



Dr Sandip Debnath

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Address: Birbhum ,West Bengal,India - 731235

Expertise

Plant Sciences

Experienced Assistant Professor with a demonstrated history of working in the higher education sector. Skilled in Plant Breeding and Genetics. Strong education professional with a Doctor of Philosophy (Ph.D.) in Genetics from Bidhan Chandra Krishi Viswavidyalaya. Besides, teaching, presently working with crop breeding in Visva-Bharati.

Work experience

1. Visva-Bharati University 2015 — Present

Assistant Professor (Grade-II)
Birbhum

2. Uttar Banga Krishi Viswavidyalaya 2014 — 2015

Assistant Professor
Coochbehar

Education

1. Ph.D - 2013

Bidhan Chandra Krishi Viswa Vidyalaya

Honours and Awards

1. DAE Young Scientist Research Award (DAE-YSRA) - 2020

Department of Atomic Energy, Govt of India

2. INSPIRE Fellowship - 2011

DST, Govt. of INDIA

Research Project

Physical mutation to improve the P acquisition along with nodulation efficiency in Lentil

Role: Principal Investigator

Year 2020, Amount Rupees 2489100.00

IFAD-ICARDA project in South Asia on “Enhancing food and nutritional security and improved livelihoods through intensification of rice-fallow system with pulse crops”

Role: Co-PI

Year 2016, Amount Not Applicable

Publication

1. Multichannel CNN Model for Biomedical Entity Reorganization

Ajay Kumar Singh, Ihtiram Raza Khan, Shakir Khan, Kumud Pant, Sandip Debnath, Shahajan Miah
BioMed Research International, Volume 2022, Year 2022, Pages

2. Elucidation of Nature of Gene Action and Estimation of Combining Ability Effects for Fruit Yield Improvement and Yield Attributing Traits in Brinjal Landraces

Neha Rajan, Sandip Debnath, Avijit kr. Dutta, Brijesh Pandey, Ajeet Kr. Singh, Ravindra Kumar Singh, Anjani Kumar Singh, Betty Nokobi Dugbakie
Journal of Food Quality, Volume 2022, Year 2022, Pages 8471202

3. Contextualization of Trait Nexus and Gene Action for Quantitative and Qualitative Characteristics in Indian Mustard

Journal of Food Quality, Year 2022

4. Conservation of Biodiversity-Mitigating environmental challenges and threats

Nihar Ranjan Chakraborty; Sandip Debnath; Neha Rajan; Brijesh Pandey
Conservation of Biodiversity-Mitigating environmental challenges and threats, Volume , Year 2022, Pages

5. Application of New Technology of Intelligent Robot Plant Protection in Ecological Agriculture

Zhe An, Chunhang Wang, Bincy Raj, Sathyapriya Eswaran, R. Raffik, Sandip Debnath, Saima Ahmed Rahin
Journal of Food Quality, Volume 2022, Year 2022, Pages

6. Recent Advancement in Postharvest Loss Mitigation and Quality Management of Fruits and Vegetables Using Machine Learning Frameworks

Journal of Food Quality, Year 2022

7. Study on character association in *Lens culinaris medik*

Satpathy S.;Debnath S.;Mishra A.
Electronic Journal of Plant Breeding, Volume 12, Year 2021, Pages 58-65

8. Genetic variability, character association and divergence studies in sunflower (*Helianthus annuus L.*) for improvement in oil yield

Shyam Sundar Lakshman ., Nihar Ranjan Chakraborty ., Sandip Debnath ., Achal Kant .,
African Journal of Biological Sciences, Volume 3(1), Year 2021, Pages 129-145

9. Conservation of diversity of folk rice in West Bengal

Debnath, Sandip and Chakraborty Nihar Ranjan
Food and Scientific Reports, Volume , Year 2020, Pages

10. Characterization of indigenous brinjal (*Solanum melongena L.*) lines using morphological traits under Jharkhand condition

Neha Rajan .,
Annals of Plant and Soil Research, Volume 22, Year 2020, Pages 425--431

11. CHARACTER ASSOCIATION AND PATH ANALYSIS FOR SEED YIELD AND ITS COMPONENTS IN GRASS PEA (*Lathyrus sativus L.*)

The Bioscan, Year 2020

12. In silico analysis of functional linkage among arsenic induced MATE genes in rice

Seth S.;Debnath S.;Chakraborty N.R.
Biotechnology Reports, Volume 26, Year 2019

13. Recent Researches on Molecular Breeding for Spice Crop Improvement

Debnath S.
Indian Spices, Volume , Year 2018, Pages 317-339

14. **Molecular Markers in Forest Seeds**
Sandip Debnath
Forest Seed Science and Management, Volume , Year 2017, Pages
15. **Whole Genome Transcriptional Analysis of Rice Grown in Arsenic Contaminated Field Conditions**
DEBNATH, SANDIP and BHATTACHARYYA, SOMNATH and SARKAR, SUTANU and CHATTERJEE, MITALI
Trends in Biosciences, Volume 10, Year 2017, Pages 850--855
16. **Expression of Multidrug and Toxic Compound Extrusion (MATE) Genes in Response to the Presence of Arsenic in Irrigation Water and Soil in Rice (*Oryza sativa* L.)**
S. Debnath ., S. Bhattacharyya ., S. Sarkar ., M. Chatterjee .,
International Journal of Bio-resource and Stress Management, Volume 7, Year 2016, Pages 88--91
17. **Potential of commercial vegetable hybrid seed production by farmers**
Debnath, S and Roy, S and Chakraborty, N R and Paul, A
In: Family Farming: Challenges and Opportunities, Volume , Year 2016, Pages 93--95
18. **Impact of different levels of cutting and dates of sowing on growth of coriander under open and protected cultivation**
GUHA, S and DEBNATH, S and SHARANGI AB
The Bioscan, Volume 11(3), Year 2016, Pages 1615-1620
19. **Breeding Methods for Quality Improvement in Horticultural Crops**
Debnath S.;Guha S.
Value Addition of Horticultural Crops: Recent Trends and Future Directions, Volume , Year 2015, Pages 201-211
20. **Genomic profile of the plants with pharmaceutical value**
Saikat Gantait ., Sandip Debnath ., Md. Nasim Ali .,
3 Biotech, Volume 4, Year 2014, Pages 563--578
21. **Phenology and green leaf yield of coriander at different sowing dates and harvesting times**
Guha S.;Sharangi A.B.;Debnath S.
Journal of Food, Agriculture and Environment, Volume 12, Year 2014, Pages 251-254
22. **Genetically modified crops in agriculture: an overview.**
Debnath, S and Sadhukhan, R and others
SATSA Mukhaptra Annual Technical Issue, Volume 18, Year 2014, Pages 117--125
23. **Effect of different sowing times and cutting management on phenology and yield of off season coriander under protected cultivation.**
Guha, S and Sharangi, AB and Debnath, S and others
Trends in Horticultural Research, Volume 3, Year 2013, Pages 27--32
24. **Genotypic difference in temporal variation of arsenic accumulation and**

expression of silicon efflux transporter (LSi2) gene in the field grown rice

Chatterjee M.;Sarkar S.;Debnath S.;Mukherjee A.;Chakrabarti A.;Bhattacharyya S.
Indian Journal of Genetics and Plant Breeding, Volume 73, Year 2013, Pages 94-97

25. **Pathotype characterization of Xanthomonas oryzae pv oryzae isolates of West Bengal and evaluation of resistance genes of bacterial blight of rice (Oryza sativa L.)**
Debnath, S and Satya, P and Saha, BC
Journal of Crop and Weed, Volume 9, Year 2013, Pages 198--200
26. **Changes in Cultivation Pattern of Wheat and Rice as Influenced by the Key Innovations in Research, Policy and Institution Initiatives**
Sarkar Sutanu, Debnath Sandip, Sharangi. A, B
Science International, Volume 1, Year 2013, Pages
27. **Effect of Different Sowing Times and Cutting Management on Phenology and Yield of off Season Coriander under Protected Cultivation**
Trends in Horticultural Research, Year 2013
28. **Differential response of different stress related biochemicals and reactive oxygen species scavenging enzymes in rice-Xanthomonas interaction**
Debnath S.;Satya P.;Saha B.
Research on Crops, Volume 13, Year 2012, Pages 388-391
29. **Genetics and physiology of elevated arsenic in grain and straw of rice**
Bhattacharyya, Somnath and Chatterjee, Mitali and Debnath, Sandip and Sarkar, Sutanu and Mukherjee Arijit
Arsenic in Food Chain: Cause, Effect and Mitigation, Volume , Year 2012, Pages 117-130
30. **Genetic analysis of arsenic accumulation in grain and straw of rice using recombinant inbred lines**
Chatterjee, M and Sarkar, S and Debnath, S and Ghosh, S and Bhattacharyya, S and Sanyal, SK
ORYZA-An International Journal on Rice, Volume 48, Year 2011, Pages 270--273
31. **Hybrid rice: a two way solution for food security and economic improvement.**
Satya, P and Debnath, S
International Journal of Agriculture Environment & Biotechnology, Volume 2, Year 2009, Pages 489--491
32. **Screening for phosphorus(p) tolerance and validation of Pup-1 linked markers in indica rice**
Sarkar S.;Yelne R.;Chatterjee M.;Das P.;Debnath S.;Chakraborty A.;Mandal N.;Bhattacharya K.;Bhattacharyya S.
The Indian Journal of Genetics and Plant Breeding, Volume 71, Year 0, Pages 209-213
33. **INFLUENCE OF GROWING CONDITIONS ON YIELD AND ESSENTIAL OIL OF CORIANDER DURING YEAR-ROUND CULTIVATION**
Sagarika Guha, Sandip Debnath, A. B. Sharangi
International Journal of Agriculture Sciences, Volume 8 (5), Year 0, Pages 1021-1026.

34. Pathotype characterization of *Xanthomonas oryzae* pv *oryzae* isolates of West Bengal and evaluation of resistance genes of bacterial blight of rice (*Oryza sativa* L.).

Journal of Crop and Weed, Year 0