

IMPACT OF INTEGRATED NUTRIENT MANAGEMENT ON YIELD AND QUALITY OF BROCCOLI (*BRASSICA OLERACEA* L. VAR. *ITALIC* PLENCK) CV. KTS-1

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Abstract: Present investigation was undertaken to study the effect of INM on yield and quality of broccoli cv. KTS-1. For this, a field experiment was carried out in Randomized Block Design with three replications. The experiment was conducted at the Horticulture Research Farm of university, during Rabi season of 2014-15. For the experiment, thirteen treatment combinations viz. T₀ (Control), T₁ (NPK:150 :100 :100 Kg/ha), T₂ [(Neem cake (2.5 t/ha) + Vermicompost (5 t/ha) + Azotobacter (2 kg/ha)], T₃ [Neem cake (1.5 t/ha) + 75% recommended dose of NPK], T₄ [Neem cake (2.5 t/ha) + 50% recommended dose of NPK], T₅ [Vermicompost (2.5 t/ha) + 75% recommended dose of NPK], T₆ [Vermicompost (5 t/ha) + 50% recommended dose of NPK], T₇ [Azotobacter (2 kg/ha) + 75% recommended dose of N + full dose of P and K through inorganic fertilizer], T₈ [Azotobacter (2kg/ha) + 50% recommended dose of N + full dose of P and K through inorganic fertilizer], T₉ [Neem cake (1.5 t/ha) + Vermicompost (2.5 t/ha) + 75% recommended dose of NPK through inorganic fertilizer], T₁₀ [Neem cake (2.5 t/ha) + Vermicompost (5 t/ha) + 50% recommended dose of NPK through inorganic fertilizer], T₁₁ [Neem cake (1.5 t/ha) + Vermicompost (2.5 t/ha) + Azotobacter (2 kg/ha) + 75% recommended dose of NPK through inorganic fertilizer] and T₁₂ [Neem cake (2.5 t/ha) + Vermicompost (5 t/ha) + Azotobacter (2 kg/ha) + 50% recommended dose of NPK through inorganic fertilizer] were used. Treatment T₁₁ (Neem cake 1.5 t/ha + Vermicompost 2.5 t/ha + Azotobacter 2 kg/ha + 75% recommended dose of NPK through inorganic fertilizer) was found best in terms of maximum curd weight/plant (438 g), curd weight/plot (3.94 kg), curd yield (219.06 q/ha), T.S.S. (10.15 °B), vitamin C content (82.91 mg/100g), acidity (0.49), total sugar content (3.16 g), reducing sugar content (2.75g), non reducing sugar (0.43).

Keywords: Broccoli; Inorganic fertilizer; Vermicompost; Neem cake; Azotobacter; Yield; Quality

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