

## PUBLICATION REPORT

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### Research Paper

1. **Ghosh Bag, A.**, Nandi, R., Chatterjee, N., Dolui, S., Hazra G.C. and Ghosh M, (2019) Toxicity of arsenic on germination and seedling growth of indigenous aromatic rice varieties of India. *International Journal of Chemical Studies*.
2. Sahu, G., Chatterjee, N., **Ghosh Bag A.** and Mukherjee A.K.(2017).Effect of integrated nutrient management on lentil-sesame-rice cropping system in red and lateritic soils of West Bengal. *International Journal of Chemical Studies*. **5(5): 683-687**.
3. Sahu, G., **Ghosh Bag A.**, Chatterjee, N., and Mukherjee A.K.(2017).Potential use of flyash in agriculture: A way to improve soil health. *Journal of Pharmacognosy and Phytochemistry*. **6(6): 803-806**.
4. S Saha, B N Saha, G C Hazra, S Pati, B Pal, D Kundu, **A Ghosh Bag**, N Chatterjee and K Batabyal. (2018) Assessing the Suitability of Sewage-Sludge Produced in Kolkata, India for their Agricultural Use. *Proc Indian Natn Sci Acad*. **3: 781-792**.
5. Saha Sushanta, Saha Bholanath, Pati Sajal, Dasgupta Shubhadip, Pal Biplab, **Ghosh Bag Animesh**, Hazra Gorachand (2018) Phytoavailability of heavy metals in relation to soil chemical properties and health risk assessment through major exposure pathways in a long-term sewage contaminated areas of Kolkata, India. *Fresenius Environmental Bulletin* **7: 7559-7571**
6. Shreya Das, **Animesh Ghosh Bag**, Deblina Ghosh, Nitin Chatterjee, Samrat Adhikary, Gayatri Sahu and Gora Chand Hazra.(2019). Extractability of different extractants and availability of sulphur in long-term rice growing alluvial soils of West Bengal. *International Journal of Chemical Studies*7(6): 1557-1563
7. Ramprosad Nandi, Hasim Reja, Nitin Chatterjee, **Animesh Ghosh Bag** and Gora Chand Hazra. (2019). Effect of Zn and B on the Growth and Nutrient Uptake in Groundnut. *Current Journal of Applied Science and Technology*.
8. Shreya Das, **Animesh Ghosh Bag**, Nitin Chatterjee, Biplab Pal, Debashis Ghosh and Gora Chand Hazra. (2020) Block wise Spatial Distribution and Mapping of cationic Micronutrients in Soils of Jhargram District of West Bengal. *International Journal of Environment and Climate Chang*.10(10): 111-122, 202.
9. Nitin Chatterjee, Gayatri Sahu, **Animesh Ghosh Bag**, Biplab Plal and G. C. Hazra. (2020). Role of Fluoride on Soil, Plant and Human Health: A Review on Its Sources, Toxicity and Mitigation Strategies. *International Journal of Environment and Climate Change*. 10(8): 77-90.
10. Khanam, R., Hazra, G.C., **Ghosh Bag, A.**, P.G.P.S., Kulsum., Chatterjee, N & Shukla, A.K. (2021). Risk of arsenic toxicity through groundwater-soil-rice in Malda district,

- West Bengal delta basin, India. *Archives of Environmental contamination and toxicology*. <https://doi.org/10.1007/s00244-021-00883-7>.
11. Shreya Das, Rubina Khanam, **Animesh Ghosh Bag\***, Nitin Chatterjee, Gora Chand Hazra, Dipa Kundu, Biplab Pal and S.K.P. Ghouse. (2021). Spatial Distribution of Sulphur and its Relationship with Soil Attributes under Diverse Agro-climatic Zones of West Bengal, India. *Journal of the Indian Society of Soil Science*. 69 (4). 401-410. DOI: [10.5958/0974-0228.2021.00061.X](https://doi.org/10.5958/0974-0228.2021.00061.X)
  12. Rachel Taki, **Animesh Ghosh Bag\***, Shaik Sadhik, B. Keerthika and Kandregula Venkata SasiKumar. (2022). The Role of Organic Farming for Sustainable Agriculture: An Approach to Economic Integrity. *International Journal of Environment and Climate Change* 12(10): 943-953.
  13. Dahal, B., & **Ghosh Bag, A.** (2022). Effect of Integrated Nutrient Management on Different Parameters of Lentil: A Review. *Communications in Soil Science and Plant Analysis*, 1-9. <https://doi.org/10.1080/00103624.2022.2137188>
  14. Thakur, S., Sinha, A., & **Ghosh Bag, A.** (2023). Boron-A Critical Element for Fruit Nutrition. *Communications in Soil Science and Plant Analysis*, 54(21), 2899-2914. <https://doi.org/10.1080/00103624.2023.2252878>
  15. Verma, S., Verma, P., **Bag, A. G.**, & Changade, N. M. (2024). Reviewing Soil Contaminant Remediation Techniques. *International Journal of Environment and Climate Change*, 14(5), 115-134.
  16. Kumar K, N., Singh Yadav, H., & **Ghosh Bag, A.** (2024). Physical Consequences of Climate Change on Agriculture: Causes and Effects. *International Journal of Plant & Soil Science*, 36(6), 213-229. DOI: 10.9734/IJPSS/2024/v36i64624.
  17. Sukumar Gorai, Mayur Darvhankar, Bhupendra Mathpal and **Animesh Ghosh Bag** (2024). Judicial nutrient management for sustainable production of groundnut: A Review. *International Journal of Research in Agronomy*. <https://doi.org/10.33545/2618060X.2024.v7.i4c.555>.
  18. Bhaumik, S., Kashyap, R., & **Ghosh Bag, A.** (2024). Effect of essential plant nutrients on growth and yield of maize crop (*Zea mays* L.): a review. *Vegetos*, 1-15. <https://doi.org/10.1007/s42535-024-01024-w>.
  19. Bimesh Dahal, **Animesh Ghosh Bag**, Sabina Raut (2024). Integrated Nutrient Management for Lentil Cultivation: Improving Soil Fertility, Nutrient Content, and Economic Returns. *Acta Biological forum*. <https://doi.org/10.51470/ABF.2024.4.1.24>
  20. Verma, P., Ghosh Bag, A., Verma, S., & PA, A. (2024). Amelioration of Salt Affected Soil with Potassium Fertilization: A Review. *Communications in Soil Science and Plant Analysis*, 1-23. <https://doi.org/10.1080/00103624.2024.2419991>

## Patent and copyright Published

1. A novel multi-nutrient fertilizer stick for indoor plants and process thereof (Published by Intellectual Property India, 2021) Application number- 202111054143.
2. Dust abatement system for wheat thresher. (Published by Intellectual Property India, 2023) Application number- 202311078427.
3. Smart Phytoacoustic Irrigation System for Precision Water Management in Wheat Cultivation. (Published by Intellectual Property India, 2024) Application number- 202411073444
4. Copy right- Boron fertilization- an irreplaceable tool for better fruit health. Application number L-150465/2024

### Popular Article (3)

1. **Ghosh Bag, A.**, Rubina Khanam, Nitin Chatterjee, A. Mukherjee, Gayatri Sahu, Biplab Pal, and G. Hazra. "Effect of arsenic on soil, human and plant growth." *Agriculture and Food: e-Newsletter* 2, no. 6 (2020): 1-3.
2. Mukherjee, Aritra Kumar, Sajal Pati, **Animesh Ghosh Bag**, Nitin Chatterjee, Biplab Pal, and Dhaneshwar Padhan. "Integrated Nutrient management for sustainable agriculture." *Innovative Farming* 2, no. 1 (2017): 37-40.
3. Mukherjee, Aritra Kumar, Sajal Pati, **Animash Ghosh Bag**, Nitin Chatterjee, and Biplab Pal. "Organic agriculture expands and contributes to sustainable food security." *Innovative Farming* 2, no. 1 (2017): 45-48.

### Seminars and symposiums attended

1. International Conference on “Bio-resource, Environment and Agricultural Sciences (ICBEAS)” organized by Visva-Bharati, Santiniketan, West Bengal, India on 4-6 February, 2017.
2. National Seminar on “Maximizing Fertilizer Use Efficiency and Environmental Health for Posterity” organized by RKMVU, Narendrapur, Kolkata, West Bengal, India on 8<sup>th</sup> march, 2017.
3. National Seminar on “Nutrient pollutants in soil-plant-animal-human continuum for sustaining soil, food and nutritional security- way forward” organized by FACC, Lake Hall, BCKV, Kalyani, West Bengal, India on 9-10 june, 2017.
4. National Seminar on World Soil Day organized by Purba Bardhaman Zilla Parisad, and Memari College, West Bengal, India on 5<sup>th</sup> December, 2017.
5. 82<sup>nd</sup> National Convention and National Seminar on “Developments in Soil Science” from ISSS, organized by Amity University Kolkata, West Bengal, India on 11-14 December, 2017.
6. National Seminar on “Agri-chemicals for a benign environment” organized by FACC, Lake Hall, BCKV, Kalyani, West Bengal, India on 29<sup>th</sup> March, 2018.
7. International conference on “Recent trends in Smart and Sustainable agriculture for food security (SSAFS-2022)” held in School of Agriculture, Lovely Professional University (LPU), Punjab on 21-22 January, 2022.
8. 85<sup>th</sup> Annual Convention of the Indian Society of Soil Science & National Seminar on Developments in Soil Science - 2021 organized by Sriniketan Chapter of the Indian Society of Soil Science Department of Soil Science & Agricultural Chemistry, Palli Siksha Bhavana (Institute of Agriculture) Visva-Bharati, Sriniketan, on November 16<sup>th</sup>- 19<sup>th</sup>, 2021.
9. International conference on ‘Recent Advances in Smart and Sustainable agriculture for Food and Nutritional Security’ held in School of Agriculture, Lovely Professional University (LPU), Punjab on 22-23 November, 2023.