

Geranium

Harvesting

Geranium is harvested about 4 months after transplanting, when there is sparse flowering, leaves start turning light green and exhibit a change from lemon-like odour to that of rose. Though the change in colour and odour is the criterion for harvesting, it requires careful observations and experience to decide the stage of harvesting.

Leaf blades have maximum oil followed by petioles and woody parts have negligible oil. Terminal branches with 10-12 leaves are best for oil extraction. They are harvested with a sharp sickle and taken up for distillation immediately. The use of sharp sickle is important since it minimises damage to the crop while harvesting. Harvesting is done manually in sunny weather in the morning hours. The crop after harvesting is maintained by hoeing, fertilizer application and irrigation as per schedule. This helps to put forth fresh shoots and reaches harvesting stage in four months. Thus, a total of three harvests a year may be obtained. The crop is a perennial but it is advisable to replant after two years since the wilt disease may dominate and kill many plants making it uneconomical to maintain.

Yield

The quality and yield of oil will be better if the crop is harvested at appropriate maturity. In large-scale distillation, the yield of oil is 0.08%. Occasionally, a yield of 0.1% may be obtained.

The yield of fresh herbage per hectare per year from all the three harvests is about 30 tonnes, which on distillation yields about 24 kg of oil. In Bangalore plains, however, yields are around 40 tonnes of herbage/ha/year from which 40 kg oil is produced. The quality of essential oil produced in the plains is quite high.

Oil Contents

The oil of geranium is a clear liquid with light-yellow to light-brown or green colour. It has a strong, heavy rose-like odour with a minty top note. The chief constituents of the oil of geranium are geraniol and 1- citronellol, the quantities of which vary in proportion, depending upon the origin. Esters of these alcohols as acetates, formates and tiglates are also present. Other important constituents of geranium oil are isomenthone, linalool, -turpineol, phenyl ethyl alcohol, 3-hexene-1-ol and rose oxides (traces).