RESEARCH PAPER

Effect of organic manures and biofertilizers on growth, flowering, yield and quality of tomato cv. PUSA SHEETAL

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Abstract : A field experiment on the effect of organic manures and biofertilizers on growth, flowering, yield and quality of tomato cv. PUSA SHEETAL was conducted at the Horticulture Research Farm of the Department of Applied Plant Science (Horticulture), Babasaheb Bhimrao Ambedkar University, Lucknow in the year of 2012-13. The experiment consisted of different doses of organic manures *i.e.* FYM (100% and 50%), vermicompost (100% and 50%) and neem cake (100% and 50%) along with biofertilizers *i.e.* PSB (2kg/ha and 1kg/ha) and *Azospirillum* (2kg/ha and 1kg/ha). The result showed that maximum plant height (39.50 cm) was recorded at PSB 2kg/ha and the highest number of branches per plant (6.93), maximum number of cluster per plant (9.83) were recorded under *Azospirillum* 2kg / ha while, all growth parameters were found minimum under control. The yield attributing parameters were also recorded maximum in respect of fruit per plant (17.10), fruit diameter (6.28 cm), fruit weight (70.24 g), fruit yield per plant (3.23kg), fruit yield per plot (48.07kg) and fruit yield per hectare (363.60 q) under *Azospirillum* 2 kg/ha. Maximum acidity (0.59%) was recorded under control and maximum TSS (5.03 °B) and Vitamin-C (26.13 mg/100g) were found under Vermi- compost 100% followed by application of *Azospirillum* (2 kg/ha).

Key Words: Farm yard manure, Vermicompost, Neem cacke, Tomato, Fruit yield, Quality, PSB, Biofertilizer

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