Te Pànui
www.panui.org.nz

Managing feijoas

The most important things to consider with feijoas are how to manage nutrition, pests and diseases, pruning and irrigating the crop. With an organic management system, you need to think particularly about how to add nutrients and control pests using organic methods. Fortunately, because it has only a few pests in New Zealand the feijoa is well suited to organic management systems.

Feijoa nutrition

Feijoas will grow in most soils, but produce the best fruit on a heavy (but not waterlogged) soil with a pH of 6-6.5.

Little is known about the exact nutrient requirements for feijoas. An excessive amount of nitrogen can encourage the trees to grow vegetatively, producing more leaves and shoots rather than flowers and fruit. Therefore if nitrogen is low it may be best to apply it between August and December, before flowering begins.

A soil test before planting allows you to identify any lacking nutrients and add them if necessary – suggested levels (in MAF quick test units) are P, 30; K, 8; Mg, 16; Ca, 8. Because phosphate levels are often particularly low on the East Coast, RPR may be necessary.

Once established, nutrient levels can be monitored by soil tests or critical leaf concentrations (measured by sending a sample of leaves to a lab for analysis).

Because they do not produce fruit until the third year feijoas only need a small amount of fertiliser placed around individual trees in the first three years. However in the fourth and subsequent years the trees bear more fruit and so require higher levels of fertiliser. It has also been suggested that animal manure applied in autumn can increase yield.

It is best to apply fertiliser around the trees rather than on the leaves as this has been shown to affect how long the fruit will keep after harvest.

Pests and diseases

The feijoa is known as a reasonably pest and disease free plant, and what pests it does have can be controlled with organic insecticides and good orchard management.

The main pests of feijoas are leafroller, mealybug, hard wax scale and greedy scale. These pests do not cause significant damage but in large numbers may reduce yields by damaging leaves and growing shoots.

An adult female mealybug

http://www.hortnet.co.nz/key/keys/info/lifecycl/mbcadf.htm

The guava moth is also becoming a problem in northern parts of New Zealand, although it may not yet have spread to the East Coast. Guava moths lay their eggs in cracks on the fruit and the larvae feed on the pulp, causing premature fruit drop and rotting of the pulp. This causes low yields due to damaged and unsaleable fruit.

Adult guava moth

http://www.treecrops.org.nz/news/news02q2/foldedsm.jpg

Little is known about the guava moth or how to control it. Because it spends the larval stage inside the fruit, insecticides are not very effective. However, it spends the cocoon stage of its life cycle on the ground below the tree (after it causes fruit drop in the larval stage). It is suggested that one way to break the lifecycle and control the moth is to regularly clean leaf litter and fallen fruit from under the trees.

Pruning

Feijoas produce fruit on the outside of the plant on new growth. Pruning lightly after all fruit has been harvested can encourage further growth and increase yields.

Feijoas produce fruit on new growth

Pruning over winter aims to thin out branches, including low hanging or weak branches (which only produce small fruit). This keeps the tree 'open' so that birds and insects can get in more easily to pollinate, and also makes harvesting easier in the next season.

Irrigation

Although feijoas are fairly drought tolerant they achieve best yields when irrigated, particularly in dry seasons. The most important times to irrigate are just before flowering and during fruit set.

The best method for irrigating will depend on your situation – where you get water from, how dry the season has been and how many trees you need to water are three important factors. It may help to get advice about the best way for you to irrigate.

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

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