

# **In-Depth Guide on Bajra (Pearl Millet) Cultivation**

## **1.Introduction**

Bajra (*Pennisetum glaucum*) is a staple food crop grown during the Kharif season. Known for its drought tolerance, it is widely cultivated in Rajasthan, Maharashtra, Gujarat, and Uttar Pradesh.

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

- Temperature: 25–35°C; tolerates extreme heat.
- Rainfall: 40–50 cm; grows well in arid and semi-arid regions.
- Soil:
  - Well-drained sandy loam or light-textured soils.
  - pH: 5.0–7.5.

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

- Varieties: HHB 67, Pusa Composite-334, RHB-121.
- Seed Rate: 3–4 kg/ha.
- Seed Treatment: Treat seeds with Carbendazim (2 g/kg) for fungal protection.

## **4.Sowing Techniques**

- Time of Sowing: June–July with monsoon onset.
- Methods: Line sowing for uniform spacing.
- Spacing: 45 cm between rows and 10–15 cm between plants.

## **5.Fertilizer Management**

- Base Fertilizers:
  - Nitrogen (60 kg/ha), Phosphorus (40 kg/ha), Potassium (20 kg/ha).
- Application: Half Nitrogen and full Phosphorus and Potassium at sowing; the rest of the Nitrogen at the tillering stage.

## **6.Irrigation Management**

- Requires minimal irrigation; rely on rainfall.
- Critical stages include booting and grain filling.

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

- Pests:

- Stem Borers: Use Chlorpyrifos (0.05%).
  - Shoot Fly: Spray Dimethoate (0.03%).
- Diseases:
  - Downy Mildew: Spray Metalaxyl (0.1%).
  - Ergot: Treat seeds with fungicides before planting.

### **8. Weed Control**

- Use pre-emergence herbicides like Atrazine (1 liter/ha).
- Manual weeding after 20–25 days.

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

- Harvesting: When grains mature and turn golden brown (80–100 days after sowing).
- Post-Harvest: Dry the grains and store in moisture-proof bins.
- Storage: Regular fumigation to prevent pests.

### **10. Yield and Economics**

- Yield: 2–3 tons per hectare.
- Cost of Cultivation: ₹10,000–₹15,000 per hectare.
- Market Price: ₹1,400–₹1,800 per quintal.