TEA TREE

*Melaleuca alternifolia*

[me-luh-LOO-kuh al-tern-ee-FOH-lee-uh]

**Family:** Myrtaceae

**Names:** melasol, ti tree, ti-trol

**Description:** *Melaleuca alternifolia* is one of the smaller tea trees from southeastern Australia. It is hardy to 32F with a height of 15-22 feet and a spread of 10-15 feet with papery bark in several layers and pointed leaves up to 1 ½ inches long. In spring, small, white 5-petaled flowers are borne in dense spikes up to 2 ½ inches, followed by tiny woody capsules. The *alternifolia* species is distinct because its leaves are staggered along each side of the stem. This alternating pattern is what gives it the name *alternifolia*. It is a hardy tree with an extensive root system; it grows rapidly, and it naturally resists pests and disease. Trees are harvested at the height of the summer growing season, which in Australia, is December through May. It is hardy to zone 9. It is in leaf all year, in flower in June. The flowers are hermaphrodite and are pollinated by insects.

**Cultivation:** From bush cutting the natural plant by hand early this century, the production of Tea Tree Oil has been developed into cultivated and mechanized harvesting in big commercial plantations. Requires a fertile, well-drained moisture retentive lime-free soil in full sun. Prefers a soil that does not contain much nitrogen. Plants are shade tolerant and succeed in most soils and aspects except dry conditions. This species is not very cold hardy and is only likely to succeed outdoors in the very mildest parts.

Seed takes about 12 months to develop on the plant, the woody seed capsules persist for 3 or more years. Any pruning is best done after the plants have flowered with the intention of maintaining a compact habit. Hybridizes freely with other members of this genus. Plants in this genus are notably resistant to honey fungus.

Surface sow the seed in spring or autumn onto a pot of permanently moist soil in a warm greenhouse. Immerse in 5cm of water and do not water from overhead. Grow on until the seedlings are 0.5cm tall then remove from the water and pot up a week later. Seedlings are liable to damp off when grown this way, sowing the seed thinly, good ventilation and hygiene are essential for success. Grow the plants on for at least their first winter in a greenhouse and then plant them out in late spring or early summer, after the last expected frosts. Consider giving the plants some protection from the cold for their first few winters outdoors. Cuttings of half-ripe lateral shoots with a heel, July/August in a frame.
Pinch out young, pot-grown plants to induce bushiness. Oil is distilled from leaves and twigs, used directly, or in spirits and ointments.

**History:** The native Aborigines learned to make the most of the variety of the vegetation around them. One tribe, the Bundjalung, lived along the south east coast of Australia, constantly wandering the hilly, forested land. For thousands of years they repeatedly returned to a certain valley they called “Bungawalbyn,” or “Healing Ground.” They gathered the leaves of the special trees that grew in the swamps of the Bungawalbyn, which they brewed into a tea used as a remedy for various ailments.

When Captain James Cook explored the east coast of Australia in 1770, he observed the natives brewing the leaves of these trees, and he coined the name “Tea Trees.” Impressed by the Aborigines enthusiasm for the tea, he gathered leaves for the use of his crew on the remainder of their voyages. In 1925, A.R. Penfold proved that 100% pure *Melaleuca alternifolia* oil was 11 to 13 times stronger than the traditionally used antiseptic of the time called carbolic acid (phenol). As opposed to phenol, Tea Tree Oil didn’t burn the skin. It therefore quickly became the preferred household antiseptic in Australia. The oil from *Melaleuca alternifolia* became popular as an antiseptic treatment during World War II. It was so important that those engaged in producing the oil were exempted from military service until sufficient reserves were stockpiled, to ensure that every Australian soldier’s first-aid kit contained a vial of oil of Melaleuca.

**Constituents:** volatile oil, terpinen-4-ol (40%), gamma-terpinene (24%), alpha-terpinene (10%), cineol (5%). One of the most important constituents is known to be terpinen-4-ol, which is significantly antiseptic and well tolerated by the skin. The oil also contains cineol, which can irritate the skin. The cineol content varies—poor-quality oil has more than 10%, in some cases up to 65%.

**Actions:** analgesic, antasthmatic, anthelmintic, antiacne, antibacterial, antifungal, antimicrobial, antiseptic, antitussive, antiviral, carminative, counterirritant (internal), diaphoretic, flavoring agent, fragrance, insect repellant, parasiticide, preservative, reduces scarring, stimulant, stimulating expectorant, urinary antiseptic

**Medicinal uses:** Tea tree is a traditional Aboriginal remedy. The leaves are crushed, and either inhaled or used in infusions for coughs, colds, and skin infections. Tea tree oil or cream can be applied to skin infections such as athlete’s foot and ringworm, as well as to corns, warts, acne and boils, infected burns, scrapes, wounds, insect bites and stings and other skin conditions. It very efficacious in the treatment of urinary tract disorders. It’s antifungal action works well on athlete’s foot, ringworm, warts, corns, abscesses. Use in cream or 5% vegetable oil, or applied undiluted. Also effective and soothing on cold sores. Applied diluted in vegetable oil at 5%. Use gargle for mouth ulcers, toothache, and bad gums.

Tea tree is also used for aphthous stomatitis, candidiasis (daily douche with 1 quart of water and 0.4% concentration of the oil); Other uses are for Acne, Bromhidrosis; Onychomycosis, in conjunction with debridement; Pharyngitis; Sinusitis; Tinea pedis (massaged into the feet daily); Trichomonas vaginalis

**Dosage:** ¼ to ½ teaspoon 3 times a day of the oil extract. Always take with plenty of juice or with water at mealtime, unless instructed otherwise.

**Penetrating:** Melaleuca Oil penetrates below the surface of the skin, allowing it to take its germicidal and soothing properties down into infected areas.

**Solvent:** It works as a natural cleanser and disinfectant; it dissolves and lifts away dirt and stains, making it useful in household cleaning products.

**Non caustic:** The oil has no harsh effects on skin, and is nonirritating to most skin types.
Fungicide: Many researchers report that the oil is effective as a natural fungicide.

Aromatic: The oil can be used in vaporizers.

Toxicity: none known

Aromatherapy Uses:
Its leaves are collected and water or steam distilled locally. Oil of *Melaleuca alternifolia* is a pale yellowish green or almost water white mobile liquid of a warm spicy, aromatic terpenic odor, reminiscent of nutmeg, cardamom and sweet marjoram, but with a strong emphasis on the terpinene and terpineol notes. The flavor is warm aromatic, somewhat burning, spicy and yet fresh, faintly camphoraceous, slightly bitter. The oil has served as an antiseptic for many decades, but only recently has it been proven scientifically, that the oil really possesses an outstanding germ killing effect and high penetration power. The oil is sold locally and abroad under trade names, such as Ti-Trol or Melasol.

Blends well with: lavandin, lavender, clary sage, rosemary, oakmoss, pine, cananga, geranium, marjoram and spice oils, especially clove and nutmeg.

Uses:

**Skin Care:** abscess, acne, athlete's foot, blisters, burns, cold sores, dandruff, herpes, insect bites, oily skin, rashes (diaper rash), spots, veruccae, warts, wounds (infected)

**Respiratory System:** asthma bronchitis, catarrh, coughs, sinusitis, tuberculosis, whooping cough

**Genito-urinary System:** thrush, vaginitis, cystitis, pruritis

**Immune System:** colds, fever, flu, infectious illnesses such as chicken pox.

**Tea tree oil:** The essential oil from various species of melaleuca, tea tree oil is active against most forms of fungus that cause skin infections, including candida. In one study, a cream containing 10 percent tea tree oil relieved symptoms of athlete's foot. Another double-blind, randomized clinical trial compared the effectiveness of tea tree oil to that of a popular prescription treatment for toenail fungus, clotrimazole. Each patient was assigned to use one of the treatments twice a day for six months. Halfway into the study, 55 percent of the clotrimazole and 56 percent of the tea tree oil users had improved toenail appearance. At the end of the study, 11 percent of the clotrimazole vs. 18 percent of the tea tree oil users had negative cultures for fungus, and 61 percent of the clotrimazole vs. 60 percent of the tea tree oil users had improved. The results showed that tea tree oil is a comparable, effective, safe and inexpensive treatment for toenail fungus. It can be applied full strength to the toenail but should be diluted for skin applications. Tea tree oil is toxic and should never be taken orally.

**References:**


**Resources:**
Companion Plants, [www.companionplants.com](http://www.companionplants.com)