Nursery Management

Nursery Area

- 20 cents (800 m^2) for 1 ha area.

Formation of Seedbeds

- 8 to 10 m Length and 2.5 m breadth with 30 cm wide channels are to be formed.
- Puddled soil has to be collected from the channel and spread on the seedbeds.

Sowing : : Sprouted seeds are to be uniformly sown on the seedbed maintaining thin film of water in the surface.

Seed Rate :

Short Duration Variety	**60 kg**
Medium Duration Variety	**40 kg**
Long Duration Variety	**30 kg**
Hybrid	**20 kg**

- Optimum age for transplanting – 4th leaf stage.
- Seedlings has to be dipped in 2% $ZnSO_4$ soultion for 30 min and then transplanted.

Nursery - Nutrient Management

- Apply 1 tonne of fully decomposed FYM or compost to 20 cents nursery uniformly on dry soil..
- Apply 40 kg DAP before last puddling when the seedlings are to be pulled out in 20-25 days after sowing in less fertile nursery soils.
- If DAP not available, apply straight fertilizers @ 16 kg urea and 120 kg super phosphate.
- If seedlings are to be pulled out after 25 days, application of DAP is to be done 10 days prior to pulling out.
- For clayey soils where root snapping is a problem, 4 kg of gypsum and 1 kg of DAP/cent can be applied at 10 days after sowing.
- Soil application of 100 g $ZnSO_4$ /cent can be followed.

Seed Treatment with Bio-fertilizers:

- **Carrier Based Formulation:** Treat seeds required for one hectare with 1 kg each of biofertilizers viz., Azsopirillum, Phosphobacteria, (or) Azophos, Silicate solubilizing bacteria (SSB) / Potash bacteria (KRB) using rice gruel, shade dry for 30 minutes before sowing.
- **Zinc Deficient Soils:** Along with existing recommended biofertilizers, treat seeds required for one hectare with 1 kg of zinc solubilizing bacterium using rice gruel, shade dry for 30 minutes before sowing.

Seed Treatment with Carrier Based Biofertilizers

- **Liquid Formulation:** Treat seeds required for one hectare with 125 ml of each biofertilizers viz., Azsopirillum, Phosphobacteria (or) Azophos, Silicate solubilizing bacteria (SSB) / Potash bacteria (KRB) shade dry for 30 minutes before sowing.
- **Zinc Deficient Soils:** Along with existing recommended biofertilizers, treat seeds required for one hectare with 125 ml of zinc solubilizing bacterium shade dry for 30 minutes before sowing.

Seed Treatment with Liquid Biofertilizers

Nursery - Irrigation Management

- Water has to be drained 18 to 24 hrs after sowing. stagnation of water on the seedbed has to be avoided.
- Enough water should be allowed to saturate the soil from 3rd to 5th day. .
- From 5th day onwards, water depth of 1.5 cm has to be maintained based on the height of the seedlings. Thereafter 2.5 cm depth of water to be maintained.

Nursery - Weed Management

- Pre-emergence herbicide Pyrazosulfuron ethyl @ 20 g/ha on 3rd or 4th day after sowing .
- Pre-emergence herbicide Butachlor 0.5 kg /ha (or) Pendimethalin 0.3 kg /ha on 8 DAS . .
- Thin film of water has to be maintained and allow it to disappear afterwards. Drainage of water has to be avoided.