

Commercial cultivation of Tuberose in Jammu



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Tuberose (*Polianthes tuberosa*) - commonly known as Rajnigandha belongs to family Amaryllidaceae and produces waxy, white and fragrant flowers on long spikes. Tuberose blooms during July-October when there is no flowering in other cut flower crops in Jammu region which enable it to fetch a good market price. Flowers remain fresh for long time and are suitable for long distance transport. The crop can remain well for 3 years in the field and afterwards it should be replanted to avoid overcrowding. Tuberose can be used both as a cut flower and loose flower crop. Its flowers are used in wedding ceremonies, decorations, various religious rituals and for making veni, button holes, garlands etc.

Climate requirement

Tuberose prefer warm and humid climate. Year round flowering can be obtained in mild climatic regions. Ideal temperature required for flowering in tuberose is 20-35°C.

Varieties: Both single flower and double flower varieties are popular. Single flower variety bears one row of corolla segment and has pleasant scent. It is used as both loose and cut flower. Double flower variety bears 2 to 3 rows of corolla segment and is usually used as cut flower. The important varieties are Calcuttia Single, Shringar, Vaibhav, Nirantara, Prajwal, Suvasini, Calcuttia Double,

Propagation:

Tuberose is propagated by bulbs or bulblets. Disease free bulbs' having an average diameter of 2.0 cm or above is preferred for planting.

Soil and its preparation:

Well drained sandy loam soil rich in organic matter and nutrients with pH value of 6.5-7.5 are considered ideal for its cultivation. The field should be well prepared by giving 2 – 3 ploughings and incorporating 1.5 tonnes /Kanal of well rotten FYM at the time of land preparation

Planting

Best time for planting of tuberose bulbs is March –April in Jammu with a spacing of 30x20 cm and 5-7 cm depth. Bulb weighing 40-50 g is suitable for planting. Treat the bulbs with Bavistin (0.1%) + Diathane M-45 (0.2%) for 30 minutes as bulb dip before planting in the field. About 8000 bulbs can be planted per kannal.



Fertilizer and Manuring

1.5 tons well rotten FYM, 17.00 kg Urea, 11.00 kg DAP and 9.00 kg MOP per Kanal should be applied in the field. Apply ½ dose Urea, Full dose of DAP and MOP at the time of planting and another 1/2 dose of Urea at the time of spike emergence

Irrigation

Weekly irrigation is required during April – June whereas during Oct – March irrigation at an interval of 15 days is sufficient.

Weed control: Hand weeding should be done at fortnightly intervals

Harvesting:

- a) Loose Flowers:- Individual flowers picked when they are fully opened during morning or evening hours.
- a) Spikes:- When lower 2-3 pair of florets is fully opened, spikes should be harvested

Yield

Cut flowers - About 9,000-10,000 spikes/kanal

Bulblets - About 80,000 bulblets/ kanal

Packaging

For packing, the spikes are tied in a bundle of 100 spikes, wrapped in newspaper sheet and finally packed in cartons. The loose flowers are usually packed in bamboo baskets.

Bulb Production

One bulb produces 10-12 bulblets in two years. These should be dug in the month of Feb- March when the leaves become dry. Dusting of the tuberose bulbs with Bavistin/DM-45 should be done before storage.

Storage of bulbs

Bulbs should be treated with Bavistin /DM-45 as dusting before storage.

Diseases

Bulb rot: Bulb rot is caused by *Fusarium* and *Botrytis*. These rots can be managed by dipping the bulbs in Bavistin (0.2%) before planting.

Blossom Blight: Spray the plant with Bavistin @ 2g/l

**PROJECT: Production and demonstration of quality planting material
of commercially important cut and loose flowers in Jammu region
under FTTF-NABARD**