

Orange Cultivation Guide

Introduction

Orange (*Citrus sinensis*) is a popular fruit crop grown in tropical and subtropical regions. It is rich in vitamin C, antioxidants, and essential nutrients. Orange farming is commercially significant, providing raw materials for the juice and food processing industries. Proper cultivation practices ensure high yields and fruit quality.

Steps of Cultivation

1. Variety Selection

- Choose high-yielding and disease-resistant varieties.
- Popular varieties include Nagpur Orange, Valencia, Washington Navel, and Kinnow.

2. Soil Preparation

- Prefers well-drained sandy loam or loamy soil with a pH of 5.5–7.5.
- Deep plowing followed by harrowing ensures proper aeration.
- Organic matter such as compost or farmyard manure improves soil fertility.

3. Planting and Spacing

- Planting is done during the monsoon (June–August) or spring (February–March).
- Spacing: 4.5–6 meters between trees for proper growth.
- Seedlings or grafted plants should be planted in pits filled with organic manure.

4. Irrigation and Water Management

- Regular irrigation is necessary, especially in dry regions.
- Drip irrigation is recommended for water efficiency.
- Avoid waterlogging, as it can cause root diseases.

5. Fertilization and Nutrient Management

- Balanced application of nitrogen, phosphorus, and potassium is essential.
- Organic fertilizers like compost and farmyard manure improve soil health.
- Micronutrient application (zinc, iron, magnesium) enhances fruit quality.

6. Weeding and Pest Control

- Regular weeding is necessary to avoid competition for nutrients.
- **Common pests:** Citrus psylla, fruit flies, and aphids. Use neem oil or biological control methods.
- **Common diseases:** Citrus canker, gummosis, and greening disease. Proper pruning, copper-based fungicides, and disease-resistant varieties help manage infections.

7. Harvesting and Yield

- Oranges are ready for harvest 6–8 months after flowering.
- Harvest when fruits attain proper color and sweetness.
- The average yield varies between 10–15 tons per hectare under good management.

Conclusion

Orange cultivation is a profitable agribusiness with high market demand. Proper orchard management, irrigation, and pest control help in achieving better yields and fruit quality. Sustainable farming practices ensure long-term productivity and profitability.

