

Introduction

Prior to transplanting, seedlings are grown for varying lengths of time in a nursery. Local varieties are transplanted 30-60 days after establishment, while shorter duration improved varieties, should be transplanted within 21 days after establishment. The type of nursery system used will depend on the variety, the availability of water, labor, land and mechanization.

Types of nurseries

Wet-bed method

- Used in areas where there is sufficient water and land
- The total seed bed area 10 % of the area to be transplanted
- Seed rate - 40-50 kg for 1 ha
- Best time for transplanting - 15-21 days after establishment

Dry-bed method

- Beds should be 50-100 cm wide and 5-10 cm high
- The total seed bed area 10 % of the area to be transplanted
- Seed rate: 40-60 kg for 1 ha
- Best time for transplanting: 15-21 days after establishment

Mat or dapdog method

- Mat nurseries must be grown on a flat surface with a reliable water supply
- The area required is 10 m²/ha or 1 % of the transplantable area
- Seed rate: 25-30 kg for 1 ha
- Best time for transplanting: 15-18 days after establishment

Mechanical transplant nurseries

- Seedlings are grown on a 1-2 cm layer of sand or light soil in trays 30 cm x 60 cm.
- The area required is 10 m²/ha or 1 % of the transplantable area
- Seed rate - 25-30 kg for 1 ha
- Best time for transplanting: 15-18 days after establishment



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

How to prepare and manage a nursery

- Land for the nursery should be near a reliable source of irrigation
- Plough sufficiently, level well, and keep the seedbed free of weeds
- Use good quality seeds
- Use pre-germinated seeds in the nursery bed. Submerge seeds in water and keep for 8-12 hrs. After soaking, drain and incubate (cover and keep moist) the soaked seeds in a gunny bag and place under shade. Seeds are ready for sowing when sprouting begins
- Use raised nursery beds to avoid stagnation of water
- Use a bed of the following dimensions: 1.2 to 1.5 m width and 10-15 cm height
- Use the desired dimension of nursery corresponding to your field size
- Ensure that seedlings are transplanted at an appropriate age, 20-25 days for manual transplanting, 15-18 days for machine transplanting

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