

BITTER GOURD

i. Quality seedling production

Bitter gourd is a direct sown vegetable but polythene bag nursery is more advantageous to get early marketing and to avoid more gap fitting.

Polythene bag nursery

- ⇒ A 200 gauge poly bags of 10cm diameter x 10cm height is used for sowing the seeds
- ⇒ The seeds of 1.8 kg are required to cover one hectare and the seeds are mixed with 500g of *Azospirillum* and are shade dried for half an hour.
- ⇒ The seeds are treated with Thiram @ 2 g / kg of seeds to avoid any pathogenic attack
- ⇒ A potting mixture contains 1:1:1 ratio of topsoil, sand and well-decomposed farm yard manure is used as media and sowing is done by only one seed per hole. Then the poly bags are kept under shade net house or partial shade for about 15 days. Regular watering should be done twice in a day. About 15 days old seedlings are transplanted to the main field.

ii. Field Preparation

- ⇒ The field selected for planting should be ploughed thoroughly by using chisel plough (once), disc plough (once) and cultivator four times.
- ⇒ FYM @ 25 t/ha and 75 % of total recommended dose of (470 kg/ha) Single Super Phosphate is broadcasted before last ploughing.
- ⇒ *Azospirillum* and Phosphobacteria 2 kg/ha and *Pseudomonas* 2.5 kg/ha along with FYM 50 kg and neem cake @100 kg is applied before last ploughing.
- ⇒ Form the raised beds of 4 feet width (120 cm) at rate of 1m heights is formed along the laterals.
- ⇒ Spread the lateral tubes in the centre of each bed. Irrigation is done in the beds by operating the drip system continuously for 8 - 12 hrs.

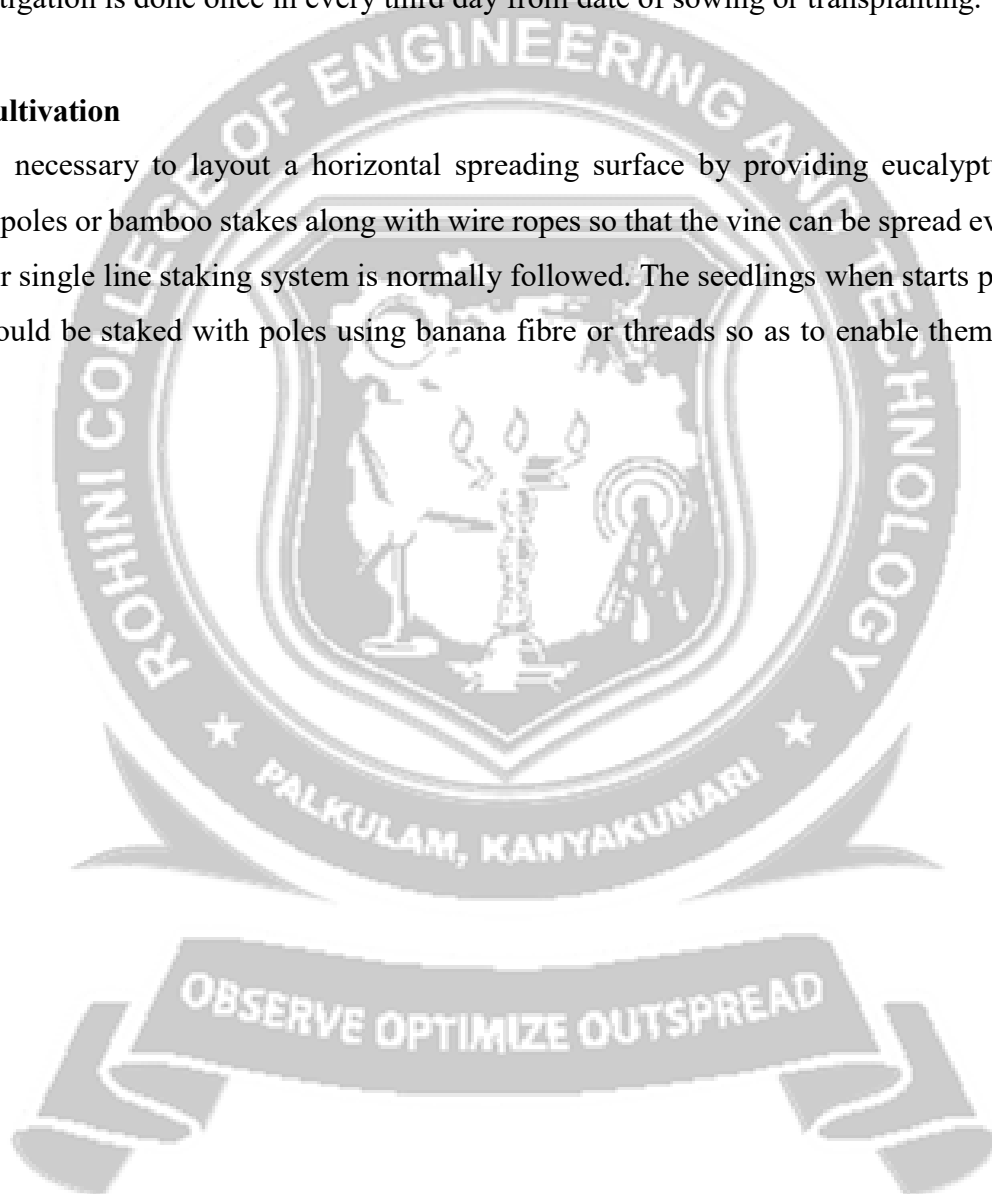
- ⇒ Spray pre emergent weedicide of Pendimethalin @1 kg *a.i.*/ha just before planting.
- ⇒ Planting or sowing is done at the holes made at 2m distances.

iii. Fertigation

- ⇒ For Bitter gourd, a dose of 200:100:100 kg NPK/ha is applied throughout the cropping period through split application.
- ⇒ Fertigation is done once in every third day from date of sowing or transplanting.

iv. Inter cultivation

Staking: is necessary to layout a horizontal spreading surface by providing eucalyptus poles, casuarinas poles or bamboo stakes along with wire ropes so that the vine can be spread eventually. A pandal or single line staking system is normally followed. The seedlings when starts producing tendrils should be staked with poles using banana fibre or threads so as to enable them to reach panda1.



- ⇒ Weeding is carried out at 2-3 times depending upon the weed growth. The earthing up is done to form the beds by 2-foot width and 1 foot height so as to facilitate easy drainage and anchorage to the growing vine.
- ⇒ Growth Regulators spray of Ethereal 250 ppm (2.5 ml in 10 lit of water) is done four times from 15th day after sowing at weekly intervals.
- ⇒ Micronutrients spray is done @ 1 g per litre of water from 30th, 45th and 60th days after sowing.

v. Harvest

- ⇒ Harvesting is done from 45-50th day after transplanting or 60 - 65 days after sowing and harvest is done before the seeds are matured.
- ⇒ Harvesting is continued once in 5-7 days and a total number of 8-10 harvests can be made. Average yield of 10- 15 tonnes is recorded depending upon the varieties or hybrids.

