

Managing tamarillos

Once the tamarillo crop is established it is important to manage it well to get best yields and quality fruit. Important aspects of management include managing the nutritional needs of your crop, monitoring and preventing pests and diseases in the crop and pruning carefully.

Tamarillo nutrition

The light, well drained soils that tamarillos grow best on often have problems with nutrient leaching and may not be very naturally fertile. It is recommended that you test the soil at your chosen site for nutrients and that any lacking nutrients are applied before you plant your crop.

Tamarillos have a high requirement for nitrogen, potassium and magnesium in particular. It may also be necessary to apply phosphorus as some East Coast soils are very low in available phosphate. Optimum pH for growth is about 6.

Some nutrient deficiencies have obvious visual symptoms on the plant, but it is a good idea to have a soil test done so you can fix deficiencies early.

Tamarillos are also known to respond well to high levels of organic matter from sources such as animal or poultry manure.



Nitrogen deficiency causes rounding of the mature leaves and yellowing of the leaf margins

<http://www.hortnet.co.nz/publications/hortfacts/hf709004.htm>

Once soil nutrients are at a reasonable level it is recommended that you apply potassium and phosphate annually (usually in spring) and nitrogen several times throughout the growing season. Sources of organic

nitrogen include some organic fertilisers, composts or by using a legume crop such as clover or vetch in the space between rows. It is best to get advice about adding nutrients to your soil.

Pests and diseases

A number of pests attack tamarillos, the most important two being aphids and whitefly. Aphids don't do much damage to the plant by sucking sap but are known to be carriers of viruses that can be much more damaging. Similarly whitefly doesn't do much harm by sucking sap, but secretes honey dew over the leaves and fruit. This can lead to the appearance of sooty mould, which leaves fruit unsaleable.



Whitefly

<http://www.zonda.net.nz/Images/whitefly.jpg>

Looper caterpillars and grass grub beetle are less serious pests. They eat large amounts of the leaves of the plant, but this is quickly replaced by new leaves without causing serious harm.

Bacterial and fungal diseases include powdery mildew and leaf spot, which damage the leaves, and bacterial blast which affects the shoots and leaves.

There are four known viruses that affect tamarillos: the cucumber mosaic, tamarillo mosaic, arabis mosaic and potato acuba mosaic virus. All will cause loss of yield and "mottling" on the fruit (this does not affect eating quality). Symptoms are most severe on young or unhealthy plants, and will be worst if several viruses have infected the plant at once.

Good orchard hygiene, pruning and burning infected plants and a good pest management program will help to reduce pests and diseases in your crop. An appropriate spray program can also help. However once a plant is infected with a viruses there is no treatment - prevention is the only solution.

It is important to have good control over aphids as they are the main carriers of viruses. Weed control is also important as some weeds such as chickweed and deadly nightshade can harbour viruses that infect tamarillos. Weeds also compete for light, water and nutrients especially when tamarillos are young.

Pruning

Fruit is produced on the current season's growth. Pruning helps to balance total yield and fruit size - the best yields are from unpruned plants but the fruit will be fairly small.

Fruit is produced further and further out on the branch each season. This leaves old growth in the middle without fruit. Old growth is weak so unpruned branches may break, reducing overall yield.

When pruning, you should remove old, dead and diseased wood. To promote new growth you should also cut back the lateral growth to a basic framework of branches.

The extent of pruning is more important than the timing to control yield and fruit size. However, pruning is usually done after harvesting in spring from late August to early December. Later

pruning results in later maturing fruit which may be smaller, but may benefit from the higher prices paid for late season fruit.



Tamarillos pruned back to a framework of branches.

<http://www.tamarillo.com/Tamarillo>

Irrigating

Tamarillos are intolerant of drought conditions, which cause slowed growth and delayed flowering. They require irrigating during the summer months to prevent this.

Water should reach right through the root zone. How regularly you need to irrigate will depend on how well your soil holds moisture, and the time of year. It is a good idea to get advice about the most suitable irrigation for your situation.

'Te Pānui Tips' are simple fact sheets that cover topics designing organic crop production systems on the East Coast.

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