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Effect of organics on the yield parameters of bell pepper under shade house condition

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Abstract : The purpose of the study was to evaluate the effects of organic amendments on yield parameters of capsicum. Field experiments were carried out at Agricultural Research Station, Gangavati, Koppal district, Karnataka for two consecutive seasons of *Rabi* 2005-06 and 2006-07 in the fixed plots. Split plot design with three replications was adopted with two bell pepper varieties *viz.*, California Wonder (V₁) and Gangavati Local (V₂) as main plot treatments and nine completely organic nutrient sources along with recommended package of practice nutrients and only recommended inorganic nutrients sources were used as sub plot treatments (O₁ to O₁₁). Results revealed that variety California Wonder performed better with respect to yield (20.21 t/ha) than local variety (16.18 t/ha). Among the nutrient sources O₅ [FYM (50%) + poultry manure (50%) equivalent 100% N RDN-basal] was found significantly superior for yield (19.89 t/ha). The next best treatment for these parameters was O₁[FYM (50%)+VC (50%) equivalent 100 % RDN (basal)]. Among the various treatment combinations (varieties x organic source of nutrients), the treatment combinations (O₅V₁) were found superior in yield (22.68 t/ha), compared to least yield recorded in inorganic treatments O₁₁V₁ (16.87 t/ha) and O₁₁V₂ (14.28 t/ha).

Key Words : Capsicum, Yield, Organics, Shade house, Vermicompost, Poultry manure, FYM

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INTRODUCTION

Bell pepper occupies a pride place among the vegetable in Indian cuisine because its delicacy pleaser flavour with rich colours and nutrients composition. Presently, model capsicum cultivation with a quest to harvest high yield, to cut down indiscriminate use of fertilizers and pesticides which has adversely affected quality of capsicum and physicochemical properties of soil. Therefore, alternate chemical agriculture system is organic farming which is integrating relation between soil, plant, water, soil micro flora and fauna helps in healthy soil, proper energy flow in soil crop, water environment systems keeps biological life cycle live and helps in sustaining considerable levels in yield (Lampkin, 1990). It is mainly based on principles of restoration of soil organic matter in the form of humus, increasing microbial population, skilful application of the factors contributing soil life and health (Pathak and Ram, 2003). Hence, the present study was undertaken with objectives to know the response of bell pepper to organic sources.

MATERIALS AND METHODS

Experimental details :

The experiment was carried out at Agricultural Research Station, Gangavati during 2006 and 2007 in fixed plot which is situated in northern dry zone of Karnataka (Zone-3) receives rains both from South-West and North-East monsoons and it comes under Tungabhadra command area. The average rainfall received 357.4 mm and 176.4 mm during cropping season (2006

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