

## **Effect of Organic Manures and Inorganic Fertilizer on Growth and Yield of Carrot (*Daucuscarota*L.)**

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Carrot (*Daucuscarota*L.) is a very important vegetable crop, widely used in human diet due to their high nutritional and medicinal value, and its role in disease prevention. This study was conducted to find out the effect of organic and inorganic fertilizers on growth and yield of carrot. An experiment was conducted at the Agronomy Farm of the Eastern University, Sri Lanka, treatments were arranged in a Complete Randomized Design with three replications. Treatment-1 comprised of Inorganic fertilizer recommended by the Department of Agriculture, Sri Lanka, Treatment-2 comprised of Cow dung (10 tons/ha) with Effective Microorganisms (EM) (2.5 l/ha), Treatment-3 was the application of cow dung (10 tons/ha). These treatments were compared with control Treatment-4. Carrot seeds of Kuroda variety were used as planting material. All agronomic practices were carried out according to the guidelines recommended by the Department of Agriculture, Sri Lanka.

Harvesting was done at 3 months after sowing and data were collected on growth and yield parameters such as length of leaves, plant height, fresh weight of roots and diameter of roots. The data revealed that significant ( $p < 0.05$ ) effect of different organic and inorganic fertilizers on the growth and yield parameters of carrot than the control. The highest plant height, length of leaves, fresh weight of roots and root diameter were observed in the application of inorganic fertilizers. The growth and yield parameters of carrot treated with cow dung and cow dung with EM were equal and significantly greater than control. Overall this study showed that carrot performed better in the application of inorganic fertilizer compared to the organic fertilizer. Further studies are needed in order to confirm the above under dry zone conditions.

**Keywords:** Carrot, Effective Microorganisms, Organic fertilizer, Yield