Recommended package of practices

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Kodo millet (Paspalum Scrobiculatum L.)

Varieties

A number of varieties with high yield potential have been released for different states. The list of latest and popular varieties recommended for different states are given below

Kodo millet	
State	Varieties
Madhya Pradesh	RK-65-18,JK 439, RBK 155, JK 13, JK 65 and JK 48,
	JK 137, RK 390-25, JK 106, GPUK 3
Tamil Nadu	KMV 20 (Bamban), CO 3, TNAU 86, GPUK 3
Gujarat	GK 1 and GK 2, GPUK 3
Chattisgarh	RBK 155 and JK 439, Indira Kodo-1, Indira Kodo-48,
	GPUK 3
Karnataka	GPUK 3, RBK 155

Season

- Sowing with onset of monsoon is beneficial.
- Middle of June to end of July in different states
- Madhya Pradesh and Chattisgarh: Last week of June to first week of July.

Spacing

- Optimum spacing: Spacing of 22.5 cm between rows and 10 cm between plants.
- Line sowing is beneficial as it facilitates Intercultivation and weed management.

Seed rate

- 10 kg ha⁻¹ for line sowing
- 15 kg ha⁻¹ for broad casting.

Manuring and fertilization

- 5-7.5 t ha⁻¹ of farm yard manure
- Tamil nadu, Madhya Pradesh and Chattisgarh: 40 kg N and 20 kg P₂O₅ ha⁻¹
- Other states: 20 kg each of NPK ha⁻¹
- High rainfall areas of Madhya Pradesh and Chattisgarh, nitrogen should be applied in 2 splits: half of the nitrogen at sowing and remaining half at 35-40 days after sowing.

Bio-fertilizers: Treating seeds with *Azospirullum brasilense* (nitrogen fixing bacterium) and *Aspergillus awamouri* (phosphate solubalizing fungus) @ 25 g kg⁻¹ is beneficial. The procedure for incorporating seeds with bio fertilizer as given for finger millet is followed.

Cropping system

Inter cropping

Madhya Pradesh: Kodo millet + Pigeon pea (2:1 ratio)
Kodo millet + Green gram/black gram (2:1 ratio).
Kodo millet + Soybean (2:1 ratio).

Crop rotation/Cropping sequence

• Kodo millet – soybean or Kodo millet or Kodo millet – niger - kodo millet crop was found to be sustainable system in Madhya Pradesh state.

Weed control

- Hand weeding twice around 20 and 35 days after sowing and 2-3 inter cultivations are necessary.
- In assured rain fall areas of Madhya Pradesh pre-emergence application of Isoproturon @ 0.5 kg a.i./ha is also effective in control of weeds.

Diseases

Head smut caused by Sorosporium paspali-thunbergi is the only major disease.

Control: The pathogen being seed borne can be checked by seed treatment with Chlorothalonil or Mancozeb @ 2g/kg. The variety GPUK 3 is tolerant to head smut

Pests

Shootfly: This is the only serious pest and appears 10 days after sowing resulting in dead hearts. It can cause significant yield losses in years of serious incidence.

Control

- 1. Delayed sowing increases shootfly incidence. Sowing with the onset of monsoon is beneficial.
- 2. Sow the crop before 2nd fortnight of July
- 3. Adopt higher seed rate (1 ½ times the recommended seed rate)
- 4. Need based application of insecticides.