

Research Article

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Response of tillage practices and farm yard manure on soil health, growth, yield and nutrient uptake by potato (*Solanum tuberosum* L.) cv. KUFRI BADSHAH

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Summary

The field experiment was conducted during *Rabi* season 2011-12. This study evaluated the effects of tillage and FYM on soil health, growth and yield in south Allahabad, Uttar Pradesh. The experimental consisted of 9 treatments laid out in Randomized Block Design with three replications, three levels of tillage (10, 20 and 30 cm) and FYM (0, 15 and 30 t ha⁻¹). The observations of crop were taken at 30, 60 and 90 DAS (Days after sowing). All levels of tillage and FYM, improved the soil physical and chemical properties but best performance was recorded in T₈ (Depth of tillage at 30 cm + FYM at 30 t ha⁻¹). All growth parameter and yield was found statistically significant. The maximum plant height (18.40, 38.63 and 56.86 cm, respectively), number of branches (5.16, 11.30 and 13.86) and leaves plant⁻¹ (21.30, 68.63 and 91.76) was found in treatment 8 (T₈) and maximum tuber yield (44.83 t ha⁻¹) was also recorded in T₈, where depth of tillage at 30 cm + FYM at 30 t ha⁻¹.

Key words : Tillage practices, FYM, Potato, Soil properties, Yield attributes

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