

## BACKGROUND

### Origin

Watermelon originated in tropical Africa where it has been used as a fruit, source of water, and for animal feed.

Watermelon is now one of the most important Cucurbit widely grown throughout the world and varieties that are frequently cultivated in South Africa are Charleston Grey, Sweet Princess, Crimson Sweet, and Congo.

### Climatic and soil requirements

The minimum soil temperature for good germination is approximately 18 °C, and the maximum is 30 to 35 °C. Optimal temperatures for growth during the day are 21 to 32 °C, and at night 18 to 21 °C. Watermelon flourishes on new, fertile sandy-loam soils with a high humus content. The soil must be well drained. Reasonably alkaline soil is preferable, with the pH range from 5,5 to 7,5.

### Uses

Watermelon is marketed as fresh fruit. It has been used as a source of water, and for animal feed.

## CULTURAL PRACTICES

### Planting

Seedlings can be transplanted or planted direct into beds by hand or mechanically. The ideal time of planting is from August to January/February. Plant spacing is 500 mm by 1,8 to 2,5 m. Seeding rate/ha is 3 to 4 kg, planting depth is 18 to 25 mm.

### Fertilisation

The only way to accurately manage soil fertility and pH is to have the soil tested by means of a soil analysis.

Chemical and organic fertilisers are recommended for watermelon production, for example nutrients such as N, K, Ca and P, should be applied as indicated by the soil test recommendation. Nutrients can be applied before planting (preplant application), and side-dressing. Additional quantities of nutrients are beneficial when the vines are 15 to 30 mm long.

### Irrigation

To encourage deep rooting, the soil should be wet to depth of 450 mm. Adequate watering from flowering onwards is most important. The irrigation method used depends on farming practice. Drip irrigation is recommended when using plastic mulch. It assists in conserving water, provides water to the root zone without wetting the foliage. Overhead irrigation can also be used in watermelon production.



### Weed control

Mechanical weed control is practised only in the early stages of growth. Hand weeding and hoeing are used most frequently. The use of registered herbicides is also recommended.

### Pest and diseases control

There are varieties of insect pests that attack watermelons. These include cut worms, aphids, thrips, beetles and nematodes. Frequent diseases that attack watermelon are powdery mildew in warm, dry weather; downy mildew under moist conditions, and various virus diseases such as stem blight, and mosaic are major problems. An integrated pest management programme can be followed so as to reduce disease incidence. Registered chemicals can also be used to control these diseases and pests.

### CONTACT DETAILS

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