-7330
11. M Akter, S Akter, M S R Bhuiyan, M A Gaffar and **A Ara**. 2014. Variability studies in F4 progenies of the inter-varietal crosses of brassica rapa, Intl. J. BioRes. 17(6): 55-61
12. M K Alam, M Z A Talukder, M H Sarker, A Ahmed and **A Ara**. 2014. Screening of maize inbred lines against excess soil moisture. Intl. J. BioRes. 16(3):16-19
13. M K Alam, M Z A Talukder, R Sultana, M H Sarker and **A Ara**. 2014. Genotype-environment interaction in barley using ammi (additive main effects and multiplicative interaction) analyses. Intl. J. BioRes. 16(6): 39-47
14. M A Mannan, M I M Akhand, MR Islam and **A Ara**. 2013. Effect of water stress and nitrogen on the growth and yield of modern aromatic fine rice varieties in boro season, Intl.J.BioRes. 15(1): 12-193.
15. F T Johora, M A Islam, MR Hasan and **A Ara**. 2013. Genotype × environment (seedling age) interaction and stability analysis of cms seed yield in hybrid rice, Intl.J.BioRes.15(4):20-23

Abstract/ Poster Presentation:

International:

1. FI Rodru, N Ausraf, QM Mahmud, MS Islam, MM Hossain, MR Quddus, M Ahmed, MR Bhuiyan, MM Rashid, MHR Hera, **A Ara**, TH Ansari, MA Latif, MAI Khan. 2023. Characterization and management of seedling blight pathogen in seedling tray for enhancing mechanized cultivation in Bangladesh. Paper presented in the 6th International Rice Congress, Manila, Philippines held on 16-19 October, 2023.
2. MAI Khan, MR Quddus, N Ausraf, MA Bakar, MR Bhuiyan, MM Rashid, MHR Hera, SAI Nihad, HA Dilzahan, **A Ara**, M Ahmed, MS Rahman, MA Latif. 2023. Genome-wide association mapping revealed novel genomic loci for blast resistance in Bangladesh rice landraces. Paper presented in the 6th International Rice Congress, Manila, Philippines held on 16-19 October, 2023.
3. Mohammad Ashik Iqbal Khan, Sudipto Das, Mahmuda Khatun, Nur Ausraf, Md. Hasibur Rahaman Hera, Md.Rejwan Bhuiyan, Md. Mamunur Rashid, **Anjuman Ara**, Khandakar Md Iftekharuddaula, Md. Abdul Latif. 2023. *Xa21* Gene-Derived Lines Reveal Robust Bacterial Leaf Blight (BLB) Disease Resistance in Rice Against Bangladeshi Strains. Paper presented in the 7th International Conference on Bacterial Blight of Rice, Manila, Philippines held on 16-19 October, 2023.
4. M A Latif, MM Rashid, HA Dilzahan, **A Ara**, A Imran and MAI Khan. 2018. Identification of physiological races of *Xanthomonas oryzae pv oryzae*, evaluation of bacterial blight resistant pyramid lines and development of resistant varieties through marker assisted selection in Bangladesh. Paper presented at the 5th International Rice Congress held at Singapore on October 15-17, 2018.

National:

1. **Ara, A.**, Iftekharuddaula, K.M., Saikat M.M.H. 2014. Introgression of *SUB1* QTL into BRRI dhan49 Using Marker Assisted Backcross Technique. An abstract published in Rice Research Abstract 2014. Bangladesh Rice Research Institute, Gazipur-1701. p31
2. MM Rashid, MS Mian, SAI Nihad, M Hossain, A Islam, FH Khan, AKM Shalahuddin, T Ferdous, B Saha, **A Ara**, MR Bhuiyan, MAI Khan, TH Ansari, MA Latif. 2023. Factors affecting rice tungro disease and its management technology in Cumilla region. International Symposium for the 50 years of BRRI. P-
3. MR Bhuiyan, MAI Khan, MM Rashid, B Nessa, **A Ara**, MA Ali, MA Latif. 2023. Efficacy of rice disease management package at field level to boost rice production. International Symposium for the 50 years of BRRI. P-102.
4. KM Iftekharuddaula, , A Amin, AKM Shalahuddin, **A Ara**, ME Hoque, MS Islam, BP Ray, SM Shahriar, MS Miah, and TL.Aditya, 2016. Development of BRRI dhan44-*Sub1* and BRRI dhan49-*Sub1* and their Phenotypic Adaptability. An abstract published in 5th National Conference and International Agricultural Conference, Dhaka. p63

Leaflet:

1. Rashid MM, Saha B, Ferdous T, Husna T, Salahuddin AKM, Nihad SAI, **Ara A**, Bhuiyan MR, Mian MS, Khan MAI, Hossain M, Ansari TH, Islam MR, Latif MA. October 2023. Farmers approaches in the seedbed to control rice tungro disease (Leaflet). Bangladesh Rice Research Institute, Regional Station, Cumilla. 3rd Edn. 10000 copies. BRRI Publication No. 385.
2. Rashid MM, Saha B, Ferdous T, Husna T, Salahuddin AKM, Nihad SAI, **Ara A**, Bhuiyan MR, Mian MS, Khan MAI, Hossain M, Ansari TH, Islam MR, Latif MA. October 2023. Farmers' steps to control rice blast disease (Leaflet). Bangladesh Rice Research Institute, Regional Station, Cumilla. 10000 copies. BRRI Publication No. 386.
3. **Ara A**, Bhuiyan MR, Jahan QSA, Hossain M, Mian MS, Khan MAI, Akter S, Monsur MA, Nessa B, Hira MHR, Akter R, Dilzahan HA, Alam MS, Ansari TH, and Latif MA. June 2024. Rice Bacterial Blight and Bacterial Leaf Streak disease infestation and remedy at field level (Leaflet). Bangladesh Rice Research Institute, Gazipur. 10000 copies. BRRI Publication No. 415.
4. Bhuiyan MR, **Ara A**, Jahan QSA, Hossain M, Mian MS, Khan MAI, Akter S, Monsur MA, Nessa B, Hira MHR, Akter R, Dilzahan HA, Alam MS, Ansari TH, and Latif MA. June 2024. Farmers' steps to control rice Sheath Blight disease (Leaflet). Bangladesh Rice Research Institute, Gazipur. 10000 copies. BRRI Publication No. 414.

Other Experiences:

| Sl No | Title of job |
|-------|--|
| 1 | Speaker as scientist on radio talk on different problems of rice cultivation (9) |
| 2 | Member of Field Evaluation Team of NSB as Plant Pathologist. (20) |
| 3 | Executive member of APA, BRRI. (3) |
| 4 | Trainer of SAAOO, Farmers and professionals on disease management (15) |

References:

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