Profile of Dr. Puspendu Dutta

Name	:	Dr. Puspendu Dutta
Designation	:	Assistant Professor (Stage II)
Address	:	Department of Seed Science and Technology Uttar Banga Krishi Viswavidyalaya Pundibari, Cooch Behar, W.B.-736165. Phone - +91-8017944160 +91-9091393704
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Web of Science Researcher ID	:	ABG-3655-2021

Area of specialization	:	Crop Physiology, Plant Stress Physiology
Area of interests	:	Seed enhancement, Seed Physiology, Plant responses under changing climate
Awards	:	1. Certificate of Merit [M. Sc. (Ag.) in Plant Physiology] 2. Certificate of Merit under National Scholarships Scheme [Higher Secondary]
Previous working experience	:	1. Senior Research Fellow, NAE (Arsenic), BCKV **(**July'07- August'09) 2. Research Associate in NAIP (Component-IV), BCKV (Sept'07- Feb'09) 3. Development Officer in Tea Board India (March'09- October'14)
Mentorship/ Research Guidance		• Three (03) students for the degree of M.Sc. (Ag.) in Seed Science and Technology • Two (02) students for the degree of Doctor of Philosophy (Agriculture) in Seed Science and Technology
Training participated	:	1. 15 Days Short Course Training (Online Mode) on "**Climate Smart Practices in Agriculture & Allied Sciences for Sustainable Development**" organized by Astha Foundation, Meerut (U.P.), India during 11 – 25 March 2025. 2. Winter School (Online Mode) on "**Emerging Problems and Recent Advances in Agriculture and Allied Sciences: Basic to Molecular Approaches (EPRAAS-2023)**" organized by Astha Foundation, Meerut (U.P.), India during 26 February to 18 March 2023. 3. Winter School on "Emerging Problems and Recent Advances in Agriculture and Allied Sciences: Basic to Molecular Approaches

(EPRAAS-2023)" organized by Astha Foundation, Meerut (U.P.), India during 26 February to 18 March 2023

4. Winter School on "Abiotic and Heavy Metal Stress Management in Crop Through Physiological, Phytoremediation and Proximate Sensing Approaches" at Department of Crop Physiology, Assam Agricultural University, Jorhat organized during September 02, 2016 to September 22, 2016.
5. "Maintenance Breeding: Training-cum-Exposure Visit" organized by ICAR-Directorate of Seed Research in collaboration with ICAR-Indian Agricultural Research Institute-Regional Station, Karnal during 3rd to 4th March, 2015 at IARI-RS, Karnal.

Major Projects/Schemes handled :

1. "**To study the efficacy of Bioforge Advanced on growth parameters and yield attributes on Tomato**" sponsored by M/s Corteva Agriscience India Pvt. Ltd., Hyderabad – working as PI (**on going**)
2. **"Evaluation of Aminogrow Activ for Growth and Yield Parameters of Chilli" sponsored by** M/s PI Industries Ltd., Gurgaon – Working as PI (**on going**)
3. "**Determination of benefits resulting from the use of plant biostimulant APH-1037-01 applied as a seed treatment in corn**" sponsored by M/c Acadian Seaplants Limited, Canada – working as PI (**on going**)
4. **"Standardization of physical seed priming methods for improving in productivity of wheat (*Triticum aestivum* L.) in Terai zone of West Bengal"** sponsored by Department of Science and Technology & Biotechnology, Govt. of West Bengal- worked as PI (**Completed**).
5. **"Micropropagation of yacon for quality planting materials and testing of growth and yield parameters"** sponsored by Department of Science and Technology & Biotechnology, Govt. of West Bengal-worked as Co-PI (**Completed**)
6. **"Screening of seed invigoration techniques for uniform crop establishment in selected medicinal plants of Hill and Terai zones of West Bengal"** Sponsored by National Medicinal Plants Board, Ministry of AYUSH, GoI-working as PI (**Completed**)
7. **"Studies on bio-efficacy and phytotoxicity of homobrassinoloide (0.04% w/w) in Tea and Rice"** Sponsored by Godrej Agrovet Ltd., Mumbai-working as PI (C**ompleted**).

Membership of Scientific Society :

- Life Member of *Crop and Weed Science Society* (*CWSS*), BCKV, Mohanpur, Nadia
- Life Member of *Prof. H.S. Srivastava Foundation for Science and Society*, Lucknow
- Life Member of *Society for Association of Statistics in Agriculture and Allied Sciences* (*SASAA*), BCKV, Mohanpur, Nadia
- Life Member of *Society for Plant Research*, Greater Noida (U.P.), India

Life Member of *Cooch Behar Association for Cultivation of Agricultural Sciences* (*COBACA*S), UBKV, Pundibari, Cooch Behar

Scholarship/ Award Received :

- Young Scientist Award (Plant Science)- 2023 from the Society for Plant Research, Greater Noida, Uttar Pradesh, India
- Golden Achievers Award- 2022 in Seed Science and Technology from *Council of Academic Performance & Appraisal* (Regd.), Delhi
- Young Scientist Award in Plant Science- 2022 from *Vigyan Varta*- An International E-Magazine for Science Enthusiasts (E-ISSN: 2582-9467)
- University Research Scholarship at Doctoral level
- Merit Certificate [topper of M. Sc. (Ag.) in Plant Physiology]
- University Senior Merit Scholarship at PG level
- University Merit Scholarship at UG level
- Merit Certificate under National Scholarships Scheme [Higher Secondary result]

Publications :

- International Journal – 32
- National Journal – 11
- Conference Proceedings – 01
- Book Chapter – 16
- Practical Manual – 02
- Extension Publication – 03
- Seminar/Conference attended – 28

Ten Recent Publications :

1. S. Shafat, K. Bera, S. Mukherjee, B. Mutum, K Mog Chaudhuri, **P Dutta** (2025) Influence of conditions and packaging materials on physiological quality parameters of wheat seeds during storage. *Journal of Stored Products Research*, 111: 102566. https://doi.org/10.1016/j.jspr.2025.102566 (**IF: 2.7**; **NAAS: 8.7**)
2. S Prabhu, B Mutum, K Mog Chaudhuri, K Bera, **P Dutta** (2024) Seed Deterioration - Underlying Mechanisms on the Role of Sub-Cellular Components. *J Agric Technol.* 11(1-2): 44-56. (**NAAS: 3.05**)
3. S Pavithra, A Sarkar, MK Debnath**, P Dutta**, S Ajith (2024) Advanced regression analysis to mitigate multi-collinearity among yield influencing factors under Stemphylium blight stress in *Lens culinaris*. *Euphytica* 220, 124. https://doi.org/10.1007/s10681-024-03382-7 (**IF: 1.6**; **NAAS: 7.90**)
4. K Mog Chaudhuri, MK Debnath, **P Dutta (**2024**)** Studies on seed viability and efficacy of various invigoration methods improve germination parameters of *Bergenia ciliata* (Haw.) Sternb. *Journal of Applied Research on Medicinal and Aromatic Plants*, https://doi.org/10.1016/j.jarmap.2024.100556 (**IF: 3.90**; **NAAS: 9.90**)
5. B. Mutum, K. Bera, K. Mog Chaudhury and **P. Dutta** (2024) Impact of priming with UV radiation on seed germination and seedling growth of *Chakhao* rice cultivar. *International Journal of Plant & Soil Science*, 36(2): 63-70. (**NAAS: 5.07**)
6. K. Mog Chaudhuri, K. Bera and **P. Dutta (**2023**).** Characterization of seed micro-morphometry and optimization of germination assay conditions of *Bergenia ciliata* (Haw.) Stemb. - a high valued medicinal plant. *Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology*,

https://doi.org/10.1080/11263504.2023.2257710 (**IF: 2.0**; **NAAS: 7.78**)

7. C. Mugali, I. Sarkar, M. K. Debnath, **P. Dutta** and Rajiv Kumar (2023). Studies on genetic variability based on different morpho-physiological traits vis-à-vis diversity assessment of China aster [*Callistephus chinensis* (L.) Nees] genotypes. *Vegetos*, https://doi.org/10.1007/s42535-023-00766-3 (**NAAS: 5.27**)
8. S. Chakraborti, K. Bera, S. Sadhukhan, **P. Dutta** (2022). Bio-priming of seeds: Plant stress management and its underlying cellular, biochemical and molecular mechanisms. *Plant Stress*, 3: 100052. https://doi.org/10.1016/j.stress.2021.100052 (**IF: 5.0**)
9. K. Bera, **P. Dutta** and S. Sadhukhan (2021). Seed priming with non-ionizing physical agents: plant responses and underlying physiological mechanisms. *Plant Cell Reports*, https://doi.org/10.1007/s00299-021-02798-y (**IF: 6.2**; **NAAS: 10.96**)
10. S. Maji, M.H. Reja, R. Nath, P. Bandopadhyay and **P. Dutta** (2020). Herbicidal management in monsoon green gram (*Vigna radiata* (L.) Wilczek) and its effect on the following rapeseed (*Brassica campestris* L. var. Yellow Sarson) in the Indo-Gangetic plains of Eastern India. *Journal of the Saudi Society of Agricultural Sciences*, 19: 499–509. (**IF: 5.80**)

Date: 09.04.2025

(Puspendu Dutta)