STANDARDS FOR PRODUCING HIGH QUALITY ESSENTIAL OILS

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The quality of aromatic oils depends on their purity. If the oil is completely pure, then definitely its market price will be good, storage capacity will be high and demand will also be high. There are different types of tests to identify good quality, on the basis of which purity can be ascertained. In this, GLC method is the best. First of all, the question arises that why not get pure oil only. For this, precautions should be taken from the beginning so that there is no need for subsequent cleaning.

1. USE OF PLANT PARTS

The part of the plant from which the oil is to be extracted should be used only as perfume is obtained from rose flowers. Therefore, do not mix any other thing (leaf, stem, root) etc. with rose flowers at the time of distillation, otherwise the purity will decrease. Similarly, sandalwood oil is obtained from the inner part of the stem (from the ripe part). So the same part should be used. If other wood is used along with it then there will definitely be a loss in purity and cleaning will be required later. Therefore, due to inaccuracy, cost will increase as well as decrease in value.

2. QUICK OIL EXTRACTION

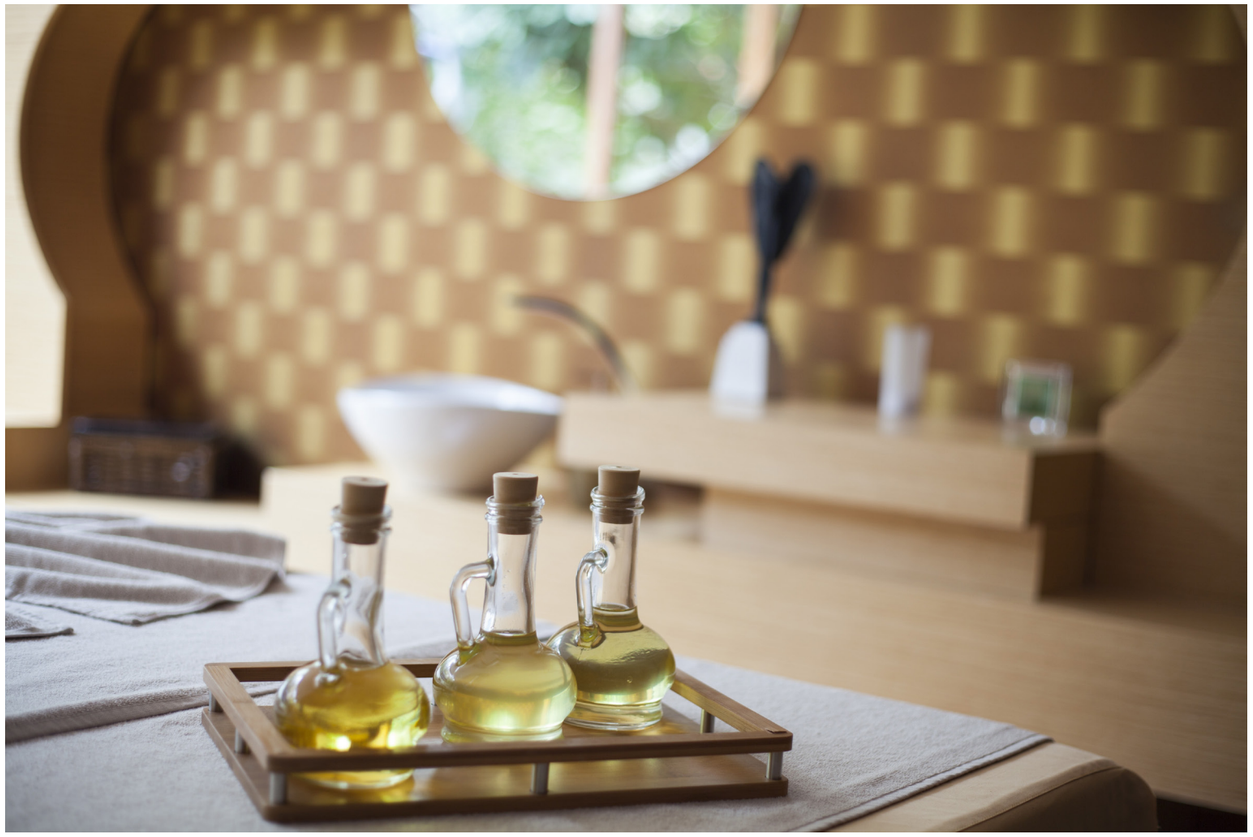
The premature removal of oil also affects the quality of the oil. If the oil is not extracted in time, the production quantity and quality will decrease. For example, if rose flowers are kept for 2-4 hours after plucking, then along with reduction in the quantity of oil, the purity also decreases. Therefore, as soon as the flowers are harvested in the morning, the distillation should be started immediately. This rule applies to all essential oils. Oils that are volatile are affected by light, temperature and wind speed. If the temperature is high and the wind is strong, then the amount of oil will decrease. If there is moisture in the atmosphere, the water content in the oil is more likely to increase and the storage capacity decreases. Therefore, it is very important to extract the oil on time.

3. USING SPECIAL METAL UTENSILS

Only special metal utensils should be used in distillation so that that metal cannot be mixed with oil. For distillation of most of the oils, copper vessel is suitable, which has no effect on the quality of the oil. It is not right to use utensils made of metals like iron, aluminum, brass, bronze etc. Their use reduces the quality of the oil. It is advisable to use only copper on a large scale. Appropriate steel utensils can also be used. But its use reduces the quality, iron utensils should not be used in any situation.

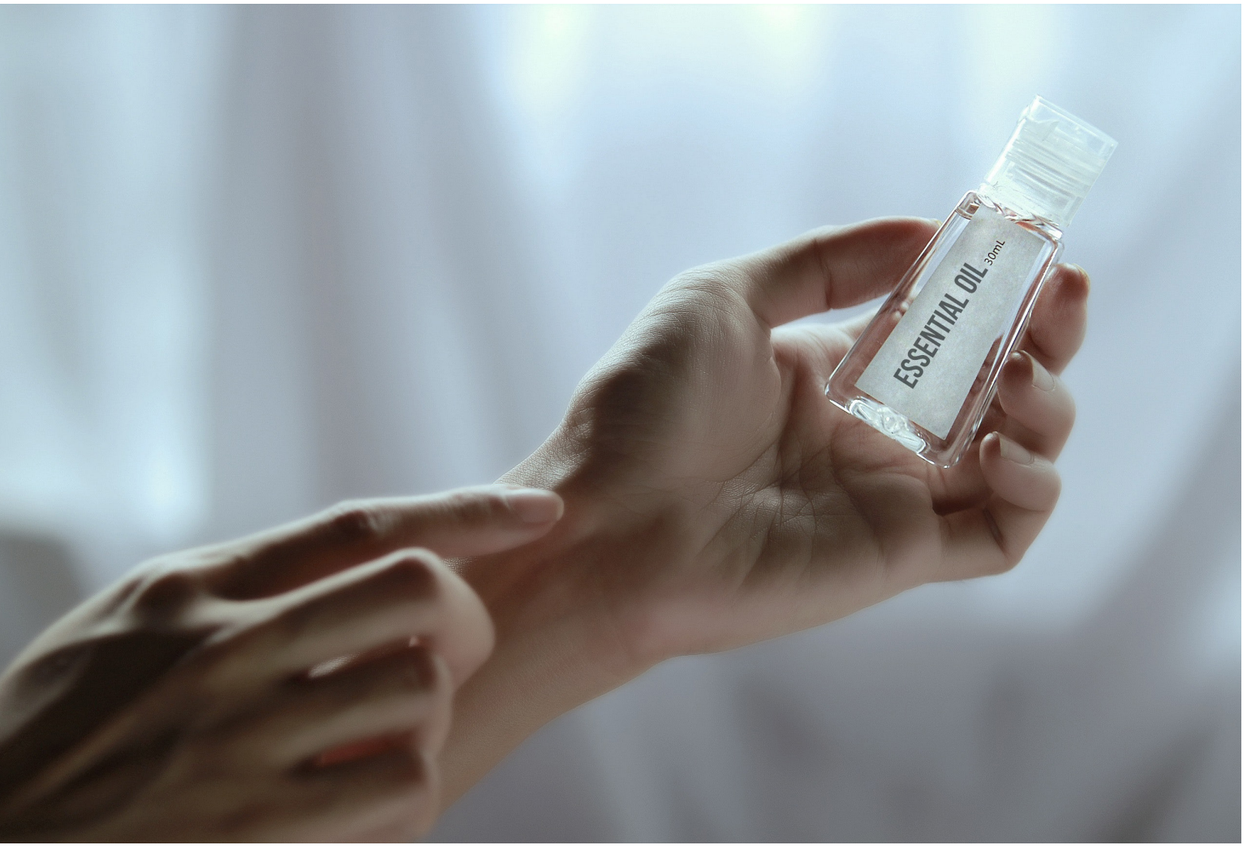
4. USING THE SAME TEMPERATURE

Same temperature should be used at the time of distillation. Distillation process is affected by low temperature, which affects the quantity and quality of oil. Initially the temperature should be kept low and later the temperature should be increased gradually. In the modern era this work can be done very easily. The temperature should also be monitored from time to time through a thermometer. Cow dung cakes as fuel in the distillation unit are best suited for distillation, keeping the temperature under control and gradually increasing, and gradually decreasing until the distillation process is completed.



5. CLEAN EQUIPMENT USED IN DISTILLATION METHOD

The quality of oils is greatly influenced by clean equipment. If dirt is present in the machinery/ distillation unit, the quality of the oils will inevitably deteriorate. As a result, inspect the instruments carefully during distillation to ensure that they are thoroughly clean. All equipment should be cleaned in hot water and used only after it has dried. Only clean, fresh distillation water with a pH of 7.0 should be used. If the water is dirty and has pH of less than or greater than 7.0, it will have a negative impact on the oil's quality.



6. STORAGE AND PURIFICATION OF AROMATIC OILS

The oil should be stored in a cool and moisture-free place, otherwise its quality may decrease. After that the oil should be checked carefully, if there is any kind of adulteration, it should be filtered carefully so that pure oil can be obtained and the actual pure quantity can be stored. If all the above precautions are taken then full quantity of oil will be obtained.

7. INDIAN AND INTERNATIONAL STANDARDS ON THE QUALITY OF AROMATIC OILS

Aromatic oils have been traded in India since the beginning of history. Furthermore, aromatic oils from India have a distinct position. Sandalwood, palmarosa, lemongrass, and other essential oils have already been exported from India to other countries. Sandalwood oil was originally made in Karnataka and sold to other countries, but it is now produced using a variety of essential oils. With the discovery of aromatic oils, the process of standardization and quality control for aromatic oils began. At present, the CSIR, ICAR, CAP, CIMAP etc. are working on the expansion and production of essential oils. At present, oils of citronella, lemongrass, sandalwood and palmarosa are being exported in abundance. In view of export, it is very important to determine the quality standards of oils in which our products do not lag behind in the competitiveness of trade. With the establishment of the Indian Institute of Standardization in 1947, a committee was formed for aromatic oils and other related products whose function was to prepare national standards for these products. Now this committee is known as Natural and Synthetic Compound Substances Committee. Some of the quality testing methods of oil are given below.

7. 1. STANDARD DETERMINATION METHOD FOR QUALITY ASSESSING

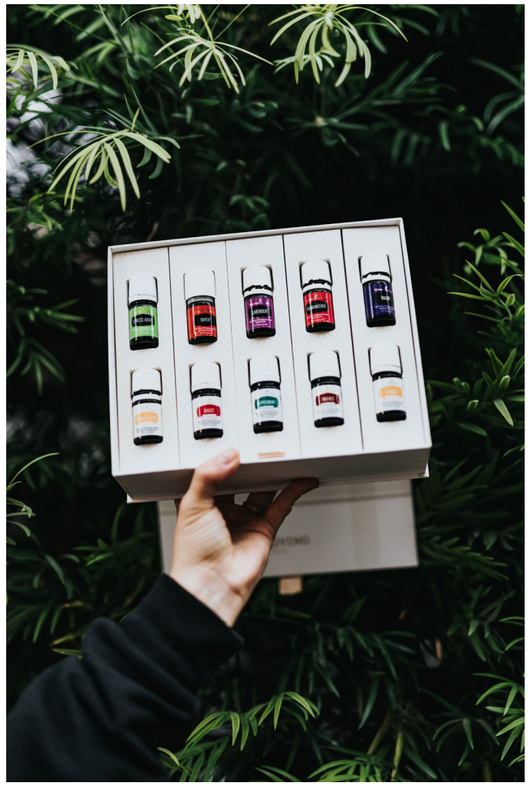
This method has been prepared by incorporating modern techniques. The level of international standard institutions is also taken care of in this assessment method. Many types of tests are done in this method. Such as gas, character, writing which is mostly used to identify aromatic substances.

7. 2. OLFACTORY DETERMINATION METHOD

In this test, it is recommended to taste the oils whether the oil is suitable for use in food items or not. On this basis, recommendation is given regarding whether or not to bring oil to the fragrance industries.

8. PACKAGING OF OILS

The packaging and storage of oils is very important from the point of view of marketing and quality. The cost of some essential oils is very high, whereas the consumer requirement is very less. In such a situation, it is very important to have available packing of oil as per the requirement of the consumer. These oils cannot be sold in an open storage container. Because the oils of some plants are volatile in nature at normal temperature and it is not possible to weigh them in small quantities. If the packing is getting more than the price of oil, then packing should be done in this quantity so that the cost of packing should be reduced. Oil packaging varies from small glass vials to large glass containers, depending on the need. The size of small vials is 5 ml and large jars is up to 20 liters, glass utensils are quite appropriate because there is no chemical reaction in them. But they can break due to falling on floor, stone etc. We can now be stored in a variety of containers, ranging from small plastic vials to large containers. For storage, a variety of high-quality plastic materials are used. Plastic containers are inexpensive, and they are widely utilized in the world today. At the time of packing, name of the oil, purity, oil quantity, price, packing date, how long can it be used, firm name and form symbol etc. details should be included on the label of the containers.



9. STORAGE OF ESSENTIAL OILS

It is vital to preserve the oil at a specific temperature in order to maintain its purity. In general, when the temperature is high, biological action takes place slowly. As a result, the purity begins to deteriorate, resulting in a natural weight loss. At room temperature, some essential oils are safe. However, some essential oils are volatile in the air. The presence of light degrades the quality of some essential oils quickly. As a result, it's best to keep them in the dark and in an enclosed space. Varying oils require different amounts of storage space. For different oils, the storage environment is different. The oils of Mentha, Eucalyptus, and Palmarosa can be stored at room temperature without damage. Oils with a stronger aroma are more likely to be destroyed. As a result, it's best to keep oils in a cool environment.

10. AROMATIC OILS MARKET & MARKETING

In India, mainly aromatic oils of sandalwood, jasmine, rose, vetiver, etc., are prepared on a large scale, which is used in bakery, culinary, perfumery, cosmetic and pharmaceutical industries. Rose oil is produced on a large scale in Kannauj in Uttar Pradesh and Kevada oil in West Bengal. Vetiver oil is produced in large quantities in Haryana and Western Uttar Pradesh. All these productions are done by specialized traders only. These traders are mainly related to Delhi, Mumbai, Calcutta, Lucknow and Kannauj.