



## CURRICULUM VITAE

**DoB:** 25 November 1993

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### PERSONAL INFORMATION:

Name : **Alif Hossain**  
Address : Soil Science Division  
Bangladesh Institute of Nuclear Agriculture (BINA)  
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### EDUCATIONAL BACKGROUND

- **Master of Science in Agronomy, from January 2018 to December 2019**
  - Department of Agronomy
  - Sher-e-Bangla Agricultural University (SAU), Dhaka, Bangladesh
  - Result: Grade A<sup>-</sup> (CGPA 3.71 out of 4.00)
  - Thesis topic: Effect of nitrogen doses in boro rice grown with variable levels of floating duckweed
  - Thesis outcome: Application of 400 g duckweeds m<sup>-2</sup> with 90 kg N ha<sup>-1</sup> performed the best among the treatments in respect of rice yield
- **Bachelor of Science in Agriculture, from January 2013 to December 2016**
  - Faculty of Agriculture
  - Sher-e-Bangla Agricultural University (SAU), Dhaka, Bangladesh
  - Result: Grade B<sup>-</sup> (CGPA 3.53 out of 4.00)

### EMPLOYMENT AND RESEARCH EXPERIENCE

- **Scientific Officer, from July 2021 to Today**
  - Soil Science Division (Soil Microbiology and Analytical Chemistry), Bangladesh Institute of Nuclear Agriculture (BINA), Bangladesh
  - Major responsibilities: Nitrogen fixing bacteria (Mainly *Rhizobium*), isolation, characterization, Experiment setup in glasshouse/field and Biofertilizer production for different legume crops Experiment set up and effective strain identification, AAS, ICP-MS operation, Data analysis and reporting through RStudio and Statistix10 software
  - Assist in planning, conducting, report writing in the field of soil science (Soil Microbiology and Analytical Chemistry)

- **Research Assistant (Soil Analyst), from July 2021 to December 2022**
  - Sub-Project Completion on Microbial Characterization of Bangladesh Soil and Development of Climate Smart Biofertilizers for Crop Production and Soil Fertility, Program Based Research Grant from Ministry of Agriculture of Bangladesh; Bangladesh Institute of Nuclear Agriculture (BINA)
  - Analyzing soil samples from 12 Agro-Ecological Zones (AEZs) of Bangladesh for soil microbial population counting, soil physical characteristics; Textural class determination by hydrometer method and texture triangle, chemical properties Nitrogen percent by distillation machine, pH, Organic carbon, EC determination
  
- **TECHNICAL EXPERIENCE**
  - Preparation of different culture media (Yeast mannitol broth, Yeast mannitol agar, Congo Red Yeast mannitol agar, PDA, Nutrient media, PSB media, Nutrient free media, ....etc.) and slant preparation
  - Serial dilution, microbial population counting, contamination identification and removal procedures Bacterial culture purification, streaking, Sub-culture, culture multiplication, culture inoculation injecting in Biofertilizer carrier materials. Auto dispenser setup for fixed volume culture injection
  
  - Soil and Plant sample collection and preparation for AAS, ICP-MS operation
  - Statistical analysis using Statistix-10, STAR (Statistical Tool for Agricultural Research) program, R-program based software

## **PUBLISHED RESEARCH WORKS**

### **1. Journal Articles:**

- Hossain, A.**, Hossain, H. M. M. T., Amin, A. K. M. R., & Mahmud, M. H. (2022). Effect of Nitrogen Doses in Boro Rice Grown with Variable Levels of Floating Duckweed. *Bangladesh Agronomy Journal*, 25(2), 109-117. <https://doi.org/10.3329/baj.v25i2.65954>
- Hossain, A.**, Khan M. R., Hasan M. M., Mazumder, M. N. N., Jannat S., Chowdhury, S & Haque M. A. (2024). Cultivation of French bean (*Phaseolus vulgaris* L.) with an effective Biofertilizer for sustainable farming. *Int. J. Biosci.* 24(3), 59-67. <http://dx.doi.org/10.12692/ijb/24.3.59-67>
- Ahamed, S., Ullah, M. J., Islam, M. S., Mahmud, M. H., & **Hossain, A.** (2024). Growth, Phenology and Yield Attributes of A White Maize Genotype Sauwmopmdt273 Under Different Planting Configurations. *Bangladesh Agronomy Journal*, 26(2), 67-76. <https://doi.org/10.3329/baj.v26i2.76341>
- Manik, M. M. H., Razzaque, M. A., Haque, M. I., Bashar, M. A., Joha, M. R. K., & **Hossain, A.** (2024). Discover the Impact of Sulfur and Potassium on the Nitrogen, Phosphorus, Sulfur and Potassium Concentrations in Onion Bulbs. *Asian Journal of Research in Crop Science*, 9(4), 365-370. <https://doi.org/10.9734/ajrcs/2024/v9i4326>.
- Jannat, S. A., Haque M. A., Chowdhury, S & **Hossain, A.** (2025). Effect of rhizobial inoculant in combination with vermicompost and molybdenum on soybean in pot condition. *Int. J. Biosci.* 27(1), 328-335. <https://dx.doi.org/10.12692/ijb/27.1.328-335>

## **2. Seminar/ Workshop/ Symposium proceeding**

Chowdhury, S., **A. Hossain** and M. Z. Islam, 2022. Microorganisms as Biofertilizer: Role in soil fertility and sustainable crop production. World Soil Day Souvenir, 5 December, 2022. Ministry of Agriculture. pp; 58-67

## **3. Master of Science Thesis**

**Hossain., A.** (2020). Effect of nitrogen doses in boro rice grown with variable levels of floating duckweed. Department of Agronomy. Sher-e-Bangla Agricultural University (SAU), Dhaka, Bangladesh

## **4. Short communication**

**Leaflet:** Biofertilizer for Common bean (Technology based)

**Leaflet:** Biofertilizer for French bean (Technology based)

**Factsheet:** BINA Biofertilizers; it's Application and use

## **REFEREES:**

### **Dr. Sariful Haque Bhuiya**

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I hereby declare that the above statements are correct and complete to the best of my knowledge.



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