

## Effect of Different Potting Medium on Growth and Yield Performances of Capsicum under Organic and Inorganic Management

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**Abstract:** A pot experiment was conducted to evaluate the effect of different potting medium on growth and yield performances of capsicum (*Capsicum annum* var. Hungarian Yellow Wax) under organic and inorganic management conditions. The experiment was carried out in Completely Randomized Design (CRD) with six replications. Four potting medium combinations were used as treatments [cattle manure: topsoil 2:1 (T<sub>1</sub>, T<sub>5</sub>), compost: topsoil 2:1 (T<sub>2</sub>, T<sub>6</sub>), leaf mould: topsoil 2:1(T<sub>3</sub>, T<sub>7</sub>), top soil (T<sub>4</sub>, T<sub>8</sub>)] under organic and inorganic managements respectively, for Capsicum. For inorganic management, all other management practices were uniformly performed based on the recommendations of Department of Agriculture and for organic management, farmers' adopted practices were followed. Growth parameters such as leaf number, number of branches and plant height were measured biweekly interval and yield parameters such as fruit weight, length, circumference and average yield per pot were measured after harvesting. ANOVA and Duncan Multiple Range test were used for analysis the data. There were significant differences observed in growth parameters viz. plant height and leaf number among the treatments but there was no significant difference in number of branches. There were significant differences in yield parameters among the treatments. Fruit length, circumference and individual fruit weight were highest in compost: topsoil combination under organic management. The highest average fruit yield per pot was observed in compost: topsoil combination under inorganic management due to the production of higher number of fruits in inorganic management. It can be concluded that under organic management, rooting medium combination of compost: top soil at the ratio of 2:1 can be recommended for small scale pot cultivation due to eco-friendly cultivation and under inorganic management, incorporation of compost with top soil can be recommended for profitable commercial level cultivation in the field.