

Watering:

Water is essential for producing large fruit and maintaining health trees. Trees usually need water at least every three weeks. In the heat of summer provide a deep, soaking irrigation at least once a week to maintain healthy trees. However, over-watering can damage or drown the trees.

Weed control:

Eliminating weed infestation around young trees is critical for survival and rapid growth. Heavy weed or grass infestation can result in severe nitrogen deficiency (yellow foliage with red spots) the trees will then produce little or no growth and often may die. Ideally, the soil surface should be kept weed-free in an area at least as wide as the limb spread of the tree. The safest method is with a hoe. Chemicals are available, but are hazardous if used carelessly. Do not attempt chemical weed control unless all aspects of safety and sprayer calibration is well understood.

Fruit thinning:

Fruit trees growth under favourable conditions set more fruit than can be properly developed. Removing excess fruit is necessary to ensure satisfactory development of the remaining fruit, prevent limb breakage and shortened tree life from over-cropping. Remove the fruit by hand, approximately 4 weeks after blooms appear. On a branch, space fruit by hand, approximately 20cm apart.

Pest and disease control:

The best quality fruit is produced when pests and disease are controlled. Taking action to prevent pests and disease is more effective than controlling them once they have taken hold. Grow strong, healthy plants that will have the ability to resist attack. It is also advisable to rely as much as possible on physical methods of pest and disease control so as to cut down the need for chemicals. Only use pesticides when all other effort to protect the fruit and tress has failed. Hygiene is essential, remove all diseased material when spotted and burn or compost it, especially the diseased fruits.

Pruning fruit trees

One needs to prune fruit trees annually, as from the first years of a trees' life. Pruning is practiced for the following reasons:

- To allow light penetration. Light penetration is essential for flower bud development and optimal fruit set. When the fruit ripens, it utilizes light fully, so it is important to remove excessive shoots.
- To remove dead, diseased or damaged branches, thereby preventing the spread of disease.

- To shape-up the tree. By removing excessive growth the shape of the tree will be maintained.
- To control size and vigour of the tree. Trees that are not pruned usually have upright branches, resulting in serious limb breakage under a heavy fruit load.

When to prune:

Pruning can be done during transplanting of trees (initial pruning and training), in winter and summer.

Initial pruning and training:

If young trees are branched when they come from the nursery or garden centre, remove nearly all the branches, leaving only the trunk a few feet high, immediately after transplanting. This will allow the gardener to train the tree to grow in a desired way.

Winter pruning:

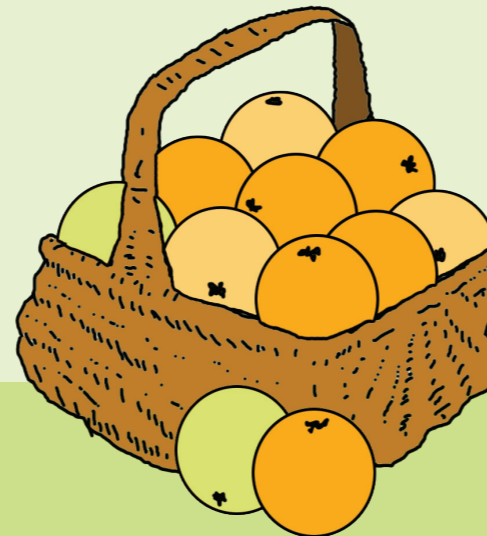
Pruning should mostly be done during winter, or dormant season. This is when the leaves have fallen and the structure is more easily identifiable. However, trees should not be pruned until all danger of frost has passed. Pruning in winter maintains the shape of the tree and adjusts the balance between the root system and the aerial part of the tree.

Summer pruning:

Summer pruning is advisable, especially for removing water-sprouts, and root-suckers. Summer pruning can also be practiced during the first three years of training the tree to produce the desired shape. Undesired growth should be removed in early summer or after harvesting. If the trees are heavily pruned, reduce the amount of fertilizer applied in relation to the severity of pruning. Heavily pruned trees may not need fertilizer for a year or two.

Information supplied by Gauteng Department of Agriculture
Conservation and Environment

Layout and design: Communication Services
Department of Water Affairs and Forestry



Trees for food



water & forestry
Department:
Water Affairs and Forestry
REPUBLIC OF SOUTH AFRICA



TOTAL

Plant for the Planet: Billion Tree Campaign

The United Nations Environment Programme has launched a major worldwide tree planting campaign. Under the Plant for the Planet: Billion Tree Campaign, people, communities, businesses and industry, civil society organizations and governments are encouraged to plant at least one billion trees worldwide during 2007.

The Trees for Food Programme

In South Africa the Minister of Water Affairs has initiated the Trees for Food Programme that will see one million trees being planted annually starting with the current financial year. The programme will be launched during Arbor Week, and it will be a partnership across the three spheres of government, the corporate world, Non-Government Organisations and Community Based Organisations. The Programme will focus more on the planting of fruit trees .

This is an innovative public greening initiative that will contribute to food security and the well-being of communities in urban and rural areas

Fruit trees need good care in terms of planting and maintenance. Below are some tips on how to handle plant and care for fruit trees:



Preparing to plant fruit trees

The tree comes in one of three different forms: bare-rooted (deciduous plants only), balled and bur-lapped (B&B), container-grown, or containerized. Plant bare-rooted trees in the late autumn, winter, or early spring when they are dormant. However, container plants or balled- and bur-lapped plants may be planted any time, only not when the ground is frozen, or in very hot weather.

If possible, plant the tree as soon as it arrives at home; otherwise it may dry out and be harmed. If the plant cannot be planted immediately, place it in a shady or sheltered spot. Cover the roots of bare-rooted plants with moist soil, sand, or peat moss. Keep the soil of balled- and bur-lapped or container plants moist until ready for planting.

Planting:

Since wet soils can reduce plant growth and survival, one should plant in well-drained soil. To plant the tree, dig a hole at least three to five times as wide as the diameter of the plant's root-spread or root-ball. Do not dig too deep; once the plant is placed in the hole, the top of the roots or root-ball should be level or slightly above level with the surface of the ground. Remove all tags, wires, or ropes from the stems or trunk. These can strangle and kill the plant as it grows.

For container-growth plants, ease the pot off without disturbing the root-ball and save it for recycling. Cut any circling roots, and then place the root-ball in the hole. For balled- and bur-lapped trees, place the plant in the hole before removing the burlap covering. Then, to ensure root growth and access to nutrients and water, pull the burlap down off the root-ball and leave it in the bottom of the hole.

Do not attempt to pull the burlap from under the plant – this could damage the root-ball. If a balled- and bur-lapped root-ball is enclosed in a wire basket, and there is no other covering, the basket can be left in place. Cut the wires off below the soil surface so that they do not interfere with raking or cultivation.

Before planting bare-rooted trees, remove damaged or diseased roots with a clean pair of sharp pruning shears. Untangle and spread the roots into a natural position. Then place the plant in the hole. Do not prune branches from a bare-rooted tree, as this may reduce the growth of new roots.

When replacing the soil in the hole, do not add organic matter. Instead, if the original soil or backfill contains too much rock or construction debris, replace it with local topsoil. When the hole is about three-fourths refilled, straighten and

level the tree, tamp the soil down carefully, and water heavily. Then, fill the hole with backfill to its original level. Use excess soil to build a ring 6 to 10 cm from the outside edge of the hole. Water heavily again to fill air pockets in the soil.

Watering:

Watering during dry periods of the first growing season is crucial, especially with container-grown plants. Container and balled- and bur-lapped tree roots dry out faster than the soil around them, so it is particularly important to monitor their soil moisture. In the nursery, the roots of container and balled- and bur-lapped trees become concentrated in a small root-ball which is watered daily. After planting, the roots of these trees will eventually spread into surrounding soil. However, until then, the trees continue to draw water mostly from their root ball. Consequently, if the soil near the trunk is dry, the trees need water.

Irrigate the trees heavily once a week during periods, use a garden hose to slowly soak the soil. Always check the soil moisture before watering to avoid over-watering as this can kill the plant.

Mulching:

Place mulch (pine needles, straw, bark-chips, or slightly decomposed and shredded leaves) 2 or 3 cm deep around the plant. Mulch will prevent water loss and keep lawn mowers and string trimmers from getting too close to the plant.

Spacing:

Anticipate the mature size of trees. For instance, never plant a tree where its height will interfere with future power lines. Avoid placing trees too close to buildings, driveways, and sidewalks, otherwise the roots of the fully grown plants may damage these structures, and the limbs and foliage may block windows and doors or interfere with foot traffic.

Fertilizing:

Applying the correct fertilizer when planting helps ensure healthy trees. Incorporate a slow-release fertilizer, preferably composed of 25 to 50 percent water-insoluble nitrogen (WIN), into the soil backfill at planting time. If the plant's growth is slow or the leaves appear paler than normal, have the soil tested

Maintaining fruit trees

Fruit growing can be deliciously rewarding, but success depends on choosing a good site, as well as planting fruit varieties that are suitable for a specific location. This must be followed with proper maintenance of the trees which includes pruning, training, watering, weeding, fertilization, fruit thinning and pest disease control.