

VARGU (Kodo millet)
Paspalum scrobiculatum (2n = 40).

A. Anthesis and pollination

The spikelets are highly cleistogamous. Only 10-15% of spikelets open under Coimbatore condition. Spikelets at the middle of spikes open first, gradually spread to either ends. Spikelets open after midnight i.e. from 2.30 AM to 3.00AM and continue till sunrise.

KUDIRAVALI (Barn yard millet)
Echlinochloa colona (2n = 34, 48, 54, 72)

The spikelets are more or less crowded on the spike like branches of the panicle. The anthers are purple in colour. Order of flowering is from tip to the bottom of panicle. The total flowering period extends from 19-22 days. Anthesis - 5 AM to 10 AM. Self pollination is the general rule.

Varieties : Pureline selection - **RAU 3**

PANI VARAGU (Proso millet)
Panicum miliaceum

Inflorescence is a drooping panicle. The spikelets contain two flower partially enclosed by the glumes. The flowers open between 10AM to 12 noon. The spikelets open and close with in 7 minutes. The anthesis begins from tip of the panicle and proceeds down wards. Flowering completes within 7 to 10days. Self pollination is the rule.

Varieties : Pure line selection - **BR 7**

Emasculation and crossing technique in small millets

Hand emasculatation is tedious because of small sized florets. To over come this the **Russian method** is followed. The principle in this method is to induce artificial flower opening by increasing the temperature 1-2⁰ C and immersing the panicle in normal cold water prevent anther dehiscence but flowers will open.

Method

- i) Select the panicle which first commenced flowering
- ii) Remove the already opened florets
- iii) Rub the selected panicle in between hands to increase the temperature by 1 to 2⁰C for two minutes.
- iv) Immerse the panicle in cold water
- v) The flowers will open but anthers will not dehiscence

- vi) Take out panicle from water and remove unopened flower
- vii) From opened florets remove anthers

Pollination:

1. Collect the panicle from male parent which are in the process of flowering. Shake the panicle on the emasculated florets. Tie the male panicle to the emasculated female panicle. Cover it with butter paper bag which was immersed in water. The water in butter paper bag will maintain humidity.

Minor Millet varieties :

Tenai

Co 4	Selection from Gujarat local	70 days.
Co 5	Co1 x A113/2	90 days.

Panivaragu

Co 4	Pureline selection	75 days.
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Kudiraivali

Co 1	Pureline selection	75 days.
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Somai

Co 2	Selection from Ananthapur local	85 days.
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Poriyu 2

Pure line selection	80 days
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Varagu

K ₁	Pure line selection	100 days.
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