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# Basil

*Ocimum basilicum*  
Family: Lamiaceae

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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 CO<sub>2</sub> extraction.

*Ocimum basilicum* is an erect herbaceous annual plant, sometimes grown as a short-lived perennial in some areas. It grows in a bushy shape to about 50 cm tall and some varieties may even grow taller.

## Origin and distribution

The genus *Ocimum* is widespread in Asia, Africa and Central and Southern America, and apparently has its centre of diversity in Africa.

Winter and summer production can be achieved in the Lowveld areas of the Mpumalanga and warmer areas of Limpopo provinces, the coastal areas of KwaZulu-Natal, and in the cooler, high-lying areas of Gauteng, Mpumalanga and Free State provinces.

## Climatic and soil requirements

The optimum temperature for germination is 20 °C with growing temperatures of 7 to 27 °C. The minimum annual rainfall for dryland cultivation is 700 mm. Basil requires well-drained soils with an optimum pH of 6,4.

## Uses

Basil oil is used to flavour foods, in dental and oral products, in fragrances, and as a fresh or dried market herb.

## Cultural practices

### Planting

Basil can be direct seeded or transplanted to the field from end of August to October, *i.e.* after all the danger of frost has passed. For direct seeding, seeds are spaced only 3 to 6 mm deep at a spacing of 5 cm apart.

### Propagation

Basil is mainly propagated from seeds.

### Fertilisation

Fertiliser applications depend on the soil type, previous crop and fertiliser applications for the previous crop. Most importantly the recommendations should be dependent on the soil analysis results. Basil responds well to soils of a moderate fertility.

### Irrigation

Basil has to be irrigated regularly throughout the growing season in order to maintain constant growth, if rainfall is not enough. Basil may be irrigated with sprinklers, however, drip irrigation is a better option.



### Weed control

Cultivation practices such as high plant populations, shallow cultivation, decreasing row spacing and mulching can be practised to keep weed populations low.

Mechanical cultivation and manual weeding are some of the weed control methods that can be used.

Preventative measures include: choosing a cultivar that has rapid seed germination and plant growth; using certified crop seeds that are weed free; using weed-free mulch and cleaning of equipment before use.

### Pest and disease control

Basil naturally attract chewing type pests such as beetles, slugs, leafminers, caterpillars and grasshoppers; and sucking type such as leaf hoppers, thrips and whitefly.

Fungal, bacterial and nematode diseases occur more frequently in basil. The normal disease and pest control guidelines should be followed for the control of these diseases and pests.

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