

on both sides of the tree should be kept clear of weeds. Plastic sheets can be laid around the tree and be used to control evaporation as well as the growth of weeds. Mechanical control and registered herbicides such as Roundup or Gramoxone can be used.

Pest and disease control

The most common pests encountered are banded fruit weevil, scale (red and pernicious), thrips, American bollworm, fruitflies and the codling moth. All the other abovementioned pests occur sporadically but do cause damage on plums. These pests can be controlled either biologically, culturally, physically or chemically. Birds are predators of these pests, however, chickens and guineafowl can be used to reduce the weevil numbers. Weevil numbers can also be reduced by removing the weeds from the planting rows. Sticky bands can be placed around the trunks of the trees. This will prevent the adult weevils from reaching the canopy.



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Plums



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Background

Origin

The origin of plums can be traced along two lines, viz. the common European plum and the Japanese plum. The common European plum (*Prunus domestica*) most probably originated in Western Asia more than 2 000 years ago in the regions around the Black and the Caspian Sea. The Japanese plum originated in what today is known as the People's Republic of China in the 4th century BC. Plums were introduced into South Africa in 1656.

Climatic and soil requirements

Plum trees require sufficiently low temperatures during the winter (winter chilling) to enter into a rest period (or winter dormancy). The minimum air temperatures during this period should be between 2,5 and 12,5 °C for a period of approximately 850 to 1 000 hours. Plum trees can grow in a variety of soil types. However, deep, well-drained soils, ranging from sandy loam to sandy clay loam, with an effective depth of at least 600 mm are preferred. Plums are more tolerant to heavy or waterlogged soils than most other stone fruit types. The soils should have a pH of between 5,5 and 6,5.

Uses

Most plums are freshly consumed and others are processed and used as a canned fruit or dried fruit.

Cultural practices

Planting

There are certain aspects which should be taken into account before the trees are established, e.g.

slope, plant spacing/plant density, orchard design, planting date and planting depth. Plant density depends on the properties of the selected rootstock and the training system which will be used. Plum trees are normally planted 1,5 to 2,0 m apart within the planting row and at a spacing of 4 to 5 m between the planting rows. A wider plant spacing should be used when the soil is ridged (2,0 x 4,5 m).

Fertilisation

There are certain factors that could influence the fertilisation programme of plums, such as soil type, soil and plant reserves, the age, size, vigour and yield of the trees as well as the fertilisation programme used in the past. Nutrients such as nitrogen and potassium tend to leach easily from sandy soils. The correct quantities and application rates of fertilisers should therefore be applied annually according to soil and leaf analyses.

Newly planted trees must be fertilised in the first year after new leaf formation in spring. Place the fertiliser at and slightly beyond the canopy edge of the tree but never against the tree. Repeat in the second year.

Irrigation

Certain important factors should be taken into consideration in deciding on the volume and frequency of irrigation of plum trees. Such factors include soil type, water quality, climate, season, type of fruit,



the age and size of trees, growth phase of the trees, the type of irrigation system used as well as mulching with organic material such as straw. Sandy soils have low water-holding capacities. It is therefore essential to apply small volumes of water at relatively short intervals. Clayey soils have higher water-holding capacities. Larger volumes of water should therefore be applied with longer intervals between irrigations. The climate also determines the frequency and intensity of irrigation.

Weed control

Weeds should be controlled during the first growing season. Weeds within the work row must be kept short, however, a strip of not more than 1,0 m