

PREPARATION OF MAT-TYPE NURSERY FOR PADDY TRANSPLANTATION

Select the mat type paddy nursery location having fertile soil preferably of medium type where irrigation water is available and minimum transportation distance of seedlings to the field. The field should be preferably laser leveled and 20 m away from the tubewell and trees to avoid shade, debris and damage by birds. If required, prior to nursery sowing mix the farm yard manure to the soil and irrigate the field. After proper moisture level till the field with rotavator/tiller and one to two plankings 5 to destroy the germinated weeds and to pulverize the soil. There should be no stones or other hard material in the soil mixture. Spread 50-60 gauge, 90 cm wide polythene sheet with 1-2 mm dia perforations over it. Place one or more iron frames having compartments of size 40x20x2 cm for manually operated transplanter, 45x21x2 cm for engine operated transplanter and 58x28x2 cm for self propelled transplanter over the polythene sheet. Number and size of compartments vary according to machine specifications. Polythene sheets weighing 350 g spread to a length of about 20 meters (for about 200 mats) is sufficient for preparing seedlings for one acre. Fill the soil from both sides in the frames uniformly upto the top surface. Spread about 50-60 g of pre-germinated seed evenly in each compartment to achieve uniform density of 2 or 3 seedlings/sq cm in the mat. For uniform seed distribution, use nursery sowing seeder. The length of nursery sowing seeder is to be equal to width of frame and has openings of 1 cm diameter on full length of the roller. About 10-12 kg seed is sufficient to sow about 200 mats required for transplanting one acre. Cover the seeds by a thin layer of soil and sprinkle water by hand sprayer for proper setting of the soil. Lift frames and put these at the next place and repeat the above procedure for sowing the required number of seedling mats. Two persons can sow seedlings for 3-4 acre in a day. After sowing, irrigate the field, but the flow of water for first 2-3 irrigations should be very mild and level should be uniform so that there is no damage to newly formed mats. Care must be taken that the seedling mats are always wet. Spray the seedlings after an interval about 10 days with 300g urea for 200 mats. The seedling mats become ready after 25-30 days of sowing. Drain the water from the nursery field a few hours before nursery uprooting. Give a cut with a sharp blade along the nursery boundaries of the mat. The uprooted nursery mats are ready for transport to the field. One person can uproot and transport seedling for one acre in a day.