

## EFFECT OF P SOLUBLIZING BACTERIA ON YIELD OF WHEAT AND NUTRIENT AVAILABILITY IN ACID SOIL IN VARANASI REASON

Rahul Kumar and Priyanka Sharma

*Department of Soil Science and Agricultural Chemistry,  
College of Agriculture, IGKV, Raipur (C.G.)  
Email - rahul\_spr@sify.com*

**Abstract :** A field experiment was conducted for two rabi crop during season 2009-2010 at Varanasi. To study the effect of application of rock phosphate along with P solubilizing microorganism on yield of wheat and nutrient availability in inceptisol. The experiment finding the grain yield was significant increased with rock phosphate application up to 60 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> highest yield was recorded with the addition of rock phosphate and P solubilizing bacteria in combination of rock phosphate @60 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>. A significant increase in organic carbon and available NPK was also observed with use of rock phosphate +P solubilizing bacteria. The result indicate that yield, maintained the soil health minimizing the cost of P fertilizer.

**Keyword :** Rock Phosphate, P use efficiency, wheat, PSM

### REFERENCES

**Chapman, H.D.** (1965). In method of soil analysis (C.A. Blacked) Agronomy (Part 2), American Society of Agronomy, Madison, Wisconsin.  
**Gaur, A.C.** (1990). Phosphate solubilizing of microorganism as Bio fertilizer Omega Scientific Publishers New Delhi  
**Gaur, A.C. and Sunita, G.** (1999). Phosphate solubilizing of microorganism An overview current trend in life science, 23, 151-164.  
**Mohad, S. P.; Gupta, D. N.; and Chevan, A.S.** (1989). Enhancement of Phosphate solubilizing

cultures. Journals of Maharashtra Agriculture University 14, 178-181.

**Peach, M.** (1965) In Method of Soil Analysis (C.A. Blacked) Agronomy (Part 2), American Society of Agronomy, Madison, Wisconsin.

**Shoemaker, H.E.; Mclean, E .O. and Pratt, P.F.** (1961). Buffer method for determination lime requirement in soil with appreciable amount of extractable aluminum soil science society of America. Proceeding 25.274-277

**Singh, O.P.: and Dutta, B.** (1987). Phosphorus status of some hill soil of Mizoram in relation to pedogenic properties. Journals of Indian society soil science society 34, 600-605.