

In-Depth Guide on Soyabean Cultivation

Introduction

Soybean (*Glycine max*) is a vital oilseed crop grown during the Kharif season. It is primarily cultivated in Madhya Pradesh, Maharashtra, and Rajasthan for oil extraction and animal feed.

Climate and Soil Requirements

- Temperature: 20–30°C.
- Rainfall: 50–75 cm, well-distributed during the growing season.
- Soil:
 - Well-drained loamy soil with organic matter.
 - pH: 6.0–7.5.

Seed Selection and Preparation

- Varieties: JS 335, MAUS 71, NRC 37.
- Seed Rate: 70–80 kg/ha.
- Seed Treatment: Treat with Rhizobium culture and fungicides like Thiram.

Sowing Techniques

- Time of Sowing: Early June to mid-July.
- Methods: Line sowing for uniform germination.
- Spacing: 45 cm between rows and 5 cm between plants.

Fertilizer Management

- Base Fertilizers:
 - Phosphorus (40–60 kg/ha), Potassium (20 kg/ha).
 - Nitrogen: 20 kg/ha (for non-leguminous crop rotations).

Irrigation Management

- Critical Stages: Pod formation, flowering.
- Avoid waterlogging; ensure good drainage.

Pest and Disease Management

- Pests:
 - Stem Fly: Apply Chlorpyrifos (0.05%).
 - Girdle Beetle: Use Quinalphos (0.05%).
- Diseases:

- Rust: Spray Mancozeb (0.25%).
- Yellow Mosaic Virus: Use resistant varieties.

Weed Control

- Pre-emergence herbicide: Pendimethalin (1 liter/ha).
- Manual weeding 20–25 days after sowing.

Harvesting and Post-Harvest Management

- Harvesting: When 90% of pods turn brown.
- Threshing: Use combine harvesters for large areas.
- Storage: Dry grains to 10–12% moisture for long-term storage.

Yield and Economics

- Yield: 2.5–3.5 tons per hectare.
- Cost of Cultivation: ₹20,000–₹30,000 per hectare.
- Market Price: ₹4,500–₹5,500 per quintal.