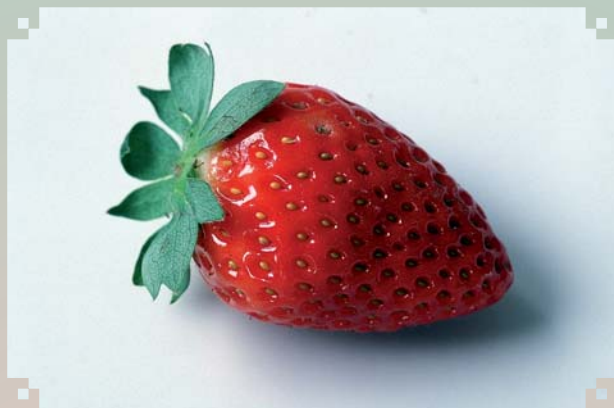


Strawberries



Further information can be obtained from:

Directorate Plant Production
Private Bag X250
PRETORIA 0001

Tel: +27 12 319 6072
Fax: +27 12 319 6353

2008

Printed and published by:
Department of Agriculture

Obtainable from:

Resource Centre
Directorate Agricultural Information Services
Private Bag X144
PRETORIA
0001



agriculture

Department:
Agriculture
REPUBLIC OF SOUTH AFRICA

Background

Origin

Strawberries were cultivated by the Romans as early as 234 BC and in mediaeval times strawberries were regarded as an aphrodisiac. Native American Indians were already eating strawberries when the Colonists arrived and it is believed that in 1780, the first strawberry hybrid was developed in the USA. In South Africa strawberries were introduced in 1656.

Climatic and soil requirements

Berries prefer to grow in areas where the winters are very cold followed by mild summers. They need full sun for the highest yields at least 6 (six) hours a day. The soil requirement differs according to variety. Avoid soils with a high clay content. Strawberries grow well in soils that are well drained and high in organic matter.

Uses

It can be used to make soups, sauces, desserts, drinks and soured cream.

Cultural practices

Planting

It is important to plant strawberries at the correct time of the year as the crop is sensitive to changes in daylight length. Strawberry plants should be planted at the correct depth (not too deep or too shallow). The crown of the plant must be above the soil surface. Strawberries are normally planted in staggered double rows with an in-row and diagonal spacing of 20 cm x 20 cm. However, this spacing can differ. Plants should be spaced wider (30 x 30 cm) when planted early but closer (10 cm x 10 cm) when planted late. Plants should not be spaced too densely as this will create favourable conditions for pests and diseases.

Fertilisation

Soil sampling levels are important and differ according to variety. No lime or phosphorus should be applied after planting as it has already been applied during soil preparation. However, regular applications of nitrogen (N) and potassium (K) throughout the season are essential. Potassium is vital for the formation of flowers and to ensure quality fruit. Sufficient quantities of potassium will also ensure a good yield and quality fruit. Potassium should be applied monthly, starting from the date on which the first flowers appear. Strawberries also need a constant supply of nitrogen, especially after planting. Any source of nitrogen can be used.

Irrigation

Irrigation is necessary to produce quality fruit. Certain factors should be considered in deciding on the time and frequency of irrigation. Such factors include soil type, water quality, weather conditions, season, type of fruit, the type of irrigation system used as well as mulching. Strawberries require 15 mm to 25 mm of irrigation per week and this will depend on the time of year and the stage of production. Sandy soils have low water-holding capacities. It is therefore es-

sential to apply small volumes of water at relatively short intervals, i.e. 2 to 3 days between irrigations. Loamy and clayey soils, on the other hand, have higher water-holding capacities. Larger volumes of water should therefore be applied with longer intervals between irrigations such as once every 4 to 5 days between irrigations.

Weed control

Grass and weeds absorb considerable quantities of nitrogen and water to the detriment of trees. Weeds can be controlled either mechanically or chemically. However, hand hoeing is labour intensive and time consuming. Hoeing can also damage the roots or fruit of the strawberry plants. Caution should be taken when herbicides are used for weed control. The herbicide must not come into contact with the strawberry plants. User instructions, as supplied by the manufacturer of the herbicide, should be adhered to.

Pest and disease control

Regular monitoring of pests is of the utmost importance. This will ensure timely intervention in order to control the pests before the infestations reach critical levels. There are several insecticides which are registered for strawberries in order to control specific pests. It is important to adhere to the user instructions as supplied by the manufacturers. Red spider mite, leaf spot and botrytis could be problems on strawberries. Spray with Ludwig's Insect Spray to deal with adult mites followed a week later by 5 ml Ludwig's Rose Spider Mite Spray, which kills the eggs and immature mites. The key to good control of leaf spot is good sanitation. Botrytis is a grey mould which is most probably the biggest enemy of strawberries and can be controlled by fungicides.

