

Lemon Grass—As a Insect Repellent and Aromatherapy

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International Journal of Plant Protection, Vol. 2 No. 1 : 144-146 (April to September, 2009)

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Lemon grass is native to India. It is also known as Citronella.

Citronella Grass *Cymbopogon nardus* and *Cymbopogon winterianus* is similar to the species above but grows to 2 m and has red base stems. These species are used for the production of citronella oil, which is used in soaps, as a mosquito repellent in insect sprays and candles, and also in aromatherapy, which is famous in Bintan, Indonesia. The principal chemical constituents of citronella, geraniol and citronellol, are antiseptics, hence their use in household disinfectants and soaps. Besides oil production, citronella grass is also used for culinary purposes, in tea and as a flavoring.

Binomial name *Cymbopogon nardus*:

Cymbopogon nardus is a perennial of the Poaceae grass family, originating in tropical Asia. It is commonly used as an essential oil known as "citronella oil". Citronella grass is native

to Cambodia, India, Sri Lanka, Burma, and Thailand while the West-Indian lemon grass (*Cymbopogon citratus*), also known as serai in Malay, is assumed to have its origins in Malaysia. Indonesian people used to call it *serai* too or *sereh*. While both can be used interchangeably, *C. citratus* is more suited for cooking. In India *C. citratus* is used both as a medical herb and in perfumes.

Citronella oil:

It is one of the essential oils obtained from the leaves and stems. Oil of Citronella has been used for over 50 years as an insect repellent and as an animal repellent. It is found in many familiar insect repellent products: candles, lotions, gels, sprays and towelette wipes. These products, which vary in efficacy, repel various insects, some of which are public health pests, such as mosquitoes, biting flies and fleas. Oil of Citronella is volatile, liquid oil derived from dried cultivated grasses. It works on insects without harming or killing them. It has a distinctive odor which may make it difficult for some pests to locate a host. The length of repellency time varies with the inert ingredients and the amount of citronella oil in the product.

Types:

Citronella oil is classified in trade into two chemotypes:

– Ceylon type (obtained from *Cymbopogon nardus* Rendle) consists of geraniol (18-20%), limonene (9-11%), methyl isoeugenol (7-11%), citronellol (6-8%), and citronellal (5-15%).

– Java type (obtained from *Cymbopogon winterianus* Jowitt) consists of citronellal (32-45%), geraniol (11-13%), geranyl acetate (3-8%), limonene (1-4%). The higher proportions of geraniol and citronellal in the Java type make it a better source for perfumery derivatives. The name *Cymbopogon winterianus* is given to this selected variety to



Key words :

Lemon grass,
Aromatherapy

Accepted :
February, 2009

commemorate Mr. Winter—an important oil distiller of Ceylon, who first cultivated and distilled the Maha Pangeri type of citronella in Ceylon.

Effect:

Citronella oil has a relaxant effect on smooth muscles and a moderate antimicrobial effect, but due to its potential irritant and sensitisation potential due to citral, it cannot be recommended for massaging into skin. Therefore, it is used as a fragrant by mixing with the massage oil in low concentration which also induces the above mentioned effects. Lemon grass oil has antifungal properties.

Appearance:

Pale dark yellow liquid has a warm, lemony, woody odour. It has a citrus flavor.

Extraction:

The essential oil is obtained by steam distillation of the dried grass.

Uses:

- Aromatherapy uses-treating fatigue, headache, migraine, neuralgia, rheumatism, arthritis pain, depression, stomach ache, colitis, intestinal parasites, excessive perspiration, insect repellent.
- Herbal uses- as an herbal remedy for colds, fatigue etc. The oil is useful in herbal compounds for cosmetic purposes such as shampoos etc.
- Food-Commonly used in teas, soups, and curries. It is also suitable for poultry, fish, and seafood. It is often used as a tea in African and Latino-American countries. Lemon organic essential oil is also frequently used as a flavouring in food and drinks and, when taken internally, lemon organic essential oil can help combat digestive issues and nausea.
- Perfumery-used in many perfumes. The Ceylon type oil is useful in fresh floral compounds for all purposes.
- Disinfectants-phenyls containing citronella oils are used for mopping the floor.
- Active in repelling mosquitoes.

Lemon grass for common colds and flu:

Lemon grass offers a highly effective cure for congestion, without any side effects. Boil water, add tea and lemon grass. Let it brew for a few minutes. Then strain



it, add some honey and drink it without milk. If possible, drink a few cups a day. Lemon grass is known to bring relief to those nagging body aches you have when you're down with flu.

Healthy skin and nails:

As lemon grass is loaded with Vitamin C, it works wonders for your skin and nails. You could blanch it in water and drink it many times a day or even soak your nails in it. This water could be used as a base for making a nourishing face pack with oatmeal. This will clear the dead skin cells of your face and leave it looking healthy and glowing.

Reduces cholesterol:

The thickening of the arteries with low-density lipoprotein (LDL), known as 'bad cholesterol', is harmful for the body. The antioxidants present in lemon grass help reduce this and even increase high-density lipoprotein (HDL) or 'good cholesterol'. Doctors recommend that you drink tea made with lemon grass and honey every day for best effects.

– As a medicinal plant, lemongrass has been considered a carminative and insect repellent. Lemongrass is used in herbal teas and other nonalcoholic beverages in baked goods, and in confections. Oil from lemongrass is widely used as a fragrance in perfumes and cosmetics, such as soaps and creams. Citral, extracted from the oil, is used in flavoring soft drinks in scented soaps and detergents, as a fragrance in perfumes and cosmetics, and as a mask for disagreeable odors in several industrial products. Citral is also used in the synthesis of ionones used in perfumes and cosmetics.

– Source of lemongrass oil used to flavor teas, ice cream, candy, pastries, desserts and chewing gum. Also used in cosmetics and perfumes. The oil is used in perfume, makeup, soap, hair products, cleaner, antifungal agents, incense, and potpourri. Lemongrass oil revitalizes the body and relieves the symptoms of jetlag, clears headaches and helps to combat nervous exhaustion and



stress-related conditions.

Citronella Electronic Dog Collar:

This type of collar has a canister that is filled with a citronella liquid. When your dog barks, a harmless spray is released. It startles your dog and forces him to stop barking.

Citronella candles:

These wonderfully scented candles are no longer only used to keep the flies away. Their elegant soft frosted look and tangy Bergamot



scent give any room an instant zap. Use them to keep your house smelling fresh or bring them outside on the patio during those warm summer outdoor evenings. While burning citronella candles the aroma they give off will aid to keep the flies away.

Citronella oil:

Lemon essential oil is one of the key oils used in aromatherapy. When used in air diffusion, lemon organic essential oil has a fresh, zesty scent with strong



disinfectant qualities that help to combat airborne bacteria. When used in massage lemon organic essential oil can help with circulation issues and can help treat

broken veins and capillaries.

Citronella incense sticks:

These sticks are also made to invoke or excite the mood and can be used for various spiritual works. They make the surroundings holy and are generally used during worship if gods and goddesses in temples and also in Mosques and Gurudwaras.



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