



Research Paper

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Yield, yield parameters and economics of brinjal (*Solanum melongena* L.) as influenced by different sources of organics

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Abstract : The study on variation in growth and yield parameters in brinjal (*Solanum melongena* L.) under organic management practices were carried out during 2008-09 at Saidapur Farm, Hi-Tech Horticulture Unit, University of Agricultural Sciences, Dharwad. There was significant difference among the organic plant protection and integrated pest management practices in all the growth and yield parameters. With respect to nutrient management practices, maximum plant height was recorded in treatment RDF + FYM. (60.2 and 74.0 cm, respectively) both at 60 and 90 DAP. Treatment RDF + FYM recorded maximum number of branches (14.6 and 23.3 branches/plant), number of leaves (66.8 and 93.2 leaves/plant), leaf area (142.3 and 167.1 cm²), dry matter production (13.8 and 17.8 g), number of fruits per plant (undamaged) (30.2) and maximum fruit yield (33.0 t/ha) under IPM condition compared to organic plant protection both at 60 and 90 DAP, respectively. The economic analysis revealed that the maximum gross returns (Rs. 1,32,000/ha) was obtained from the treatment with RDF, followed by FYM + RDF (Rs. 1,44,000/ha) with a net returns of Rs. 1,03,750 and Rs. 1,12,335 per ha, respectively compared to other treatments. These treatments had maximum B:C ratio of 3.67 and 3.47, respectively.

Key words : Organics, *Solanum melongena*, Economics

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Brinjal (*Solanum melongena* L.) of Solanaceae family is one of the widely used vegetable crop by most of the people and is popular in many countries viz., central, south and south east Asia, some part of Africa and central America (Gurubban, 1977). It is used in ayurvedic medicine for curing diabetes and also as a good appetizer. It is good aphrodisiac, cardiotoxic, laxative, mutant and reliever of inflammation). It occupies an area of 2,87,884 ha with an annual production of 44,24,231 metric tonnes in India and in Karnataka it is cultivated over an area of 1,21,241 ha with a production of 33,324 metric tonnes (Anonymous, 1999). Although insecticidal control is one of the effective means against the fruit borer, many of the insecticides applied are not effective for the satisfactory control of these pests. Brinjal being vegetable crop, use of chemical insecticides will have considerable toxic residue in the fruits besides this; sole dependence on insecticides for the control of these pests has led to insecticidal resistance by the pest. Hence, use of organic

amendments with IPM modules can be the novel approaches in the recent past to manage the pest. Hence, keeping the above points in view, present investigation has been undertaken with the objective: To study the effect of organic nutrient management practices on growth and yield parameters of brinjal.

RESEARCH METHODS

The investigation was carried out in Hi-tech Horticulture Unit, University of Agricultural Sciences, Dharwad during 2008-09, to study the variation in growth and yield patterns of brinjal under organic plant protection and IPM (Integrated pest management practices) as main plot treatments and nutrient management practices as sub-plot treatments viz., T₁ - GLM (1/3) + FYM compost (1/3) + VC (1/3) equivalent to RDF (VC applied in the form of equal splits 25 per cent each as basal at 30, 60 and 90 DAS), T₂ - T₁ + biofertilizer consortia (*Azospirillum* + PSB + *Trichoderma*), T₃ - T₂ + neem cake