

Dr. P. C. LATHA

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1. Personal bio-data:

- a) **Position/Designation** : **Principal Scientist**
- b) **Joining date in ICAR** : **22.8.1997, (DOB: 27/08/1968)**
- c) **Discipline and Specialization** : **Agricultural Microbiology**

d) Training/advance exposure in the area of work:

- Summer school on “Soil Plant Microbe Interaction in Relation to Integrated Nutrient Management, 17.06.98 to 8. 7.98.
- Department of Agricultural Microbiology, IARI, New Delhi, National training on bioinformatics in conservation of microorganisms, 01.05.06 to 8.05.06.
- National Bureau of Agriculturally Important Microorganisms, Mau Nath Bhanjan, UP, Training Course on IPR- Patenting System in India, 25.2.08 to 26.2.08.
- National Institute of Intellectual Property Management, Nagpur, Training Course on Biochemical and molecular Biology Advanced Techniques, 18.11.08 to 8.12.08.
- Division of Biochemistry, IARI, New Delhi, Training on Microbe mediated crop residue management and their utilization for sustainable crop production, 2.08.09 to 14.08.09
- Department of Agricultural Microbiology, IARI, New Delhi, Data Analysis using SAS, 15.9.10 to 21.9.10.
- National Academy of Agricultural Research Management, Rajendranagar, Hyderabad.

e) Contribution to the scientific advancement:

- Evaluated the use of herbicides on soil microflora and established that herbicides (butachlor, 2,4-D, pretilachlor and pyrazosulfuron ethyl) applied for nine consecutive seasons at recommended field doses did not produce any significant changes in the culturable microbial population and soil enzyme activities.
- Determined the differences in soil microbial parameters during inorganic and organic fertilization and revealed that the use of rice straw, dhaincha and poultry manure increased the soil microbiological quality index.

- A study of the rhizosphere microbial diversity using carbon substrate utilization profiles, provided information that the soil followed by the plant variety controls the establishment of microbial community in the rhizosphere.

2. Future Planning of research:

- Studying effect of climate change on soil microorganisms and also their role in mitigating climate change effects.
- Isolating, characterizing and utilization of microorganisms for management of abiotic stresses in rice.
- Role of soil microbiology in maintaining soil quality.
- Use of microbes for crop residue management.
- Researching genotypic differences in rice in supporting rhizosphere soil microbial community diversity and its significance in plant nutrition and health.

3. Publications :

- Latha P. C. and H. Gopal. 2010. Effect of Herbicides on Soil Microorganisms. Indian Journal of Weed Science 42 (3/4): 217-222.
- Latha P. C. and H. Gopal. 2010. Effect of Rice Herbicides on β -glucosidase, Protease and Alkaline Phosphatase Activity in Soil. Indian Journal of Weed Science 42 (3/4): 223-225.
- Latha P. C. and H. Gopal. 2010. Impact of herbicide applications on soil microbial populations. Green Farming, 1 (4): 380-382.
- Latha P. C. and H. Gopal. 2010. Influence of herbicides on cellulolytic, proteolytic and phosphate solubilizing bacteria. International Journal of Plant Protection, 3(1): 83-88.
- Surekha K., Latha P. C., Rao K. V. and R. Mahender Kumar. 2010. Grain Yield, Yield Components, Soil Fertility, and Biological Activity under Organic and Conventional Rice Production. Communications in Soil Science and Plant Analysis. 41(19): 2279- 2292.

4. Other relevant activities of Scientist:

- Associated in the conduct of Soil Science trials in the All Indian Coordinated Program of DRR, monitoring of crop production trials at various centres in India, analysis of data and preparation of reports.
- Involved in 4 institute projects as Co-PI.
- Member of different committees: ITMU, Local Purchase Committee.
- Resource person in different training programs conducted at DRR.
- Acting as co-guide to post graduate student of ANGRAU.