

Geranium

Post Harvest Technology

Distillation

Geranium is distilled soon after it is harvested. The distillation equipment consists of a boiler, distillation stills, condensers and receivers.

Distillation still is generally made up of mild steel. It has a perforated metal sheet at the bottom to support the herbage, which is loaded into the still for distillation. Loading and unloading can be mechanised with the help of an overhead chain-pulley block. The lid of the still can be swung aside during loading and unloading. It is important that the herbage should be evenly packed inside the still, otherwise steam channels may form during distillation and result in poor yield.

The condenser, which cools the hot vapours received from the distillation still, consists of many tubes made up of copper or stainless steel and mounted inside a jacket. The condenser has inlets and outlets for the circulation of cooling water and for entry and exit of hot vapours and condensate. The condensate flowing out of the condenser drops into the receiver. The oil, being insoluble and lighter than water floats on the top in the receiver and the water gets drained out. The oil can be drawn off separately at the end of the distillation. The receiver is fabricated out of stainless steel and consists preferably of two compartments, so that any oil escaping from one compartment can be retained in the adjoining compartment, although this rarely happens.

Distillation is carried out at atmospheric pressure and each distillation takes about 2-3 hours in addition to the time required for loading and unloading.

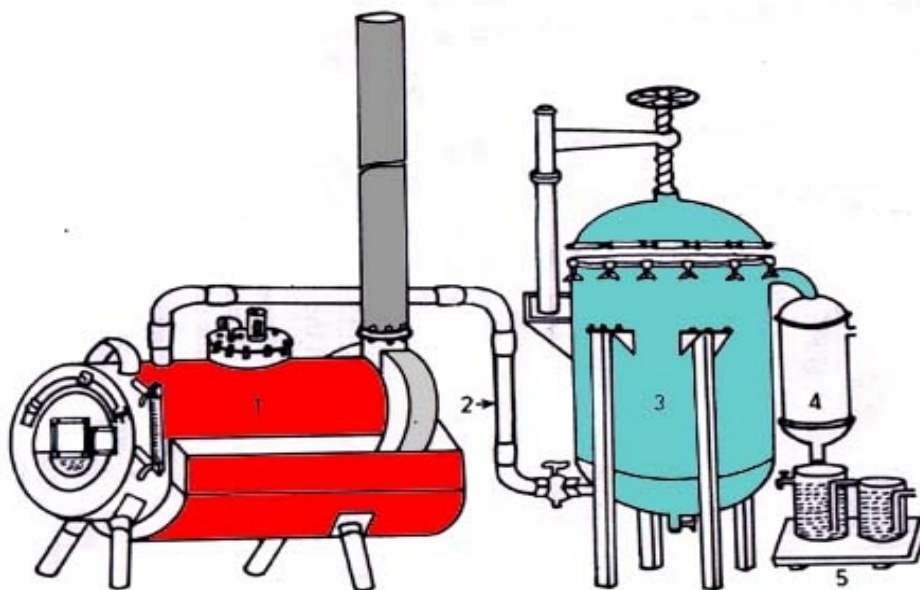


Fig. A sketch of the distillation unit.

1. Boiler
2. Steam pipe
3. Distillation still
4. Condenser
5. Oil receiver