
Production Technology of Geranium

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ABSTRACT

Geranium was originated from Cape Province in South Africa. Most important types of geranium are Algerian or Tunisian and Reunion types. Among these two types, Algerian types have delicate odour than Reunion type. However, Reunion type is widely raised in the Nilgiris and Anamalai. Warm winter with mild summer temperature and uniform distribution of total annual precipitation from 1000 -1500 mm are most suited to this crop. The cuttings taken from terminal stem with 20 cm long (eight nodes) is the best planting material for multiplication. A total of 30,000 cuttings are required to plant one hectare area.

INTRODUCTION

Geranium (*Pelargonium graveolens* L. Herit.) is one of the major bushy aromatic herb, providing an aromatic oil highly valued for its strong rose like odour and it is commonly known as scented geranium. Primary components of the oil are geraniol and citronellol. India imports more than 20 tons of geranium oil to fulfill the domestic requirements of the perfume manufacturing units, in addition to a domestic production of 20 tons of oil per year.

TYPES AND VARIETIES

1. ALGERIAN OR TUNISIAN

The plants are slender with dark pink coloured flowers. This type is cultivated in the Nilgiris of Tamil Nadu and it is not suitable for humid conditions. This type provides 50 – 60 per cent oil.

2. REUNION OR BOURBON

This type is cultivated in Nilgiris and Anamalai hills. Plant with light pink flowers and highly preferred for moist conditions. Oil yield is high during the summer season.

KKL-1

This variety contains 0.3 per cent essential oil which is released from HRS, Kodaikanal.

SOIL AND CLIMATE

Well drained porous soil is required for Geranium as a shallow rooted crop.

Warm winter with mild summer temperature and uniform distribution of total annual precipitation from 1000 -1500 mm are most suited to this crop. It performs good lower elevation and tolerates maximum level of temperature up to 43°C in the plains if cultivation is done under irrigation.

PROPAGATION

The cuttings taken from terminal stem with 20 cm long (eight nodes) is the best planting material for multiplication. The middle and basal cuttings are treated for six minutes with IBA at 200 ppm and thus enhanced a higher rooting of 80 per cent. Cuttings are planted in the raised beds. The nursery beds are irrigated regularly. Foliar spraying of 0.2 per cent urea solution to the young plants at biweekly intervals promote the growth of cuttings. Propagation through leaf petioles gives a good rooting percentage.

PLANTING

The land should ploughed well and rooted cuttings are planted with a spacing of 60 x 60cm. A total of 30,000 cuttings are required to plant one hectare area. Manures and water may be done one day before planting.

IRRIGATION

Plants are watered after planting. Then irrigation may be carried out once in two days for first two weeks and then once in three days. Water logging should be avoided. This may be achieved by providing better drainage for the media.

WEED MANAGEMENT

Field should be kept weed free and mulching minimized the water requirement and weeds.

MANURES AND FERTILIZERS

Farm yard manure @10 t/ha along with 35:35:35 kg of NPK/ ha is applied as basal. Nitrogen at 35 kg/ha is applied as first topdressing from two months after the basal application, Then nitrogen is applied twice in equal doses during every harvest. For three harvests, a total quantity of 210

kg/ha/year of nitrogen is applied in six splits. Micro nutrients are applied in the form of ZnSO₄ (20 kg/ha), B (10 kg/ha), Cu (20 kg/ha) and Mo (30 kg/ha/year) for four times during the time of harvest.

YIELD

Maximum oil yield of 15 kg is obtained from the herbage grown an one hectare area for one year.

CONCLUSION

A minimum of 25,000 plants are to be maintained for getting a yield of 15 kg of oil on steam distillation from one hectare area.