



The Medicinal Essential Oil Awakening BY Sana Turnock

Aromatherapy practitioners and enthusiasts need no persuasion with regard to the healing abilities of essential oils. As students we are taught to understand how each botanical compound is unique and active, and how 'miracles' can take place when oils are combined in a synchronised synergistic formula.

Many people are familiar with using essential oils topically on the skin, in a vaporiser, for inhalation purposes, mixing them with vegetable oils and using them in baths (in a dilution of course!). But an awakening is taking place.

In France this awakening occurred years ago, while in other parts of the world it remains a gradual process. It is a growing awareness that essential oils have a lot more to offer in a medicinal sense.

Complementing the applications already mentioned are internal modes of usage, including oral ingestion and the use of essential oils in suppositories and pessaries. Although well documented and understood within the industry, these methods are not commonly practised by professional aromatherapists in Australia (generally due to inadequate training, expertise and legal constraints).

In the French medical system, however, aromatherapy has a unique standing. It is known as 'aromatic medicine' and medical practitioners are able to prescribe essential oils (both for external and internal use) to patients presenting with a range of medical conditions. As a consequence, the results of thousands of case histories have been collated and used as part of clinical studies into the potency of essential oils.

One area in which oils have been found to be highly effective is the treatment of infection. French MD and aromatic medicine specialist Dr Daniel Penoel has used essential oils internally as part of his private practice in France and advocated the benefits of such methods through workshops and seminars around the world for more than 25 years. A self-professed "aromatic medicine missionary and humanitarian", Dr Penoel believes that the safe internal use of (specific) essential oils have an efficacious antibiotic role.

Long-term over-prescription of penicillin has dramatically lessened that drug's ability to counteract bacteria, with the prevalence of penicillin-resistant strains in hospitals well reported worldwide. For his part, Dr Penoel claims that society has come to a dead end with antibiotics.

"The medical system is a dominant and at times destructive system of healing. However this is set to change. The world

is moving towards becoming more connected with the earth and nature. And once people discover the swift action of essential oils, this will be their success," he says.

Dr Penoel says it is many of the world's leading cosmetic companies that are leading research efforts into aromatic plants and molecules, their botanical chemistry and phytotherapy (plant therapy) in general. Multinational giants such as Estee Lauder,

Loreal and Dior are using their vast wealth, equipment, resources and highly qualified staff to undertake systematic investigations, he says.

However they are not the only players. The governments of both Germany and Belgium are funding research into essential oils. In Belgium specifically, the government funds university based research, with the results transferred to the phytotherapy industry.

Among the researchers is director of pharmacological research, Pierre Franchomme, who is undertaking advanced pharmacological studies with financial backing from Estee Lauder from his base in Romania.

Much research is also being done in Dr Penoel's native France.

"There are several French universities whose pharmaceutical departments are researching plant extracts and essential oils. One of the most important is that being done by Dr Pellecier at the University of Montpellier," Dr Penoel says.

"One of the most important discoveries is that of the inflammatory process. For instance, it has now been proven that the phenol molecules not only have strong anti-infectious properties but, interesting, anti-inflammatory ones.

"There have also been discoveries of less known anti-inflammatory properties found in sesquiterpenes and sesquiterpenols. Part of these results has been published."

While there has been some publication of these and other research findings, most companies prefer to keep discoveries in-house due to commercial sensitivities. The human genome aside, it appears that companies' inability to patent nature means that researchers and those they work for stand to lose any commercial advantage from their discoveries if the results become known to competitors.

"The cattle food industry in Europe, for example, used to include hundreds of tons of antibiotics in their products.

It is now looking for alternatives. In most cases it turns to essential oils and specific plant products," Dr Penoel says.

The pharmaceutical industry the world over has an enormous amount riding on any developments and discoveries concerning anti-bacterials, be they drugs or essential oils. As such, drug companies will no doubt be keeping abreast of essential oil and aromatic plant medicine research outcomes.

And what of Australia's role in these exciting developments? Along with New Zealand oils, Australian-based essential oils are among those being used in clinical studies and research in Europe.

"Australia represents an immense storage of aromatic wealth," Dr Penoel says.

A significant quantity of information has been published on the strong antibacterial and antifungal properties of Australian Tea tree (*Melealeuca alternifolia*). There are, however, lesser known aromatic plants that produce fine essential oils now coming to the forefront through trials and research.

One such essential oil is Fragonia™ (Agonis fragrans). Originally discovered and named by botanist Chris Robinson, it is now being distilled by John and Peta Day of Paperbark Essential Oils. The WA-based company focuses on growing Australian plant species, distilling and distributing Australian essential oils.

"It was an article written by Chris Robinson that we discovered in a CALM publication called Land for Wildlife that became the catalyst for us initially planting 5000 trees, followed by 10 000, and then 80 000," Mr Day says.

One of the species the Days have successfully planted is Fragonia™, with research to date showing there are many chemotypes of Agonis fragrans growing naturally, according to Mr Day.

Dr Penoel's interest in Australian aromatic plants led him to John and Peta Day. He was very interested in the Fragonia™ species grown and produced by the Days, as it contains botanical compounds that give it a balancing effect on the body and emotions. Gas chromatograph tests reveal high percentages of alpha-pinene and cineole, constituents beneficial in combating respiratory conditions and treating an array of infections.

"In Europe, Pine and Eucalyptus oil were mixed to get the balance of alpha-pinene and cineole (to treat for specific respiratory/infectious conditions). In Fragonia™ it is naturally occurring in a balanced way," Mr Day says.

Numerous laboratory tests have indicated the oil's efficacy in the destruction of certain bacterial and fungal strains. Tests undertaken by University of Western Australia (UWA) research officer Dr Christine Carson have confirmed the oil's capacity to destroy specific micro-organisms.

"Low concentrations of Agonis fragrans can destroy bacteria completely within 30 seconds to 30 minutes," Dr Carson says.

"This is the case with the E. Coli organism. Another example is Staphylococcus aureus. This bacteria can be picked up by touching surfaces like door handles. It isn't a problem for humans unless it gets into a wound. Tests have revealed that within two hours, using Agonis fragrans at a 2 per cent dilution destroys the micro-organism".

Those aware of the downside of having the fungus *Candida albicans* proliferate inside the body will appreciate the promising results having taken place within the UWA lab.

"Tests have shown that *Candida albicans* has been destroyed with as little as 0.5 per cent to 1 per cent dilution of Agonis fragrans," Dr Carson says.

Overall, Dr Carson has been happy with the antimicrobial performance of Agonis fragrans. Based on her previous experiences with testing essential oils such as Tea tree, Lemongrass and Oregano for their antimicrobial potential, Dr Carson believes there is a future antibiotic use for essential oils.

"I can see essential oils used alongside topical antibiotics," she says, while remaining cautious about the possibility of essential oils being taken as an antibiotic.

"A lot more testing needs to be done to ensure safe oral use."

Dr Penoel, on the other hand, remains optimistic that essential oils will become recognised and accepted as both an efficacious and safe option to antibiotics. And he expects France will play a major role in advocating its future.

"We are at a turning point of medicine and pharmacy. I won't say that antibiotics will disappear, but they will represent one option among others. Essential oils are among the other options that are the most powerful form [of natural antibiotic] currently available," he says.

Acknowledgements

Excerpts of this article written by Sana Turnock, was published in *Aromatherapy Today*, Vol 32. This article, written by Sana Turnock, was published as *Potent Oil*, in *Nova*, January 2006, pp.29 & 36.

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