Dr. Nahid Akter

Assistant Professor, Department of Plant Pathology
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Ph.D. (Japan)	12 + 1	3	Plant activator	CGPA 3.99
Tokyo University of Agriculture and Technology	journal articles + book chapter (CRC Press)	papers in Scopus / Web of Science journals	Ph.D. on ASM-induced plant immunity	MS; 1st of 272 in BSc

PROFILE

Plant pathologist specialising in **induced resistance and plant immune activators**, **molecular plant pathology** and **fungicide resistance in** *Colletotrichum*. Her Ph.D. at Tokyo University of Agriculture and Technology showed how the plant activator **acibenzolar-S-methyl (ASM)** suppresses Tomato yellow leaf curl virus DNA accumulation, published in the *Journal of Pesticide Science* (2026). In the same laboratory she co-authored a *Plant Disease* (2026) study of fungicide sensitivity and the *TUB2* E198A benzimidazole-resistance mutation in *Colletotrichum*. At SAU she teaches disease diagnosis and management and has worked on fruit and vegetable diseases of banana, latkan, eggplant and chilli.

Plant immune activators	Ph.D. research on ASM-induced resistance: SA-pathway activation, defence-gene response and suppression of pathogen accumulation — the core approach of the proposed mango and papaya study
Anthracnose pathogen	Hands-on work on *Colletotrichum* isolation, fungicide sensitivity (EC_{50}) assays and detection of target-site mutations (*TUB2* E198A)
Molecular tools	DNA extraction, PCR, sequencing, qPCR and strand-specific qPCR, gene-expression analysis, metagenomics and phylogenetic analysis (MEGA)
Fruit disease work	Surveys and management trials on banana (Panama, Sigatoka), latkan and seed-borne pathogens
Data analysis	R, MEGA, SPSS, Statistix 10, MSTATC

RESEARCH INTERESTS

Induced resistance and plant immune activators • Plant defence signalling (salicylic acid pathway) • Host–pathogen interaction • Fungicide resistance in *Colletotrichum* • Molecular diagnosis of plant pathogens • Biological control (Trichoderma) • Metagenomics and microbiome analysis • Bioinformatics and transcriptomics • Phylogenetic analysis (MEGA)

ACADEMIC POSITIONS

Dec 2020 – present	**Assistant Professor**, Department of Plant Pathology, SAU (rejoined Sept 2026 after Ph.D.)
Jun 2023 – 2026	**Doctoral researcher**, Tokyo University of Agriculture and Technology, Japan (study leave)
Dec 2018 – Dec 2020	**Lecturer**, Department of Plant Pathology, SAU

EDUCATION

2023 – 2026	**Ph.D.**	Tokyo University of Agriculture and Technology, Japan. Thesis on acibenzolar-S-methyl (ASM)-induced inhibition of Tomato yellow leaf curl virus DNA accumulation	
2017 – 2019	**MS in Plant Pathology**	Sher-e-Bangla Agricultural University. Thesis: Integrated management of wilt complex disease of eggplant	*CGPA 3.99 / 4.00*

2011 – 2015	**BSc Ag. (Hons.)**	Faculty of Agriculture, Sher-e-Bangla Agricultural University	*CGPA 3.98 / 4.00 · 1st of 272*
2010	**HSC (Science)**	Jessore Board	*GPA 5.00*
2008	**SSC (Science)**	Jessore Board	*GPA 5.00*

RESEARCH PROJECTS

Principal Investigator	Diversity analysis and molecular characterization of native *Trichoderma* species against Sclerotium rot of mungbean
Co-Investigator	Eco-friendly management of foot and root rot of betel vine caused by *Sclerotium rolfsii* through an integrated approach (Ministry of Science and Technology)
MS research	Integrated management of wilt complex of eggplant; molecular diagnosis of *Fusarium*, *Trichoderma* and *Pestalotia* isolates across Bangladesh

TEACHING — DEPARTMENT OF PLANT PATHOLOGY, SAU

Lectures, practical classes and examinations for B.Sc. Ag. (Hons.) students, including: **Diagnosis and Management of Field Crop Diseases and Seed Health Test** (PLPA-354) • **Diagnosis and Management of Horticultural and Cash Crop Diseases** • **Laboratory Techniques in Plant Pathology and Microbiology**

AWARDS AND FELLOWSHIPS

Ph.D.	Science and Technology Fellowship Trust (BSTFT) fellowship, Government of Bangladesh
MS	National Science and Technology (NST) Fellowship, Ministry of Science and Technology
BSc	Dean's Award for academic excellence in all semesters; Distinction Award (1st position)

TECHNICAL SKILLS

Laboratory	Isolation and morphological/molecular identification of fungi, bacteria and viruses; DNA extraction, PCR, sequencing, qPCR, strand-specific qPCR; metagenomics; fungicide sensitivity assays; seed health testing
Field	Disease surveys; management trials in laboratory, pot and field conditions
Software	R, MEGA (molecular evolutionary genetics analysis), SPSS, Statistix 10, MSTATC, Microsoft Office
Language	English and Bengali (fluent); IELTS 6.5

CONFERENCES AND TRAINING

2026	Kanto Regional Meeting, Phytopathological Society of Japan (PSJ), Tokyo — **oral presentation**
2025	Kanto Regional Meeting, Phytopathological Society of Japan (PSJ), Tokyo — attendee
6 days	Basic Molecular Biology and Disease Resistance — Bangladesh Rice Research Institute, Gazipur
2 days	Training on R software — SAU
2 days	Responsibilities of Teachers, Outcome-Based Education and Rules — SAU
1 day	Scientific Paper Writing and Publication — SAU
1 day	Mushroom Cultivation — Mushroom Development Institute, Ministry of Agriculture
Dec 2019	4th Young Scientist Congress: Achieving Sustainable Development Goals — Bangladesh Academy of Sciences, Dhaka

MEMBERSHIPS

2026 – 2027	Member, Phytopathological Society of Japan (PSJ)
2024 – 2025	Member, American Phytopathological Society (APS)
Life member	Bangladesh Phytopathological Society (BPS)
Member	Krishibid Institution Bangladesh

PUBLICATIONS

Book chapter

Masud, A. A. C., **Akter, N.**, Ajose, D. J., Tamima, T., Rahman, M. S., Shamsuzzaman, M., Kabir, K. and Hossain, D. 2026. Dermatological potentials of *Securidaca* spp. and their phytochemical properties. In: *Pharmaceutical Properties of Plants from the Genus Securidaca L.* CRC Press (Taylor & Francis Group). 33 pp.

Journal articles (12)

✓ **Peer-reviewed** = stated by the journal or publisher. ✓ **Indexed** = Scopus, Web of Science, CAB Abstracts, DOAJ or NLM. **Green rows** = peer-reviewed and first or last author.

No.	Journal article	Peer-reviewed	Indexed in	Position
1	**Akter, N.**, Shinji, Sakugawa, K., Islam, M. N., Arie, T. and Komatsu, K. 2026. Acibenzolar-S-methyl inhibits accumulation of replication-associated DNA of tomato yellow leaf curl virus. *Journal of Pesticide Science*.	✓ Yes	✓ Scopus · Web of Science	★ FIRST AUTHOR
2	Islam, M. N., Saito, H., **Akter, N.**, Arie, T. and Komatsu, K. 2026. Sensitivity analysis of *Colletotrichum cereale* isolates from creeping bentgrass to pyribencarb, metconazole and benomyl, and detection of a *TUB2* E198A mutation. *Plant Disease*. doi:10.1094/PDIS-10-25-2080-RE	✓ Yes	✓ Scopus · Web of Science	Co-author
3	**Akter, N.** (co-author). 2025. Assessment of heritability, yield stability and trait interrelationship in wheat (*Triticum aestivum* L.) under consecutive growing seasons. *American-Eurasian Journal of Agronomy*.	Not verified	—	Co-author
4	**Akter, N.** (co-author). 2025. Synergistic effects of variety and nitrogen fertilization levels on growth, yield and nitrogen use efficiency in bread wheat (*Triticum aestivum* L.). *World Journal of Agricultural Sciences*.	Not verified	—	Co-author
5	Islam, M., Islam, M. N., **Akter, N.**, Rahman, M. S. and Sarker, P. C. 2023. Effect of plant extracts and fungicides on associated pathogens of capsicum (*Capsicum annuum*) seed in storage. *Bangladesh Journal of Agricultural Research* 48(4): 421–431.	✓ Yes	BanglaJOL	Co-author
6	Islam, M. N., Faruk, M. I., **Akter, N.** and Karim, M. M. 2022. Survey, identification and management of major diseases of latkan in some selected areas of Bangladesh. *Bangladesh Journal of Agricultural Research* 47(2): 215–223. doi:10.3329/bjar.v47i2.67579	✓ Yes	BanglaJOL	Co-author
7	Neela, N., **Akter, N.**, Islam, M. N. and Islam, M. R. 2021. Standardization of temperature and duration for hot water seed treatment of selected vegetables. *The Agriculturists*.	✓ Yes	✓ CAB Abstracts · DOAJ · BanglaJOL	2nd author
8	**Akter, N.**, Islam, M. R., Hossain, M. B., Islam, M. N., Chowdhury, S. R., Hoque, S., Nitol, R. H. and Tasnin, R. 2021. Management of wilt complex of eggplant (*Solanum melongena* L.) caused by *Fusarium oxysporum*, *Ralstonia solanacearum* and *Meloidogyne* spp. *American Journal of Plant Sciences* 12: 1155–1171.	✓ Yes	✓ NLM Catalog	★ FIRST AUTHOR
9	Islam, M. N., **Akter, N.**, Karim, M. M., Arifunnahar, M. and Elahi, F. E. 2021. Management of Fusarium wilt of banana. *Bangladesh Journal of Plant Pathology*.	Not verified	—	2nd author
10	Chowdhury, S. R., Hoque, S. and **Akter, N.** 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. doi:10.1016/j.jksus.2020.10.010	✓ Yes	✓ Scopus · Web of Science	★ LAST AUTHOR
11	Islam, M. N., **Akter, N.**, Karim, M. M., Rahman, M. A. and Khatun, F. 2018. Efficacy of different fungicides in controlling Sigatoka disease of banana. *Bangladesh Journal of Plant Pathology* 34(1&2): 59–62.	Not verified	—	2nd author

No.	Journal article	Peer-reviewed	Indexed in	Position
12	Islam, M. N., **Akter, N.**, Karim, M. M., Akhter, M. S. and Rahman, M. M. E. 2018. Panama and Sigatoka diseases of banana in selected locations of Bangladesh. *Bangladesh Journal of Plant Pathology* 33(1&2): 5–10.	Not verified	—	2nd author