

BLOG – Aromatic Extraction Methods (2 part of 2)

Different extraction methods are used to capture aroma from the different botanicals. One of the most commonly known methods is Steam Distillation. This method can be used on different types of stills. Some are made of glass, copper, or stainless steel. The shapes and sizes can vary dramatically. Water and fire are used to produce steam that causes the essential oil to be released due to pressure on the sacs/cells containing essential oil. No chemicals are involved, just heat and water.

The Cold Press method is another method of extraction. It is especially applied to citrus fruits and generally occurs in large factories. Cold press extraction is primarily used in the food industry. The essential oil comes from the peel of the fruit and the meat of the fruit becomes juices. There is no solvent used. It is pressed, just like the name implies.

Separating the essential oil from the peel follows the pressing. However, one word of caution here. Citrus' processed using the cold press method can become phototoxic. This means that Ultra violet rays (such as the sun) can cause burns to the skin after using a citrus essential oil that was extracted using the Cold Press method. Solvent Extractions produce Absolutes. Perfumers like the results of this method and so does the food industry. It is a good method for those "fragile" plants like Jasmine. This method involves several steps. The botanical is added to a solvent which draws out the essential oil. It also draws out waxes which then have to be separated out using heat under a vacuum. After this separation step is completed it then becomes a concrete. The concrete is then put into an alcohol which helps the wax and essential oil separate from each other. The result is an absolute once the alcohol is removed.

CO2 Extraction is a very expensive process due to the cost of the equipment. This method uses CO2 rather than steam, cold press or solvent to capture the aroma from botanicals. The equipment is very technical and can intentionally change the characteristics of the end product by changing the parameters. This method can result in lovely unique aromas. Perfumers and the food industry like the results of this method due to the ability to capture some, all or a few specific constituents. The botanicals are pressurized with the CO2 to capture the aroma by the CO2. It then goes to another part of the equipment to where the used CO2 is removed. This leaves the aroma in the extraction for use.

Enfleurage is a method that begins with leaf lard and delicate or waxy flowers. New flowers are placed into the fat each day. They are removed and replaced with fresh flowers each day for 30 days. The fat extracts the aroma from the flowers. The fat captures a greater concentration of the aroma each day flowers are added. This becomes a pomade which then can be "washed" in alcohol for an enfleurage absolute.

In conclusion essential oils serve botanicals, animals and humans for health, well-being, protection and sustainability. Each method of extraction has its individual uses, pros, and cons. Different industries prefer one method over another. Different equipment produces different qualities, aromas and skill sets. There is an amazing array of beautiful and abundant botanicals we find throughout the earth. We have five methods that serve our need to capture the essential oils and aromas of these botanicals provide.