Production and Hardening of Tissue Culture Plants of Banana

Tissue of a model plant of the required variety from a healthy plantation is collected but tissue culture multiplication is cultured in a high tech lab to produce plants.

Tissue culture multiplication is a very sensitive and costly process. Generally, the TC plants are free from diseases but if infected tissue is selected by mistake, the whole stock of plants goes to waste. Sometimes, variation in the tissue culture plant affects the crop rule and yield. The TC plants are uniform in growth and harvests complete in a short span. The bunches and fruits also show uniformity. If rhizomes of the same size are planted, they give uniform crop but not equal to TC plant.

Best conditions

Poly tunnels provide high temperature and humidity and after 25-30 days, the miniature plants are transferred to poly bags. The poly bags are filled with soil, sand and manure.

Tissue culture (TC) plants can give five healthy return crops while sucker plantation can continue for two return crops, however the management of the two is the same.

Hardening

The hardening stage involves fertilizers, fungicides, insecticides and growth regulators being sprayed from time to time. It requires a closed shade house. At 3 months old, the plants will be ready for planting.

When ready, the healthy and steady plants are selected from

the lots and sold to farmers for 10-15 rupees.