

BACKGROUND

Origin

The centre of origin for sweet corn is the southwest hemisphere, Mexico, and Peru. In the time since its introduction hundreds of cultivars have been developed, and cultivars such as Paradise, Challenger, Golden Sweet, Prolific, Samurai, Shimmer, Star 7702 and Star 7708 are frequently grown in South Africa.

Climatic and soil requirement

Sweet corn requires a warm to hot, frost-free growing season. The required soil temperature for rapid emergence is from 20 to 35 °C. The optimum mean monthly temperature for best growth and kernel quality is between 15 and 25 °C. Growth is inhibited below 10 °C and above 35 °C. Well-drained, loamy soil is most suitable for sweet corn.

Uses

Sweet corn is marketed as fresh, canned and dried vegetable.

CULTURAL PRACTICES

Planting

The seedbed should be well-prepared and sufficiently moist, with warm conditions, for rapid emergence. In cold areas planting can be done from September/October to December, in warm areas August/September to January/February, in hot areas from January to March, July to

September. Rows are generally drawn 700 to 800 mm apart with plants in the row spaced at 250 to 350 mm.

Fertilisation

As with all other vegetable crops, fertiliser application should be based on the result of a soil analysis. On soil previously well fertilised 400 to 500 kg of 2:3:2 (22) Zn at planting, plus 500 to 600 kg LAN as side-dressings during growth, should prove adequate. On poor soils, 1 000 kg 2:3:2 (22) Zn, plus 400 to 500 kg LAN may be needed.

Weed control

Weeds are controlled easily in sweet corn crops by a range of options available, viz. using registered herbicides such as acetochlor, and cultivation, for example crop rotation, thorough ground preparation, and row hoeing.

Irrigation

Most sweet corns are grown under irrigation. Although corn requires 500 to 600 mm of moisture as supplementation full irrigation is recommended for successful



production. Soil moisture should be maintained throughout the growth period. Irrigation water is usually applied by means of furrows or overhead sprinklers.

Pest and disease control

Frequent pests can include cutworms, stalk borers, and American bollworm, which are responsible for the most damage to sweet corn plants. Other pests are beetles, false wireworms, leafhoppers, nematodes, and red spider mites may become troublesome at times. Diseases such as rust, leaf blight, grey leaf spot, and streak cause losses in sweet corn. An integrated pest management strategy can be used to manage pests and reduce disease incidence by incorporating cultural practices such as crop rotation, minimal use of registered chemicals and reduced insecticide resistance.

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