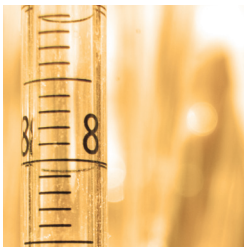

TEA TREE OIL

Antibacterial, antifungal, and anticandidal

ANCIENT "MEDICINE TREE"

For thousands of years the Bundjalung Aboriginal people of Australia have used the leaves of the tea tree (*Melaleuca alternifolia*) for their medicinal properties. They crushed the leaves to make an infusion (tea) for treating coughs and colds. Essential oil from the leaves was used to cure wounds, infections, and a wide range of skin conditions.

The English name "tea tree" was coined in 1770 by the botanist Joseph Banks, a member of Captain James Cook's expedition. He found the pleasant and spicy tea that could be brewed from the leaves to be a refreshing substitute for black tea. European settlers learned the medicinal use of the leaves from the Aborigines and began extracting the oil and using it to treat cuts, abrasions, burns, insect bites, infections, and similar conditions.

The tea tree is a shrub in the myrtle family, growing to a height of about 20 feet. It dominates along streams and swampy flats in coastal areas of New South Wales, Australia. Like all members of the myrtle family, it is aromatic due to the oils released from the leaves. *Melaleuca alternifolia* produces one of the most medicinally-active essential oils of this family of trees. Natural Factors Tea Tree Oil is 100% pure, safely-and gently-obtained through steam distillation. It is produced following GMP standards to ensure the highest quality. It contains no more than 15% 1,8-cineole and no less than 30% terpinen-4-ol.

NEW RESEARCH SUPPORTS RISING POPULARITY

Originally found only in Australia, the trees are now also being grown in California to meet the rising global demand for tea tree oil. More than any other single "herb", the essential oil of the tea tree has gathered a following of dedicated users.

Scientific research into the healing properties of tea tree oil began in 1930 when a Sydney surgeon wrote of its wound-healing and antiseptic properties in the *Medicinal Journal of Australia*. Today, research continues to confirm its usefulness in treating fungal infections, yeast infections, acne, and a wide variety of skin conditions.

HOW DOES TEA TREE OIL WORK?

Tea tree essential oil has antiseptic properties, meaning it is able to destroy bacteria that cause infections. It is also an antimicrobial, able to destroy or prevent the growth of microbes, including bacteria, fungi, parasites and viruses. The effect of tea tree oil on bacteria and other microbes is similar to that of chemical disinfectants. It damages the cell membrane and disrupts the proteins within them, rendering them inactive and unable to proliferate and cause disease (Cox).

Tea tree oil contains over 100 plant chemicals, most of them classified as monoterpenes, sesquiterpenes, and their related alcohols. Terpinen-4-ol is the prime ingredient responsible for the healing properties of tea tree oil. It is a monoterpene-alcohol active against numerous pathogenic bacteria and fungi, but seems to spare normal skin flora (Jellin). Second in importance is 1,8-cineole, which has disinfectant properties that are useful for treating respiratory infections. However, 1,8-cineole is also an irritant of mucous membranes and the skin. Therefore, the ratio between these two compounds is thought to be the key to the medicinal effectiveness of tea tree oil. Tea tree oil with low 1,8-cineole content and high terpinen-4-ol content is considered superior.

THE MANY BENEFITS OF TEA TREE OIL

- Antibacterial, antifungal, and anticandidal
- First-aid antiseptic (disinfects cuts and scrapes, prevents infection)
- Relieves acne and other skin surface infections
- Effective against lice and scabies
- Relieves fungal infections such as athlete's foot, nail fungus, jock itch, and ringworm
- Reduces skin inflammation associated with eczema or dermatitis
- Relieves burns, insect stings and bites, and boils
- Relieves candida infections
- Relieves vaginal infections
- Reduces recurrent *herpes labialis* (cold sores)
- Natural insect repellant

FUNGAL INFECTIONS

Historically, tea tree oil has been used to treat a variety of common human fungal infections, including jock itch, athlete's foot, ringworm, and nail fungus. Laboratory research at the University of Western Australia found that tea tree oil has both inhibitory and fungicidal activity. This was confirmed in human clinical trials in 2002. Australian scientists conducted a randomized, double-blind study using 158 patients with *tinea pedis* (athlete's foot). They received either a placebo or 25% or 50% tea tree oil solution. Patients applied the solution twice daily to affected areas for 4 weeks. There was a marked clinical response seen in 68% of the 50% tea tree oil group and in 72% of the 25% tea tree oil group, compared to 39% in the placebo group. After four weeks, skin scrapings were assessed. The fungus spores had all been killed in 64% of patients in the group receiving 50% tea tree oil, compared to 31% of patients in the placebo group. Only 3.8% of patients applying tea tree oil developed moderate to severe dermatitis, and this improved quickly upon stopping the medication (Satchell).