

Personal Details:

Sharmin Sultana

Assistant Professor

Department of Biochemistry and Molecular Biology

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Educational Qualification:

- **Master of Science in Biochemistry and Molecular Biology**
CGPA 3.98 out of 4
Duration: Jan-Jun/2021 to July-Dec/2022
Held on: May, 2024
- **Master of Science in Genetics and Plant Breeding**
C.G.P.A: 4.00 in a scale of 4.00
Department of Genetics and Plant Breeding, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh
Duration: Jan-Jun/2014-July-Dec/2015
Held on: Jan/2017
Result published: 7th March/2017
- **Bachelor of Science in Agriculture (Honors), 2013 (Merit Position: 3rd)**
C.G.P.A: 3.94 in a scale of 4.00
Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh
Duration: Jan-Jun/2010- July-Dec/2013
Held on: Sept/2014
Result Published: 15 Dec/2014

Research Interest

Plant Science, Genetics, Molecular Biology, Plant Biotechnology, Transgenic breeding, Cell Biology, Plant Growth, Plant physiology, Plant Biochemistry and Plant nutrition.

Achievements:

- Dean's award 2019, Sher-e-Bangla Agricultural University
- Awarded National Science and Technology (NST) Fellowship 2015-2016, Ministry of Science and Technology, Bangladesh
- Attained scholarship in General grade in Govt. Junior Scholarship Exam, 2003

Employment

- Assistant Professor' (1st July, 2021- till date), Department of Biochemistry and Molecular Biology, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.
- Lecturer' (1st July, 2019 – 30 June, 2021), Department of Biochemistry and Molecular Biology, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Work Experience

- i) Delivering lectures, demonstrating lab works and evaluations, and making exam sheets in different courses at Bachelor of Science and Master of Science (MS)
- ii) Preparing research proposals and applying for a research grant
- iii) Conducting research and publishing research findings

Publications:

• Journal Articles:

Md Asaduzzaman,* M Golam Mahboob, **Sharmin Sultana**, Nazmun Naher. Assessing the contribution of mango orchards to carbon sequestration using field derived data and satellite remote sensing techniques in Shibganj, Bangladesh. *Smart Agricultural Technology*. Volume 11, August 2025, 100931. <https://doi.org/10.1016/j.atech.2025.100931>

Sultana, S., Shamsuzzaman, M., Miah, M.A.S. et al. Assessment of proximate composition, mineral element profile and antioxidant properties of the edible oyster mushroom grown in Bangladesh. *Discov Food* 4, 126 (2024). <https://doi.org/10.1007/s44187-024-00216-2>

Sultana, S., Mahmud, F. & Asaduzzaman, M. (2021). Assessment of Genetic Diversity of 62 F4 Population of Rapeseed (*Brassica Napus* L.) Through Multivariate Analysis. *SAARC Journal of Agriculture*, 19(1), 15–25.

Sultana, S and Mahmud, F. Genetic Variability, Correlation and Path Analysis in F4 Generation of *Brassica Napus* L. (2021). *Bangladesh Journal of Plant Breeding and Genetics*. Press.

Ziaul H, Hasan K M, Anjan K D, Eftekhar M, Najmul H G, **Sharmin Sultana** and Mozahid. (2019). Appraisal of Genetic Variability and Character Association of Bitter Gourd (*Momordica charantia* L.) Land Races for Yield and Yield Contributing Characters in Bangladesh. *Journal of Biotechnology and Bioresearch*. 1(4). JBB.000517.2019.

Ahmed, J., Mahmud, F., **Sultana, S.**, & Shamsuzzaman, M. (2022). Appraisal of genetic variability and character association of kenaf (*Hibiscus cannabinus*): Genetic variability and character association of kenaf. *SAARC Journal of Agriculture*, 20(2), 31–42. <https://doi.org/10.3329/sja.v20i2.63449>

Sadia Tabassum Tanni, Md. Nazrul Islam, **Sharmin Sultana**, Md. Harun-Ur-Rashid and Md. Abdur Rahim*. (2023). Genetic Variability Studies of ‘Flowering Chinese Cabbage (*Brassica rapa* subsp. *Chinensis* var. *parachinensis*)’ in Bangladesh. *Advances in Zoology and Botany*, Vol. 11(5), pp. 384 – 391. DOI: 10.13189/azb.2023.110506

KS. Ahmed, ME. Hoque, M. Shamsuzzaman, **S. Sultana**, MS. Islam. In vitro regeneration of *Caladium bicolor*. *Int. J. Biosci*, 22(4), 132-139, April 2023.
DOI: <http://dx.doi.org/10.12692/ijb/22.4.132-139>

Jubayer Ahmed, Firoz Mahmud, **Sharmin Sultana**, "Genetic Diversity Studies in Kenaf (*Hibiscus cannabinus* L.) through Multivariate Analysis," *Advances in Zoology and Botany*, Vol. 12, No. 4, pp. 191 - 198, 2024. DOI:10.13189/azb.2024.120401.

Islam, M. N., **Sultana, S.**, Rashid, M. U., & Rahim, M. A. (2024). Determination of the potentiality of different sesame (*Sesamum indicum* L.) genotypes: Potentiality of different sesame (*Sesamum indicum* L.) genotypes. *Bangladesh Journal of Agriculture*, 49(1), 52–67.
<https://doi.org/10.3329/bjagri.v49i1.74043>

Md. Shamsuzzaman., **Sharmin Sultana** et al., “Comparative Biochemical Compositions of Commercially Grown and Wild Edible Mushroom Species from Bangladesh”, 2025. *Plant Science Today*. (Under review)

- **Thesis**

- Sultana, S. (2015). Genetic Variability, Correlation and Path Analysis in F₄ Generation of *Brassica Napus* L. M.S. thesis, SAU, Sher-e-Bangla Nagar, Dhaka.
- Sultana, S. (2022). Proximate Composition, Mineral Element Profile and Antioxidant Properties of the Edible Oyster Mushroom Grown in Bangladesh. M.S. thesis, SAU, Sher-e-Bangla Nagar, Dhaka.

- **Research Experience**

- Screening and Characterization of Drought Tolerant Chilli (*Capsicum annum* L.) Genotypes (Financed by R&D Project, National Science and Technology Ministry) (Principal Investigator)
- Selection of Potential Sesame (*Sesamum Indicum* L.) Genotypes for Yield and Its Contributing Traits for Hybridization Program (Associate Investigator) - Completed.
- Assessment of Nutritional Value, Micronutrient, Antioxidant Components and Antioxidant Capacity of Selected Vegetables Available in Local Market of Dhaka City (Principal Investigator) (Completed) (Financed by R&D Project): Completed.
- Phytochemical and Antioxidant Activity of Two Roselle Variety (BJRI Mesta 2 and BJRI Mesta 4) (*Hibiscus Sabdariffa* L.) And Its Therapeutic Uses (SAURES Project: completed)

- Study of genetic characteristics of f3 progenies in sesame (*Sesamum indicum* L.) (Md Abdur Rahim and Sharmin Sultana): 2024-2025. SRG-241169.

Supervision

- Mitigating salt stress in soybean: the role of salicylic acid with seaweed extract in enhancing growth and stress tolerance" (Co-Supervisor)

Conferences Attended:

- International E-Conference of **Department of Biotechnology and Microbiology, Gandhi Faiz E-Aam College** on Challenges for Biotechnology in Agriculture and Drug Development, 20 June, 2020, Shahjahanpur-242001, U.P., India (Virtual)
- 1st **International Conference on Recent Advances in Agricultural Sciences (ICRAAS-2021)** organized by Amity Institute of Organic Agriculture (AIOA) on Innovations and Translational Research in Agriculture, 16–17 March, 2021, Amity University, U.P., India (Virtual)
- 3rd international conference on **Global Initiative in Agricultural, Forestry and Applied Sciences for Food Security, Environmental Safety and Sustainable Development (GIAFAS-2021)**, 17-18 October, 2021 at Shri Guru Ram Rai University, Dehradun, Uttarkhand, India, (Virtual)
- 5th Young Scientist Congress on **Young Scientist for Health and Environment**, organized by Bangladesh Academy of Sciences, 25-27 November, 2022 at National Science and Technology Complex, Dhaka, Bangladesh
- 2nd International and 12th Biennial Conference of Plant Breeding and Genetics Society of Bangladesh, 2023 on **Plant Breeding Transformation in Changing Climate**, 18-19 February, 2023 at Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Training:

- Attended a training program on “Teaching-Learning, Assessment and Implementation of Outcome Based Curriculum”
- Participated a training workshop on “Scientific Paper Writing and Publication”.
- Participated a training workshop on “Scientific Paper Writing and Data Analysis”.

Key Skills:

- Computer Skills: Proficient in Excel, PowerPoint, Word, Photoshop, Statistical analysis (R and SPSS).
- Language skills: good proficiency in reading, writing and speaking both in English and Bangla.
- **IELTS Score = 7**

Professional Membership

- ‘Life Member’, Sher-e-Bangla Agricultural University Teachers Association (SAUTA)-From 1st July 2019 to till
- ‘Life Member’, Agriculturist Institution, Bangladesh.
- ‘General Member’, Krishibid Institution (Institution of Agriculturists), Bangladesh- From 2014
- ‘General Member’, Sher-e-Bangla Agricultural University Alumni Association (SAUAA) From 2014