

Shukti Rani Chowdhury

Associate Professor,
Department of Plant Pathology,
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Research Interest

Plant Pathology, Plant Disease Management, Molecular Biology, Plant Biotechnology, Transgenic breeding, Cell Biology

Education

Master of Applied Science (Research) - 2019, Plant Biotechnology, 2 years (Full time)
Queensland University of Technology, Brisbane, Australia.

Thesis title: Establishment of Regeneration and Transient Transformation Systems for Australian Native Resurrection Plant *Tripogon loliiformis* (QUT eprint thesis: <https://eprints.qut.edu.au/132682/>)

Master of Science in Plant Pathology – 2008, Plant Pathology, 1.5 years (Full time)
Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Thesis title: Effect of Different Levels of Seed Infection by *Bipolaris sorokiniana* on Seedling Vigor, Leaf Blight Development and Quality Seed Production of Wheat

Bachelor of Science in Agriculture (Honours) - 2006, Agricultural Sciences, 4 years
Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Employment

‘**Associate Professor**’ (19 December, 2019- till date), Department of Plant Pathology, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

‘**Assistant Professor**’ (23 February, 2012 – 18 December, 2019), Department of Plant Pathology, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

‘**Lecturer**’ (23 February, 2010 - 22 February, 2012), Department of Plant Pathology, Faculty of Agriculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Administrative Experience

‘Assistant Hall Provost’ (1 August, 2013-31 July, 2015), Begum Fazilatunnesa Mujib Hall, Sher-e- Bangla Agricultural University, Dhaka, Bangladesh.

Research Experience

Research Grants

‘**Principal Investigator**’, ‘Effect of Black Pointed Seed and Vermicompost on Leaf Blight Severity Caused by *Bipolaris sorokiniana*, Yield Attributes and Seed Health Status of Wheat’ funded by Sher-e-Bangla Agricultural University Research System (SAURES), Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

‘**Research Associate**’, ‘Eco-friendly Management of Wilt Complex Pathogens of Tomato’ funded by University Grants Commission (UGC), Bangladesh.

Peer-reviewed Research Publications

Book chapter:

S. Mondal, K. Atta, S. Mukherjee, **S. R. Chowdhury**, A. Pal, S. Maitra, A. Hossain. 2023. Advancement of transgenic wheat (*Triticum aestivum* L.) to survive against abiotic stresses under changing climate. In: Abiotic Stresses in Wheat: Unfolding the Challenges. 1st Edition. Chapter 23. Academic Press, Elsevier Inc. 357-374.

Published journal articles:

B. Ghimire, M. Aktaruzzaman, **S. R. Chowdhury**, T. Spratling, C.B. Vermeer, J. W. Buck, A. D. Martinez-Espinoza, B. A. Bahri. 2023. Sensitivity of *Claviceps* spp. to Benzimidazoles and Dimethyl Inhibitors Fungicides and Efficacy of Biofungicides on Dollar Spot of Warm Season Turfgrass. Front. Plant Sci. Sec. Plant Pathogen Interactions. Volume 14 - 2023 | doi: [10.3389/fpls.2023.1155670](https://doi.org/10.3389/fpls.2023.1155670).

F. E. Elahi, M. Islam, M. Alam, N. Islam, M. M. H. Tipu, F. Khatun, **S. R. Chowdhury**, S. Sarker. 2021. First Report of *Athelia rolfsii* on Jackfruit (*Artocarpus heterophyllus*). Australasian Plant Disease Notes (2021) 16:17. <https://doi.org/10.1007/s13314-021-00430-2>

N. Akter, M. R. Islam, M. B. Hossain, M. N. Islam, **S. R. Chowdhury**, S. Hoque, R. H. Nitol, R. Tasnin. 2021. Management of Wilt Complex of Eggplant (*Solanum melongena* L.) Caused by *Fusarium oxysporum*, *Ralstonia solanacearum* and *Meloidogyne* spp. American Journal of Plant Sciences (2021) 12: 1155-1171. doi: 10.4236/ajps.2021.127080.

S. R. Chowdhury*, S. Hoque and N. Akter. 2020. Optimization of Regeneration and *Agrobacterium tumefaciens*-mediated Transient Transformation Systems for Australian Native Extremophile, *Tripogon loliiformis*. Journal of King Saud University-Science 32(8):3476-3485. <https://doi.org/10.1016/j.jksus.2020.10.010>

S. Islam, N. J. Shelly, K. U. Ahmed and **S. R. Chowdhury**. 2020. Study on the Nutritional Composition of Oil Cakes of Different Released and Line Cultivars of Mustard and Rapeseed (*Brassica* spp.). International Journal of Bio-resource and Stress Management 11(5): 437-444. <https://doi.org/10.23910/1.2020.2144>

S. Saha, M. E. Haq, S. Parveen, F. Mahmud, **S. R. Chowdhury** and M. H. Rashid. 2019. Variability, Correlation and Path Coefficient Analysis: Principle Tools to Explore Genotypes of Brinjal (*Solanum melongena* L.). Asian Journal of Biotechnology and Genetic Engineering 2(3): 1-9. <https://journalajbge.com/index.php/AJBGE/article/view/30062>

M. N. Islam, **S. R. Chowdhury***, F. M. Aminuzzaman, S. Saha and A. K. Mahato. 2019. Effect of Black Pointed Seed and Vermicompost on Leaf and Seed Infection of Wheat caused by *Bipolaris sorokiniana*. International Journal of Bio-resource and Stress Management 10(3): 266-275. doi: <https://doi.org/10.23910/IJBSM/2019.10.3.1987a>

M. R. Amin, A. N. F. Ahmmed, M. S. Islam, **S. R. Chowdhury** and M. A. Khaleque. 2014. Evaluation of Seed Treatment against Sheath Blight Disease of Hybrid Rice under Natural Epiphytic Condition. Journal of Experimental Biosciences 5 (2):87-92.

S. R. Chowdhury, F. M. Aminuzzaman, M. R. Islam and R. Zaman. 2010. Effect of Different Levels of Seed Infection by *Bipolaris sorokiniana* on Leaf Blight Severity, Grain Formation, Yield and Subsequent Seed Infection of Wheat. International Journal of Agriculture, Environment and Biotechnology 3(2): 219-224.

R. Zaman, F. M. Aminuzzaman, M. R. Islam and **S. R. Chowdhury**. 2010. Eco-friendly Seed Treatments in Controlling Black Point (*Bipolaris sorokiniana*) of Wheat. International Journal of Sustainable Crop Production 5 (3): 35-42.

R. Zaman, F. M. Aminuzzaman, M. R. Islam and **S. R. Chowdhury**. 2009. Eco-friendly Management of Leaf Blight (*Bipolaris sorokiniana*) of Wheat. American-Eurasian Journal of Sustainable Agriculture 3(3): 597-603.

S. R. Chowdhury, F. M. Aminuzzaman and M. R. Islam. 2009. Effect of Different Levels of Seed Infection by *Bipolaris sorokiniana* on Quality and Health of Wheat (*Triticum aestivum* L.) Seed. Bangladesh Journal of Agriculture, 34 (2):23-29.

Teaching Experience

Course Code- PLPA 506, Course Title- Molecular Biology of Host Pathogen Interactions (Theory), Credit Hour-3

Course Code-PLPA 502, Course Title-Phytopathological Research Methodology (Theory), Credit Hour-3

Course Code-PLPA 512, Course Title-Soil Borne Diseases (Theory), Credit Hour-3

Course Code- PLPA 353, Course Title-Principles of Plant Pathology and Seed Pathology (Theory), Credit Hour- 3

Course Code- PLPA 206, Course Title-Laboratory Techniques in Plant Pathology and Microbiology (Practical), Credit Hour- 2

Course Code- PLPA 354, Course Title-Diagnosis and Management of Field Crop Diseases and Seed Health Test (Practical), Credit Hour- 2

Course Code- PLPA 458, Course Title- Diagnosis and Management of Horticultural and Cash Crops Diseases (Practical), Credit Hour- 2

Course Code-PLPA 312, Crop Protection Strategy-2 (Practical), Credit Hour- 2

Supervision experience

Supervisor- Master of Science in Plant Pathology thesis, “Effect of Different Levels of Black Pointed Seeds and Vermicompost on Leaf Blight (*Bipolaris sorokiniana*) Severity, Yield Attributes and Seed Health Status of Wheat”, Session- June, 2015, Registration no. 08-03111, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Co-Supervisor- Master of Science in Plant Pathology thesis, “Root Colonization and Persistence of *Purpureocillium lilacinum* in Rhizosphere as Influenced by Some Crop Species and *Meloidogyne incognita*”, Session- June, 2015, Registration no. 09-03692, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Awards

‘Endeavour Postgraduate (Masters) Scholarship Program round 2017’ funded by Australian Government Department of Education

‘QUT HDR Tuition Fee Sponsorship’ funded by Queensland University of Technology, Brisbane, Australia.

‘National Science and Information & Communication Technology (NSICT) Fellowship’ funded by Ministry of Science and Information & Communication Technology, Bangladesh.

‘Dean’s Award’ for brilliant result in Level 4, Bachelor of Science in Agriculture (Honours)

Conferences attended

10th Biennial Conference, ‘Bangladesh Phytopathological Society’, 19 February, 2016,

5th Young Scientist Congress, ‘Bangladesh Academy of Sciences’, 25-27 November, 2022,

4th Young Scientist Congress, ‘Bangladesh Academy of Sciences’, 13-15 December, 2019,

9th Biennial Conference, ‘Bangladesh Phytopathological Society’, 19 February, 2016,

8th Biennial Conference, Bangladesh Phytopathological Society, 26 May, 2011,

Trainings recieved

‘Pesticide Application Technology’, 5 December, 2022

‘Journal Selection and Paper Submission’, 27 June, 2022

‘Understanding Research Metrics and Finding Relevant Journals to Read and Publish’, 26 June, 2022

‘Basic Molecular Biology and Disease Resistance’, 5 days (23 March, 2019–28 March, 2019)

‘Mushroom Cultivation’, 5 days (26 April, 2008-30 April, 2008)

‘Curriculum Development and Teaching-Learning Assessment’, 5 days (17 December, 2014 - 21 December, 2014)

Voluntary activities

‘Fundraising Volunteer’, SAU Welfare Society, a non-profit organization of Sher-e-Bangla Agricultural University Teachers and Alumni for collection of funds and helping the needy students of Sher-e-Bangla Agricultural University due to COVID-19 pandemic.

‘Tissue Culture Laboratory Steward’, Centre for Agriculture and Bioeconomy (CAB), Queensland University of Technology, Brisbane, Australia.

‘Volunteer Student’, International Student Service (ISS), Queensland University of Technology, Brisbane, Australia.

‘Organizing Secretary’, Executive Committee 2017-2018, Hindu Society of QUT (HSQUT), Queensland University of Technology, Brisbane, Australia.

‘Organizing Secretary’, Executive Committee 2017-2018, QUT Bangladeshi Association (QUTBA), Queensland University of Technology, Brisbane, Australia.

Membership in organizations

‘Member’, Academic Council of Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

‘Member’, Academic Committee, Department of Plant Pathology, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

‘Life Member’, Bangladesh Phytopathological Society, Bangladesh.

‘Life Member’, Agriculturist Institution, Bangladesh.

‘Life Member’, Australia Alumni Association Bangladesh (AAAB), Dhaka, Bangladesh.

‘Member’, Australia Global Alumni by Australian Government Department Foreign Affairs and Trade

‘Member’, Sher-e-Bangla Agricultural University Academic Council

‘Member’, Sher-e-Bangla Agricultural University Teachers Association (SAUTA)

‘General Member’, Registered Graduate Association of Sher-e-Bangla Agricultural University.

‘General Member’, Sher-e-Bangla Agricultural University Alumni Association (SAUAA).