

# Bio-data

**Dr. Harshitha B S , PhD. (Genetics and Plant Breeding).**

**Scientist-B**

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**Name** : Dr. HARSHITHA B S

**Discipline** : Genetics and Plant Breeding

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**Research gate-** <https://www.researchgate.net/profile/Harshitha-B-S-2>

## **Educational Qualification:**

Degree	Board/University	Year	Grade
Ph.D. in Genetics and Plant Breeding	ICAR- Indian Agricultural Research Institute New Delhi, 110012	2020-2024	8.89
M.Sc. in Genetics and Plant Breeding	ICAR- Indian Agricultural Research Institute New Delhi, 110012	2018-2020	8.54
B.Sc. in Horticulture	University of Horticultural Sciences, Bagalkote, India, 587102	2014-2018	8.88
XII	Department of Pre-University Education, Government of Karnataka	2012-2014	90.83%
X	Karnataka Secondary Education Examination Board, Karnataka	2012	84.80%

## **Awards and Achievements:**

- University Merit Scholarship for Undergraduate students, 2014-2018
- **Best Outgoing Student Award** during Under Graduation Program, 2017-18
- Qualified ICAR-JRF 2018 (Plant Sciences)
- Qualified ICAR-SRF 2020 (Genetics and Plant Breeding)
- Qualified CSIR-JRF June 2021(Life Sciences)
- Qualified ICAR-NET 2021 (Genetics and Plant Breeding)
- Qualified GATE 2022 (Life Sciences)
- **Best M.Sc. Thesis Award**-2022 on the occasion of National Seminar on “Enhance the Dubbling Farmers Income, Series-1 on 26<sup>th</sup> November 2022 at Agriculture Trainings and Research Institute, Jhansi (U.P).

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- **Best Poster presentation award** in the Symposium **TENDING MENDEL’S GARDEN FOR A PERPETUAL AND BOUNTIFUL HARVEST** (2022) on “Genetic analysis and molecular mapping for elongated uppermost internode in rice.
- **Best Oral presentation award** on Morphological and Molecular characterization of uppermost internode length in rice germplasm during National Conference held in Hyderabad, India from April 15<sup>th</sup> -16<sup>th</sup> 2022, Organized by Society for Agriculture Innovation and Development, Ranchi, India.
- **Oral presentation award** on “Sugarcane omics: An Update on the current status of crop improvement” during National seminar on “Research imperatives for sustaining sugarcane, sugar and ethanol production” held at ICAR-Sugarcane breeding institute , Coimbatore, Tamilunadu, India on August 25<sup>th</sup> 2023, Organized by Society for Agriculture Innovation and Development, Ranchi, India.

#### **Trainings and Workshops:**

- Workshop on “**Use of Reference Manager Tools and Softwares in Research Article Writing**” at University of Agricultural science, Raichur
- Workshop on “**Millets Mahostav**” jointly organized by just agriculture education group and SKUAST, Kashmir
- Workshop on “**Fluorescence Microscopy**” jointly organized by ICAR-IARI, New Delhi and Incise Infotech private limited, New Delhi
- International Workshop on “**Basics to advanced Bioinformatics and Genomics data analysis**” organized by Nextgenhelper, New Delhi
- Training Programme on “**Statistics and Informatics in Experimental Data Management and Analysis**” at ICAR-IASRI, New Delhi-110012
- Training Programme on “**Genome-wide association studies and its application in Agriculture**” at ICAR-IASRI, New Delhi-110012

#### **Conferences and Symposium:**

- 1<sup>st</sup> National Genetics Congress on Genetics for Sustainable Food, Health and Nutritional Security, New Delhi-110012
- Tending Mendel’s Garden for a Perpetual and Bountiful Harvest Symposium (19-21 July) at Division of Genetics and Plant Breeding, ICAR-IARI, New Delhi-110012
- National Conferences on Plant-Based Food: Capturing Avenues to Intensify the Food Processing Industry at Hotel Le-Meridien, New Delhi

## Publications: (Research articles)

- **Harshitha Bheemapura Shivakumar**, Vikram Jeet Singh, Shekharappa Nandakumar, Brijesh Kumar Dixit, Sonu Shekhawat, & Bhowmick, P. K. (2024). *Frontiers in Sustainable Food Systems*.8:1470871.
- Sonu, Nandakumar, S., Singh, V. J., Pandey, R., Gopala Krishnan, S., Bhowmick, P. K., **Harshitha B S** ... & Vinod, K. K. (2024). Implications of tolerance to iron toxicity on root system architecture changes in rice (*Oryza sativa* L.). *Frontiers in Sustainable Food Systems*, 7, 1334487.
- Nandakumar, S., Singh, V. J., Vinod, K. K., Krishnan, S. G., Dixit, B. K., **Harshitha, B. S.**, ... & Bhowmick, P. K. (2024). Genetic mapping for flag leaf shape in new plant type based recombinant inbred lines in rice (*Oryza sativa* L.). *INDIAN JOURNAL OF GENETICS AND PLANT BREEDING*, 84(01), 52-62.
- Harisha, R., Balakrishnan, A. P., Manjunath, K. K., Bhavya, B., Singhal, S., Shivakumar, H. B., **Harshitha Bheemapura Shivakumar**. & Singh, A. M. (2024). Polyphenol oxidase (PPO) in wheat (*Triticum aestivum*): a systematic review on bioactivity, inheritance, functionality and their effects on end products. *Cereal Research Communications*, 1-13.
- **Harshitha BS**, Karthik Kumar Manjunath, Bhargavi HA. Mysterious microproteins as a novel tool for crop improvement: A review. *Pharma Innovation* 2023;12(1):2317-2322. DOI: [10.22271/tpi.2023.v12.i1z.18331](https://doi.org/10.22271/tpi.2023.v12.i1z.18331)
- Karthik Kumar Manjunath, **Harshitha BS**, Anusha NM, Bhargavi HA. Breeding for mulberry improvement: A review. *Pharma Innovation* 2023;12(2):477-481. DOI: [10.22271/tpi.2023.v12.i2f.18461](https://doi.org/10.22271/tpi.2023.v12.i2f.18461)
- Archana, R., H. C. Lohithaswa, R. Pavan, Vikram Jeet Singh, Neethu Mohan, S. Nanda Kumar, Sonu and **Harshitha, B. S.** 2023. Estimation of Combining Ability for Yield, Yield Related Traits and Fusarium Stalk Rot in New Inbred Lines of Maize (*Zea mays* L.). *Int.J.Curr.Microbiol.App.Sci*.12(10):138-152. doi: <https://doi.org/10.20546/ijcmas.2023.1210.017>

## Popular articles:

**Harshitha, B.S**, Bhargavi, H.A, Nandakumar, S, Ranebennur, H. and Nayan Deepak, G (2022). Genomic Selection: tool for Speedy Crop Improvement. *Food and Scientific Reports*,3(11): **42 - 44**

**Harshitha, B.S**, Bhargavi, H.A, Nandakumar, S, Ranebennur, H. and Nayan Deepak, G (2022). Biofortification: Raising our defenses against Malnutrition. *Food and Scientific Reports*,3(11): **53 - 56**

**Harshitha, B.S**<sup>1\*</sup>, Bhargavi, H.A<sup>2</sup> and Chandrika Vadla<sup>1</sup>. (2022). Achieving Climate Resilience through Genome Editing Technologies. *The Science World a Monthly E Magazine*, 2(11), 1862–1864. <https://doi.org/10.5281/zenodo.7348244>

**Harshitha, B.S**, Nandakumar, S, Bhargavi, H.A (2022) Genetics of Circadian Rhythm and role in plant development. *Just Agriculture*3(4):20

Abhishek E, Karthik Kumar M, **Harshitha B S**, Narayana Bhat Devate. (March 2023). Polyploid rice: new resources for future rice breeding. *The Science World a Monthly E Magazine*, 3(3), 327–333. <https://doi.org/10.5281/zenodo.7702040>

Bhargavi H.A, **Harshitha B.S**, Karthik Kumar M, Sonu. (March2023). Genome-wide Haplotype Analysis: Its importance in crop improvement, *Agriculture and Food: E-Newsletter*, 05(3), 1-4

Sulochana K H. 1 , **Harshitha B S 2** and Bajjuri Divya 2. (2023). An Insight into Physiological and Molecular Basis of Sporophytic Self Incompatibility in Cole Crops. The Science World a Monthly E Magazine, 3(8), 2087-2091

Neelakanta Rajarushi Chava1, Kalyanam Sai Iswaraya lakshmi1, **Harshitha B.S.** (2023). Biochar in Insect Pest Management. The Science World a Monthly E Magazine, 3(2), 128–132. <https://doi.org/10.5281/zenodo.7627500>

Ranebennur, H., Rawat, K., **Harshita, B. S.**, Nayan Deepak, G1, and Muthaiah, G. (2023). Peptidomics: A Novel Tool in Plant Disease Management. Food and Scientific Reports, 4(9):92-95

### **Book Chapters:**

- **Harshitha, B. S.**, Naveen, A., Bhargavi, H. A., Basavaraj, P. S., & Karthik Kumar, M. (2024). High-Throughput Phenotyping Enabled Rice Improvement. In *Climate-Smart Rice Breeding* (pp. 249-271). Singapore: Springer Nature Singapore.
- Bhargavi, H. A., Harshitha, B. S., Yadav, S., Karthik, K. M., Mehta, B. K., Gore, P. G., ... & Keerthi, M. C. (2025). Allele Mining for Crop Genome Designing in Cowpea. In *Allele Mining for Genomic Designing of Grain Legume Crops* (pp. 71-86). CRC Press.
- Amaresh, **Harshitha BS** ,Nunavath Aswini (2022). Plant proteomics and implication in crop Improvement for stress Tolerance in in Genetics and Plant Breeding (AGPB-15-0602) Akinik Publications.
- **Harshitha BS**, Vinay Rojaria, Bhargavi HA (2022). Epigenetics and Epigenomics: Mechanism and Implication in Crop Improvement in Advances in Genetics and Plant Breeding (AGPB-20-04) Akinik Publications.
- Reddy N N, Sreenatha A, **Harshitha B S** and Adithya V Machnoor (2023). Greenhouse planning design and construction. Brillion publishing. ISBN: 978-8119238-36-1.