

In-Depth Guide on Tobacco Cultivation

1. Introduction

Tobacco (*Nicotiana tabacum*) is a significant cash crop grown in India, primarily used for smoking products and cigarettes. It's a tropical plant that thrives in warm, moist climates, and is widely cultivated in states like Andhra Pradesh, Gujarat, and Karnataka.

2. Climate and Soil Requirements

- Temperature: 25–30°C during the growing season.
- Rainfall: Requires moderate rainfall (50–75 cm). Excess water can cause diseases.
- Soil:
 - Well-drained, sandy loam or loamy soils.
 - Soil pH: 5.5–6.5.
 - Prefer soils rich in organic matter.

3. Seed Selection and Preparation

- Varieties:
 - NC 95: High-yielding and resistant to diseases.
 - Baba-1: Suitable for processing and export.
- Seed Rate: 3–4 kg per hectare.
- Seed Treatment: Treat with fungicides like Mancozeb (2 g/kg) to protect against fungal infections.

4. Sowing Techniques

- Time of Sowing: June–July (in sync with the monsoon).
- Methods:
 - Transplanting seedlings in rows.
 - Maintain 30 cm row spacing and 20 cm plant spacing.
- Depth and Spacing: Sow seeds 0.5–1 cm deep.

5. Fertilizer Management

- Base Fertilizers:
 - Nitrogen (N): 80 kg/ha.
 - Phosphorus (P): 40 kg/ha.
 - Potassium (K): 40 kg/ha.
- Application:
 - Apply all phosphorus and potassium during sowing.
 - Split nitrogen into two applications: at sowing and at 45 days.

6. Irrigation Management

- Critical Stages:
 - Vegetative growth and flowering stages.
 - Avoid water stagnation to prevent root diseases.
- Irrigation Method: Drip irrigation is most efficient; flood irrigation can be used for small areas.

7. Pest and Disease Management

- Pests:
 - Tobacco caterpillar: Use Endosulfan or Dimethoate.
 - Aphids: Spray with Neem oil or Dimethoate.
- Diseases:
 - Black shank: Use systemic fungicides.
 - Leaf spot: Mancozeb or Copper fungicides for control.

8. Weed Control

- Pre-emergence herbicide: Apply Pendimethalin (1 liter/ha) to control weeds.
- Hand weeding: After 30 days, remove weeds manually.

9. Harvesting and Post-Harvest Management

- Harvesting:
 - Harvest leaves when they turn yellow and dry.
 - Leaves are cured post-harvest for quality.
- Threshing: Air-dry leaves and cure them for processing.
- Storage: Store cured tobacco in cool, dry storage to prevent pests.

10. Yield and Economics

- Yield: 1.5–2 tons per hectare.
- Cost of Cultivation: ₹30,000–₹35,000 per hectare.
- Market Price: ₹100–₹150 per kg (depending on quality).