

Production of healthy seedlings for higher yield

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Nursery is a site for raising of young seedlings until they are prepared for more permanent planting. Sterilized soil-less mixtures can be obtained with added fertilizer and nutrients this simplifies the production process.

Cocopeat : Its provide pest free environment to the growing seedlings and prepared from coconut husk, has excellent porosity, good drainage capability and air movement.

Perlite : Perlite is heat expanded aluminium silicate rock. Its function is to improve drainage and which enhance good root development of transplants.

Vermiculite: Vermiculite is the heat expanded mica and has minerals like Calcium and Magnesium for enhancing the nutrients of mixture. A thick layer of vermiculite is applied to cover the seeds as this media has good water holding capacity so results in better germination.

There are different practices developed for vegetable crops which reduce pest and disease problems and help to improve profit.

There are different steps involved in the production of healthy seedlings for better crop

Seed cure: After procuring improved and good quality seed, treat that seed with the following materials:

- Use Imidacloprid @ 2-3 g/kg of seed against treatment of sucking pests
- Thiram or Captan @ 2-3 g/kg of seed against protection from the different fungal infections

Preparation of growing media: Soil less media prepared

by mixing sterilized cocopeat, perlite and vermiculite in a ratio of 3:1:1. Avoid addition of field soil to the mixture to minimize the incidence of soil-borne diseases.



Mixture filling of plug trays: Disinfect the plugs with a 1% solution of chlorine bleach and then rinse thoroughly with clean water. Fill the tray holes with moistened growing mixture. Different plastic plug trays can be used



for different crops.

Management of the trays: Be careful during the placing of seeds in the cells of tray, place 1 or 2 seeds in the middle of every cell at 0.5-1cm deep and cover the cell with the growing mixture. Cover them with nylon net, using 2m long inverted 'U' shaped iron bars because this nylon net provide protection from insect-pests. Make sure that no gaps left between the soil and the net that would allow pests entry.



Water management and care: Don't use thick and high pressure flow for irrigation because it can harm the establishment of the seeds. Daily sprinkle the seed trays thoroughly to moisten the whole plugs but if the temperature is in elevation, sprinkling can be applied twice. Apply water-soluble N-P-K fertilizer (ratio 19:19:19 or 20:20:20) near the root zone at the rate of 5 ml per seedling, if the seedlings are growing poorly.



Acclimatization of seedlings: Hardening of the seeding is very necessary to make capable the growing seeding to cope up with the external natural environment or allowing it to maintain performance across a range of environmental conditions.



Transplanting to field: Depending on crops, seedling can be transplanted at different growth stage and size of seedlings. Seedlings that are 3 to 6 weeks old and stems about 10 to 15 cm long are ready for transplanting. The transplants should be established in the planting bed somewhat deeper than they were in the plug trays.



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