

Dr. Prathibha M.D

Scientist (Plant Physiology)

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1. Date of birth : 09 May 1998

2. Education Qualification : Ph.D. (Crop Physiology) from University of

Agricultural Sciences, GKVK campus, Bengaluru

3. Joining Date in ICAR : 07-01-2020 4. Joining Date in DRMR : 05-05-2020

5. Discipline/Specialization : Plant Physiology

6. Research Experience 5 years

7. Training/advance exposure in

the area of work

1. Professional attachment training on "Phenotypic and molecular diversity analysis for drought and cellular level tolerance (heat adaptive) traits in cereals".

- 2. Phenotyping for drought adaptive traits with special reference to stable isotopes, University of Agricultural Sciences, Bengaluru.
- 3. Phenotyping for drought adaptive traits and trait introgression through molecular marker approaches.

8. Contribution to the scientific achievement:

Developed Trait Introgressed Lines (TILs) for improved roots and water use efficiency in IR-64 background suited for semi-irrigated aerobic condition.

9. Current research Projects and future planning of research:

Physiological and molecular interventions to develop terminal drought and heat stress tolerant mustard varieties

10. Awards/Recognition

- 1. Best Research Award from Society for Advancemment of Human and Nature (SADHNA), Dr YS Parmar University of Horticulture and Forestry Nauni, Solan, India February, 2017
- 2. Best concept and poster award at European climate action day (ECAD)-2016 Organised by Fraunhofer, German Research organisation and Swissnex September, 2016

11. Publications (Research papers)

- 1. **Prathibha M.D.**, Pushpa D., Mohan Kumar M.V., Raju B.R., Mallikarjuna N.M., Sowmya HR., Rajanna M.P., Udaya kumar M. and Sheshshayee M.S. Introgression of drought adaptive traits through Marker assisted backcrossing An evidence for physiological breeding in rice (Oryza sativa), 2019, Rice (NAAS-9.51).
- 2. Sheshshayee M.S, Preethi N.V, Rohini Sreevathsa, Sowmya H.R, Smitharani J.A, Pooja Bharti, **Prathibha M.D**. and Raju S.Y, Is Water Use Efficiency a relevant trait to improve drought tolerance? Current concepts and future opportunities.2018, Frontiers in Chemistry (IF-4.4, NAAS-9.78).
- 3. **Prathibha M.D**, Rajanna M.P and Sheshshayee M.S. Marker assisted introgression of Water Use Efficiency (WUE) and root traits by novel multi-parent backcross breeding strategy in Rice (2015). Mysore J. Agri. Sci., 49(2):296-298. (NAAS-3.93)
- 4. Sheshshayee M.S, Mohan Kumar M.V, Raju B.R, **Prathibha M.D**, Rajanna M.P, Mohan Raju B and Udayakumar M. Enhancing Water use and effective water use of water as a potential strategy to develop rice cultivars suitable for semi-irrigated aerobic cultivation (2013). In: Murulidharan K and Siddiq EA, eds 2013. International dialogue on perception and prospects of designer Rice. Society for advancement of rice research, Directorate of Rice Research, Hyderabad 500030, India, pp 261-272.
- 5. Zahoor A.D., Sheshsayee, M.S., Ajaz A.L., **Prathibha, M.D.**, Jameel, A.K., Jyoti B, Srikanth, Alie B.A. and Jalendra H.G. Thermal induction response (TIR) in temperate maize Inbred lines (2016), Eco. Env. & Cons. 22 (4): 2016; pp. 387-393. (NAAS-4.89)
- 6. Zahoor A.D., Mushtaq A., Lone A.A, Sheshsayee M.S., **Prathibha M.D.**, Alaie, B.A., Gulzafar M.I., Makdoomi A., Gazal and Gulzar S. Genetic studies for drought related traits in temperate maize, (2016). Electronic Journal of Plant Breeding,7(4):1224- 1232. (NAAS-4.97)
- 7. Z.A. Dar, A.A. Lone, **M.D. Prathibha**, P.A. Sofi, I. Abidi, G. Ali, M.A. Wani and J.A. Khan Variability in Epicuticular Wax Content among Temperate Maize Lines as a Drought Tolerance Related Mechanism, Int. J. Curr. Microbiol. App. Sci.,2017, 6(4): 441-445. (NAAS-4.77)