

# **In-Depth Guide on Jowar (Sorghum) Cultivation**

## **1.Introduction**

Jowar (*Sorghum bicolor*) is an important Kharif cereal crop in India, cultivated for food, fodder, and industrial use. It is primarily grown in Maharashtra, Karnataka, Andhra Pradesh, and Madhya Pradesh.

## **2.Climate and Soil Requirements**

- Temperature: 25–32°C; tolerates drought and heat well.
- Rainfall: 40–100 cm annually.
- Soil:
  - Well-drained black, sandy loam, or red soils.
  - pH: 5.5–8.0.

## **3.Seed Selection and Preparation**

- Varieties: CSH-13, Maldandi 35-1, SSV-84.
- Seed Rate: 10–12 kg/ha.
- Seed Treatment: Treat with fungicides like Thiram (2 g/kg) to control seed-borne diseases.

## **4.Sowing Techniques**

- Time of Sowing: June–July with the onset of monsoon.
- Methods: Line sowing using seed drills.
- Spacing: 45 cm between rows and 15–20 cm between plants.

## **5.Fertilizer Management**

- Base Fertilizers:
- Nitrogen (80 kg/ha), Phosphorus (40 kg/ha), Potassium (20 kg/ha).
- Application: Half of the Nitrogen and full Phosphorus and Potassium at sowing; remaining Nitrogen during the tillering stage.

## **6.Irrigation Management**

- Critical Stages: Tillering and grain filling.
- Minimal irrigation is required; drought-tolerant crop.

## **7. Pest and Disease Management**

- Pests:
  - Stem Borer: Spray Chlorpyrifos (0.05%).
  - Aphids: Use Neem-based insecticides.
- Diseases:
  - Grain Mold: Use Mancozeb (0.25%) at early grain formation.
  - Anthracnose: Spray Carbendazim (0.1%).

## **8. Weed Control**

- Use pre-emergence herbicides like Atrazine (1 kg/ha).
- Perform manual weeding 20–30 days after sowing.

## **9. Harvesting and Post-Harvest Management**

- Harvesting: When grains are hard and dry (about 100–120 days after sowing).
- Post-Harvest: Dry grains properly and store in moisture-free containers.
- Storage: Protect against pests by fumigating storage units.

## **10. Yield and Economics**

- Yield: 2.5–3.5 tons per hectare.
- Cost of Cultivation: ₹15,000–₹20,000 per hectare.
- Market Price: ₹1,500–₹2,000 per quintal.