

**EFFECTS OF DIFFERENT LEVELS OF NPK AND CYCOCEL
WITH RHIZOBIUM INOCULATION ON SOIL
PHYSICO-CHEMICAL PROPERTIES OF FIELD PEA**

PISUM SATIVUM L. CV. RACHNA

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ABSTRACT

*An experiment was conducted during rabi season (Nov-March) 2014-15 on “Effect of different levels of NPK and Cycocel with Rhizobium inoculation on Soil Physico-chemical properties of field pea (*Pisum sativum* L.) Cv. Rachna” on Research Farm SHIATS, Allahabad (U.P.). The design applied for statistical analysis was carried out with 3^2 randomized block design having three levels of N P K 50, 75, and 100 % RDF and three levels of Cycocel 0, 50 and 100 % with rhizobium inoculation 100% respectively. Treatment combination $T_8 - L_3R_1G_1$ [N: P: K 20:80:40 kg ha⁻¹ + Rhizobium 2 kg ha⁻¹ + Cycocel 500 ppm ha⁻¹] gave best in available nitrogen (kg ha⁻¹), available phosphorus (kg ha⁻¹) and available potassium (kg ha⁻¹), which were as 319.38, 27.46, 145.10 respectively, respectively. Treatment $T_9 - L_3R_1G_2$ [N:P:K 20:80:40 kg ha⁻¹ + Rhizobium 2 kg ha⁻¹ + Cycocel 1000 ppm ha⁻¹] was to be best in soil pH 7.34, EC 0.25 dsm⁻¹, bulk density 1.46 Mg m⁻³, particle density 2.73 Mg m⁻³, pore space 50.43 % and Organic carbon 0.87 %, which were as respectively. Soil chemical properties as available N, available K₂O, EC were found to be significant but, pH, O.C. (%), available P₂O₅ were found to be non significant. Soil physical properties as percent pore space (%) were found to be significant where as particle density (Mg m⁻³) and bulk density (Mg m⁻³) was found to be non significant.*

KEYWORDS: Field pea, Physico-chemical, NPK, Rhizobium Inoculation, Cycocel,

Original Article

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