CARROT (Daucas carota L.)

Carrot is a quick growing crop and is rich in carotene, a precursor of vitamin A and contains appreciable quantities of thiamine and riboflavin. Sugar and volatile terpenoids are the two major components of carrot flavour.

Suitable Varieties/Hybrids

Temperate or European or Biennial types: Nantes, Chantaney, Pusa Yamdagni Tropical or Asiatic or Annual types: Pusa Kesar, Pusa Meghali, Sel-233, No.29



Soil and climate

Being a root crop carrot requires deep, friable loamy soil. For early crop sandy loam soil is preferred. Carrot grown in heavy soils tends to become rough and coarse as the roots fail to penetrate the hard soil evenly. The optimum soil pH is 6.0 to 7.0.

Carrot is a cool season crop. Carrot roots develop a good colour under the temperature range of $15 - 21^{\circ}$ C.

Field preparation

Soil should be prepared by deep ploughing followed by cross harrowing. If necessary, planking may also be done to make soil cloudless. It is desirable to prepare the field up to a fine tilth, as the seed is small and slow in germination.

Seed Rate

5-6 kg / ha

Sowing time

August to November in plains and March to July in hills

Method of Planting

Seeds are sown thick within the line and the desirable distance is maintained by thinning operation. Thinning is done to provide sufficient space (5-10 cm) for seedlings at the early stage of growth.

Manures and fertilizers

Well rotten FYM @ 25 t/ha should be incorporated in the soil at least 3 weeks before. sowing of seeds. 60kg N, 30kg P, and 120kg of K/ha should be applied.

Irrigation

It is advisable to irrigate the field lightly before seed sowing to ensure sufficient soil moisture for rapid and uniform germination. Under insufficient soil moisture, irrigation should be done at 7-10 days interval depending on type of soil and climatic conditions.

Plant protection measures

Powdery mildew: White powdery spots appear on leaves and roots. Below the spot, the area becomes brown or purplish. Dusting of sulphur powder, spraying of Maneb 80% @ 2.5kg/ha at least twice at an interval of 10 days to control the disease effectively.

Bacterial blight or root rot: Affected roots show small, irregular yellow areas that turn dark brown and water soaked. Brown to maroon lesions is formed on the roots. Before sowing, seeds should be treated with hot water (50 QC) for 15 minutes. Planting of crop relatively at wider spacing proves beneficial.

Carrot fly: The flies are attracted by the pungent smell of the carrot foliage and find small areas of disturbed soil near the rows and burrow into the roots making them malformed, decayed and unfit for consumption. Affected roots cause wilting of foliage and foliage becomes rusty coloured. It is advisable to plant a few rows of onion in the carrot field as smell of onion leaves acts as repellent to the flies. Spraying of Dimethoate 0.03% twice or thrice will control the insect.

Harvesting and yield

The roots attain marketable stage when their diameter is 2 - 4 cm at the upper end. A light irrigation is to be given before harvesting so that the pulling of the root without any damage is facilitated. The yield varies from 20-25 t/ha depending upon the season and variety.