Curriculum vitae of Md. Dulal Sarkar

Assistant Professor, Department of Horticulture
Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

Name : MD. DULAL SARKAR
Date of Birth : 11 November 1986
Nationality : Bangladeshi
Present Address : Department of Horticulture
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Research Interest : Environmentally regulated crop production, horticultural crops physiology, plant stress responses, underutilized crops.

EDUCATIONAL QUALIFICATIONS:

2010, Postgraduation : Master of Science in Horticulture (MS) at Sher-e-Bangla Agricultural University, Dhaka, Bangladesh. (Exam. Held in 2012)
Result: Grade A; CGPA: **3.96** in a scale of 4.00 (80% and above)
Merit Position: 1st
Title of Thesis: Morphometric Characterization of Coconut Germplasm

2008, Graduation : Bachelor of Science in Agriculture (Hons.) at Sher-e-Bangla Agricultural University, Dhaka, Bangladesh. (Exam. Held in 2009)
Result: Grade A; CGPA: **3.84** in a scale of 4.00 (75% and above)
Merit Position: 9th among 195 regular students

2004, HSC Higher Secondary Certificate Examination under Science group at Govt. A. H. College, Bogra, Bangladesh.
Result: Grade A; CGPA: **4.50** in a scale of 5.00 (70≤79%)

2002, SSC Secondary School Certificate Examination under Science group at Shariakandi Govt. High School, Bogra, Bangladesh.
Result: Grade A; CGPA: **4.25** in a scale of 5.00 (60≤79%)

SCHOLARSHIP AND FELLOWSHIP:

2017-2018, National Science and Technology (Research and Development) Fellowship: In recognition for conducting research work "Physiology and quality of cucurbits as influenced by maleic hydrazide". Funded by the Ministry of Science and Technology, Bangladesh.

2017-2018, SAURES Research Fellowship: In recognition for conducting research work "Effect of growing media and watering frequencies on physiological growth, productivity and biochemical composition of carrot". Funded by Bangladesh University Grant Commission (UGC).

2016-2017, SAURES Research Fellowship: In recognition for conducting research work "Sex expression, fruit yield and quality of cucumber as influenced by maleic hydrazide". Funded by Bangladesh University Grant Commission (UGC).

2016-2017, National Science and Technology (Research and Development) Fellowship: In recognition for conducting research work "Remediation of toxic metals from the soil using phytoremediation technique". Funded by the Ministry of Science and Technology, Bangladesh.

2014-2015, National Science and Technology (Research and Development) Fellowship: In recognition for conducting research work "Simplified hydroponics technique to sustain horticultural crops adapting climate change in Bangladesh". Funded by the Ministry of Science and Technology, Bangladesh.

2011-2012, National Science and Technology (NST) Fellowship: In recognition for conducting research work for obtaining the Master of Science in Horticulture (MS) degree. Funded by Ministry of Science and Technology, Government of the People's Republic of Bangladesh.

2005-2009, HOPES Scholarship: Scholarship for the Undergraduate Program of the national students of Bangladesh. Supported by Helping Organization and Energetic Students (HOPES) is a volunteer organization directed by University Teachers. Organized by Paragoan House, 10th floor, Mohakhali, Dhaka, Bangladesh.

Awards:

2019, Dean's Award: Dean's Award for outstanding academic achievement at Level 2, 3 & 4 in persuasion of the Bachelor of Science in Agriculture (Hons.) program as an award from Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

PROFESSIONAL EXPERIENCES:

Assistant Professor	:	Department of Horticulture, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh. (26 May 2015 - Present)
Lecturer	:	Department of Horticulture, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh. (26 May 2013 - 25 May 2015)
Research Supervision (January 2016 - Present)	:	For Masters Students of Horticulture at Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.
Principal Supervisor	:	**Current:** 8 **Completed:** 1
Co-Supervisor	:	**Current:** 2 **Completed:** 1

RESEARCH EXPERIENCES:

Principal Investigator (November 2017- Present)	:	Effect of growing media and watering frequencies on physiological growth, productivity and biochemical composition of carrot. Funded by Bangladesh University Grant Commission (UGC).
Project Director (July 2017 – Present)	:	Physiology and quality of cucurbits as influenced by maleic hydrazide. Funded by the Ministry of Science and Technology, Bangladesh.

Project Director (July 2016 - June 2017)		Remediation of toxic metals from the soil using phytoremediation technique. Funded by the Ministry of Science and Technology, Bangladesh.
Principal Investigator (February - October 2017)	**:**	Sex expression, fruit yield and quality of cucumber as influenced by maleic hydrazide. Funded by Bangladesh University Grant Commission (UGC).
Research Associate (July 2015 - June 2016)	**:**	Quality analysis of the prepared new chitocompost for comparison and commercialization in Bangladesh. Funded by the Ministry of Science and Technology, Bangladesh.
Project Director (July 2014 - June 2015)	**:**	Simplified hydroponics technique to sustain horticultural crops adapting climate change in Bangladesh. Funded by the Ministry of Science and Technology, Bangladesh.
Co-Investigator (July 2013 - June 2014)	**:**	Organically tomato production through manures and organic mulching and their effect on postharvest life, vitamins and minerals. Funded by the Ministry of Science and Technology, Bangladesh.
Research Assistant (September 2012 - April 2013)	**:**	Adaptation of horticultural crops to climate change with particular reference to water stress. Funded by SPS II, Planning Commission, Ministry of Planning**,** Bangladesh.
MS Program (July - December 2010)	**:**	Morphometric characterization of coconut germplasm. Funded by the Ministry of Science and Technology, Bangladesh.

PUBLICATIONS:

Journal Articles

1. **Md. Dulal Sarkar**, Abul Hasnat Muhammad Solaiman, Mohammad Shah Jahan, Rojobi Nahar Rojoni, Khairul Kabir and Mirza Hasanuzzaman. 2019. Soil parameters, onion growth, physiology, biochemical and mineral nutrient composition in response to colored polythene film mulches. *Annals of Agricultural Science.* 64 (1): 63-70.
   DOI: https://doi.org/10.1016/j.aoas.2019.05.003 (**Elsevier**)
2. Md. Sadek Hossain, M. Mofazzal Hossain, Tofazzal Hossain, M. Moynul Haque, Md. Quamruzzaman and **Md. Dulal Sarkar**. 2019. Varietal response to benzylaminopurine and chlorocholine chloride on *in vitro* tuberization of potato. *Agricultural research*. 8 (4): 452-460.
   DOI: https://doi.org/10.1007/s40003-018-0392-9 (**Springer**)
3. **Md. Dulal Sarkar**, Md. Jahedur Rahman, Jasim Uddain, Md.Quamruzzaman, Rojobi Nahar Rojoni and Sreeramanan Subramaniam. 2019. Metal accumulation behavior of the weed species growing under soil cd stress. *Pakistan Journal of Botany*. 51 (4): 1209-1214.
   DOI: http://dx.doi.org/10.30848/PJB2019-4(12) **(IF 0.75)**
4. **Md. Dulal Sarkar**, M. Moniruzzaman, Md. Saiful Alam, Md. Jahedur Rahman, Md. Quamruzzaman, Rojobi Nahar Rojoni and Sreeramanan Subramaniam. 2019. Growth, sex expression and nutrient composition of cucumber as influenced by maleic hydrazide. *Pakistan Journal of Botany*. 51 (1):117-123.
   DOI: 10.30848/PJB2019-1(9) **(IF 0.75)**

5. Md. Jahedur Rahman, Md. Quamruzzaman, Jasim Uddain, **Md. Dulal Sarkar**, M.Z. Islam, M.Z. Zakia and Sreeramanan Subramaniam. 2018. Photosynthetic response and antioxidant content of bitter gourd as influenced by organic substrates and nutrient solution. *HortScience*. 53 (9):1314-1318.
   DOI: 10.21273/HORTSCI13226-18 **(IF 0.830)**

6. Md.Quamruzzaman, Md. Jahedur Rahman, Jasim Uddain, **Md. Dulal Sarkar** and Sreeramanan Subramaniam. 2018. Leaf gas exchange, reproductive development, physiological and nutritional changes of peanut as influenced by boron. *Journal of Plant Interactions.* 13:1: 306-314.
   DOI: 10.1080/17429145.2018.1475021 (**Taylor & Francis**, **IF 1.839**)

7. **Md. Dulal Sarkar**, Mohammad Shahjahan, Khairul Kabir, Abu Yousuf Shihab and ANM Sayem. 2018. Morphological performance of onion under exogenous treatments of GA_3. *Notulae Scientia Biologicae*. 10(1): 33-37.
   DOI: http://dx.doi.org/10.15835/nsb10110087

8. Mohammad Shah Jahan, **Md. Dulal Sarkar**, Rajesh Chakraborty, Abul Hasnat Muhammad Solaiman, Asma Akter, Sheng Shu, Shirong Guo. Impacts of plastic filming on growth environment, yield parameters and quality attributes of lettuce. *Notulae Scientia Biologicae*. 10(4): 522-529.
   DOI: 10.25835/nsb10410342

9. Md.Quamruzzaman, Md. Jafar Ullah, Md. Fazlul Karim, Nazrul Islam, Md. Jahedur Rahman and **Md. Dulal Sarkar**. 2018. Reproductive development of two groundnut cultivars as influenced by boron and light. *Information Processing in Agriculture*. 5 (2018) 289–293.
   DOI: https://doi.org/10.1016/j.inpa.2017.12.004 (**Elsevier**)

10. Md. Quamruzzaman, Md. Jahedur Rahman and **Md. Dulal Sarkar**. 2017. Leaf gas exchange, physiological growth, yield and biochemical properties of groundnut as influenced by boron in soilless culture. *Journal of Plant Interactions.* 12(1): 488-492.
    DOI: https://doi.org/10.1080/17429145.2017.1397206 (**Taylor & Francis**, **IF 1.839**)

11. Md. Sadek Hossain, M. Mofazzal Hossain, Tofazzal Hossain, M. Moynul Haque, Mohammad Zakaria and **Md. Dulal Sarkar**. 2017. Varietal performance of potato on induction and development of microtuber in response to sucrose. *Annals of Agricultural Science.* 62(2017): 75-81.
    DOI: https://doi.org/10.1016/j.aoas.2017.05.002 (**Elsevier**)

12. Md. Sadek Hossain, M. Mofazzal Hossain, M. Moynul Haque, Md. Mahabubul Haque, and **Md. Dulal Sarkar**. 2017. Varietal Evaluation of Potato Microtuber and Plantlet in Seed Tuber Production. *International Journal of Agronomy*. (2017): 1-5.
    DOI: https://doi.org/10.1155/2017/7520297 (**Hindawi, Indexed in Web of Science**)

13. Md.Quamruzzaman, Md. Jafar Ullah, Md. Fazlul Karim, Nazrul Islam, Md. Jahedur Rahman and **Md. Dulal Sarkar.** 2016. Response of Boron and Light on Morph-Physiology and Pod Yield of Two Peanut Varieties. *International Journal of Agronomy*. (2016):1-9.
    DOI: http://dx.doi.org/10.1155/2016/4081357 (**Hindawi, Indexed in Web of Science**)

14. Abul Hasnat Muhammad Solaiman, Takashi Nishizawa, Tuhin Suvra Roy, Mahfuzar Rahman, Rajesh Chakraborty, Jannath Choudhury, **Md. Dulal Sarkar** and Mirza Hasanuzzaman. 2015. Yield, Dry Matter, Specific Gravity and Color of Three Bangladeshi

Local Potato Cultivars as Influenced by Stage of Maturity. *Journal of Plant Sciences*. 10 (3): 108-115.
DOI: 10.3923/jps.2015.108.115

15. S. K. Das, **Md. Dulal Sarkar**, M. J. Alam, M. G. Robbani and M. H. Kabir. 2015. Influence of Plant Growth Regulators on Yield Contributing Characters and Yield of Bell Pepper (*Capsicum annum*) Varieties. *Journal of Plant Sciences*. 10 (2): 63-69.
DOI: 10.3923/jps.2015.63.69

16. Md. Quamruzzaman, Md. Jafar Ullah, Md. Fazlul Karim, Nazrul Islam, Md. Jahedur Rahman, **Md. Dulal Sarkar**. 2017. Physiological Growth and Yield of Two Groundnut Varieties as Influenced by Light and Boron. *Notulae Scientia Biologicae. 9(2): 280-286.*
DOI: http://dx.doi.org/10.15835/nsb9210088

17. Abul Hasnat Muhammad Solaiman, Takashi Nishizawa, S. M. Anamul Arefin, Md. Mizanur Rahman, **Md. Dulal Sarkar** and Mohammad Shahjahan. 2015. The Influence of Partial UV-blocking Films in the Insect Infestation and in the Growth of Broccoli and Turnip Seedlings. *British Journal of Applied Science & Technology*.13 (2): 1-11.
DOI: 10.9734/BJAST/2016/22235

18. Abul Hasnat Muhammad Solaiman, Takashi Nishizawa, S. M. Anamul Arefin, **Md. Dulal Sarkar** and Mohammad Shahjahan. 2015. Effect of Partially UV-blocking Films on the Growth, Yield, Pigmentation, and Insect Control of Red Amaranth (*Amaranthus tricolor*). *British Journal of Applied Science & Technology*. 12 (2): 1-11.
DOI: 10.9734/BJAST/2016/20803

19. **Md. Dulal Sarkar**, Md. Sadek Hossain, Md. Mahabubul Haque, Md. Rezaul Karim Talukder, Md. Quamruzzaman, Rojobi Nahar Rojoni. 2017. Performance of microtuber derived from *in vitro* plantlets of potato varieties on sprout attributes in relation to its weight. *Azarian Journal of Agriculture*. 4(2): 41-45.
http://azarianjournals.ir/?p=2225

20. Md. Jahedur Rahman, Md. Quamruzzaman, Md. Mokshead Ali, Sujat Ahmed, Md. Rafique Ahasan Chawdhery and **Md. Dulal Sarkar**. The effects of irrigation timing on growth, yield, and physiological traits of hydroponic lettuce. *Azarian Journal of Agriculture*. 4 (6): 193-199.
http://azarianjournals.ir/wp-content/uploads/aja17121701.pdf

21. **M. D. Sarkar**, M. Shah Jahan, M. H. Kabir, K. Kabir and R. N. Rojoni. 2014. Flower and Fruit Setting of Summer Tomato Regulated by Plant Hormones. *Applied Science Reports*. 7 (3): 117-120.
DOI: 10.15192/PSCP.ASR.2014.3.3.117120

22. **M.D. Sarkar**, S. Choudhury, N. Islam and M.N. Islam. 2012. Morphometric Characterization of Coconut Germplasm Conserved at BARI. *International Journal of Sustainable Agriculture*. 4 (3): 52-56.
DOI: 10.5829/idosi.ijsa.2012.04.03.313

23. **M. D. Sarkar**, K. Kabir, M. Shah Jahan and S. M. A. Arefin. 2014. Performance of Summer Tomato in Response to Maleic Hydrazide. *International Journal of Scientific and Research Publications*. 4 (9): 557-559.
http://www.ijsrp.org/research-paper-0914.php?rp=P333166

24. S. Choudhury, N. Islam, **M.D. Sarkar** and M.A. Ali. 2013. Growth and Yield of Summer Tomato as Influenced by Plant Growth Regulators. *International Journal of Sustainable Agriculture*. 5 (1): 25-28.
DOI: 10.5829/idosi.ijsa.2013.05.01.317

Thesis papers

1. Md. Dulal Sarkar. 2010. Morphometric characterization of coconut germplasm (A Case Study at BARI Campus). MS thesis, Department of Horticulture, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh. pp 1-72. http://opac.saulibrary.edu.bd:9090/e_thesis/sau-ms/horti/2010/05-01814.pdf

PROFESSIONAL TRAINING:

- **Project Cycle Management on Sustainable and Climate Smart Agriculture for Government Officials**. Organized by Graduate Training Institute, Bangladesh Agricultural University. Supported by Food and Agriculture Organization of the United Nations (FAO). **Duration:** 01- 05 December 2019.
- **Improved Postharvest Handling of Fruits and Vegetables.** Organized by Bangladesh Agricultural Research Council, Dhaka, Bangladesh. **Duration:** 27- 28 December 2017.
- **Laboratory Equipment Operation & *In vitro* Culture Techniques for Crop Improvement.** Organized by Sher-e-Bangla Agricultural University. Supported by HEQEP, Bangladesh University Grants Commission, Dhaka, Bangladesh. **Duration:** 12- 13 June 2016.
- **Foundation Training for University Teachers**. Organized by Graduate Training Institute, Bangladesh Agricultural University. Supported by HEQEP, Bangladesh University Grants Commission, Mymensingh, Bangladesh. **Duration:** 12 April - 14 May 2014.
- **Curriculum Development and Teaching Learning Assessment**. Organized by Sher-e-Bangla Agricultural University. Supported by HEQEP, Bangladesh University Grants Commission, Dhaka, Bangladesh. **Duration:** 17- 21 December 2013.

OTHER EXPERIENCES:

Assistant Proctor (10 June 2016 – Present)	**:**	Proctor Office, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.
Farm-In-Charge (10 June 2014 – 09 June 2016)	**:**	Horticulture Farm, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.
Course Instructor (July 2014 - Present)	**:**	Course on 'Introduction to Floriculture & Landscaping'; 'Vegetable Production' and 'Fruit production & Orchard Management' for undergraduate students at Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.

SOCIETAL MEMBERSHIP:

- Member of Krishibid Institution Bangladesh (Agriculturists' Institution Bangladesh)
- Member of Bangladesh Society for Horticultural Science
- Member of Bangladesh Academy of Science
- Member of Sher-e-Bangla Agricultural University Alumni Association