

may contain volatile compounds which are extracted together with the mint oil during the distillation process. Care should be taken during harvesting not to include weeds.

Pest and disease control

Pests on peppermint include cut-worms, loopers, mites, weevils, aphids, grasshoppers and soil nematodes. Most pests are troublesome on older mint fields, especially nematodes.

Peppermint is susceptible to several diseases of which rust, Verticillium wilt, leaf spot diseases and Anthracnose are important.

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Peppermint

Mentha piperita
Family: Lamiaceae



agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA



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.

Mentha piperita is a summer growing perennial with upright, often purplish, square stems growing to 1 m in height.

Origin and distribution

The origin of peppermint species cannot be determined. Dried leaves were found in the Egyptian pyramids dating back to 1 000 BC.

In South Africa, the best areas for cultivating peppermint are the escarpment of Mpumalanga, Gauteng, Eastern Free State, higher altitudes of KwaZulu-Natal, and areas in the Eastern and Western Cape.

Climatic and soil requirements

Peppermint is grown in cool to temperate regions. It can be planted in most parts of South Africa where the rainfall is more than 1 000 mm per annum.

Peppermint will grow well in most soil types, including heavy, moist soils if drainage is sufficient. The pH of the soil should be kept between 5,5 and 7,0.

Uses

The oil is mainly used as flavouring in toothpaste, ice cream, confectionery, soft drinks, tobacco, chewing gum, and other varieties of foods. Peppermint tea and tea blends are becoming more popular as a natural foodstuff, and the tea is used for relief of palpitations of the heart and nausea.

Cultural practices

Planting

Young shoots are planted 40 to 90 cm between rows and 15 to 45 cm within rows lightly covered with soil. This practice will give a total of 55 000 to 75 000 plants per ha and will cover the soil quickly.

Propagation

All commercial mint varieties are sterile hybrids and must therefore be propagated vegetatively. Propagation is usually done using the underground stolons (runners or rootstock) from a nursery site.

Fertilisation

The soil should have at least 120 kg phosphorus and 500 kg potassium available per hectare. If the soil sample indicates levels lower than what is recommended, fertiliser should be applied before planting.

Frequent nitrogen applications are required throughout the growing season to maintain soil fertility.

Irrigation

Peppermint requires frequent and adequate irrigation to supplement rainfall. When the plants are well established they can be watered at least three times a week. Peppermint can be grown under flood and sprinkler irrigation.

Weed control

Weed control programmes should be maintained strictly as weeds compete with peppermint for available nutrients, thereby reducing yields. Some weeds

