

Curriculum Vitae of Md. Hasanuzzaman

Personal Information

Md. Hasanuzzaman, PhD

Associate Professor
Department of Agronomy
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Date of Birth: 1 May, 1986

Nationality: Bangladesh

Marital Status: Married

Gender: Male

Blood Group: O (+ve)

Employment experience

From	To	Position	Institution/University	Country	Remarks
19.12.2018	Till date	Associate Professor	Department of Agronomy, Sher-e-Bangla Agricultural University	Dhaka, Bangladesh	Research and teaching
04.12.2013	18.12.2018	Assistant Professor	Department of Agronomy, Sher-e-Bangla Agricultural University	Dhaka, Bangladesh	Research and teaching
04.12.2011	03.12.2013	Lecturer	Department of Agronomy, Sher-e-Bangla Agricultural University	Dhaka, Bangladesh	Research and teaching
24.04.2011	03.12.2011	Assistant Director	Ministry of Agriculture, Bangladesh Agricultural Development Corporation	Dhaka, Bangladesh	Seed production

Education

2014-2018

Doctor of Philosophy (Agricultural Science)

School of Agriculture and Food System, Tasmanian Institute of Agriculture, University of Tasmania, Australia

Awards Granted: Conferred on 19 Dec 2018

Thesis: Physiological and Morphological Responses to Osmotic Stress Tolerance in Barley (*Hordeum vulgare* L.)

Supervisors: Professor Dr. Meixue Zhou, Professor Dr. Sergey Shabala, Professor Dr. Tim. J. Brodribb and A/Professor Dr. Lana Shabala

2014-2018

Graduate Certificate in Research

School of Agriculture and Food System, Tasmanian Institute of Agriculture, University of Tasmania, Australia

Awards Granted: Conferred on 19 Dec 2018

Major Courses Studied: Introduction to Higher Degree by Research, Communicating Research, Advanced Analytical Techniques (CSL) and Writing for Publication

2010-2012

Master of Science (Agronomy)

Department of Agronomy, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

Thesis: Influence of Nitrogen and Phosphorus on Growth and Yield of Hybrid Rice.

Supervisors: Professor Dr. Md. Fazlul Karim and Professor Dr. Hazrat Ali

Result: CGPA **4.00** in a scale of **4.00**

Major Courses Studied: Advanced Crop Production Technology, Seed Technology, Crop Physiology and Stress Agronomy, Post-harvest Technology, Fertilizer Management, Sustainable Agriculture, Applied Weed Science, Farming System, Irrigation Water Management, Statistical Methods and Design of Experiments.

2005-2009

Bachelor of Science in Agriculture (Hons.)

Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

Result: CGPA **3.85** in a scale of **4.00**

Major Courses Studied: Agronomy, Agricultural Botany, Agricultural Extension, Agroforestry, Agricultural Economics, Agricultural Chemistry, Animal Husbandry, Biochemistry, Biotechnology, Entomology, Genetics and Plant Breeding, Horticulture, Plant Pathology, Soil Science, Farm Mechanics and English.

2001-2003

Higher Secondary School Certificate

Board of Intermediate and Secondary Education, Jessore, Bangladesh.

Result: GPA **3.60** in a scale of **5.00**

Major courses Studied: Bengali, English, Physics, Chemistry, Biology and Mathematics.

1996-2001

Secondary School Certificate

Board of Intermediate and Secondary Education, Jessore, Bangladesh.

Result: GPA **4.38** in a scale of **5.00**

Major courses Studied: English, Bengali, Physics, Chemistry, Biology, General Mathematics, Higher Mathematics, Religion and Social Science.

Training, Workshop and Masterclass

- Attended workshop on “The Development of an Agricultural Diploma Course and Curriculum Incorporating New Agricultural Technologies” organised by Bangladesh Technical Education Board, held on 26-28 January, 2020 at Dhaka-1207, Bangladesh.
- Attended training course on “Project Cycle Management on Sustainable and Climate Smart Agriculture for Government Officials” organised by Food and Agriculture Organization of the United Nations (FAO) Bangladesh, held from 17-21 December 2019

at Graduate Training Institute (GTI), Bangladesh Agriculture University, Mymensingh, Bangladesh.

- Attended 2nd Masterclass on “Cereal Research” organised by Stress Physiology Research Group, Tasmanian Institute of Agriculture, University of Tasmania, held from 4-5 September 2018 at Bruny Island, Tasmania, Australia.
- Attended 1st Masterclass on “Abiotic Stress Tolerance” organised by Stress Physiology Research Group, Tasmanian Institute of Agriculture, University of Tasmania, held from 28-30 November 2016 at Strahan, Tasmania, Australia.
- Attended training course on “Curriculum Development, Teaching Methods, Learning Assessment and Self-Assessment Procedure” organised by Higher Education Quality Enhancement Project, held from 11-13 April 2013 at Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.
- Attended training course on “Teaching Methods and Techniques” organised by Outreach Program, held from 14-16 October 2012 at Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.
- Attended training course on “227th Rover Scout Unit Leader Basic Course” organised by Bangladesh Scouts Rover Region, held from 27-31 December 2012 at Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.
- Completed the program titled “Base Certificate in Office 2003 (52 hours)” organised by the Academic Council of NIIT, 23rd day of September 2010 at NIIT Panthopath Centre, Dhaka, Bangladesh.

Awards and Fellowships

- 2019, awarded as a Dean's award from the Sher-e-Bangla Agricultural University for academic excellence in the academic year of 2005-2009.
- 2018, Crawford Fund Research Scholar, Tasmania, Australia
- 2017, Travel grand for InterDrought-V conference, The University of Western Australia, Australia
- 2014, Tasmanian Graduate Research Scholarship, Tasmania, Australia
- 2011, National Science and Information and Communication Technology Fellowship, Ministry of Science and Technology, Bangladesh.

Research interest

Areas of interest in research are plant stress physiology, plant adaptive responses to environmental stresses including salinity, oxidative stress, extreme temperatures, soil acidity, drought, waterlogging, nutritional disorders and biotic stresses.

Research experiences

- Involved in research project as a Principle Investigator on “Revealing Tolerance Mechanisms of Salinity, Waterlogging and Combined Salinity-Waterlogging Stress in Wheat and Barley” funded by National Science and Information and Communication Technology (NSICT). Ministry of Science and Technology, Government of the People’s Republic of Bangladesh.

- Involved in research project on “Physiological and Morphological Responses to Osmotic Stress Tolerance in Barley (*Hordeum vulgare* L.)”. PhD Research work, funded by GRDC, University of Tasmania, Australia.
- Involved in research project on “Alleviation of salt stress-induced damages in rice plants with foliar spray of proline and glycine betaine” funded by Sher-e-Bangla Agricultural University research system (SAURES).
- Involved in research project on “Potential use of exogenous protectants in mitigating salt stress in rice and wheat” funded by National Science and Information and Communication Technology (NSICT). Ministry of Science and Technology, Government of the People’s Republic of Bangladesh.
- Involved in research project on “Influence of nitrogen and phosphorus on growth and yield of hybrid rice” funded by National Science and Information and Communication Technology (NSICT). Ministry of Science and Technology, Government of the People’s Republic of Bangladesh.

Conference Attended

- Participated in the International Conference on “Crop diversification and intensification for food and nutritional security of Bangladesh” organized by Bangladesh Society of Agronomy, held on 7 December 2019 at the Krishibid Institution of Bangladesh, Dhaka, Bangladesh.
- Participated in the International Conference on “Agronomy for Food and Nutritional Security” organized by Bangladesh Society of Agronomy, held on 1 December 2018 at the Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur, Bangladesh.
- Participated in the Crawford Fund’s Annual Conference on “Reshaping Agriculture for Better Nutrition—the Agriculture, Food, Nutrition, and Health Nexus” organized by Crawford Fund, held from 13-14 August 2018 at the Parliament House, Canberra, Australia.
- Participated in the “18th Australian Barley Technical Symposium (ABTS)” organized by GRDC, held from 3-6 September 2017 at the Wrest Point Hotel Casino, Sandy Bay, Tasmania, Australia.
- Participated in the “ABARES Regional Outlook Conference” organized by Australian Bureau of Agricultural and Resource Economics and Sciences, held on 23 August 2017 at the Waterfront Function Centre, Devonport, Tasmania Australia.
- Participated in the International Conference “InterDrought-V” organized by ICRISAT, held from 21-25 February 2017 at the Hyderabad International Convention Center, Hyderabad, India.
- Participated in the International Conference on “Crop Production under Changing Climate in Bangladesh: Agronomic Options” organized by Bangladesh Society of Agronomy, held from 6-7 October 2010 at the Bangladesh Agriculture Research Council, Dhaka, Bangladesh.

List of Publication

1. **Hasanuzzaman, M.**, Shabala, L., Brodribb, T. J., Zhou, M., & Shabala, S.* (2019). Understanding physiological and morphological traits contributing to drought tolerance in barley. *Journal of Agronomy and Crop Science*, 205, 129-140. (**Impact factor: 2.96**)
2. Choudhury, S., Larkin, P., Meinke, H., **Hasanuzzaman, M.**, Johnson, P., & Zhou, M.* (2019). Barley yellow dwarf virus infection affects physiology, morphology, grain yield and flour pasting properties of wheat. *Crop and Pasture Science*, 70(1), 16-25. (**Impact factor: 1.33**)
3. Hasanuzzaman, M.*, Matin, M. A., Fardus, J., **Hasanuzzaman, M.**, Hossain, M. S., & Parvin, K. (2019). Foliar application of salicylic acid improves growth and yield attributes by upregulating the antioxidant defense system in *Brassica campestris* plants grown in lead-amended soils. *Acta Agrobotanica*, 72(2).
4. **Hasanuzzaman, M.**, Shabala, L., Zhou, M., Brodribb, T. J., Corkrey, R., & Shabala, S.* (2018). Factors determining stomatal and non-stomatal (residual) transpiration and their contribution towards salinity tolerance in contrasting barley genotypes. *Environmental and Experimental Botany*, 153, 10-20. (**Impact factor: 3.71**)
5. Fardus, J., Matin, M. A., **Hasanuzzaman, M.**, Hossain, M. A., & Hasanuzzaman, M.* (2018). Salicylic acid-induced improvement in germination and growth parameters of wheat under salinity stress. *Journal of Animal & Plant Sciences*, 28(1), 197-207.
6. **Hasanuzzaman, M.**, Davies, N. W., Shabala, L., Zhou, M., Brodribb, T. J., & Shabala, S.* (2017). Residual transpiration as a component of salinity stress tolerance mechanism: a case study for barley. *BMC Plant Biology*, 17(1), 107. (**Impact factor: 3.67**)
7. **Hasanuzzaman, M.**, Shabala, L., Brodribb, T. J., Zhou, M., & Shabala, S.* (2017). Assessing the suitability of various screening methods as a proxy for drought tolerance in barley. *Functional Plant Biology*, 44(2), 253-266. (**Impact factor: 2.33**)
8. Fardus, J., Matin, M. A., **Hasanuzzaman, M.**, Hossain, M. S., Nath, S. D., Hossain, M. A. & Hasanuzzaman, M.* (2017). Exogenous salicylic acid-mediated physiological responses and improvement in yield by modulating antioxidant defense system of wheat under salinity. *Notulae Scientia Biologicae*, 9(2), 219-232.
9. Naim, M. A., Matin, M. A., Anee, T. I., **Hasanuzzaman, M.**, Chowdhury, I. F., Razafindrabe, B. H., & Hasanuzzaman, M.* (2017). Exogenous selenium improves growth, water balance and chlorophyll content in indica and japonica rice exposed to salinity. *Transylvanian Review*, 1(3).
10. Masrufa, S., Rahman, A., **Hasanuzzaman, M.**, Anee, T. I., Ali, M. H., & Hasanuzzaman, M.* (2016). Pre-planting hardening-induced variability in yield attributes and yield of inbred and hybrid rice. *Bangladesh Agronomy Journal*, 19(1), 87-97.
11. Masrufa, S., Rahman, A., **Hasanuzzaman, M.**, Nath, S. C. D., Ali, M. H., Anee, T. I., & Hasanuzzaman, M.* (2016). Effect of pre-planting hardening of seedlings on growth, dry matter accumulation and tillering of inbred and hybrid rice. *Focus on Sciences*, 2(2).
12. Chowdhury, I. F.*, Hasan, M. A., Ali, **Hasanuzzaman, M.**, M. H & Bashar, M. A. (2016). Planting density and weed management techniques affecting weed flora and yield of fine rice cv. BRRI dhan50. *Bangladesh Journal of Botany*, 45 (3), 451-458.
13. Hasanuzzaman, M.*, Alam, M. M., Rahman, A., **Hasanuzzaman, M.**, Nahar, K., & Fujita, M. (2014). Exogenous proline and glycine betaine mediated upregulation of antioxidant defense and glyoxalase systems provides better protection against salt-induced oxidative stress in two rice (*Oryza sativa* L.) varieties. *BioMed Research International*, 2014, 1-17 (**Impact factor: 2.19**).

14. Hossain, M. E., Chowdhury, I. F., **Hasanuzzaman, M.**, Mazumder, S., Matin, M. A.*, & Jerin, R. (2014). Effect of Nitrogen and Bradyrhizobium on Growth and Yield of Mungbean. *Journal of Bioscience and Agricultural Research*, 1(2), 79-84.
15. Chowdhury, I. F.*, Ali, M. H., Karim, M. F., **Hasanuzzaman, M.**, & Islam, S. (2014). Economic Weed Control Strategies in Aromatic Rice. *Applied Science Report*, 8(1), 21-26.
16. Mamun, F., Ali, M. H., Chowdhury, I. F.*, **Hasanuzzaman, M.**, & Matin, M. A. (2014). Performance of Rapeseed and Mustard Varieties Grown Under Different Plant Density. *Scientia Agriculturae*, 4(2), 70-75.
17. Masum, S. M.*, Ali, M. H., **Hasanuzzaman, M.**, Chowdhury, I. F., Mandal, M. S. H., & Jerin, R. (2014). Response of variety and population density on yield attributes and yield of boro rice (*Oryza sativa*). *Annals of Agricultural Research*, 35(4), 355-361.
18. Islam, M. B.*, Ali, M. H., Masum, S. M., **Hasanuzzaman, M.**, Rahman, A., Hosain, M. T., Islam, M. S., Chowdhury, M. P., & Khalil, M. I. (2013). Performance of Aman Varieties as Affected by Urea Application Methods. *Applied Science Reports*, 2(3), 55-62.
19. Hossain, M. M., Khan, M. A.*, Hosain, M. T., Bari, A. F., & **Hasanuzzaman, M.** (2013). Germination and Electrical Conductivity of Two Species of Jute Seed as Affected by Different Sowing and Production Methods. *International Journal of Agriculture and Crop Sciences*, 6(12), 861.
20. Jerin, R., Amin, A. K. M. R., Biswas, P. K., **Hasanuzzaman, M.***, & Bari, A. S. M. F. (2013). Use of organic fertilizer to reduce the amount of chemical fertilizers in mustard. *Journal of Experimental Bioscience*, 4(2), 83-87.
21. Bari, A. F.*, Khan, M. A., Sultana, S., **Hasanuzzaman, M.**, & Sultana, N. (2013). Effect of various inorganic fertilizer and manure applications with different water managements on yield and yield attributes of boro rice, *Journal of Experimental Bioscience*, 4(2), 1-6.
22. Ullah, M. R., Karim, M. F., Islam, M. S., & **Hasanuzzaman, M.*** (2013). Performance of T. Aman varieties under different levels of NPK fertilizers. *Bangladesh Agronomy Journal*, 16 (1), 73-80.
23. Rahman, A., Biswas, P. K.*, Sardar, M. S. A., **Hasanuzzaman, M.** & Malek, M. (2013). Allelopathic effect of Brassica biomass on weed control and growth of wheat. *Bangladesh Journal of Weed Science*, 3(1&2), 5-10.
24. Mahamud, J. A.*, Haque, M. M., & **Hasanuzzaman, M.** (2013). Growth, dry matter production and yield performance of transplanted aman rice varieties influenced by seedling densities per hill. *International Journal of Sustainable Agriculture*, 5(1), 16-24.
25. Nipa, J. S., Roy, T. S., Amin, A. K. M. R., & **Hasanuzzaman, M.*** (2013). Effect of lifting time and tuber size on ambient storage performance of potato derived from true potato seed. *International Journal of Sustainable Agriculture*, 5 (1), 1-9.
26. Al-Mamun, M. A., Biswas, P. K., Karim, M. F., **Hasanuzzaman, M.***, & Rahman, A. (2013). Influence of Rice Straw and Water Hyacinth Incorporation on the Performance of Boro Rice. *International journal of Bio-resource and Stress Management*, 4(2), 209-213.
27. **Hasanuzzaman, M.***, Ali, M. H., Karim, M. F., Masum, S. M., & Mahamud, J. A. (2013). Influence of prilled urea and urea super granules on the growth and yield of hybrid rice. *Journal of Experimental Bioscience*, 4(1), 1-8.
28. Al-Mamun, M. A., Biswas, P. K., Karim, M. A., **Hasanuzzaman, M.*** & Rahman, A. (2012). Allelopathic effect of rice straw and water hyacinth on weed control in boro rice. *Bangladesh Journal of Weed Science*, 3(1&2), 11-18.
29. Jabin, U., Karim, M. F., Ullah, M. J., **Hasanuzzaman, M.***, Masum, S. M., & Rahman, A. (2012). Response of mustard to the application method of prilled urea and urea supper

granule. *International Research Journal of Applied and Basic Sciences*, 3(12), 2529-2533.

30. **Hasanuzzaman, M.***, Ali, M. H., Karim, M. F., Masum, S. M., & Mahmud, J. A. (2012). Response of hybrid rice to different levels of nitrogen and phosphorus. *International Research Journal of Applied and Basic Sciences*, 3(12), 2522-2528.

Book Chapters

1. **Hasanuzzaman, M.**, Zhou, M., Shabala, S.* (2018) Physiological and Morphological Mechanisms Mediating Plant Tolerance to Osmotic Stress: Balancing Tolerance and Productivity. In: Benkeblia N, eds. *Climate Change and Crop Production: Foundations for Agroecosystem Resilience*: CRC press, 23.

Conference paper

1. Hasanuzzaman M, Davies NW, Shabala L, Brodribb TJ, Zhou M, Shabala S (Oral presentation) "Residual transpiration determines differential salinity stress tolerance in barley". **18th Australian Barley Technical Symposium**, Hobart, Tasmania, Australia, 3-6 September, 2017
2. Hasanuzzaman M, Shabala L, Brodribb TJ, Zhou M, Shabala S (Poster presentation) "Assessing the suitability of various screening methods as a proxy for drought tolerance in barley". **InterDrought-V**, Hyderabad, India, 21-25 February, 2017

Societal involvement

- Life member of Bangladesh Society of Agronomy
- Life Member of Weed Science Society of Bangladesh
- Life member of Bangladesh Seed Association
- Member of Agriculturalist Institution of Bangladesh
- Member of Sher-e-Bangla Agricultural University Alumni Association
- Member of the University of Tasmania alumni community

Reference

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