

AGARWOOD ESSENTIAL OIL REVOLUTION

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Agarwood essential oil remains to be in high demand in the perfumery and aromatherapy industries globally. This is due to the healing properties in aromatherapy and the pleasant smell that perfumery releases. The high demand for the commodity can lead to some serious problems especially when there is a shortage in the natural resources.

Recently, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed *agarwood* as an endangered species. This can lead to a hike in the price and restrict consumer access to certain products.

Another problem that will subsequently arise is the production of fake products in the market. The adulteration and illicit additives of closely resembled-chemical in essential oil can be found today. In addressing this concern, Evolva Holding SA (Reinach, Switzerland) and Universiti Malaysia Pahang (UMP) are working together to focus on producing *agarwood* fragrance, using yeast fermentation process in a move to ensure sustainable supply of Malaysia's high value home-grown, natural product.

One of the critical aspects in the research area is to clarify and identify the chemical compounds that form the characteristics of pure *agarwood* fragrance, which can be considered as marker compounds. Based on previous studies, the complex mixtures of the marker compounds of *sesquiterpene* have been identified in *agarwood* but the chemical compound, *enantiomer*, cannot be separated as their existence is oxygenated from hydrocarbon *sesquiterpene*.