

Tea Cultivation Guide

I. Introduction

Tea (*Camellia sinensis*) is a popular beverage crop widely grown in India across regions like Assam, Darjeeling, Nilgiris, and others. It thrives in highland areas with acidic, well-drained soils and a warm, humid climate.

II. Growth Requirements

Requirement	Optimal Range	Notes
Altitude	1000 to 2500 meters	Higher altitudes contribute to superior quality
Soil pH	4.5 to 5.5	Well-drained, acidic soils rich in organic matter
Temperature	20°C to 27°C	Frost-free zones with consistent rainfall
Rainfall	1500 to 2500 mm annually	Frequent showers evenly spaced support growth

III. Recommended Fertilization

Tea is fertilized based on age and growth stage:

- Young tea plants receive NPK in ratios like 3:2:4 with 20-80 kg N/ha increasing with age.
- Mature tea typically receives about 120-180 kg N/ha annually divided into several applications (usually as NPK 25:5:5 fertilizer).
- Potassium and phosphorus are applied to maintain soil fertility and support robust growth.
- Micronutrients like boron and zinc are important and often supplemented.

IV. Best Cultivation Practices

- Propagation: Usually by seed or cuttings, raised in nurseries before transplanting.
- Spacing: 1.2 to 1.5 m between rows, 0.6 to 0.9 m between plants.
- Land Preparation: Deep ploughing and organic matter addition to improve soil. Terracing in hills to prevent erosion.
- Pruning and Maintenance: Regular pruning to maintain bush shape and stimulate growth.
- Water Management: Adequate irrigation and mulching to conserve moisture.
- Pest and Disease Management: Integrated pest management targeting mites, aphids, thrips, and other pests.

V. Major Tea Pests and Diseases

- Tea Mosquito Bug: Causes brownish-red spots and shoot drying.
- Tea Shot Hole Borer: Tunnels into branches causing shoot dieback.
- Red Spider Mite: Damages leaves causing yellowing and browning.
- Fungal diseases: Leaf spot, blister blight, and root diseases requiring fungicide management.

VI. Types of Tea in India

- Assam Tea: Grown in low altitudes with bold, strong flavor.
- Darjeeling Tea: High altitude, delicate aroma and light flavor.
- Nilgiri Tea: Aromatic and brisk from southern hills.
- Kangra Tea: Unique flavor from Himachal Pradesh.
- Others: Green, Masala, White, and specialty blends.

