

# Leafy vegetables



## What are leafy vegetable crops?

Leafy vegetables are a highly variable group of crop plants that broadly can be defined as vegetables grown for their edible leaves. However, the distinction between leafy and non-leafy crops is not always clear. Leafy vegetables include, among others, spinach, turnip, parsley and lettuce.

## Major Production areas in South Africa

Leafy vegetables are produced across several different areas in South Africa. Spinach is mainly grown in KwaZulu-Natal but other provinces produce it as well. Lettuce production is concentrated in the Western Cape, KwaZulu-Natal, Mpumalanga, Gauteng, Eastern Cape, Limpopo and North West provinces.

## Climatic requirements

Leafy vegetables may be cool-season or warm-season crops and can be grown as annuals or as perennials. In addition, some leaf vegetables are adapted to the tropics, while others are adapted to the temperate climates. Leafy vegetables such as, lettuce and spinach are most tolerant of shade; in fact, in locations of hot and bright sun, they may need some shade for protection. These vegetables thrive in areas where the mean temperatures range between 15 and 18°C. They are intolerant to temperatures between 21 and 24°C, and tolerate weak frosts.

## Soil requirements

Loose, fertile, moist, sandy loam soils are best for growing leafy vegetables. Many of leafy vegetables have shallow root systems and cultivation should be done carefully. All leafy vegetables, except lettuce, grow best in soils with a pH of 6, 0 to 6, 8. Lettuce grows best at a pH of 6,5 to 7,0.

## Weed management

Effective weed control for leafy vegetables should include a combination of practices designed to suppress weeds during the entire year. Some of the management practices include crop rotation, cover cropping, cultivation flooding, and mulching. Leafy vegetables can also be mulched with 8 to 10 cm thick layer of herbicide-free grass clippings, or weed-free straw to retain soil moisture and suppress weeds. Care should be taken when the leafy crops are rotated behind crops for which more persistent herbicides are used.

## Potential problems and management

Aphids can be a problem in leafy vegetables and they can be controlled by hosing the leaves when watering and by natural enemies like ladybird beetles. Cabbage worms and flea beetles may also damage the plant leaves. To prevent such damage, cover the plants with floating row covers when moths and flea beetles are seen flying in the garden. To manage cabbage worm, registered insecticides can also be used but should not be sprayed only over the top of plants because most eggs and younger loopers feed on the underside of leaves, so the underside of the leaf should be sprayed as well.

Leafminers can also be a problem in producing leafy vegetables. Plants are often disfigured and damaged by larvae of several species of small flies that live as maggots between the upper and lower surfaces of the leaves. Their feeding causes large, white blotches and winding trails through the interior of the leaves. Eliminating weeds will aid in the management of leafminers during most years but sprays may be needed to prevent damage.

## Production Schedule

Activities	January	February	March	April	May	June	July	August	September	October	November	December
Soil sampling												
Soil preparation												
Planting												
Fertilisation												
Irrigation												
Pest control												
Disease control												
Weed control												
Leaf sampling												

## Acknowledgements

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