

Aromatherapy: characteristics of the market

1. Introductionⁱ

Aromatherapy is frequently talked about as an important market for small scale essential oil producers at origin, and an important driver for overall demand and sales growth in their target markets. By far the bulk of demand and usage of essential oils is accounted for by the flavours and fragrances industries, with many oils being used as a feedstock for industry of certain natural compounds – citronellal, geraniol etc. However, the aromatherapy market can be an important niche market particularly for small essential oil producers and as such it is important to have some understanding of the markets and their requirements.

Technically, aromatherapy means the use of aromas as therapy, the use of aromas for their healing properties. However there is an increasing move to use the term 'essential oil therapy' which more accurately describes the actual market as not all therapeutic use of essential oils is based on their aroma, and usage includes internal use of the oils.

There is widespread evidence to support the therapeutic usage of essential oils. Importantly, essential oils have both physiological (inducing metabolic changes) and psychological activity on the body, and it is a unique characteristic of aromatherapy that its actions can be on both the physiological and psychological functions simultaneously. Measurements to quantify physiological and psychological effects include peripheral blood pressure, changes in heart rate, skin temperature, epidermal activity, cerebral blood flow and others. More recently the full range of technologies used to investigate the effects of drugs on cellular and body systems are being applied to the therapeutic use of essential oils. Key indications where aromatherapy is seen to provide benefits include cognitive performance (memory, attention speed etc), mood (sedating or stimulating), and performance ability. The broader term essential oil therapy widens the areas of therapeutic use to include medicinal activity across a broad range of indications, including skin conditions and wound healing, anti-microbial activities etc. Essential oils work through a range of methods: a pharmacological type mechanism where the essential oil constituents enter the blood stream and affect physiological function; and then a number of more direct associations linked to the aroma itself – aroma conditioning where memory of a situation is linked to the aroma, pleasant or unpleasant feelings caused by an aroma etc.

2. Quality of Essential Oils

The quality of an oil is of particular and specific importance where it is to be used for therapeutic purposes. These uses are almost wholly based on the use of the whole, unmodified essential oil, rather than standardized oils, or fractionated oils. As a result, all practices from selection of the plant material through harvest, handling, distillation and subsequent storage and handling practices are of particular importance – and so their standardization and repeatability. As a general rule also all oils used in aromatherapy are steam distilled (or cold pressed for many of the citrus oils). Solvent extracted oils are rarely used (although CO₂ extracted oils are gaining some usage as in this case there is no residual solvent, all the CO₂ evaporating at normal atmospheric pressure and temperature).

Key quality factors include both those that directly affect the chemical composition of the oil itself, as well as environmental and sustainability concerns about the biological resource itself. Key factors for users, and therefore passed back down the supply chain to producers include:

- **The genetic identity of the plant material**

The species, sub-species, variety and chemotype, as relevant. Many herbs – lavender, sage, geranium, cinnamon etc – actually cover a range of species, each with significantly different chemical composition and therefore of different interest to and use for aromatherapy. The essential oil of *Lavendula angustifolia* does not contain 1-8 cineole or camphor and is used for its sedating properties, while *L. intermedia* (a hybrid of *L. angustifolia* and *L. latifolia*) can have 6-20% cineole and 7-40% camphor and has different uses (stimulating). Basil (*Ocimum basilicum*) has 2 distinct chemotypes – a methyl chavicol type, and a linalool type, with the latter being the preferred type and in some indications the only type that can be used. For the producers, an absolute understanding of the botanical source of the oil, and the chemical composition is essential if this market is to be targeted.

- **Production environment and practices**

Chemical composition of an oil is also affected by a range of factors including:

- Environment of production (climate, soils etc). In addition to broad environmental characteristics of the area of production, seasonal variations – excessive rains, droughts etc – can have an important impact on composition.
- Time of harvest. When in the life-cycle the harvest of the plant part to be distilled is made – pre-flowering, early flowering, full flowering etc for annual crops; age of crop for some perennial crops etc. These factors can have a major impact on chemical composition of any distilled oil as composition of the oils changes dynamically seasonally and through a plants life.
- Crop handling practices – whether harvested material is dried or distilled fresh; length of storage before distillation and storage conditions etc. It is essential that standard protocols are developed and adhered to.
- Distillation protocols. Distillation conditions – times, temperatures, pressures, type of steam – and methods have a major impact on oil composition and the distillation protocol must be standardized and kept to.
- Storage conditions for the essential oil.

- **Sustainability**

Many aromatherapists would have a preference for essential oils distilled from wild harvested material, but this can bring a range of sustainability issues around the management and maintenance of the resource and the difficulties of getting a uniform material (age of material etc) to distill. Uncontrolled over-harvesting of wild resources can create severe crop sustainability issues – classic cases include Indian Sandalwood and Rosewood, but issues can be locally common on a wide range of species and buyers of essential oils coming from wild harvested material will certainly want proof of sustainable wild crafting practices being implemented.

In addition to these resource management issues, a number of plants are on International lists of endangered species and their trade is controlled to a greater or lesser extent. CITES (Convention on International Trade in Endangered Species) has 3 classifications of endangered plants: Appendix 1 plants are threatened with extinction and trade is only permitted in exceptional circumstances; Appendix 2 plants require trade to be controlled to prevent a threat of extinction arising; Appendix 3 plants are protected in one or more countries. Producers need to assure themselves that if they are dealing with a plant listed in Appendix 3 it is not controlled in their country, as the market will not accept the product. The IUCN (International Union for Nature Conservation) has a Red List of Threatened Species,

and this is widely respected in the markets, and buyers would be reluctant to take essential oils from plants on this list without evidence of a successful sustainability programme in place locally.

- **Quality and purchasing**

Overall, the key factors that the industry reports as influencing purchasing decisions by professional aromatherapists (based on a recent 2013 survey in the US) are, in order of importance:

- i. Chemical analysis (GC/MS) available
- ii. Organic certification
- iii. Sustainably grown and harvested
- iv. Traceability to show grown organically, but no certification
- v. Price
- vi. Country of origin
- vii. Plant at-risk status (endangered status)
- viii. Age of oil
- ix. Storage conditions used for oil
- x. Wild crafted

The list shows clearly that the primary purchasing criteria for users in the sector are the chemical composition of the oil, how the crop was cultivated with a very strong requirement for an organic cultivation whether or not actually certified under a formal scheme, and the sustainability of production.

3. Market Characteristics

Aromatherapy covers both use of essential oils by professional aromatherapists and personal use by consumers based on retail purchases. In a recent 2013 survey of trends in the aromatherapy market in the US, over 62% of professional aroma therapists also made up products for re-sale in addition to their professional use. Almost all aromatherapists are self-employed, running their own small practices, but many also worked in education role (40%) and in retail/wholesale (26%). The market is therefore very fragmented, made up of large numbers of small operators. This is reflected in typical purchase volumes, with a significant % (43%) only purchasing each oil in small quantities (0.5 to 1 litre/yr) as opposed to 50 litre to drum quantities by the others.

The 21 essential oils most commonly purchased by professional aromatherapists (not ordered by volume of purchase) are listed in the Table below, and include many of the important tropical oils.

Essential oils most commonly purchased by aromatherapists

Essential oil	% of aromatherapists using
Lavender (<i>Lavendula angustifolia</i>)	97
Geranium (<i>Pelargonium graveolens</i>)	93
Eucalyptus (<i>Eucalyptus globulus</i>)	91
Chamomile (<i>Chamaemelum nobile</i>)	90
Tea Tree (<i>Malaleuca alternifolia</i>)	89
Peppermint (<i>Mentha piperita</i> var <i>vulgaris</i>)	88
Lemon (<i>Citrus limonum</i>)	88
Rosemary (<i>Rosmarinus officinalis</i>)	84
Bergamot (<i>Citrus aurantium</i> var. <i>bergamia</i>)	84
Clary Sage (<i>Salvia sclarea</i>)	83
Sweet orange (<i>Citrus sinensis</i>)	81
Ylang Ylang (<i>Cananga odorata</i>)	80

Essential oil	% of aromatherapists using
Frankincense (<i>Boswellia caterii</i>)	79
Grapefruit (<i>Citrus paradisi</i>)	77
Rose (<i>Rosa damascena</i>)	74
Ginger (<i>Zingiber officinale</i>)	74
Patchouli (<i>Pogostemon cablin</i>)	73
Vetiver (<i>Vetiveria zizanioides</i>)	71
Marjoram (<i>Origanum majorana</i>)	69
Immortelle (<i>Helichrysum italicum</i>)	69
Black Pepper (<i>Piper nigrum</i>)	69

In professional practice of aromatherapists, the top essential oils used, by volume, are listed in the Table below. The presence of the essential oil of black pepper is notable, as is peppermint, as both are typically associated with flavour and fragrance use rather than aromatherapy.

Top essential oils used by aromatherapists by volume

Rank	Essential oil
1	Lavender (<i>Lavendula angustifolia</i>)
2	Bergamot (<i>Citrus aurantium var. bergamia</i>)
3	Immortelle (<i>Helichrysum italicum</i>)
4	Chamomile (<i>Chamaemelum nobile</i>)
5	Eucalyptus (<i>Eucalyptus globulus</i>)
6	Frankincense (<i>Boswellia caterii</i>)
7	Tea Tree (<i>Malaleuca alternifolia</i>)
8	Black Pepper (<i>Piper nigrum</i>)
9	Peppermint (<i>Mentha piperita var vulgaris</i>)

On the retail side, the top selling essential oils in the US (SPINS survey, 2012) are shown in the Table below, and shows reasonable correspondence with the Table showing oils most commonly purchased by most professional aromatherapists.

Top selling essential oils in US retail aromatherapy market, by value

Rank	Essential oil
1	Lavender
2	Peppermint
3	Eucalyptus
4	Tea Tree
5	Rosemary
6	Patchouli
7	Blend – other
8	Lemon
9	Rose
10	Frankincense
11	Blend – calming
12	Clove
13	Orange
14	Sandalwood
15	Geranium

Rank	Essential oil
16	Grapefruit
17	Ylang Ylang
18	Bergamot
19	Blend – medicinal
20	Lemongrass

Data from the SPINS survey shows strong annual growth in US retail aromatherapy demand (13%), though the organic sector far outpaced this giving growth in excess of 40%. Organic certification is a major driver in accessing demand in this market.

A major factor frequently identified is that sales are closely tied to consumer education – the more consumers are informed of how and why to use essential oils, the greater the sales and growth. For producers wanting to target this market the use of websites and the full range of social media enables them to target both the professional aromatherapists and the retail consumers. In addition these channels provide a powerful tool to communicate directly to buyers on the key factors that influence purchases, particularly sustainability issues.

ⁱ Incorporating material from a paper (US trends in the aromatherapy essential oil sector 2013-2014) presented at IFEAT 2013, by Dorene Petersen, President American College of Healthcare Sciences