

Productivity and Profitability of Field Pea as Influenced by Different Levels of Fertility and Bio-Fertilizers under Irrigated Condition

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Abstract : A field experiment was conducted during two consecutive Rabi seasons of 2007 and 2008 to study the economics of different bio-fertilizer's inoculations in fieldpea (cv. Jai) at Chandra Shekhar Azad University of Agriculture and Technology, Kanpur (India). Results indicated that the seed inoculation with Rhizobium + PSB + PGPR improved all the growth; yield attributes and yields of field pea. Fresh and dry weight plant-1, nodules number and dry weight plant-1 were found significantly maximum. Number of grains pod-1, number and weight of pods plant-1 at maturity attributed significantly in increasing the grain yield as well as net return. On pooled basis, maximum net income (Rs.22169 ha⁻¹) was obtained with the use of Rhizobium + PSB + PGPR which was improved by a margin of Rs.1502 (6.77%), 2972 (13.40%), 2672 (12.05%), 5212 (23.51%), 6176 (27.85%), 4666 (21.04%) and 8842/ha (39.88%) over the inoculation of PSB + PGPR, Rhizobium + PGPR, Rhizobium + PSB, PGPR, PSB, Rhizobium and control, respectively. Thus, it can be recommended that to earn the maximum net profit from dwarf field pea, seed should be inoculated with Rhizobium + PSB + PGPR.

Keywords : rhizobium, phosphorus solubilizing bacteria, plant growth promoting rhizobacteria, field pea

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