



Lemon grass

Cymbopogon citratus
Family: Gramineae



(Photograph: W.G. Alberts)

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Background

Essential oil crops are crops that have volatile, aromatic oils in certain parts of the plant. Essential oils are natural plant products which accumulate in specialised structures such as oil cells, glandular trichomes, and oil or resin vessels. The oil is extracted from the plant through steam distillation, chemical extraction or CO₂ extraction.

Cymbopogon citratus is a fast growing, lemon scented perennial aromatic grass. Lemon grass can reach a height of up to 1,5 m.

Origin and distribution

Lemon grass is native to southern India and Ceylon, Indonesia and Malaysia.

Lemon grass is widely cultivated in the tropics and subtropics, and it is mainly grown in the Lowveld areas of Mpumalanga, KwaZulu-Natal and Limpopo provinces. Limited plantings occur in Gauteng, North West, Eastern and Western Cape, wherever the growing conditions are suitable.

Climatic and soil requirements

Lemon grass grows well at a temperature range of 10 to 33° C. The favourable rainfall for dryland cultivation of lemon grass should range from 700 to 3 000 mm, uniformly distributed throughout the year. It performs well on sandy to clay loam soils with a pH range of 5,0 to 8,4 and of good drainage.

Uses

Lemon grass oil is used as a source of citral. The oil is also used for deodorants, waxes, polishes, detergents, and insecticides where its low cost is attractive.

Cultural practices

Planting

A row spacing of 20 cm with a row width of 40 cm that will give a total of 125 000 plants per ha in high rainfall areas or under irrigation is recommended. In areas with lower rainfall 60 000 plants per hectare is advisable.

Propagation

For better quality and higher yield of oil, it is recommended to grow lemon grass from slips obtained by dividing well-grown clumps.

Fertilisation

Application of fertiliser should be dependent on soil analysis. All lemon grass species have a very high potassium requirement in comparison to phosphate, in some areas exceeding the total nitrogen necessary to produce optimum oil yield.

Irrigation

Where annual rainfall exceeds 650 mm per annum, irrigation is not necessary after seedling establishment. Overhead, flood and drip irrigation can be used, and where rust is a problem overhead irrigation should be avoided.

Weed control

Hand weeding and hoeing are very important as weeds affect the yield and quality of oil. Inter-row cultivation can be done by a tractor-drawn cultivator.

Pest and disease control

Stem-boring caterpillar and nematodes could attack lemon grass. Long smut, red leaf spot, leaf blight and

rust are the major diseases that could attack lemon grass.

Effective control could be achieved by following the correct pest and disease control guidelines.

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(Photograph: W.G. Alberts)