Curriculum Vitae

Name: Dr. Md. Sazzadur Rahman

Office Address: Principal Scientific Officer (PSO), Plant Physiology Division, Bangladesh Rice Research Institute (BRRI), Gazipur-1701, Bangladesh

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Date of Birth: 20/10/1973 **Nationality:** Bangladeshi by birth

EDUCATION:

10/2009-11/2016	Ph.D., Department of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh, Major: Molecular Breeding; Minor: Environmental Biochemistry
03/2006-03/2008	M.S., Department of Crop Botany, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Salna, Gazipur-1706, Major: Crop Botany (Stress Physiology); Minor: Genetics and Plant Breeding
04/1993-12/1999	B.Sc.Ag. Faculty of Agriculture, Bangladesh Agricultural University, Mymensingh-2202, Major: Agriculture, Minor: Crop Production

PROFESSIONAL TRAINING:

11/2018-04/2019	**International Rice Research Institute (IRRI), Philippines,** On-The-Job training for the development of C4 Rice.
09/2017-12/2017,	**International Rice Research Institute (IRRI), Philippines,** On-The-Job training for Breeding4Rice.
09/2014-09/2014,	**The Mediterranean Agronomic Institute of Zaragoza (CIHEAM-IAMZ)**, Zaragoza, Spain, Integrated Breeding Multi-Year Course-Y3.
10/2013-10/2013,	**The Mediterranean Agronomic Institute of Zaragoza (CIHEAM-IAMZ)**, Zaragoza, Spain, Integrated Breeding Multi-Year Course-Y2.
02/2013-02/2013,	**Bangladesh Agricultural Research Council (BARC)**, Project Development and Management Course.
10/2012-10/2012,	**Biometris, Wageningen University and Research Center**, The Netherland, Integrated Breeding Multi-Year Course-Y1.
11/2010 - 11/2011,	**Crop and Environment Sciences Division, International Rice Research Institute**, Philippines, On-the job training for Marker assisted backcrossing and QTL mapping.
02/2005-06/2005,	**Bangladesh Academy of Rural Development**, Comilla, Foundation Training Course for NARS scientist
03/2004 - 03/2004,	**Molecular Pathology Laboratory**, Plant Pathology Division, Bangladesh Rice Research Institute, Introductory Course in Molecular Biology.
12/2003–02/2004,	**Training Division, BRRI, Gazipur**, Rice Production, Office Management and Communication.
03/2003-04/2003,	**IRRI, Philippines**, Hybrid rice seed production technology

WORK EXPERIENCE:

11/2019- to date	Principal Scientific Officer, Plant Physiology Division, Bangladesh Rice Research Institute (BRRI), Gazipur
05/2009 – 11/2019	Senior Scientific Officer. Plant Physiology Division, Bangladesh Rice Research Institute (BRRI), Gazipur
05/2001 – 06/2009	Scientific Officer. Plant Physiology Division, Bangladesh Rice Research Institute (BRRI) Gazipur

RESEARCH COMPETENCES AND INTERESTS:	
Molecular biology:	SSR and SNP genotyping and analysis, DNA and RNA isolation, PCR, Agarose and Polyacrylamide Gel Electrophoresis
Molecular Genetics:	Bi-parental population development and maintenance, Linkage and QTL mapping
Molecular Breeding:	Marker Assisted Selection (MAS), Marker Assisted Backcrossing (MABC), Marker Assisted Recurrent Selection (MARS)
Rice Physiology:	Stress physiology-salinity, submergence and heat tolerance, Deep water rice ecology, Photosynthesis research; Physiology of yield potential and CO_2 responsiveness

COMPUTER AND DATA MANAGEMENT SKILLS:

Photosynthesis system in Rice: High-throughput phenotyping of Rice and *Setaria*, Chlorophyll fluorescence and thermal imaging, Gas exchange measurement, Leaf impression and imprinting for stomatal behavior visualization, Stomata counting in rice leaves, Ultra-thin microscopy of C3 and C4 leaves.

Breeding4Result: Breeding Data Management System for Rice: Trained on B4R at IRRI and deployment at BRRI's Breeding program

Breeding Management System (BMS): BMS Champion (Trained on BMS version 1, 2 and 3.0.9)

QTL mapping and Genetical computing: QGENE, WinQTL Cartographer, QTL-Network, MapManagerQTX, QTL IciMapping, Graphical Genotyping, Flapjack, Power Marker, POPMIN, POPGENE

Statistical computing: GenStat, CropStat, GraphPad Prism, SigmaPlot, MyStat. SPSS, R-CRAN, R-Studio, JMP of SAS, Breeding View (BV).

Photosynthesis and Agrometerology computing: Li-Cor Photosynthesis system, Li-Cor Canopy Analyzer, Leaf Porometer, Specware for WatchDog, Davies Vantage Pro2-Plus.

General computing: Imaging and scanning by using Photoshop and Illustrator, Microsoft Office 2016, comfortable on Windows.

PROFESSIONAL MEMBERSHIPS

- 2021-Life Member (LM 052), **Bangladesh Society of Plant Science & Technology (BSPST)**
- 2017-Life Member (Member No. 0031), **GNOBB (Global Network of Bangladeshi Biotechnologists)**
- 2013-2014: Assistant General Secretary of **BRRI Scientist's Association (BRRISA)**
- 2009-present: Member of **Bangladesh Society of Biochemistry and Molecular Biology**
- 2008-present: Member of **Bangladesh Association for Plant Tissue Culture & Biotechnology (BAPTC&B)**
- 2007-2008: Associate Member of **Plant Breeding and Genetics Society of Bangladesh**
- 2005 to present: Associate Member of **Bangladesh Botanical Society**
- 2001-present: Member of **BRRI Scientist's Association (BRRISA)**

GRANTS

- KGF-BKGET fund for basic research on "Physiological development through trait discovery for boosting rice yield in changing climatic conditions" for 2017-2020 (BDT 1.10 million)
- Iwate University Grant for investigation of CO_2-responsive genotypes from Bangladeshi rice germplasm through a novel planting geometry pre-screening technique for 2015-2016 (USD 5k)
- Grant for Genotyping Support Service for Integrated Breeding Multi-Year Course Trainees for SNP-genotyping at LG Genomics, UK, 2014 (£ 5k)
- National Science and Technology Fellowships for 2000-2001 for research on Agro-Industrial Waste Management as Masters Researcher at BAU, Mymensingh.

HONORS AND AWARDS

- **2015:** BRRI Award for best scientist of the year 2015.
- **2011:** First prize for presenting a poster entitled "Introgression of *Saltol* and fine mapping of a reproductive stage QTL to develop rice varieties highly tolerance to salt stress. In: Generation Challenge Program ARM, held in Hyderabad, India, 21-25, September 2011.
- **2007:** First prize for presenting a poster entitled "Horidhan: Genetic variation of BR11? In: An international conference "Promotion of Biotechnology: National and International Perspectives" held in ICDDR'B, Dhaka, Bangladesh, 6-8 April 2007.
- **2005:** Director General's award for obtaining the first position of the Foundation Training Course for NARS Scientists (Batch 12), held from 27th February 2005 to 26th June 2005 at BARD, Comilla, Bangladesh.
- **2001:** Karim memorial trust prize for the best student of the Dept. of Agricultural Chemistry, BAU, Mymensingh in the year 2001.

CONFERENCE/WORKSHOP/MEETING/FOREIGN TRAVEL

Country	Purpose	Period	
		From	To
China	To attend International Saline-Alkali Tolerant Rice Forum II	7 December 2017	8 December 2017
Bhutan	Visit program for discussion on bilateral relations for Agricultural research and production with Department of Agriculture and Ministry of Agriculture and Forests	16 July 2017	18 July 2017
Nepal	Visit program for discussion on bilateral relations for Agricultural research and production with NARC, Department of Agriculture and Ministry of Agricultural Development	12 July 2017	15 July 2017
India	To attend CSISA Phase II Planning and Evaluation meeting	16 December 2014	17 December 2014
Philippines	To attend a scientific conference (Rice Genetics7)	5 November 2013	7 November 2013
Vietnam	To attend a scientific conference (3rd International Rice Congress)	8 November 2010	11 November 2010
Philippines	To attend a scientific conference (Rice Genetics6)	16 November 2009	19 November 2009

PUBLICATIONS

1) Hang Zhao, Wenzheng Wang, Yirong Yang, Zhiwei Wang, Jing Sun, Kaijun Yuan, S. M. Hisam Al Rabbi, Munnujan Khanam, Md. Shahjahan Kabir, Zeba I. Seraj, Md. Sazzadur Rahman, Zhiguo Zhang. 2023. A high-quality chromosome-level wild rice genome of *Oryza coarctata* reveals two subgenomes in the genus *Oryza*. Scientific Data. Manuscript number: SDATA-23-00718. (Under Review)

2) Rahman, N.M.F., Malik, W.A., Kabir, M.S., Baten, M.A., Hossain, M.I., Paul, D.N.R., Ahmed, R., Biswas, P.S., Rahman, M.C., **Rahman, M.S.**, Iftekharuddaula, KM, Hadasch, S., Schmidt, P., Islam, M.R., Rahman, M.A., Atlin, G.N. and Piepho, H.P. 2023. 50 years of rice breeding in Bangladesh: genetic yield trends. Theor Appl Genet 136, 18 (2023). https://doi.org/10.1007/s00122-023-04260-x

3) Haque, T., Elias, S.M., Razzaque, S., Biswas, S., Khan, S.F., Jewel, G.M.N.A., **Rahman, M.S.**, Juenger, T.E. and Seraj, Z.I. 2022. Salt tolerance QTLs of an endemic rice landrace, Horkuch at seedling and reproductive stages. Sci Rep 12, 17306 (2022). https://doi.org/10.1038/s41598-022-21737-9

4) **Rahman, M.S.,** Haque, M.M., Kabir, M.J., Islam, A.K.M.S., Sarkar, M.A.R., Mamun, M.A.A., Salam, M.U. and Kabir, M.S. 2020. Enhancing Rice Productivity in the Unfavourable Ecosystems of Bangladesh. Bangladesh Rice J. 24 (2): 83-102, https://doi.org/10.3329/brj.v24i2.53450.

5) Salam, M.U., Kabir, M.S., Islam, A.K.M.S., Sarkar, M.A.R., Mamun, M.A.A., Rahman, M.C., Nessa, B., Kabir, M.J., Shozib, H.B., Hossain, M.B., Chowdhury, A., Nasim, M., Iftekharuddaula, K.M., Hossain, M.S., Bhuiyan, M.K.A., Karmakar, B., **Rahman, M.S.,** Haque, M.M., Khatun, M.T., Ali, M.P., Rabbi, S.M.H.A., Biswas, P.L., Rashid, E.S.M.H. and Rahman, N.M.F. 2020. Doubling rice productivity in Bangladesh: A way to achieving SDG2 and moving forward. Bangladesh Rice J. 24 (2): 1-47, https://doi.org/10.3329/brj.v24i2.53447

6) Rabbi, S.M.H.A., Biswas, P.L., Rashid, E.S.M.H., Iftekharuddaula, K.M., Rahman, N.M.F., **Rahman, M.S.**, Sarkar, M.A.R., Mamun, M.A.A., Salam, M.U. and Kabir, M.S. (2020). Increasing Rice Yield through Targeting Genetic Potentials by Rice Types. Bangladesh Rice Journal, 24(2), 67–82. https://doi.org/10.3329/brj.v24i2.53449.

7) Haque, M.M., Islam, M.R., **Rahman, M.S.**, Sarkar, M.A.R., Mamun, M.A.A., Salam, M.U. and Kabir, M.S. (2020). Soil Health as Influenced by Fertilizer Management in Rice Based Cropping System. Bangladesh Rice Journal, 24(2), 119–131. https://doi.org/10.3329/brj.v24i2.53452.

8) Sabrina M. Elias, **M. Sazzadur Rahman**, Sumaiya F. Khan, Sudip Biswas, Taslima Haque, Samsad Razzaque and Zeba I. Seraj. 2020. Combination of traits at two developmental stages under salt stress as a measure of tolerance in a reciprocally crossed rice (*Oryza sativa* L.) population. Crop & Pasture Science, 71:334-348. https://doi.org/10.1071/CP19560.

9) B Karmakar, MAA Mamun, **MS Rahman**, MA Islam, MR Islam, MHR Mukul, Shamsunnaher, A Zahan, R Barua, MR Biswash, S Parveen, S Akter, NY Shaikh and B Ahmed. 2019. Adaptation of Promising Rice Genotypes for Broadcast Aus Season. Bangladesh Rice J. 23(2): 35-48, https://doi.org/10.3329/brj.v23i2.48246

10) **M. Sazzadur Rahman**, Tokee M. Tareq, Protup K. Sarker, ESM Harunur Rashid, Rumena Yasmeen, M. Ansar Ali, Zeba I. Sarker and Hiroyuki Shimono. 2019. Genetic variation of phenotypic plasticity in Bangladesh rice germplasm. Field Crops Research 243 (2019) 107618. https://doi.org/10.1016/j.fcr.2019.107618.

11) Aftab Uz Zaman Noor, G. M. Nurnabi Azad Jewel, Taslima Haque, Sabrina M. Elias, Sudip Biswas, **Md. Sazzadur Rahman** and Zeba I. Seraj. 2019. Validation of QTLs in Bangladeshi rice landrace Horkuch responsible for salt tolerance in seedling stage and maturation. Acta Physiologiae Plantarum 41:173 https://doi.org/10.1007/s11738-019-2963-1.

12) Samsad Razzaque, Sabrina M. Elias, Taslima Haque, Sudip Biswas, Nurnabi Azad Jewel, **Md. Sazzadur Rahman**, Xiaoyu Weng, Abdelbagi M. Ismail, Harkamal Walia, Thomas E Juenger and Zeba I. Seraj. 2019. Gene Expression analysis associated with salt stress in a reciprocally crossed rice population, Scientific Reports 9(1), https://doi.org/10.1038/s41598-019-44757-4.

13) JK Biswas, MS Kabir, **MS Rahman**, K Nahar, M Hasanuzzaman. 2019. Managing abiotic stresses with rice agriculture to achieve sustainable food security: Bangladesh perspective. Advances in rice research for abiotic stress tolerance, 23-45

14) N Ferdous, SM Elias, ZH Howlader, SK Biswas, **MS Rahman**, KK Habiba and Zeba I. Seraj. 2018. Profiling Bangladeshi rice diversity based on grain size and amylose content using molecular markers. Current Plant Biology 14: 56-65

15) Tokee Tareq, **Md. Sazzadur Rahman**, Nurnabi Azad Jewel, Tasmia Islam, H. Shimono and Zeba I. Seraj. 2018. Relative Response of Indigenous Rice Genotypes to Low Versus Normal Planting Density for Determination of Differential Phenotypic Plasticity in Traits Related to Grain Yield, Plant Tissue Culture and Biotechnology 28(1):109, DOI: 10.3329/ptcb.v28i1.37203.

16) Sudip Biswas, U. S. Mahzabin Amin, Sarah Sarker, **M. Sazzadur Rahman**, Ruhul Amin, Rezaul Karim, Narendra Tuteja and Zeba I. Seraj. 2017. Introgression, Generational Expression and Salinity Tolerance Conferred by the Pea DNA Helicase 45 Transgene into Two Commercial Rice Genotypes, BR28 and BR47. Molecular Biotechnology, https://doi.org/10.1007/s12033-017-0055-2

17) M. Akhlasur Rahman, Isaac Kofi Bimpong, J. B. Bizimana, Evangeline D. Pascual, Marydee Arceta, B. P. Mallikarjuna Swamy, Faty Diaw, **M. Sazzadur Rahman** and R. K. Singh. 2017. Mapping QTLs using a novel source of salinity tolerance from Hasawi and their interaction with environments in rice. Rice 10:47, DOI 10.1186/s12284-017-0186-x

18) Rahman MH, Zhang Y, Zhang K, **Rahman MS**, Barman HN, Riaz A, Chen Y, Wu W, Zhan X, Cao L and Cheng S. 2017. Genetic Dissection of the Major Quantitative Trait Locus (qSE11), and Its Validation As the Major Influence on the Rate of Stigma Exsertion in Rice (*Oryza sativa* L.). Front. Plant Sci. 8:1818.doi: 10.3389/fpls.2017.01818.

19) Tasmia Islam, Sudip Biswas, Umme Habiba Mita, R.H. Sarker, **M. Sazzadur Rahman**, M. Ansar Ali, K.M.S. Aziz and Zeba I. Seraj. 2017. Characterization of Progenies from Intergeneric Hybridization Between *Oryza sativa* L. and *Porteresia coarctata* (Roxb.) Tateoka. Plant Tissue Cult. & Biotech. 27(1): 63-76

20) T Ahmed, S Biswas, SM Elias, **MS Rahman**, N Tuteja, ZI Seraj, 2018. *In Planta* transformation for conferring salt tolerance to a tissue-culture unresponsive indica rice (*Oryza sativa* L.) cultivar. In Vitro Cellular & Developmental Biology-Plant 54 (2):154-165, https://doi.org/10.1007/s11627-017-9870-1.

21) Razzaque, S., Haque, T., Elias, S.M., **Rahman, M.S.,** Biswas, S., Schwartz, S., Ismail, A.M., Walia, H., Juenger, T.E. and Seraj, Z.I. 2017. Reproductive stage physiological and transcriptional responses to salinity stress in reciprocal populations derived from tolerant (Horkuch) and susceptible (IR29) rice. Scientific Reports, 7:46138, DOI: 10.1038/srep46138.

22) Rahman, M.H., Ying-xin, Z., Lian-ping, S., Ke-qin, Z., **Rahman, M.S.**, Wei-xun, W., Xiao-deng, Z., Li-yong, C. and Shi-hua, C. 2017. Genetic mapping of quantitative trait loci for the stigma exsertion rate in rice (Oryza sativa L.). Journal of Integrative Agriculture 16(7):1423-1431, doi: 10.1016/S2095-3119(16)61540-X.

23) Razzaque, S., Khan, S.F., Jewel, N.A., Haque, T., Elias, S.M., **Rahman, S.,** Seraj, Z.I. 2016. Genetic Analysis of SSR Markers in F_2Reciprocal Populations of the Rice genotypes, Horkuch and IR29 show high segregation distortion. Biores Comm. 2(2), 219-229.

24) Habibul Bari Shozib, Saima Jahan, Shourab Bhowmick, Farzana Hoque, Darmin Chakma, Mahmud Hosain, Mohammad Omar Faruque, **Md. Sazzadur Rahman** and Muhammad Ali Siddiquee. 2015. Dietary administration of rice in improving the antioxidant status in Long- Evans Rat. Biojournal of Science and Technology 2: 1-7

25) Kabir, M.S., Salam, M.U., Chowdhury, A., Rahman, N.M.F., Iftekharuddaula, K.M., **Rahman, M.S.**, Rashid, M.H., Dipti, S.S., Islam, A., Latif, M.A., Islam, A.K.M.S., Hossain, M.M., Nessa, B., Ansari, T.H., Ali, M.A. and Biswas, J.K. 2015. Rice Vision for Bangladesh: 2050 and Beyond. Bangladesh Rice Journal. 19(2): 1-18.

26) Akter, S., Yasmeen, R., Ahmed, H.U., Sarker, M.R.A. and **Rahman, M.S.** 2014. Salinity tolerance of some elite breeding lines at reproductive stage. Bangladesh Rice Journal 18 (1&2): 33-37.

27) Nusrat Yesmin, Sabrina M. Elias, **Md. Sazzadur Rahman**, Taslima Haque, AKM Mahbub Hasan and Zeba I. Seraj. 2014. Unique genotypic differences discovered among indigenous Bangladeshi rice landraces. International Journal of Genomics. http://dx.doi.org/10.1155/2014/210328.

28) Sabrina M. Elias, Rokeya Begum, **Md. Sazzadur Rahman**, Afroza Ferdouse, Habibul B. Shozib, Md. Muntasir Ali, Zeba I. Seraj. 2014. Genotypic and phenotypic relatedness of a farmer-discovered variant with high yielding rice growing in the same field. Plant Syst. Evol. DOI 10.1007/s00606-014-1085-x.

29) A.K. Dutta, P.S. Gope, S. Banik, **Md. S. Rahman,** S. Makhnoon, M.A. Siddiquee and Y. Kabir. 2013. Physicochemical, cooking and antioxidant properties of nine aromatic rice cultivars of Bangladesh. Acta Alimentaria 42(4):552–564, DOI: 10.1556/AAlim.42.2013.4.10

30) Alak Kanti Dutta, Partha Sarathi Gope, Sukh Makhnoon, **Md.Sazzadur Rahman**, Muhammad Ali Siddiquee and Yearul Kabir. 2012. Effect of Solvent extraction on Phenolic content, Antioxidant and α-Amylase Inhibition activities of Swertia chirata. International Journal of Drug Development & Research 4 (4): 317-325.

31) Mahzabin Amin, Sabrina M. Elias, Alamgeer Hossain, Aliya Ferdousi, **Md. Sazzadur Rahman**, Narendra Tuteza and Zeba I. Seraj. 2012. Over-expression of a DEAD-box helicase, PDH45, confers both seedling and reproductive stage salinity tolerance to rice (Oryza sative L.). Mol. Breeding, 30:345-354 DOI:10.1007/s11032-011-9625-3.

32) Laisa A. Lisa, Sabrina M. Elias, **M. Sazzadur Rahman**, Saima Shahid, Tetsushi Iwasaki, A.K.M. Mahbub Hasan, Keiko Kosuge, Yasuo Fukami and Zeba I. Seraj. 2011. Physiology and gene expression of the rice landrace Horkuch under salt stress. Functional Plant Biology, 38:282-292

33) R. Alam, **M. Sazzadur Rahman**, Z. I. Seraj, M. J. Thomson, A. M. Ismail, E. Tumimbang-Raiz and G. B. Gregorio. 2011. Investigation of seedling-stage salinity tolerance QTLs using backcross lines derived from Oryza sativa L. Pokkali. Plant Breeding 130(4):430-437. doi:10.1111/j.1439-0523.2010.01837.x,

34) M.A. Salam, M.R. Islam, **M.S. Rahman**, M.A. Rahman, M.A.R. Bhuiyan, Z.I. Seraj, T.L. Aditya, M.K. Uddin, M.K. Mondal, A.M. Ismail, D.L. Adorada, R.D. Mendoza, E.B. Tumimbang-Raiz and G.B. Gregorio. 2010. Rice varieties and cultural management practices for high and sustained productivity in the coastal wetlands of southern Bangladesh. In: Tropical Deltas and Coastal Zones: Food Production, Communities and Environment at the Land-Water Interface, edited by C.T. Hoanh, B.W. Szuster, K. Suan-Pheng, A.M. Ismail and A.D. Noble, Comprehensive Assessment of Water Management in Agriculture Series; v. 9, CAB International Publishing Company, UK, pp 183-198

35) N Akter, J Nain, **MS Rahman**, MGK Bhuiyan and MG Rabbani. 2010. Effects of different explants and NAA concentration on in vitro callus induction and regeneration of brinjal (*Solanum melongena* L.). Intl. J. BioRes. 9(1):1-6

36) **M. Sazzadur Rahman**, Keshob C. Das, Dipok K. Das, Kuntal Biswas, M. Badrul H. Chowdhury, Nilufer H. Karim, M. Abdus Salam and Zeba I. Seraj. 2010. Breeding and anther derived lines of rice (Oryza sativa L.) for the saline coastal areas of Bangladesh. Bangladesh J. Bot. 39(1):71-78.

37) Keshob C. Das, **M.S. Rahman**, M.A. Siddiquee and Zeba I. Seraj. 2010. Analysis of anther derived rice (Oryza sativa L.) genotypes for their tolerance to salinity. Eco-friendly Agril. j. 3(5):254-260.

38) Aditya, T.L., Khanam, M. and **Rahman, M.S.** 2010. Screening of NaCl-stressed somaclones after exposure to NaCl at germination and seedling stage conditions.Eco-friendly Agril.J. 3(2):75-79

39) Islam, S.M.T., Tammi, R.S., Malo, R., Amin, M., **Rahman, M.S.**, Elias, S.M. and Seraj, Z.I. 2009. Constitutive expression of OsNHX1under the promoter Actin1D can improve the salt tolerance and yield characteristics of Bangladeshi rice Binnatoa. Australian Journal of Crop Science 3(6):329-335

40) Islam, M.Sh., Bhuiya, M.S.U., **Rahman, S.** and Hussain, M.M. 2009. Evaluation of SPAD and LCC based nitrogen management in rice (Oryza sativa L.). Bangladesh J. Agril. Res. 34(4):661-672

41) Islam, M.R., **Rahman, M.S.**, Salam, M.A. 2008. Coastal saline environment and rice variety development in Bangladesh. Eco-friendly Agril.J. 1(1):37-47

42) Islam, M.R., Salam, M.A., Bhuiyan, M.A.R., Rahman, M.A., Yasmeen, R., **Rahman, M.S.**, Uddin, M.K., Gregorio, G.B. and Ismail, A.M. 2008. BRRI dhan47: A salt tolerant rice variety for boro season isolated through participatory variety selection. Intl. J. BioRes. 5(1):1-6

43) Islam, M.R., Salam, M.A., Aditya, T.L., Bhuiyan, M.A.R., Rahman, M.A., **Rahman, M.S.**, Khatun, S. and Ahmed, H.U. 2008. Improvement of rice genotypes for salt affected areas of Bangladesh. Intl. J. BioRes. 4(5):81-85

44) Bhuiyan, M.A.R., Salam, M.A., **Rahman, M.S.**, Newaz, M.A. and Gregorio, G.B. 2008. Effect of salinity on height and tolerance level of rice at seedling stage. Intl. J. BioRes. 4(2):13-20

45) **Rahman, M.S.,** Khanam, M., Rashid Sorker, A.S.M.H., Aurangozeb, M.K. and Islam, M.S. 2007. Effect of Multi-Effect Triazole (MET) on the growth and yield of BRRI dhan32. Intl. J. BioRes. 2(3):17-23

46) Khanam, M., **Rahman, M.S.**, Mahbub, A.A., Yeasa, M. and Gomosta, A.R. 2007. Effects of different factors on the growth efficiency of rice seedlings. Bangladesh J. Bot. 36 (2):171-176

47) Salam, M.A., Rahman, M.A., Bhuiyan, M.A.R., Uddin, K., Sarker, M.R.A., Yasmeen, R. and **Rahman, M.S. 2007.** BRRI dhan 47: a salt-tolerant variety for the boro season. IRRN 32(1):42-43

48) Mahbub, A.A., Khanam, M., **Rahman, M.S.**, Hossain, M.A. and Gomosta, A.R. 2006. Determination of lodging characters of some BRRI recommended rice varieties at three nitrogen levels during wet season in Bangladesh. Bangladesh J. Bot. 35(2):117-124

49) Mahbub, A.A., **Sazzadur Rahman,** M. Khanam, M. and Gomosta, A. R. 2005**.** Development of Preharvest sprouting tolerance screening technique in rice. IRRN 30(1):50-51

ACADEMIC/CONFERENCE PRESENTATIONS

SEMINAR PRESENTATIONS:

1) Ideotype design through Multi-Trait Stability Index (MTSI) in the multi-trait-multi-environment trials of rice. Presented as BRRI's Thursday Seminar at BRRI, Gazipur, 1 June 2023.
2) Challenges and opportunities of C4 rice bioengineering for rice food security. Presented in 2nd Conference on Plants for Food, Health and Resilient Environment, Bangladesh Society of Plant Science and Technology, Cox's Bazar, 23-24 January, 2023.
3) Marker assisted introgression of heat tolerance QTL: A typical example of DNA-marker application in the breeding program. Presented as BRRI's Sunday Seminar at BRRI, Gazipur, 13 September 2020.
4) Background, current status and future endeavors of C4 rice research. Presented as Special seminar at BRRI, 22 July 2019.
5) Mapping QTLs for salinity tolerance of a novel Bangladeshi salt tolerant rice landrace Ashfal Balam Presented in International Saline-Alkali Tolerant Rice Forum II, Qingdao, China, 7-8 December, 2017.
6) Breeding Management System (BMS): An Integrated software for Data Management, Molecular Breeding and Statistical Analysis – BRRI Thursday Seminar presentation, BRRI, Gazipur, Bangladesh, 24 December, 2015.
7) Development of heat tolerant rice through marker-assisted backcrossing. Presented in International Conference of Biotechnology in Health and Agriculture (ICBHA), 2nd GNOBB Conference 2015, Nabab Nawab Ali Chowdhury Senate, University of Dhaka, Dhaka, Bangladesh, 9-10 January, 2015.
8) Modeling G by E interaction analysis for multi-environment trials– BRRI Thursday Seminar presentation, BRRI, Gazipur, Bangladesh, 8 May 2014.
9) Rice Research and Food Security in Bangladesh: Development of Salt and Heat Tolerant Rice – Invited Seminar Presentation, Department of Genetic Engineering and Biotechnology, East West University, Dhaka, Bangladesh, 31 July 2013.
10) MABC for introgression of *Saltol* QTL and allelic variation of *Saltol* region of Pokkali accessions – BRRI Thursday Seminar presentation, BRRI, Gazipur, Bangladesh, 20 December 2012.
11) Genotypic and phenotypic characterization of '*Saltol*' introgression lines for release as high-yielding salt tolerant rice. Second PhD seminar presentation, Dept. of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh, 16 July 2012.
12) Genotypic and phenotypic characterization of '*Saltol*' introgression lines for release as high-yielding salt tolerant rice. First PhD seminar presentation, Dept. of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh, 28 November 2011.
13) Studies on '*Saltol*' QTL introgression through marker assisted backcrossing - BRRI Thursday Seminar presentation, BRRI, Gazipur, Bangladesh, 22 May 2008
14) Introgression of salt tolerance into Bangladeshi mega rice variety BR11 through marker assisted backcrossing- MS Thesis presentation, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Salna, Gazipur, Bangladesh, 28th April 2008.
15) Introgression of '*Saltol*' QTL into Bangladeshi mega rice variety BR11 through marker assisted backcrossing. Presented in Plant Tissue Culture & Biotechnology Conference 2008, Department of Botany, University of Dhaka, Dhaka, Bangladesh, 13 April, 2008

POSTER PRESENTATIONS:

1) Mamunul Hasan, Md. Hridoy Hussain, Munnujan Khanam, Avijit Biswas, Tuhin Halder, Hirendra Nath Barman, Mst. Salma Pervin, Ujjal Kumar Nath, Zeba I. Seraj and Md. Sazzadur Rahman. **Application of diverse marker systems to track SNP linked to *qHTSF4.1*: a quantitative trait locus for rice heat tolerance.** Presented in 2nd Conference on Plants for Food, Health and Resilient Environment, Bangladesh Society of Plant Science and Technology, Cox's Bazar, 23-24 January, 2023.

2) **M. S. Rahman**, S. Rahman, T. Haque, M.R. Islam, M.A. Salam, M.J. Thomson, A.M. Ismail and Z.I. Seraj. 2013. Development of salt tolerant version of BR11 and BRRI dhan28 through marker-assisted backcrossing. Poster presented in 7th International Rice Genetics Symposium 2013, held in 5-8 November 2013, Dusit Thani Hotel, Manila, Philippines.

3) **M. Sazzadur Rahman**, Michael J. Thomson, Zeba I. Seraj and Abdelbagi M. Ismail. 2011. Introgression of Saltol and fine mapping of reproductive stage QTLs to develop rice varieties highly tolerant of salt stress. Poster presented in GCP ARM 2011, Hyderabad, India, held in 21-25 September, 2011.

4) **M. Sazzadur Rahman**, Habibul B. Shozib, Aliya Ferdousi, Mariz Sintaha, M. A. Salam, Michael J. Thomson, Abdelbagi M. Ismail and Zeba I. Seraj. 2010. Mapping of Novel Salt tolerance QTLs from Bangladeshi Coastal Aus Rice Landrace Boilam (Oryza sativa L.). Poster presented in 3rd International Rice Congress 2010, Hanoi, Vietnam, held in 8-12 November, 2010.

5) **M. Sazzadur Rahman**, Aliya Ferdousi, Dost Mohammad, Mariz Sintaha and Zeba I. Seraj. 2010. Application of DNA markers in the development of rice suitable for the changing environment. In: Sixth AGM and Symposium, organized by Graduate Biochemists Association (GBA), TSC Auditorium, University of Dhaka, Bangladesh, held on 21 May, 2010. P-24

6) **Sazzadur Rahman**, Aliya Ferdousi, Rafiqul Islam, Abdus Salam, Michael Thomson, Abdelbagi Ismail and Zeba Seraj. 2009. Saltol introgression into Bangladeshi mega rice variety BR11 through marker assisted backcrossing. Poster presented in the 6th International Rice Genetics Symposium, 16-19 November 2009, Manila Hotel, Manila, Philippines.

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PROCEEDING PAPERS (ABSTRACTS):

1) **Md. Sazzadur Rahman**, Munnujan Khanam, Rumena Yasmeen, Salma Pervin, Avijit Biswas, Tuhin Halder, Hirendra Nath Barman and Joban K. Biswas. 2023. Cool Rice in Hot Climate: High-Temperature-induced Spikelet Fertility QTL (*qHTSF4.1*) Improves Heat Tolerance at The Flowering Stage of Rice. Presented in International Symposium for the 50 Years of BRRI, 24 February 2023, Bangladesh Rice Research Institute (BRRI), Gazipur, p-61.
2) SMHA Rabbi, ME Hoque, S Sultana, Munnujan Khanam and **MS Rahman**. 2023. C4 Rice Research: Shaping Our Roadmap and its Current Position. Presented in International Symposium for the 50 Years of BRRI, 24 February 2023, Bangladesh Rice Research Institute (BRRI), Gazipur, p-49.
3) **Md. Sazzadur Rahman**, SM Hisam Al Rabbi, Hirendra Nath Barman, Munnujan Khanam, Md. Hridoy Hossain, Mst. Salma Pervin, Zeba I. Seraj and Md. Shahjahan Kabir. 2023. Challenges and opportunities of C4 rice bioengineering for rice food security. Presented in 2nd Conference on Plants for Food, Health and Resilient Environment, Bangladesh Society of Plant Science and Technology, Cox's Bazar, 23-24 January, 2023.
4) Md. Monir Hosain, Md. Hridoy Hussain, Kamrun Nahar, **Md. Sazzadur Rahman**. Investigation of salinity tolerance through chlorophyll fluorescence at seedling stage in rice (*Oryza sativa* L.). 2023. Presented in 2nd Conference on Plants for Food, Health and Resilient Environment, Bangladesh Society of Plant Science and Technology, Cox's Bazar, 23-24 January, 2023.
5) Haque T, Elias SM, Razzaque S, Rahman MS, Biswas S, Khan SF, Juenger T, Walia H, Ismail A and Seraj ZI. Identification, characterization and validation of salt tolerance determinants in rice (*Oryza sativa* L indica) landrace Horkuch and its segregating population under salinity stress, 23rd Plant and Animal Genome Conference (PAG-XXIII), San Diego, USA, January 14-15, 2015.
6) Sabrina M. Elias, Taslima Haque, **Md. Sazzadur Rahman**, Sudip Biswas, Sumaiya Farah Khan, Thomas Juenger, Harkamal Walia, Abdelbagi Ismail, Zeba I Seraj. 2015. Identification, characterization and validation of salt tolerance determinants in rice (Oryza sativa L) landrace Horkuch and its segregating population. P03022-A. ASPB Meeting, 12-16 July, 2014, Portland, Oregon, USA.
7) Tasmia Islam, Shawon Mitra, Sudip Biswas, Umme Habiba Mita, M. Sazzadur Rahman, M. Ansar Ali, R.H. Sarker and Zeba I. Seraj. Possibility of wide hybridization between wild halophytic (*P.*

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Synergistic Activities

1) PhD and MS examiner of Sylhet Agricultural University, 2019
2) MS Thesis examiner of Bangabandhu Sheikh Mujibur Rahman Agricultural University, 2017
3) MS Research Supervisor and thesis examiner of Bangladesh Open University, 2017
4) MS Research Supervisor and thesis examiner of Sher-e-Bangla Agriculture University, 2013
5) MS Thesis examiner Hajee Mohammad Danesh Science & Technology University, 2013
6) Reviewer of Bangladesh Rice Journal since 2014

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