

Abdul Awal Chowdhury Masud

Assistant Professor

Department of Agronomy • Sher-e-Bangla Agricultural University, Dhaka-1207

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Education

Masters'	Department of Agronomy, Sher-e-Bangla Agricultural University, 2017 CGPA : 3.88/4.00 Supervisor : Dr. Md. Fazlul Karim, Professor, Dept. of Agronomy, SAU Thesis : Potassium role under drought stress Courses : Research Methodology, crop physiology & stress agronomy, post-harvest technology, farming system, sustainable agriculture & organic farming
B.Sc. Ag. (Horn's)	Faculty of Agriculture, Sher-e-Bangla Agricultural University, 2014 CGPA : 3.79/4.00 Courses : Economics, rural sociology, extension & information system, botany, chemistry, biochemistry, biotechnology, computer, plant pathology, Farm mechanics, environmental science, horticulture, genetics & plant breeding, entomology, agronomy
HSC	Govt. City Collage (Chittagong, Bangladesh), 2009 Group : Science GPA : 4.60/5.00
SSC	Govt. Muslim High School (Chittagong, Bangladesh), 2007 Group : Science GPA : 5.00/5.00

Academic Experience

Assistant Professor	Affiliation : Department of Agronomy, SAU-1207 Tenure : December, 2020-Present
Lecturer	Affiliation : Department of Agronomy, SAU-1207 Tenure : December, 2018- December, 2020

Scholarships, Grants, Fellowships and Awards

Scholarships	OKP scholarship for the short course on Potato Sector Development for Emerging Markets, organized (23.05.2022-24.06.2022) by Wageningen Centre for Development Innovation (WC DI), 2021.
Grants	Screening of Soybean Genotypes for Waterlogging Stress Tolerance and Understanding the Tolerance Mechanism. Funded by Ministry of science & Technology (R & D), 2020. Mitigating salt stress in soybean by seed priming with different osmopriming agents. Funded by Ministry of science & Technology (R & D), 2021. Morpho-physiological, biochemical and yield enhancement of mustard by foliar application of kinetin and abscisic acid under water deficit stress. Funded by Ministry of science & Technology (R & D), 2022.
Fellowships	Special Research Student, Laboratory of plant stress responses Kagawa University, Agriculture, Japan . Advanced Practical Training on Plant Stress Physiology. Funded by Japan Student Services Organization (JASSO), 2017.

Improvement of grasspea (*Lathyrus sativus*) production through shortening plant height. Funded by Ministry of science & Technology (*NST Fellowship*), 2016.

Awards

Teach for Bangladesh, TFB fellowship, 2016.

Academic Deans' Award, 2019 (Faculty of Agriculture).

Best scientific paper presenter Award (Student category), 17th Conference of Bangladesh Society of Agronomy (BSA) on "Agronomy for food and nutritional security".

Publications

Thesis

Masud AAC (2017). Potassium-induced antioxidant defense and regulation of physiological processes towards drought stress tolerance in wheat (*Triticum aestivum* L.). MS thesis, Department of Agronomy, Sher-e-Bangla Agricultural University, Dhaka-1207.

Original Articles

Akhter S, Amin AKMR, **Masud AAC** (2022). Organic and mineral fertilization-induced yield and seed quality of okra (*Abelmoschus esculentus* L.). *J. Plant Sci.* 17: XX-XX.

Masud AAC, Akhter S, Amin AKMR (2022) Comparative performances of organic amendments on germination, growth and yield indices of three selected okra [*Abelmoschus esculentus* (L.) Moench] Cultivars. *Journal of Agriculture, Food and Environment (JAFE)*. 3(1):15-20

Anee TI, Islam MNB, Hassan MM, **Masud AAC**, Alam MM, Hasanuzzaman M (2022) Organic Amendments Improve Plant Morpho-Physiology and Antioxidant Metabolism in Mitigating Drought Stress in Bread Wheat (*Triticum aestivum* L.). *Phyton- International Journal of Experimental Botany*. doi:10.32604/phyton.2022.021137

Hossen MS, Karim MF, Fujita M, Bhuyan MHMB, Nahar K, **Masud AAC**, Mahmud JA, Hasanuzzaman M (2022). Comparative Physiology of Indica and Japonica Rice under Salinity and Drought Stress: An Intrinsic Study on Osmotic Adjustment, Oxidative Stress, Antioxidant Defense and Methylglyoxal Detoxification. *Stresses*. 2(2):156-178. <https://doi.org/10.3390/stresses2020012>

Nath SCD, **Masud AAC**, Rahman M, Saha T, Sathi KS, Rahman A, Khan MAH, Hasanuzzaman M (2021). Supplemental Organic Manures and Foliar Application of Magic Growth Improve the Productivity of Transplanted Rice with Reduced Application of Chemical Fertilizers. *Agriculturae Conspectus Scientificus*. 87(2):111-120.

Islam M N, **Masud AAC**, Alam MM, Islam MN, Rahman ML, Hasanuzzaman M (2022). Osmolyte-induced water deficit stress mitigation during panicle initiation stage in transplanted rice (*Oryza sativa* L.). *Plant Science Today*. 9(1): 9–20.

Sathi KS, **Masud AAC**, Falguni ML, Ahmed N, Rahman K, Hasanuzzaman M (2022). Screening of Soybean Genotypes for Waterlogging Stress Tolerance and Understanding the Physiological Mechanisms. *Advances in Agriculture*. Article ID 5544665. <https://doi.org/10.1155/2022/5544665>

Masud AAC, Karim MF, Bhuyan MHMB, Mahmud JA, Nahar K, Fujita M, Hasanuzzaman M (2020). Potassium-induced regulation of cellular antioxidant defense and improvement of physiological processes in wheat under water deficit condition. *Phyton- International Journal of Experimental Botany*. DOI:10.32604/phyton.2020.013259. (IF: 1.039).

Bhuyan MHM, Hasanuzzaman M, Mahmud JA, **Masud AAC**, Hossen MS, Fujita M (2020). Enhancement of antioxidant defense and glyoxalase system by malic acid seed priming confers acidity stress endurance to wheat (*Triticum aestivum* L.). *Plant Physiology and Biochemistry* (Submitted).

Review Articles

- Hasanuzzaman M, Parvin K, Bardhan K, Nahar K, Anee TI, **Masud AAC**, Fotopoulos V (2021). Biostimulants for the Regulation of Reactive Oxygen Species Metabolism in Plants under Abiotic Stress. *Cells*, 10, 9326. 10.3390/cells10102537 (IF: 6.600)
- Hasanuzzaman M, Raihan M, Hossain R, **Masud AAC**, Rahman K, Nowroz F, Rahman M, Nahar K, Fujita M (2021). Regulation of Reactive Oxygen Species and Antioxidant Defense in Plants under Salinity. *International Journal of Molecular Sciences*. 22, 9326. doi.org/10.3390/ijms22179326 (IF: 5.924)
- Hasanuzzaman M, **Masud AAC**, Bhuiyan TF, Anee TI (2019). Legumes for Soil Fertility Management and Sustainable Agriculture. *SATSA Mukhapatra - Annual Technical Issue 23*. (Invited Paper).
- Hasanuzzaman M, Bhuyan MHM, Nahar K, Hossain MS, Mahmud JA, Hossen MS, **Masud AAC**, Fujita M (2018). Potassium: A Vital Regulator of Plant Responses and Tolerance to Abiotic Stresses. *Agronomy*, 8(3), p.31. 10.3390/agronomy8030031 (IF: 3.417)

Book Chapters

- Hasanuzzaman M, Parvin K, Anee TI, **Masud AAC**, Nowroz F (2022) Salt Stress Responses and Tolerance in Soybean. In Hasanuzzaman M, Nahar K (Eds.) *Plant Stress Physiology - Perspectives in Agriculture*. IntechOpen, London. doi:10.5772/intechopen.102835
- Sathi KS, **Masud AAC**, Anee TI, Rahman K, Ahmed N, Hasanuzzaman M (2022). Soybean Plants Under Waterlogging Stress: Responses and Adaptation Mechanisms. In: Hasanuzzaman M, Ahammed GJ, Nahar K (eds) *Managing Plant Production Under Changing Environment*. Springer Nature, Switzerland. pp. 103-134.
- Hasanuzzaman M, Mohsin SM, Bhuyan MHM, Bhuiyan TF, Anee TI, **Masud AAC**, Nahar K (2020). Phytotoxicity, Environmental and Health Hazards of Herbicides: Challenges and Ways Forward. In: Prasad, M.N.V (eds) *Agrochemicals Detection, Treatment and Remediation: Pesticides and Chemical Fertilizers*. Butterworth- Heinemann/Elsevier, London. pp. 55-99.

Conference Abstracts

- Masud AAC**, Ahmed N, Raihan MRH, Hasanuzzaman M (2021) Morphophysiological and biochemical performances of different sugarbeet genotypes under salinity stress. GIAFAS-2021 3rd International Conference, 2021, pg. 48.
- Anee TI, Islam MNN, **Masud AAC**, Alam M, Hasanuzzaman M (2021) Role of Different Organic Amendments in Mitigating Drought Stress-Induced Oxidative Stress in *Triticum aestivum*. GIAFAS-2021 3rd International Conference, 2021, pg. 60.
- Ahmed N, Anee TI, **Masud AAC**, Alam MM, Islam MN, Hasanuzzaman M (2019). Use of biostimulants in mitigating salt stress in mustard (*Brassica rapa* L.). Abstract of the 18th conference of Bangladesh Society of Agronomy. Dhaka, Bangladesh. 07 December 2019, p.93.
- Akhter S, Amin AKMR, **Masud AAC** (2021). Organic and Mineral Fertilization-Induced Yield and Seed Quality of Okra (*Abelmoschus esculentus* L.). Abstract of the 20th conference of Bangladesh Society of Agronomy. Dhaka, Bangladesh. December 31, 2021, p.154.
- Masud AAC**, Karim MF, Hasanuzzaman M, Biswas PK, Nahar K, Mahmud JA, Bhuyan MHM, Fujita M (2018). Potassium-induced antioxidant defense and regulation of physiological processes towards drought stress tolerance in wheat. Abstract of the 17th conference of Bangladesh Society of Agronomy. Dhaka, Bangladesh. 01 December 2018, p.38.
- Bhuyan MHMB, Hasanuzzaman M, Mahmud JA, Hossain MS, Hossen MS, **Masud AAC**, Fujita M (2018) Seed priming with malic acid confers low pH stress tolerance to wheat (*Triticum aestivum* L.) seedlings by upregulating antioxidant defense and ethylglyoxal detoxification system.

ComBio2018, International Convention Centre, Darling Harbour, Sydney, 23 - 26 September 2018. p.105.

Masud AAC, Hasanuzzaman M, Nahar K, Mahmud JA, Bhuyan MHM, Hossain MS, Fujita M (2017). Potassium-induced antioxidant defense and regulation of physiological processes towards drought stress tolerance in wheat (*Triticum aestivum* L.). Phytogene Symposium IX, 20 October 2017, Kagawa International Conference Hall, Takamatsu, Kagawa, Japan. p.31.

Presentations

Oral Presentation

Scientific paper presentation on 'Potassium-induced antioxidant defense and regulation of physiological processes towards drought stress tolerance in wheat (*Triticum aestivum* L.)' on 17th Conference of Bangladesh Society of Agronomy (BSA) "Theme: Agronomy for food and nutritional security", 2018.

Poster Presentation

Poster presentation on 'Potassium-induced antioxidant defense and regulation of physiological processes towards drought stress tolerance in wheat (*Triticum aestivum* L.)' at Phytogene Symposium IX, 20 October 2017, Kagawa International Conference Hall, Takamatsu, Kagawa, Japan.

Poster presentation on 'Morpho-physiological and biochemical performances of different sugarbeet genotypes under salinity stress' at GIAFAS-2021 3rd International Conference, 17-18 Oct, 2021, Shri Guru Ram Rai University, Dehradun, Uttarakhand, India.

Training, Workshops & Participations

Trainings

Training Program on "Digital service design & planning lab for uniform university management system & national integrated university information platform" on 16-21 January, 2020, PWD conference room, segunbagicha, Dhaka.

Training workshop on scientific writing and publications, SAU, 2019.

Training on "Experimental Design and Statistical Analysis using R" on 2-3 March, 2021.

Workshops

A workshop on "Teachers workshop on games and activities for virtual class" held on March 20, 2021. Organized by mekATeam: EMK center.

Virtual workshop on "Reference management using mendeley" on September 19-20, 2020. Organized by the library association of Bangladesh (LAB).

A workshop on "Sharing information through citizen journalism" held on March 6-8, 2021. Organized by EMK center.

Art and Practice of Leadership (APL-4) graduate, BYLC, 2014.

Participations

1st International Conference on Recent Advances in Agricultural Sciences (ICRAAS) on the Theme "Innovations and Translational Research in Agriculture" on 16 - 17 March 2021 at NOIDA, Amity University Uttar Pradesh.

7th International Symposium on Strategies for Sustainability in Food Production, Agriculture and the Environment 2021, ISFAE 2021 NIIGATA. ISFAE 2021 NIIGATA is the online International Symposium organized by the Faculty of Agriculture, Niigata University on December 2 - 3, 2021.

Participated in IX Phytogene Symposium on 20th October 2017, Plant Genome and Resource Research Center, Faculty of Agriculture, Kagawa University, Japan.

Participated in 17, 18, 19 and 20th conference of Bangladesh society of Agronomy (BSA).

EJEA International Conference 2021 on 'Human-centered Sustainability and Innovation for an AI-assisted Future: New Interdisciplinary Education & Research for the Next Stages in Japan and Europe' October 22nd - 24th, 2021 in Takamatsu, Japan and online

International Conference on Global Initiatives in Agricultural, Forestry and Applied Sciences (Theme: Food Security, Environmental Safety and Sustainable Development) (GIAFAS-2021) October 17-18, 2021
 Participated in X Phytogene Symposium on 25th January, 2021, 'The possibilities and future'. Plant Genome and Resource Research Center, Faculty of Agriculture, Kagawa University, Japan.

Seminars & Webinars

Academy Lecture on "Saline Tolerant High Yielding Rice: Is the Way Forward through DNA Markers, Genetic Modification or Gene Editing?" to be presented by Prof. Dr. Zeba Islam Seraj, Fellow, BAS & Professor, Department of Biochemistry and Molecular Biology, University of Dhaka, organized by the Bangladesh Academy of Sciences. Held on Monday, 16 August 2021 at 5:00 p.m. on a Zoom platform.
 How to Write a Manuscript: Expert Advice on Getting Published, A webinar by Frontiers in Agronomy on Nov 24, 2021.
 Academy Lecture on "Approaches for Enhancing Abiotic Stress Tolerance in Crop Plants" to be presented by Prof. Dr. Mirza Hasanuzzaman, Fellow, BAS & Professor, Department of Agronomy, Sher-e-Bangla Agricultural University, organized by the Bangladesh Academy of Sciences. Held on Monday, 08 March 2021 at 11:00 a.m. on Zoom platform.
 National webinar on the traditional role of plants for health and stress management in the context of covid-19 pandemic" organized by the Dept. of Botany, Rural institute of Higher Studies (RIHS), Bhograi, Balasore, Odisha, India on Oct 21, 2020
 Plant Cell Compartments 2022: Stay Connected" symposium. March 17th-18th
 Global Symposium on Literature Search: Advocating smart ways to discover and read academic literature" held on 28 May 2021 arranged by R Discovery

Others Participations

Hikami, volunteer school, Japan ▪Massive open online course (edX) ▪Trained First Responder (Critical link)
 ▪EATL-Prothom Alo Apps contest 2014 ▪ BYLC Youth leadership summit, 2012.

Leadership & Extra-Curricular Activities

Team Leader Transparency International Bangladesh, TIB, SAU-YES Group (2014-2016).
Vice-President SAU Debating society (2014-2015).

Online Courses

Coursera Excel Skills for Business: Essentials - Macquarie University (ID: SGU3A5EDCG9B)
BYLCx The Art of Public Speaking, Bangladesh Youth Leadership Center (ID: APS200283).
 Digital Citizenship (ID: DC200016).
 Critical Thinking for Professional Success (ID: 13426).
Alison Food Safety Knowledge - Basic Level Requirements – Revised (ID: 1856-15585132).
 Fundamentals of Storytelling in Education for Teachers and Trainers (ID: 1702-15585132).

Memberships

National Life member of Bangladesh Society of Agronomy (BSA)
 Life member of Weed Science Society of Bangladesh (WSSB)
 Life Member of Sher-e-Bangla Agricultural University Teachers' Association (SAUTA)
 Member of International Associations for Agricultural Sustainability (IAAS)
 Member at British Ecological Society (CON-1042221)
International Member at World association for scientific research and technical innovation
 Member at Teaching & Education Research Association
 Member at International Society for Environmental Information Science (ISEIS)

Skills

Research Skills	:	Biochemical Assay, Spectrophotometrical Assay, Scientific Writing,
Computer Skills	:	Proficient in Microsoft office (Word, Excel, Powerpoint), Photoshop & Graphical Illustration
Data analysis	:	R, Statistix 10, Data analysis by excel
Communications	:	Teamwork, Event hosting, Networking & Anchoring
Languages	:	Bengali-Native, English- Advanced, Japanese-Elementary Nihongo

Others Experiences

Junior Agricultural Executives	:	mPower Social Ltd., Bangladesh (Dhaka, Bangladesh), 2016
Program support Assistant (PSA)	:	FAO, Bangladesh (Dhaka, Bangladesh), 2016
Resource Trainer	:	PACE Program, BRAC (Dhaka, Bangladesh), 2013-2015

Website link

<http://sau.edu.bd/teacher/26>

<https://sites.google.com/sau.edu.bd/masudchy/home?authuser=0>

Personal Details

Name : Given Name : Abdul Awal Chowdhury
Surname : Masud
Father's Name : Chowdhury Faruq-Bin-Omar
Mother's Name : Kazi Badrul Lail
Date of Birth : 05-10-1991
Gender : Male
Marital status : Married
Spouse Name : Sumona Akhter
Religion : Islam
Home district : Cumilla
Blood Group : B+ve
Nationality : Bangladeshi
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Agricultural University, Dhaka-1207
Present Address : N.A.D 06, Gonobhavan Officer's Quarter, Sher-e-Bangla Nagar,
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Permanent Address : Village: Somespur, Post office: Noa bazar-3500, Police station:
Couddogram, District: Cumilla, Bangladesh

References

Dr. Mirza Hasanuzzaman
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Dr. Kamrun Nahar
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I the undersigned, hereby declare that the above information is true, complete and correct to the best of my knowledge and concern. These data correctly describe my qualifications and me.

Date: Sher-e-Bangla Nagar, Dhaka-1207
June 28, 2022



Signature