

Role of biofertilizers in achieving sustainability in crop production

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The term sustainable agriculture means an integrated system of plant and animal production practices focusing on site-specific application of inputs that will satisfy food, feed and fiber needs in the long-run and improves the quality of life for farmers and society as a whole [1]. Long term application of synthetic chemical fertilizers possesses adverse effects on the environment such as chemical accumulation in the air and water; and also harms the soil health, decreases soil water holding capacity, increases salinity and disparities soil nutrients. Furthermore, there is imperative need to combat these social issues of increasing food instability, availability and nutritional insecurity through cost-effective, environment-friendly and socially acceptable agricultural options. Consequently, biofertilizers were opted to somehow reduce the adverse impact of low soil fertility, the impact of environmental stress and the effect of biotic stressors.

1. Das A, Shivay YS, Prasad M. Economic sustainability of cotton-wheat cropping system as influenced by prilled urea, Azotobacter and farmyard manure. *Indian Journal of Agricultural Sciences*. 2008;32(1):37-50.
2. Kumar SM, Reddy GC, Phogat M, et al. Role of bio-fertilizers towards sustainable agricultural development: A review. *Journal of Agricultural Science*. 2018;7:1915-21.
3. A, Bharati AK, Yadav S, et al. Influence of biofertilizer and farm yard manure on growth, yield and seed quality of Mustard (*Brassica sinensis*) in rainfed condition. *Journal of Agricultural Science*. 2017;7(2):197-202.
4. Singh SK. Sustainable Agriculture: Biofertilizers withstanding Environmental Stress. *Journal of Agricultural Science*. 2020;10(4):158-78.
5. Suri VK, Choudhary AK, Chander G, et al. Improving phosphorus use through co-inoculation of vesicular arbuscular mycorrhizal fungi and phosphate-solubilizing bacteria in maize in an acidic Al sol. *Journal of Agricultural Science*. 2011;42(18):2265-73.

Biography

Pragati Yadav is from Department of Agronomy, College of Agriculture, Rajasthan Agricultural University, Bikaner. She is currently working as an Assistant Professor in the Department of Agronomy, Rajasthan Agricultural University, Bikaner. She has completed her M.Sc. in Agronomy from Rajasthan Agricultural University, Bikaner. She has published several research papers in national and international journals. She is also involved in various agricultural extension activities. She has a strong interest in sustainable agriculture and soil health management.

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