

**INFLUENCE OF ORGANIC MANURE AND VARIOUS LEVEL OF NPK ON
SOIL PHYSICO-CHEMICAL PROPERTIES OF MUSTARD
(BRASSICA JUNCEA L.) cv. EURO SHAKTI**

SAHU, Y. K.¹, DAVID, A. A.², UPADHYAY, Y.³, DHRUW, S. S.⁴ & SIDAR, R. S.⁵

¹Research Scholar, Department of Soil Science, Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad, Uttar Pradesh, India

²Associate Professor, Department of Soil Science, Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad, Uttar Pradesh, India

ABSTRACT

An experiment was carried out at soil science research farm SHIATS, Allahabad during 2014-15. The experiment was laid out in randomized block design with 9 treatments in three replications on topic "Influence of organic manure and various level of NPK on soil physico-chemical properties of mustard crop". The Available nitrogen 321.33 kg ha⁻¹, phosphorus 29.00 kg ha⁻¹, and potassium 232.33 kg ha⁻¹ was found respectively. It is concluded that treatment combination T₈ (NPK @ 100% RDF + vermicompost @ 100% RD) and T₅ (NPK @ 50% RDF + vermicompost @ 100% RD) soil pH 7.00, bulk density 1.19 Mg m⁻³, pore space 70.90%, organic carbon 0.79 %, T₅ (NPK @ 50% RDF + vermicompost @ 100% RD), particle density 2.83 Mg m⁻³ and electrical conductivity 0.25 dSm⁻¹ T₈ (NPK @ 100% RDF + vermicompost @ 100% RD) was found respectively. The maximum yield was recorded in T₅ (NPK @ 50% RDF + vermicompost @ 100% RD) 24.37 q ha⁻¹ and maximum cost benefit ratio was recorded 1:2.30 with net return of ₹ 46,258.00 ha⁻¹.

KEYWORDS: Organic Manure, NPK, Soil Physico-chemical Properties, Mustard, etc

Received: Oct 05, 2015; **Accepted:** Oct 28, 2015; **Published:** Nov 02, 2015; **Paper Id.:** IJASRDEC201515