



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
- Webmail** : puspendu@ubkv.ac.in
- E-mail** : pdutta.pph@gmail.com
- ORCID** : orcid.org/0000-0001-6659-8402
- Scopus Author ID** : [57196699853](https://orcid.org/57196699853)
- Web of Science Researcher ID** : [ABG-3655-2021](https://orcid.org/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)
- Training participated** : 1. 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
2. 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.
3. "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. **“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- working as PI (**on going**).
2. **“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- working as Co-PI (**on going**)
3. **“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**)
4. **“Studies on bio-efficacy and phytotoxicity of homobrassinolide (0.04% w/w) in Tea and Rice”** Sponsored by Godrej Agrovet Ltd., Mumbai-working as PI (**completed**).

Publications

1. International Journal - 26
2. National Journal - 11
3. Conference Proceedings - 01
4. Book Chapter - 12
5. Practical Manual - 02

**Salient
Publications**

1. 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)
2. 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)
3. 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)
4. 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)
5. 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)
6. B. Mutum, U. Maity, B. Roy, **P. Dutta** and S. Basak (2021). Effects of priming of wheat (*Triticum aestivum*) seeds on its growth and yield attributes under rainfed and irrigated condition. *Biological Forum – An International Journal*, 13(3a): 32-38. (NAAS: 5.11)
 7. 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)
 8. S. Maity, **P. Dutta** and S. Das (2020). Impact of pre-anthesis photosynthetic traits on yield of wheat cultivars under in vivo condition: insight based on biochemical models. *Vegetos*, 33:106–116. <https://doi.org/10.1007/s42535-019-00088-3> (NAAS: 5.27)
 9. U. Maity, **P. Dutta**, B. Laya, and K. Mog Chaudhuri (2019). Enhancement of Green Leaf Yield in Tea [*Camelia sinensis* (L.) O Kuntze] as a Function of Pigments by Foliar Application of Triacantanol. *International Journal of Bio-resource and Stress Management*, 10(4): 451-455. <https://doi.org/10.23910/IJBSM/2019.10..2019> (NAAS: 5.11)
 10. S. Mondal, P. Bandopadhyay and **P. Dutta** (2018). Arsenic contamination in cropping systems under varying irrigation sources in the deltaic plain of India. *Archives of Agronomy and Soil Science*, <https://doi.org/10.1080/03650340.2018.1453132> (IF: 2.4; NAAS: 8.24)
 11. **P. Dutta**, P. Bandopadhyay and S. Mondal (2017). Seed P content: a potential marker of arsenic tolerance during early seedling growth of rice. *Seed Science and Technology* 45 (1): 179-188. <https://doi.org/10.15258/sst.2017.45.1.11> (IF: 0.797; NAAS: 6.80)
 12. **P. Dutta** and A.K. Bera (2014). Seed germination and seedling growth of mungbean cultivars under NaCl salinity. *Legume Res.* 37(2):161-164. (NAAS: 6.67)
 13. **P. Dutta** and A. K. Bera (2008). Screening of mungbean genotypes for drought tolerance. *Legume Res.* 31(2): 145-148. (NAAS: 6.67)
 14. **P. Dutta** and A. K. Bera (2007). Oxidative stress and changes in the activity of active oxygen scavenging enzymes of mungbean seedling subjected to water stress. *Indian J. Plant Physiol.* 12(2): 199-201. (NAAS: 6.67)