

## Curriculum Vitae

Name : **Dr. Mahbuba Kaniz Hasna**

Father's name : Abu Motalib

Mother's name : Tahmina Begum

Gender : Female

Marital status : Married

Spouse name and address : Dr. Md. Abdul Kader, Professor, Department of Agronomy, Bangladesh Agricultural University, Mymensingh

Date of birth and age : 01 January 1970

Nationality : Bangladeshi (by birth)

Designation : Principal Scientific Officer

Institution : Bangladesh Institute of Nuclear Agriculture (BINA)

Present address : Plant Pathology Division, Bangladesh Institute of Nuclear Agriculture, BAU Campus, Mymensingh-2202

Permanent address : "Baishakhi", Baidyapara, New College Road, Barishal

### Educational Qualification

Degree	Class/Division	Institute	Year
S.S.C.	First Division with Star Marks	Barishal Govt. Girls' High School	1985
H.S.C.	First Division with Star Marks	Dinajpur Govt. College	1987
B.Sc. Ag.	First Class (10 <sup>th</sup> Position)	Bangladesh Agricultural University	1991 (held in 1995)
(i) MS in Plant Pathology (ii) MS in Nematology	(i) First Class (A) (ii) First Class with Great Distinction	(i) Bangladesh Agricultural University (ii) Ghent University, Belgium	(i) 1997 (ii) 2002
Ph D in Plant Protection Ecology	Awarded	Swedish University of Agricultural Sciences, Uppsala, Sweden	2007

## Service Experience

Designation	Working Institute	Duration
Scientific Officer	Seed Pathology Laboratory, Bangladesh Agricultural University	29-01-1997 to 30-06-1997
Scientific Officer	Plant Pathology Division, Bangladesh Institute of Nuclear Agriculture	10-07-1997 to 30-10-2013
Senior Scientific Officer	Plant Pathology Division, Bangladesh Institute of Nuclear Agriculture	31-10-2013 to 14-07-2019
Principal Scientific Officer	Plant Pathology Division, Bangladesh Institute of Nuclear Agriculture	15-07-2019 to till date

## Field of Specialization

- Plant Protection Ecology
- Biological Control of Plant Diseases

## Research Interest

- Integrated Management of Plant Diseases
- Management of Soil-borne Plant Diseases
- Host-plant Interaction in Plant Diseases
- Biofungicides for Plant Disease Management
- Nuclear Techniques in Post-harvest Disease Management

## Research Achievement

- Fungal Disease Management of stored seed in jute and onion using low dose radiation and other techniques.
- Ecofriendly management of foot and root rot of soybean.
- Evaluation of crop mutants against major diseases at different climatic condition.
- Evaluation of different fungicides against major crop diseases of onion and tomato.
- Relationship between *Trichoderma* population in soil and important soil borne diseases of vegetable crops.
- Impact of sanitation on purple blotch disease and storage fungi of onion.
- Reduction of postharvest fungal disease in papaya through hot water treatment and gamma radiation.
- Biological control of purple blotch of onion using *Trichoderma*.
- Development of Bio fungicides using natural antagonists.

## Experience in Project/ Kormosuchi based Research

Name of the Project/Kormosuchi	Responsibilities
Project: “Development of biofungicides using natural antagonists” under research grant of BARC during July 2008 to June 2011.	<b>Co-Investigator</b>
Project: “Management of disease of stored seed in jute and onion using low dose radiation and other techniques” under Special Research Budget Allocation of Ministry of Agriculture during July 2017 to June 2019.	<b>Principal Investigator</b>
Kormosuchi: “Development of biofungicide laboratory, formulation and dissemination to farmers” under Research Grant of Ministry of Agriculture during July 2021 to June 2024.	<b>Principal Investigator</b>

## Training

### Training (In Country): 24

Sl. No.	Organization	Year	Duration		Name of program
			Month(s)	Days	
1.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	1997	--	10 days	Advanced Agricultural Research and Environment Friendly Improved Crop Production Packages
2.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	1999	--	03 days	Bio-fertilizer Production, Preservation and Utilization
3.	Graduate Training Institute (GTI), BAU, Mymensingh	2001	--	14 days	Cost and Return Analysis in Agriculture
4.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2008	1 month	--	Use of Nuclear Techniques in Agriculture
5.	Bangladesh Rural Development Academy (BARD), Cumilla	2009	4 months	--	Foundation Training for NARS Scientists (Batch-19)
6.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2011	--	05 days	Technical Report Writing
7.	Bangladesh Rice Research Institute (BRRI), Gazipur	2013	--	05 days	Implication of Molecular Tools in Crop Improvement Under Stress Environment
8.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2013	--	14 days	Training Course on IT (Illustration and Photoshop)

9.	Bangladesh Agricultural Research Council (BARC), Dhaka	2014	--	02 days	Phytosanitary and Food Safety in Bangladesh
10.	Bangladesh Agricultural University, Mymensingh	2016	--	03 days	Seed Health
11.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2017	--	01 day	National Integrity strategy and Tothay Odikar Ain
12.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2017	--	03 days	E-filling
13.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2017	--	03 days	Public service Innovation
14.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2017	--	03 days	Annual Performance Agreements
15.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2018	--	05 days	Research Methodology
16.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2018	--	04 days	Office Management
17.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2018	--	05 days	Training of Trainers
18.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2018	--	01 day	Radiation Safety and Health Awareness
19.	NATA, Gazipur	2019	--	05 days	Food Processing and Preservation Techniques
20.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2019	--	05 days	Innovation in Public Service
21.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2019	--	01 day	Training on GRS, APA and SDG
22.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2019	--	01 day	Molecular Techniques and Sequencing for Crop Improvement
23.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2019	--	04 days	National Integrity Strategy and BINA Service Rules
24.	Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh	2019	--	01 day	National Integrity Strategy and Right to Information

**Training (Abroad): 02**

Sl. No.	Organization	Year	Duration		Name of Program/Course
			Months	Days	
1.	Chinese Academy for Agricultural Sciences, Beijing, China	2013	--	12	Nuclear Techniques in Agricultural Research
2.	Punjab Agriculture University, Ludhiana, Punjab, India	2014	--	02	Major Rice Pest and Diseases

**Course completed (Abroad): 09**

Sl. No.	Organization	Year	Duration		Name of Program/Course
			Months	Days	
1.	Talen Centrum, Ghent University, Belgium	2001	--	18	English for Scientific Purposes
2.	Swedish University of Agricultural Sciences, Sweden	2003	--	07	Interaction Between Microorganisms and Plants
3.	Swedish University of Agricultural Sciences, Sweden	2004	01	--	Statistics for Biologists I
4.	Swedish University of Agricultural Sciences, Sweden	2004	01	05	Agroecology- with Emphasis on Horticultural Cropping Systems
5.	Swedish University of Agricultural Sciences, Sweden	2005	01	--	Participatory Research Methodology
6.	Swedish University of Agricultural Sciences, Sweden	2005	--	13	Soil-Plant-Microbe Interaction
7.	Swedish University of Agricultural Sciences, Sweden	2006	--	06	Agro-Biotechnology Focused on Root-Microbe Systems
8.	Swedish University of Agricultural Sciences, Sweden	2006	--	14	How to Write and Publish a Scientific Paper
9.	Swedish University of Agricultural Sciences, Sweden	2006	--	05	Programming Course in SAS

**Publications****A. Papers Published in Reputed International Journals****(a) Published as the Principal Author**

- (1) **Hasna, M. K.**, Insunza, V., Lagerlöf, J. and Rämert, B. 2007. Food attraction and population growth of fungivorous nematodes with different fungi. *Annals of Applied Biology*. 151: 175-182.

- (2) **Hasna, M. K.**, Mårtensson, A., Persson, P. and Rämert, B. 2007. Use of compost to management of corky root disease in organic tomato production. *Annals of Applied Biology*. 151: 381-390.
- (3) **Hasna, M. K.**, Lagerlöf, J. and Rämert, B. 2008. Effects of fungivorous nematodes on corky root disease of tomato grown in compost amended soil. *Acta Agriculturae Scandinavica Section B, Plant and Soil Science*. 58: 145-153.
- (4) **Hasna, M. K.**, Mårtensson, A., Ögren, E., Persson, P. and Rämert, B. 2009. Management of corky root disease of tomatoes in collaboration with organic tomato growers. *Crop Protection*. 28: 155-161.
- (5) **Hasna, M. K.**, Meah, M.B. and Kader, M.A. 2000. Assessment of yield loss in guava owing to fruit anthracnose. *Pakistan Journal of Biological Science*. 3: 1234-1236.
- (6) **Hasna, M. K.**, M. A. Kashem and F. Ahmed. (2020). Use of *Trichoderma* in Biological Control of Collar Rot of Soybean and Chickpea. *International Journal of Biochemistry Research & Review*. 29(9): 25-31.

**(b) Published as the Co-Author**

- (1) F. Ahmad, **Hasna, M.K.** and R.M. Emon. 2021. Ecofriendly disease management of lentil (*Lens culinaris*) seedlings. *Agricultural Sciences*. 12: 1555-1564.
- (2) Rahman, M. M., **Hasna, M. K.** Nahar S., Hasan R., Islam, M. N., Kabir, M. H. and Hossain, M. D. 2020. Evaluation of some Fungicides against Collar Rot Disease of Soybean, *American Journal of Pure and Applied Biosciences*, 2(5): 159-166.
- (3) Ahmed, F., **Hasna, M. K.**, Akter, M. B., Mondal, M. T. R. Nabi, K.M.E. 2019. Ecofriendly management of seedling diseases of chickpea (*Cicer arietinum*). *International Journal of Biochemistry Research & Review*. 28: 1-9.
- (4) Kader, M.A., Mamun, A. A., Hossain, S.M.A. and **Hasna, M. K.** 2000. Effect of Azotobacter application on the growth and yield of Transplant aman rice and nutrient status of post-harvest soil. *Pakistan Journal of Biological Science*. 3: 1144 -1147.
- (5) Kashem, M. A., Hossain, I. and **Hasna, M. K.** 2009. Use of *Trichoderma* in biological control of foot and root rot of lentil. *International Journal of Sustainable Crop Production*. 6: 29-35.

## **(B) Papers Published in National Journals**

### **(a) Published as the Principal Author**

- (1) **Hasna, M. K.** and Begum, H. A. 2014. Improved methods of application of *Trichoderma harzianum* for controlling *Fusarium* wilt and late blight of tomato. *Bangladesh Journal of Nuclear Agriculture*. 25 & 26: 117-120.
- (2) **Hasna, M. K.** and Begum, H. 2014. Reaction of onion mutants to purple blotch disease in field condition. *Bangladesh Journal of Nuclear Agriculture*. 30: 51-56.
- (3) **Hasna, M. K.**, H. A. Begum and M.A. Kashem. 2018. Effect of different plant extracts on seed borne fungal flora of jute and onion. *Bangladesh Journal of Agriculture*. 41& 42. 52-54.
- (4) **Hasna, M. K.** and H.A. Begum. 2020. Effect of storage container on seed quality of jute and onion. *Bangladesh Journal of Nuclear Agriculture*. 33& 34: 63-72.
- (5) **Hasna, M. K.** 2020. In vitro evaluation of six fungicides against four major soil-borne fungi. *Bangladesh Journal of Nuclear Agriculture*. 33& 34: 117-122.
- (6) **Hasna, M. K.** 2021. Study on the efficacy of *Trichoderma* in biological control against purple blotch of onion. *Bangladesh Journal of Nuclear Agriculture*. 35. (In Press).

### **(b) Published as Co-Authors**

- (1) Salam, M.A., Islam, M. M., **Hasna, M. K.**, Islam, M. R. and Islam, M. S. 1999. Improving seed storage qualities using radiation techniques. *Bangladesh Journal of Nuclear Agriculture*. 15: 64-70.
- (2) Jalaluddin, M., Kashem, M. A., **Hasna, M. K.** and Khalil, M. I. 2000. Screening of some somaclonal progenies of rice for resistance to bacterial leaf blight and sheath blight. *Bangladesh Journal of Agricultural Science*. 11: 39-42.
- (3) Jalaluddin, M., Kashem, M. A., Azam, M. A. and **Hasna, M. K.** 2001. Evaluation of some somaclonal advanced mutants of rice for resistance to bacterial leaf blight and sheath blight. *Bangladesh Journal of Agricultural Science*. 28: 33-37.
- (4) Jalaluddin, M., Kashem, M. A., Khalil, M. I. and **Hasna, M. K.** 2001. Field evaluation of blackgram mutants against yellow mosaic virus, cercospora leaf spot and powdery mildew. *Bangladesh Journal of Plant Pathology*. 14: 5-8.
- (5) Kashem, M. A., Hossain, I. and **Hasna, M. K.** 2009. Methods of application of *Trichoderma* for controlling collar rot of lentil. *Bangladesh Journal of Crop Science*. 20: 295-302.

- (6) Begum, H.A. and **Hasna, M. K.** 2013. Influence of growing season and planting date on bacterial wilt of tomato. *Bangladesh Journal of Nuclear Agriculture*. 27 & 28: 39-44.
- (7) Easmin, T., **Hasna, M. K.**, Kader, M.A. and Hasan, A. K. 2015. Evaluation of yield performance of selected advanced lines/ varieties of rice during aman season. *Bangladesh Journal of Crop Science*. 25: 23-26.
- (8) M. A. Kashem and **Hasna M. K.** 2018. Biological Control of root rot of lentil and sheath blight of rice. *Bangladesh Journal of Agriculture*. 41& 42: 13-21.
- (9) Rashid, M. H. Borman, B.C., **Hasna, M.K.** and Begum, H. A. 2019 Effects of non-chemical treatments on postharvest diseases, shelf life and quality of papaya under two different maturity stages. *Journal of Bangladesh Agricultural University*. 17: 14–25.

#### **Proceeding Papers: 04**

- (i) **Hasna, M. K.**, Rämert, B. and Lagerlöf, J. 2006. Management of corky root disease of tomatoes using composts and fungivorous nematodes. **11<sup>th</sup> Nordic Soil Zoology Symposium and Ph D Course**, 28-31 July 2006, Akureyri, Iceland. pp 29-30.
- (ii) **Hasna, M. K.**, E, Ögren, Rämert, B, Persson, P., Lagerlöf, J, and Mårtensson, A. 2006. Management of corky root disease of tomatoes in participation with organic tomato growers. **Ekokonferensen, 19-21 November, Norrköping, Sweden. P 137.**
- (iii) Jalaluddin, M., Howlider, A.R., Begum, H.A., Kashem, M. A., **Hasna, M. K.** and Khalil, M. I. 2007. Research on crop disease management at Bangladesh Institute of Nuclear Agriculture. National Workshop on Strategic Intervention on Plant Pathological research in Bangladesh. 11-12 February 2007. Bangladesh Agricultural Research Institute, Joydevpur, Gazipur, pp. 240-250.
- (iv) Jalaluddin, M., Howlider, A.R., Begum, H.A., Kashem, M. A., **Hasna, M. K.** and Khalil, M. I. 2001. Research findings of BINA on Seed-borne disease of vegetables. National Workshop on Seed Pathology. 31 May 2001, Seed Pathology Laboratory, Bangladesh Agricultural University, Mymensingh. Pp. 132-138.

### **Thesis: 03**

(i) **Mahbuba Kaniz Hasna. 2007.** Corky root disease Management in Organic Tomato Production: Composts, Fungivorous nematodes and Grower Participation. **Ph D Thesis. Swedish University of Agricultural Science, Uppsala, Sweden. ISSN 1652-6880. ISBN 978-91-85913-13-8.**

(ii) **Mahbuba Kaniz Hasna. 2002.** The *Meloidogyne* Egg Mass: Bacterial Community and Antagonistic Properties against *Verticillium chlamyosporium* isolates. **MS Thesis. Faculty of Science, Ghent University, Ghent, Belgium.**

(iii) **Mahbuba Kaniz Hasna. 1996.** Assessment of Loss in Guava owing to Fruit Anthracnose **MS Thesis. Plant Pathology Department, Bangladesh Agricultural University, Mymensingh, Bangladesh.**

### **Bulletin: 05**

(i) **Hasna Mahbuba Kaniz,** Paula Persson, Birgitta Rämert, Elizabeth Ögren. Hur Hamma sjukdomen korkrot i ekologisk tomatodling- Olika Komposters inverkan testas in nytt project. Forskningsnytt om ekologisk landbruk in Norden. No. 1 Mars 2005. Sverige Lantbruksuniversitet (SLU) (In Swedish).

(ii) Rita Varela, Sara Elfstand, **Hasna Mahbuba Kaniz,** Anna Mårtensson and Birgitta Rämert. Biologisk bekämpning av korkrot i ekologisk tomatodling. 2005. Sverige Lantbruksuniversitet (SLU) (In Swedish).

### **Poster: 03**

(1) Karollen Mas, Jozef Coomans and **Mahbuba Kaniz Hasna.** The role of the *Meloidogyne* gelatinous matrix in protecting the egg mass against egg parasites. 2002. Katholieke University, Leuven, Belgium.

(2) **Hasna, M. K.,** Persson, P., Lagerlöf, J., and Rämert, B. Effect of two fungivorous nematodes on corky root disease of tomato growing in compost amended soil. 2006. SLU, Uppsala, Sweden.

(3) **Hasna, M. K.,** Ögren, E., Persson, P., Lagerlöf, J., Mårtensson, A and Rämert, B. Corky root disease management in organic tomato production with grower participation. 2009. SLU Ekoforsk, SLU, Sweden.

## Supervision of MS/PhD Students

1. Sanchita Karmokar. 2011. Relationship between soil population of trichoderma and soil borne diseases of important vegetable crops. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
2. Susmita Sarkar. 2012. Tomato seed extraction techniques and their effect on seed health and quality. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
3. Syed Shakil Ahmed. 2015. Efficacy of fungicides and Trichoderma in controlling purple blotch of onion. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
4. Most. Sadaka Khatun. 2011. Survivability of Fusarium wilt pathogen on tomato plant and soil. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
5. Shumsun Nahar. 2014. Effect of sanitation on purple blotch and storage fungi of true seed of onion. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
6. Mahdia Tasnim. 2020. Assessing productivity and profitability of eight cropping systems of Bangladesh. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
7. Md. Rashed-Ul-Islam. 2017. Comparative efficacy of bio-agents and chemicals in controlling tomato leaf curl virus. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
8. Md. Maksudur Rahman. 2019. Evaluation of selected fungicides against collar rot of soybean. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.
9. Indrani Chakroborty Dola. 2019. Evaluation of some selected fungicides against foot and root rot of lentil caused by *Fusarium oxysporum*. MS Thesis. Bangladesh Agricultural University. Mymensingh, Bangladesh.

## Award/Grant Received

1. **“Best Speaker Award”** (2011) for presenting a paper in the fortnightly seminar held at BINA, Mymensingh.
2. Awarded **VL.I.R. Scholarship** (Development cooperation of the Flemish University Council) From **Belgian Government** for MS study in Ghent University in Belgium (2001-2002).

3. Awarded **Scholarship** from **Swedish Government** for PhD study in Swedish University of Agricultural Science, Uppsala, Sweden (2003-2007).

**Signature:**

**Adress: Dr. Mahbuba Kaniz Hasna**

Principal Scientific Officer and Head  
Plant Pathology Division  
Bangladesh Institute of Nuclear Agriculture  
BAU Campus, Mymensingh-2202  
Email: [hasnabina@gmail.com](mailto:hasnabina@gmail.com)  
Cell Phone: 01731357095