

SPINACH

Dataset

Name: Spinach

Scientific Name: *Spinacia oleracea*

Cultivation Characteristics:

1. Climate:

- Spinach is preferably cultivated in cool and temperate climates.
- The optimal temperature for spinach growth is between 15°C and 20°C.
- It can tolerate lower temperatures but not higher than 24°C to avoid premature flowering and seed formation.

2. Sunlight:

- Spinach prefers a partially shaded position.
- It requires at least 4-6 hours of direct sunlight per day, but excessive exposure to summer sun can cause leaf burn.

3. Soil Type:

- The ideal soil for spinach is well-drained, rich in organic matter, and has a pH between 6.0 and 7.5.
- It can tolerate a wide range of soil types, but avoid compacted or clayey soils that hinder drainage and root growth.

4. Sowing:

- Spinach can be cultivated through direct sowing or using transplanted seedlings.
- Direct sowing is common, with seeds buried at a depth of 1-2 cm in the soil.

5. Planting Distance:

- The recommended planting distance for spinach depends on the variety and intended use.
- For leaf production, a distance of 10-15 cm between plants in rows spaced 30-45 cm apart is recommended.

6. Irrigation:

- Spinach requires regular irrigation to keep the soil consistently moist.
- Avoid excessive water that can cause root rot, but do not let the soil dry out completely.

7. Fertilization:

- Before sowing or transplanting, incorporate slow-release fertilizer rich in nitrogen, phosphorus, and potassium into the soil.



- During spinach growth, nitrogen-based fertilizers can be applied to promote the development of green leaves.

8. Weed and Disease Control:

- Keep the spinach cultivation area free from weeds that can compete with the plants for nutrients and water.
- Monitor the plants carefully for signs of diseases such as downy mildew, rust, or gray mold.
- Apply targeted phytosanitary treatments in case of infestations, following the manufacturer's instructions and respecting waiting periods.

9. Harvesting:

- Spinach can be harvested at different stages of maturity, depending on personal preferences.
- For leaf production, you can pick mature outer leaves, leaving the center of the plant for continuous growth.
- Use clean scissors or knives to cut the leaves near the base of the plant.

10. Characteristics:

- Rich in vitamin A, in the form of carotenoids like beta-carotene.
- Good source of vitamin C.
- Contains B vitamins such as folic acid, thiamine, riboflavin, and niacin.
- Provides minerals like iron, calcium, potassium, and magnesium.
- Rich in antioxidants such as lutein and zeaxanthin.
- Good source of dietary fiber, contributing to digestive health.
- Low calorie density, mainly composed of water.
- Possesses anti-inflammatory properties that can help reduce inflammation in the body.
- Contains folate, which is important for red blood cell formation and nervous system health.
- Promotes bone health due to the content of calcium and vitamin K.
- Supports the immune system with the presence of vitamin C.
- May help regulate blood pressure due to the potassium content.
- Promotes eye health due to the presence of lutein and zeaxanthin.
- Can contribute to weight loss due to its high fiber content and low calorie density.
- Possesses diuretic properties that can promote the elimination of toxins through urine.