



Dr. Most. Shirin Sultana

Dean

Professor (Agriculture)

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Home District: Rangpur

Area of Specialization and Research Interest

Horticulture, Natural Pyrethrins Biosynthesis, Biotechnology, Genetic Engineering, Bioinformatics, Molecular Cloning and Characterizations of Promoter from DNA Sequence, Organic Pest Management, Open and Distance Learning.

Academic Qualification

2015: Doctor of Philosophy in Horticulture (3 years), Huazhong Agricultural University, Wuhan China (Chinese Government Scholarship 2012)

2002: Master of Science in Horticulture, First Class, Bangladesh Agricultural University

1997: (Exam held in 2001) Bachelor of Science in Agriculture (4 years), First Class, Bangladesh Agricultural University

1993: HSC (Science), First Division with star marks, Saidpur Cantt. Public School and College, Rajshahi Board

1991: SSC (Science), Saidpur Pilot Girls High School. First Division, Rajshahi Board

Academic Degree Dissertation/Thesis

M.S. Thesis Title

Effect of Mulching and NPK Fertilizers on Growth and Yield of Kholrabi.

Doctor of Horticulture Thesis Title

Chrysanthemyl Diphosphate Synthase: Trichome Specific Promoter Characterization, Overexpression Regulates Pyrethrins Biosynthesis in *Tanacetum cinerariifolium* and Resolving Relationships within Chrysanthemum.

Professional Experience

Professor (Agriculture): 2023-

Associate Professor (Agriculture): 2018 -2023

Assistant Professor (Agriculture): 2008 - 2018

Lecturer (Agriculture): 2005 - 2008

Publications

1. **Sultana, S.**, Hu, H., Gao, L., Mao, J., Luo, J., Jongsma, M.A., Wang, C., 2015. Molecular cloning and characterization of the trichome specific chrysanthemyl diphosphate/chrysanthemol synthase promoter from *Tanacetum cinerariifolium*. **Scientia Horticulturae** 185, 193-199. (Elsevier, Science Citation Index Journal SCI, IF-4.6, Q1 Horticulture category)).
2. Qiu, S., **Sultana, S.**, Liu, Z.D., Yin, L.Y., Wang, C.Y., 2015. Identification of obligate C3 photosynthesis in Dendrobium. **Photosynthetica**, 1-10.53(2):168-176((Springer, Science Citation Index Journal SCI, IF-3.189 Q2 in Plant Sciences).
3. Feng, S., **Sultana, S.**, Sikdar, A., R, R., Wang, J., & Huang, Y. (2023). Lipid Peroxidation, Antioxidant Enzyme Activities, and Osmotic Adjustment in *Platycladus orientalis* and *Amorpha fruticosa* Differ during Drought and Rewatering. **Forests**, 14(5), 1019. **MDPI**. IF-3.2 Q1 forestry category

4. RR.Hossain, A., Sultana, S., Deb, B., Ahmod, M. M. (2024). Microplastics increase cadmium absorption and impair nutrient uptake and growth in red amaranth (*Amaranthus tricolor* L.) in the presence of cadmium and biochar. *BMC plant biology*, 24(1), 608. **Science Citation Index** , **IF-5.6 ,Q1** in plant science)
5. **Sultana, S.**2025 "In vitro regeneration and dry matter assessment of pyrethrin-rich *Tanacetum cinerariifolium* genotypes.*Ecology Journal*.) 7 (1) : 51-57
6. Roy, R., **Sultana, S.**, Wang, J., Mostofa, M. G., Sarker, T., Shah, M. M. R., & Hossain, M. S. (2022). Revegetation of coal mine degraded arid areas: the role of a native woody species under optimum water and nutrient resources. *Environmental Research*, 204, 111921.**Elsevier, Science Citation Index Journal SCI, IF-8.2 Q1** in Environmental Sciences and Public Health)
7. **S Sultana** and M.F Mondal. 2004. Effect of Mulching and NPK Fertilizer on Growth and Yield of Kohlrabi. *Progressive Agriculture*.15 (1):259-265
8. **Sultana, S.**, 2020. Selection of high pyrethrins producing genotypes by regeneration technique using leaf as explants of pyrethrum (*Tanacetum cinerariifolium*) plant. *BOU J Agric Rural Dev* 12(1): 55-61.
9. **Sultana S.**, 2020. Sucrose metabolic gene plays a vital role in plant metabolic process. *J. Bangladesh Soc. Agric. Sci. Technol.*, 17(1-4): 61-66.
10. Roy, R., **Sultana, S.**, Begum, N., Fornara, D., Barmon, M., Zhang, R.,& Rabbany, M. G. (2021). Exogenous melatonin reduces water deficit-induced oxidative stress and improves growth performance of *Althaea rosea* grown on coal mine spoils. *Environmental Science and Pollution Research*, 1-11**Springer, Science Citation Index Journal SCI, IF- 5.59 Q1**.
11. **S Sultana** and S Ferdousi.2007.Education, Income Generating Activities, Rural Women; Bangladesh Perspective. *Journal of Open School*. 7(2): 97-104
12. M Z Islam, **S Sultana**, M F Mondal and MHR Mukul.2009.Effect of Growth Regulators on Bio-chemical Change and Shelf life of Banana during Storage. *Eco-FRIENDLY AGRICULTURE JOURNAL*.2 (7):699-705.
13. Roy, R., Núñez-Delgado, A., **Sultana, S.**, Wang, J., Battaglia, M. L., Sarker, T. & Zhang, R. (2021). Additions of optimum water, spent mushroom compost and wood biochar to improve the growth performance of *Althaea rosea* in drought-prone coal-mined spoils. *Journal of Environmental Management*, 295, 113076. **Elsevier , Science Citation Index Journal SCI, IF-9.2 Q1** Environmental Sciences / Environmental Engineering).

14. Sultana, S., and M. A. Rah.man.2019 "APPLICATION OF PLANT EXTRACT FOR THE MANAGEMENT OF EPILACHNA BEETLE ON BITTER GOURD.Bangladesh Journal of Ecology.vol1
15. R, R Mahboob, M. G., Arena, C., Kader, M. A., **Sultana, S.**, Hasan, A. K., & Barmon, M. (2021). The Modulation of Water, Nitrogen, and Phosphorous Supply for Growth Optimization of the Evergreen Shrubs *Ammopiptanthus mongolicus* for Revegetation Purpose. ***Frontiers in plant science*. 12: 766523. IF-5.9 Q1** (top 25% of journals in the Plant Sciences category).
16. S Ferdowsi, **S Sultana** , SM Numan. 2011. Strength and Weakness of Bachelor of Education Program of Bangladesh Open University: Learners' Perspective. Journal of Open School.4(1&2):21-27.
17. S Ferdowsi, **S Sultana**. 2011. Learners' Views Towards Course Materials, Electronic Media, Counseling Facilities of Bachelor of Education Program: BOU Perspective. Journal of Scientific and Technological Research(JSTR).2: (41-47)
18. S.M.A.S.Islam, M.M.Rahman, M.Al-Amin, **S.Sultana** and A.S.M.A. Hossain. 2009. In Vitro Propagation of Chrysanthemum. Bangladesh Journal of Environmental Science.17:21-25.
19. M.A. Hoque, M.A.R.Sarker, **M.S.Sultana**, M.S.H.Basunia and M.A. Rasid.2009 Effect of In-situ Rice Straw Composting on Soil Nutrients. Journal of Environmental Science.17:31-34.
20. Mondol, M. A., Hossain, M., **Sultana, S.**, Islam, M. A., & Biswas, P. (2020). Impact of air pollution in Mymensingh city of Bangladesh: focusing peoples' perception. **Progressive Agriculture**, 31(3), 154-163.
21. Mondol, M. A., Hosain, A. M. M., **Sultana, S.**, Marzia, S., Islam, M. A., Mahmud, H. M. M., & Biswash, P. (2020). Impact of common tobacco products on human health and environmental pollution in Bangladesh. **Progressive Agriculture**, 31(3), 130-143.

Book

- S. Sultana, Taleb, M.A., Sarker, M.A., Rahman, A.N.M., Wadud, M.A., Rayhan, M.S., 2019.Agricultural Studies for SSC Program. Course code: 2686. Bangladesh Open University.
- S. Sultana, Taleb, M.A., Islam, M.T., Shelley,I J.,Haque, T., Sultana,R.,2018 Agricultural Studies First paper for HSC Program. Course code. 1889 Bangladesh Open University.
- S. Sultana, Sarker, S.A., Debnath, S., Rahman, G.M.M., Rahman, M.M., Selim, A.S.M., 2019. Agricultural Studies Second paper for HSC Program. Course code. 2889 Bangladesh Open University. 2019.
- Agricultural Studies First paper for HSC Program. Course code. 1838. Bangladesh Open University. 2012.

Media Program: 35 Video and 30 Audio program

Training

1. Workshop on Vocational Lead Tutors' Training on Academic Support for BOU Learners, organized by Bangladesh Open University (BOU) and Commonwealth Educational Media Centre for Asia(CEMCA), dated 21-22 January 2020.
2. Capacity Building Workshop on Development of eContent to Delivery Digitally, organized by Bangladesh Open University and Commonwealth Educational Media Centre for Asia (CEMCA), dated 19-23 January 2016.
3. Training Programme on Instructional Design, organized by Bangladesh Open University, CAMPE and The Commonwealth of Learning (COL), Canada , dated 7 to 11 May, 2006
4. "Training Program on Capacity Building for Open and Distance Learning (ODL) Materials" organized by Bangladesh Open University dated 12 to 19 March, 2006.
5. Research Methodology for Social Science Researchers" sponsored by Bangladesh Academy for Rural Development (BARD) dated 21 June to 10 July, 2003.
6. Training on "Administration, Office Management & Communication" conducted by Graduate training Institute, BAU, Mymensingh dated 14 to 27 May, 2001.

Seminar

Studies on Genetic Diversity of Florist's Chrysanthemum and Wild Relatives Based on Intergenic Sequence of Chloroplast DNA. International Symposium on Chrysanthemum. 2013. Beijing, China

Award

Chinese Government Scholarship (2012) for PhD study from China Scholarship Council (CSC)

Academics and/or Administrative Responsibilities/Duties

1. Member: Curriculum Committee: Science Committee HSC, SSC , Open School, BOU
2. Member: Curriculum Committee: Vocational (VET), Open School, BOU.
3. Member: School Committee, Open School, BOU
4. Member: Academic Council, BOU
5. Admission Committee: Chairperson. (2022-23). SSC, HSC, SSC SSC Niche1, HSC Niche 1
6. Admission Committee: Chairperson. (2021-22). SSC, HSC, SSC SSC Niche1, HSC Niche 1
7. Curriculum committee: Science
8. Coordinator: Food Industry Management

9. Member: Examination Committee
10. Editor: Journal Committee
11. Chairman Curriculum Committee : Master of Disaster Management , Environment
12. Chairman Curriculum Committee: Masters in Criminology and Criminal Justice.
13. Member : Works committee

Scholarship

Chinese Government Scholarship (2012) for PhD study from China Scholarship Council (CSC)

Membership in learned Societies/Institutions

- Member, Huazhong Agricultural University Alumni Association, Wuhan, China.
- Member, Ecological Society of Bangladesh.