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

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**Abstract :** A field experiment was conducted to know the effect of organic fertilizers on growth parameters of bell pepper grown in shade house condition. Split plot design with three replications was adopted with two bell pepper varieties *viz.*, California Wonder (V<sub>1</sub>) and Gangavati Local (V<sub>2</sub>) as main plot treatments and nine completely organic nutrient sources along with recommended package of practices nutrients and only recommended inorganic nutrients sources were used as sub plot treatments (O<sub>1</sub> to O<sub>11</sub>). The two bell pepper varieties did not differ much with respect to growth parameters like plant height, spread and number of branches. With respect to flowering, the performance of California Wonder was superior in terms of days taken from fruit set to harvest (32.98 days). Among the nutrient sources, the FYM (50%) + poultry manure (50%) equivalent to 100 per cent RDN (basal) treatment was found to be superior with respect to growth parameters *viz.*, plant spread (53.06 cm), number of primary branches (2.15), number of secondary branches (6.99) and stem girth (1.22) and the plants under this treatment also took least number of days for fruit set (34.35 days).

**Key words :** Organics, Bell pepper, Shade house, Vermicompost, Poultry manure FYM

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**B**ell pepper (*Capsicum annum* var. *grossum*) is one of the highly remunerative vegetables cultivated in most parts of the World. It has attained a status of high value crop in India in recent years and occupies a pride of place among vegetables in Indian cuisine because of its high ascorbic acid and other vitamins and minerals. It also finds a place in preparations like *pizza*, *stuffings* and *burger* with the growing popularity of fast foods. The high market price it fetches is attributed to heavy demand from the urban consumers. There is a good demand for export too. The export market needs fruits with longer shelf life, medium sized tetra lobed fruits with good taste. However, the supply is inadequate due to the low productivity of the crop (Muthukrishnan *et al.*, 1986). Despite its economic importance, growers are not in a position to produce good quality bell pepper with high productivity due to various biotic (pest and diseases),

abiotic (rainfall, temperature, relative humidity and light intensity) and crop factors (flower and fruit drop). Due to erratic behavior of weather, the crops grown in open field are often exposed to fluctuating levels of temperature, humidity, wind flow *etc.* which ultimately affect the crop productivity adversely (Ochigbu and Harris, 1989). Besides this, limited availability of land for cultivation hampers the vegetable production. Hence, to obtain a good quality produce and production during off season, there is a need to cultivate bell pepper under protected conditions such as green house, poly house and net house *etc.*

Organic farming of vegetables is most appropriate as most of the vegetables are consumed in the fresh form and pesticidal residues have adverse effect on human health. Capsicum being a high value crop, in the modern capsicum cultivation, with a quest to harvest high yield,