Recommended package of practices

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

<table>
<thead>
<tr>
<th>State</th>
<th>Varieties</th>
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<tbody>
<tr>
<td>Tamil Nadu</td>
<td>KMV 20 (Bamban), CO 3, TNAU 86, GPUK 3</td>
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<tr>
<td>Gujarat</td>
<td>GK 1 and GK 2, GPUK 3</td>
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<tr>
<td>Chattisgarh</td>
<td>RBK 155 and JK 439, Indira Kodo-1, Indira Kodo- 48, GPUK 3</td>
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<tr>
<td>Karnataka</td>
<td>GPUK 3, RBK 155</td>
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**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 P\(_2\)O\(_5\) 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 *Azospirillum 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.