PREPARATION AND MANAGEMENT OF NURSERY BED FOR SALI RICE

Selection of variety: Selection of variety of rice depends on the land situation.

- Maniram, Kushal, Pankaj: These varieties are suitable for low land areas where water stagnation is low but remains till flowering stage.
- Ranjit, Piolee, Bahadur: Suitable for low land and regular water stagnation areas.
- Mahsuri: Suitable for medium land areas.
- Satyaranjan, Basundhara: Suitable for medium land areas where rabi crops are grown after rice.

RAISING OF SEEDLINGS:

- For transplanting of rice seedlings in one bigha, 0.5 katha or for one hectare area 680-700 m² nursery bed is enough
- Preparation of seed bed: Ploughing in nursery bed should start one month ahead of sowing of seed. Before sowing land should be thoroughly puddled by repeated ploughing and laddering.
- Size of bed: The nursery bed should be 10m in length and 1.25 m in breath. The length may be increase according to convenient of the farmer. The gap between two seed bed should be 30 cm.
- The individual seed bed should be leveled with split bamboo (split of bamboo in two equal half)
- Application of manure and fertilizer: In one seed bed of above mentioned size generally 20-30 kg cow dung or FYM, 80 g urea, 80 g SSP and 40 g MOP is required. FYM or cow dung should be applied during first time ploughing. The chemical fertilizers should be applied at final land preparation or at puddling.
- Seed rate: Well germinated seed should be sown. The requirement of seed for one hectare is 40-45 kg or for one bigha is 5.4 – 6.0 kg. In one seed bed of 10m x 1.25 m size generally 600 - 1000 gm seed is required depending on the size of the grain. 50-60 nos. of seed bed is required for transplanting in one hectare area.
- Seed soaking: The healthy, well matured, free from pest and disease infected seeds should be soaked in water. The floated seeds (false grain) should be rejected. Then the dip seed should be directly soaked in fungicidal suspension such as Indofil M-45 @ 2.5 g/l water or Captaf @ 2.5 g/l water or Foltan @ 2.5 g/l water or Bavustin @ 1.0 g/l water solution for 24 hours.
- Sowing of seed: The treated seed should be kept in heap covered with gunny bag or polythene sheet or banana leaf or colocasia leaf. After two days the seed will be sprouted. The sprouted seed should be broadcasted uniformly on well prepared nursery bed according to seed rate and size of seed bed.
- Water management: If irrigation facility is there then irrigation water should be applied in furrows between two seed beds to maintain saturated condition in the surface soil of the nursery bed.

PLANT PROTECTION IN NURSERY BED

- As soon as one or two blast spots (Brown coloured spot on leaf) are seen then Bavistine @ 1g/lit or Hinosan @ 1ml/l water should be applied as control measure.
- In root knot nematode and stem borer endemic areas Carbofuran (Furadon 3 G) granules @ 3g/m² should be applied as preventive measures after 5-7 days of sowing.
Root dip treatment: This is an important protective measure against some serious pest of rice such as stem borer, gall midge and hopper. The uprooted seedlings are washed and rooted portion is dipped in 0.02% solution of Chloropyriphos (1 ml/l water) along with 1% urea for three hours before transplanting of seedlings.

As alternative of root deep treatment Carbofuran @ 3g/m², Phorate or Diazinon 1g/m² can be applied at 5-7 days before uprooting of seedlings in nursery bed.

Application of chloropyriphos 20 EC @ 0.05% at 5-7 days before uprooting in nursery bed also give the similar result.

Time of sowing: Sowing of seed in nursery bed should be completed during the month of June for normal Sali rice cultivation.

Uprooting of seedlings: 2-3 days before uprooting of seedlings the nursery bed should be irrigated or flooded up to a depth of 2-3 cm, so that there will be no injury of seedlings during uprooting and roots will be not damaged.

Clipping of seedlings: The uprooted seedlings should be tied in small bundles. Then the upper portions of seedlings should be clipped off to control some pest infestation in the main field.

Prepared by : Dr. Simanta Kumar Kalita
SMS (Agronomy), KVK Tirap
Dr. P. C. Jat
(Sr. Scientist, ZPD, Zone III, Meghalaya)

Published by : Programme Coordinator
Krishi Vigyan Kendra, Tirap
Department of Agriculture
Govt. of Arunachal Pradesh
Deomali-792 129
Ph. No. 03876-255301