RESEARCH PAPER

Effect of organic manures and inorganic fertilizers on growth, yield and quality of brinjal (*Solanum melongena* L.) cv. PANT RITURA.

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Abstract : An experiment was conducted at Horticultural Research Farm of the of Department of Applied Plant Science (Horticulture), Babasaheb Bhimrao Ambedkar University, Lucknow from autumn - winter to spring season 2012 - 2013 with the objective to study the effect of different doses of organic manures and inorganic fertilizers on growth, yield and quality of brinjal and to ascertain the best treatment of organic manures and inorganic fertilizers for growth, yield and quality of brinjal cv. Pant Rituraj. The experiment consisted of different doses of FYM (100, 75, 50 and 25 %), Vermicompost (100, 75, 50 and 25 %) and Neem cake (100, 75, 50 and 25 %) along with recommended dose of fertilizer. The experiment was arranged in Randomized Block Design and the treatments were replicated thrice. The result showed that maximum plant height (47.33 cm), number of branches (9.22), number of leaves (103.8 per plant) was recorded under 25% RDF+ 75% Neemcake and the maximum number of flowers (16.77) was noted under 75% RDF+ 25% vermicompost while, all the growth parameters were found minimum under control. The yield attributing parameters were recorded maximum in terms of fruit length (32.333 cm), fruit diameter (8.88 cm), fruit weight (123.111g), number of fruits per plant (16.66), fruit yield per plant (2.05 kg), fruit yield per plot (32.80 kg) and fruit yield per hectare (75.93 tonnes) under 25% RDF+75% Neem cake while, all the yield and yield attributing parameters were found minimum under control. The quality parameters were recorded maximum *viz.* total soluble solids (T.S.S) (7.000 °Brix), total sugars (2.627 g), reducing sugar (0.470 g) and Vitamin- C (22.77 mg/100g) under 25% RDF+75% Neem cake and all the quality attributing parameters were found inferior under control.

Key Words: Farm yard manure, Vermicompost, Neem cake, Brinjal, Fruit yield, Quality

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