

CARROT

DataSheet

Name: Carrot

Scientific Name: *Daucus carota*

Cultivation Characteristics:

1. Climate:

- Carrots are resilient plants and can be grown in a wide range of climates.
- The optimal temperature for seed germination is between 15°C and 25°C.
- The ideal temperature for carrot plant growth is between 15°C and 20°C.

2. Sunlight:

- Carrots require good exposure to sunlight for photosynthesis and healthy growth.
- Carrot plants need at least 6-8 hours of direct sunlight per day.

3. Soil Type:

- The ideal soil for carrot cultivation is deep, loose, and well-draining.
- Carrots can tolerate a wide range of soil types but avoid compacted or clayey soils that may hinder root growth.

4. Soil pH:

- The soil pH for carrot cultivation should be between 6 and 7.
- Soils that are too acidic or too alkaline can negatively affect carrot growth and quality.

5. Seeding:

- Carrot seeds can be sown directly in the ground or through transplanting seedlings.
- Direct sowing is the most common method, and it is recommended to sow seeds in rows spaced 20-30 cm apart.

6. Plant Spacing:

- To allow for carrot root development, it is essential to ensure sufficient spacing between plants.
- The recommended plant spacing is 5-10 cm between plants within the same row.

7. Irrigation:

- Carrots require adequate irrigation for healthy growth.
- Irrigation should be regular and consistent, keeping the soil moist but not waterlogged.



- Avoid excessive soil moisture as it can cause root rot.

8. Fertilization:

- Carrots have a moderate nutrient requirement.
- Before seeding, it is advisable to apply a balanced amount of fertilizer, such as a slow-release complete fertilizer.
- During plant growth, nitrogen, phosphorus, and potassium-based fertilizers can be applied, following the recommended dosages.

9. Weed and Disease Control:

- Keep the carrot cultivation area free from weeds that could compete with the plants for water and nutrients.
- Monitor the plants closely for signs of diseases such as rust, brown spot, and white mold.
- Apply targeted and organic phytosanitary treatments to control the occurrence of diseases and pests.

10. Harvesting:

- Carrots are ready for harvest when the roots have reached the desired size.
- Carrots can be harvested at different stages of maturity, depending on personal preferences.
- Use a fork or a similar tool to gently extract the carrots from the soil, avoiding damage to the roots.

11. Characteristics:

- Rich source of vitamin A, in the form of carotenoids like beta-carotene.
- Good source of vitamin K and C.
- Contains B-group vitamins such as thiamine, niacin, riboflavin, and pantothenic acid.
- Provides minerals like calcium, magnesium, and phosphorus.
- Contains antioxidants such as alpha-carotene and lutein.
- Good source of dietary fiber, contributing to digestive health.
- Contains phytochemicals like falcarinol, which may have anti-inflammatory and anti-tumor properties.
- Low-calorie density, as it is primarily composed of water.
- Possesses antioxidant properties that help combat oxidative stress in the body.
- Promotes eye health and night vision due to the presence of vitamin A.
- Contributes to maintaining bone and dental health due to calcium and phosphorus content.
- Supports the immune system thanks to the presence of vitamin C.
- Promotes heart health due to the high potassium content and antioxidant compounds.
- Contributes to regular bowel movements due to the high dietary fiber content.