

# Foxtail Millet (Package of practices)

## Introduction:

Foxtail millet (*Setaria italica* (L.) Beauv.) is among the oldest cultivated millets globally. It finds extensive cultivation in various regions of India and Asia. Foxtail millet is an annual grass with slender, vertical stems and long, bristly seed heads that resemble a fox's tail, hence the name "foxtail" millet. It has a short growing season, typically maturing in 70-90 days. Foxtail millet is highly nutritious and provides a good source of energy, protein, dietary fiber, vitamins (especially niacin and folic acid), and minerals (iron, magnesium, and phosphorus).

In Assam, it is referred to as "Konidan." Foxtail millet thrives in moderately fertile soils, ranging from sandy to heavy soils, and it flourishes with an annual rainfall of 500-700 mm. However, it cannot withstand waterlogged conditions or extreme drought.

## Agronomic Practices

**Land Preparation:** Prepare the field by conducting 4 to 6 ploughings, followed by a final step of laddering to achieve a fine tilth.

**Sowing Time:** January to February in Assam conditions

## Planting method:

**Direct-sowing:** Generally, tractor or bullock-drawn seed drills or bullock plough are used for sowing.

**Varieties:** PS 4 , SiA 3085 ,Gossaigaon local yellow seeded, RajendraKauni - 1 (RAU-2), DHBM-93-3 varieties can be used for planting

**Seed Rate:** A seed rate of 8-10 kg ha<sup>-1</sup> and 15 kg/ha for broadcast sowing.

**Seed treatment:** Treat the seed with Ridomil @2g/kg, Pripiconazole @ 1 ml / kg of seed.

## Sowing/Planting/Spacing:

Sowing is manually carried out at the centre of ridges where small furrows were opened by a tractor for sowing. The furrows are then covered with soil at a sowing depth of 2 to 3 cm. Laddering should be performed alongside the furrows to provide a soil cover over the seeds. This practice enhances germination and tillering while reducing crop lodging. Maintain a spacing of 25 cm between rows and 8-10 cm between plants.

## Fertilizer Application

Apply the following dose of fertilizers to Foxtail millet.

Apply Farmyard Manure (FYM) or Compost at a rate of 5 tons per hectare or 6 quintals per bigha. This practice contributes to achieving a healthy crop and facilitating improved root growth development.

Nutrient	Requirement (kg/ha)	Form	Fertilizer requirement	
			kg/ha	kg/bigha
N	20	Urea	44	6.00
P2O5	10	SSP	63	9.50
K2O	10	MOP	17	2.00

Apply 50% of the full doses of FYM, P<sub>2</sub>O<sub>5</sub>, and K<sub>2</sub>O as basal fertilizer, and distribute the remaining 50% of nitrogen (N) through top dressing 30 days after transplanting.

### **Irrigation and Drainage**

Depending on soil type, weather condition and duration of variety, 2-5 irrigations are necessary. Irrigate the crop every 4-5 days during early growth stages.

### **Weed control.**

Two inter cultivations and one hand weeding in line sowing. Two hand weeding in broadcasted crop.

### **Diseases**

<b>S.no</b>	<b>Diseases</b>	<b>Symptom</b>	<b>Control</b>
<b>1</b>	<b>Blast</b>	The small and scattered spots measure 2 to 5 mm in diameter.	Spary Carbendazim @ 0.1% or Tricyclazole @ 0.05%.

### **Pest**

Army worm, cut worm and leaf scraping beetle appear occasionally. In certain areas shoot fly occur, although it is not a regular pest.

### **Control**

Chlorantriniprole @ 1 ml/3 l of water

**Crop harvesting and drying:** The appropriate time of harvest to ensure maximum grain yield and quality is of great significance. Harvesting should be done when 75-80% of the panicles turn golden yellowish and stem turns brown and dry. Sun drying of grain on clean threshing floor may be necessary to reduce moisture content, preserve viability and vigour and improve storage quality. Drying of grains to recommended moisture level of 12% is necessary to preserve its viability and vigour.

**Yield or Expected yield/ha:** 20-25 q/ha

### **Reviewed by:**

**Dr. Sunil Kumar Paul, Chief Scientist, AAU-ZRS, Gossaigaon**

**Dr. Vinod Upadhyay, Junior Scientist, AAU-ZRS, Gossaigaon**