

Introduction

CHAPTER CONTENTS

- Introduction 1
- Historical use of essential oils 2
- Modern evidence for the antiseptic powers of essential oils 2
- Essential oil use in industry and aromatherapy 2
- Definition of essential oil for aromatherapeutic purposes 3
 - Aromatherapy oils 3
 - Absolutes 3
 - Macerated oils 3
 - Ignorance is bliss? 3
- Wide-ranging application 4
- Powerful healing agents 5
- User-friendly 5
- Areas of use 5
- References 6

INTRODUCTION

There is some discussion as to the exact meaning of the word aromatherapy and therefore on how the essential oils should be used. Aroma is from Latin *aroma* = sweet odour, spice which is in turn from Greek *aroma* = spice, and therapy from Latin *therapia* Greek *therapeia* = curing, healing. The purists maintain that the word intends the oils to be used only in ways which conform to the meaning of therapy through aroma, that is not by massage or other ways of application but only by inhalation. Of course, this is quite correct if the true sense of the word is rigidly adhered to. Some support is given by Schulz et al (1998) who write that aromatic herbs are effective only when the molecules of their volatile oils come in contact with the nasal mucosa through inhalation: the classic prototype is smelling salts – a preparation no longer manufactured, but a home-made version is prepared by putting 1–4 drops essential oil on a tissue and inhaling from it. A tradition of using the oils in many different ways has, however, built up over the course of time to such an extent that it is now (almost) universally accepted that the word aromatherapy encompasses all methods of applying essential oils, but note that this always includes inhalation.

There is also some difference of opinion about the use of the word essential – ‘the traditional term “essential oil” still persists even though the essence of the plant is a poorly defined concept of medieval pharmacy’ (Guenther 1948) therefore Hay & Waterman (1993 p. 1) prefer the term

'volatile oil' because it refers to the fact that most components of the oils have low boiling points and can be removed from the plant by steam distillation. Nevertheless, we in aromatherapy continue to use the words 'essential oil' and understand the meaning, even though it is acknowledged that 'plant volatile oil' is a more accurate term.

The subject of aromatherapy involves pharmacy and farming, botany and bodies, medicine and chemistry, toxicity and safety, all so intertwined and interconnected that it is scarcely possible to disentangle the ramifications for the purpose of setting them down without some repetition and much cross-referral.

HISTORICAL USE OF ESSENTIAL OILS

Plants and their extracts have been used since time immemorial to relieve pain, aid healing, kill bacteria and thus revitalize and maintain good health. Most books on aromatherapy include its history in more or less detail. Suffice it to say here that although the word itself was not coined until this century, the distilled extracts from plants – the essential oils – have been employed by mankind for countless years in religious rites, perfumery and hygiene. Cedarwood oil, known to have been used by the Egyptians for embalming and for hygienic purposes 5000 years ago, was probably the first 'distilled' oil to have been produced although the process used is open to speculation (Ch. 2). Both the plant and the essential oil of lavender were used by the Abbess Hildegard of Bingen as early as the 12th century and by the 15th century it is thought that essential oils of turpentine, cinnamon, frankincense, juniper, rose and sage were also known and used (Pignatelli 1991). About 60 oils were known and used in perfumes and medicines by the beginning of the 17th century (Valnet 1980 p. 28).

MODERN EVIDENCE FOR THE ANTISEPTIC POWERS OF ESSENTIAL OILS

Towards the end of the 19th century, the action of turpentine (terebinth) oil was observed by Koch in 1881 against the anthrax bacillus, soon to be

followed by research by Chamberland (1887) which proved the antiseptic properties of essential oils and then early in the 20th century by Cavel's research into the individual effects of 35 essential oils on microbial cultures in sewage. The most effective oil required to render inactive 1000 ml of culture was found to be thyme (0.7 ml). Two other well-known oils showing high efficacy were sweet orange (1.2 ml, 3rd) and peppermint (2.5 ml, 9th) (Cavel 1918). The antiseptic power of several oils has now been proved to be many times greater than that of phenol. Certain essential oils have also been shown to be effective against different bacteria, e.g. lemon, which is one of the best in its antiseptic and bactericidal properties, neutralizing both the typhus bacillus and *Staphylococcus aureus* in a matter of minutes. Cinnamon kills the typhus bacillus when diluted 1 part in 300 (Valnet 1980 p. 36). Professor Griffon, a member of the French Academy of Pharmacy, made up a blend of seven essential oils (cinnamon, clove, lavender, peppermint, pine, rosemary and thyme), to study their antiseptic effect on the surrounding air when sprayed from an aerosol; all the staphylococci and moulds present were destroyed after 30 minutes (Valnet 1980 p. 37). See Chapter 4 for more recent studies on the antiseptic properties of essential oils.

The bacteriological approach of aromatherapy is an extremely complex field of the utmost interest, opening the way to the ecological understanding and management of the different colonies and floras that live in cohabitations – or at war – within us. Allopathic medicine has begun to realize that the misuse of antibiotics leads to numerous side-effects and sometimes results in chronic disastrous conditions (i.e. systemic candidosis) that could have been avoided if medical aromatherapy had been implemented in due time (Pénoël 1993 personal communication).

Today, the properties of herb volatile oils are researched in many centres throughout the world, assessing antibacterial and antifungal properties of essential oils and their constituents.

ESSENTIAL OIL USE IN INDUSTRY AND AROMATHERAPY

Tens of thousands of tonnes of essential oils are used by the food industry and a large but

declining amount by the perfume industry (Verlet 1993) due to the increased use of synthetic copies; because they are antioxidants, essential oils are used to protect food from spoilage and the quantities used for toothpastes and mouthwashes have grown spectacularly (Hay & Waterman 1993 p. 3). The total amount of essential oils used by the aromatherapy profession, although increasing, is nevertheless extremely small by comparison, which contributes to the difficulties of obtaining high quality, pure, natural oils (Ch. 2). Some beneficial oils used not to be supplied by distillers because they are not required by the giant users who are more concerned with quantity and cost rather than quality but fortunately, in latter years, the number of independent distillers producing essential oils solely for aromatherapy use has increased, although such products naturally tend to be more expensive.

DEFINITION OF ESSENTIAL OIL FOR AROMATHERAPEUTIC PURPOSES

There are only two plant extracts which should be given this name for aromatherapy purposes:

- **Essential oils:** these are plant extracts which have been achieved by steam distillation of plant material from a single botanical source; nothing is involved in this process save water, heat and the plant material. The essential oil is separated from the condensed steam and nothing is added and nothing is taken away.
- **Expressed oils:** these are the product of citrus fruits, and they are achieved by simple pressing (expression) of the citrus peel, without heat or aid of solvents. Nothing is added and nothing is taken away.

Care is needed in the way essential oils are sold to protect both the lay public and aromatherapists. The oils for therapeutic use must be whole and unadulterated, accurately identified and labelled, and must have been correctly stored.

N.B. Not all plants yield an essential oil and some yield so little that the oil would be too expensive; oils such as hyacinth, lilac, lime blossom, honeysuckle and jasmine do not exist in a distilled form; their fragrance is extracted by other means and it is incorrect for anyone to name

extracts from these plants as essential oils in the context of aromatherapeutic use.

AROMATHERAPY OILS

This term is widely used in the marketplace, but is a vague, almost meaningless term, which does not adequately describe the product. Products labelled thus usually consist of a 2% maximum dilution of essential oil(s) in a fixed oil. Often these inexpensive products are sold in small bottles having an integral dropper, which is misleading as droppers are not necessary for diluted oils and their presence can give the impression (sometimes intentional) that they are neat essential oils – they are often sold at the pure essential oil price, thus yielding an excessive profit. Oils sold under this heading usually contain standardized oils of low quality, more suited to industries other than complementary medicine. Other ways of extracting plant components follow, none of which should be classed as essential oils for aromatherapy purposes.

ABSOLUTES

These are aromatic liquids – not essential oils – which are extracted from plant material using solvents such as hexane, butane, etc., then subjected to alcohol extraction. It is a complex process, yielding a liquid substance called an absolute, which is totally soluble in alcohol and important in the perfume industry, although still containing traces of solvent.

MACERATED OILS

Macerated oils are made by putting plant material into a fixed vegetable oil, when those plant molecules soluble in the oil are taken up by the vegetable oil used. Examples are *Calendula officinalis* [marigold] and *Hypericum perforatum* [St John's wort]. These should not be sold in small bottles and passed off as essential oils, although they are important carriers of essential oils and for use on the skin (Ch. 7).

IGNORANCE IS BLISS?

Much of the misnaming of oils for aromatherapy comes through ignorance on the part of the