

Paddy nurseries and management



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Introduction

Prior to transplanting, seedlings are grown for specific duration in nursery. Age of the seedling for transplanting depends upon several factors such as, duration of the cultivar, cropping season, time of the transplanting within a particular season, resources available with farmer, climatic conditions, method of transplanting. Young aged seedling are ideal for achieving higher tillering and productivity.

Types of nurseries

Wet-bed method

- Used in areas where irrigation and drainage can be controlled
- The total seed bed area - 10 % of the area to be transplanted
- Seed rate - 40 to 45 kg for 1 ha
- Best time for transplanting - 21-30 days after sowing

Dry-bed method

- Beds should be 125 cm wide and 15 cm high
- The total seed bed area is 10 % of the area to be transplanted
- Seed rate - 40-45 kg for 1 ha
- Best time for transplanting 21-30 days after sowing

Mat or dapog method

- Mat nurseries must be grown on a flat surface with a reliable water supply
- The area required is 70 m²/ha or 1 % of the transplantable area
- Seed rate - 10-15 kg for 1 ha
- Best time for transplanting is 14-21 days old seedlings

Mechanical transplant nurseries

- Seedlings are grown on a 1-2 cm layer of soil and compost mixture (4:1) placed on a perforated polythene sheets (1.5m x 20 m) or in plastic trays (30 cm x 60 cm).
- The nursery area required for transplanting 1 ha is 75-80 m²
- Seed rate - 25-30 kg for 1 ha
- Healthy seedlings of 18-20 cm height (2-3 leaves) or 14-18 days old seedling are ideal for mechanical transplanting.

How to prepare and manage a nursery

- Nursery area should be near to assured irrigation source.
- Plough sufficiently, level well, and keep the seedbed free of weeds
- Use good quality seeds of best promising varieties/hybrids.
- Use pre-germinated seeds in the nursery bed. Submerge seeds in water and keep for 10-12 hrs. After soaking, drain out water and incubate (cover and keep moist) the soaked seeds in a gunny bag and place under shade.
- Treat the seeds with carbendazim / captan/mancozeb @ 2g/kg of seed
- Use raised nursery beds to avoid stagnation of water
- Prepare the bed 1.2 to 1.5 m wide, 10-15cm high or as per convenience of the farmer, depending on farm-size and shape.
- Ensure that seedlings are transplanted at an appropriate age, 20-25 days for manual transplanting, 14-18 days for machine transplanting.



A good and healthy nursery is essential for a good crop



Wet-bed nursery



Dry-bed nursery



Mat or dapdog nursery



Seedlings in trays for mechanical transplanting