# **Growing Information**

#### Introduction

Indigenous to Brazil and Uruguay, the Feijoa is an exotic fruit of subtropical origins that can be readily grown in many parts of New Zealand.

#### **Growing Regions**

The main growing regions for commercial Feijoa production are the Bay of Plenty, Northland and Auckland. Smaller areas of commercial Feijoas are grown in a wide range of districts throughout New Zealand, including Hawkes Bay, Taranaki, Nelson, Marlborough and the West Coast.

#### Climate

Feijoas grow well in the subtropical to warm-temperate regions of New Zealand. The tree itself can tolerate frosts down to -10°C degrees but the fruit may be damaged by frosts at fruit level of -2.5°C and lower. They will tolerate moderate exposure to sea winds. Feijoa fruit matures from late summer in the warmer areas of the country but in colder regions fruit starts ripening from late autumn depending on variety. In such regions early maturing varieties such as Kakariki, Kaiteri, Anatoki, Unique or Pounamu are recommended for commercially plantings.

#### Soils

Feijoas will grow on a wide range of soil types. For quality fruit production the soil must be free draining, slightly acid (pH 6.0 - 6.5) and reasonably fertile. Many New Zéaland soils meét these needs. Water logged conditions are not desirable. On dry sites irrigation will be beneficial just before flowering to improve fruit set and also in March and April to allow fruit to reach their potential.

#### **Shelter**

Strong winds can affect Feijoa fruit production. Orchard shelter should always be regarded as a necessity for commercial plantings and ideally should be established before the crop is planted.

Shelter from prevailing wind benefits helps Feijoa production in the following ways:

- Helps protect the fruit from both leaf and limb rub.
- Protection against limb breakages.
- Reducing water loss from soil and leaves.
- Creating a more favourable microclimate for fruit ripening- well-sheltered blocks can be 2°C warmer than exposed ones. This can be particularly important in cooler, marginal areas.

#### **Pollination**

The majority of Feijoa varieties require cross pollination hence the planting of more than one variety is necessary to ensure good fruit set. Pollination is generally undertaken by birds, which are attracted to the brightly coloured flowers. Blackbirds in the South Island and a combination of blackbirds and mynas in the North Island are the main pollinators. It is generally necessary to have more than one variety to ensure cross-pollination, with alternating rows per variety the most practical arrangement. Only Unique is sufficiently self-fertile to be planted as a single block cultivar.

#### **Planting Time**

The best time to plant is dependent on many factors mainly associated with local climatic conditions. Availability of irrigation may also be a factor. For most areas of New Zealand either spring or autumn planting is recommended and the following

- For areas subject to cold winters plant in spring, so the trees are established well before being subjected to cold conditions. For areas with mild winter conditions and/or subject to dry summers, plant in autumn, so the trees are established well before being subjected to hot, dry conditions.

Home gardeners usually wait for the fruit to drop from the trees. Commercially, fruit needs to be in good condition for longer periods and therefore needs hand harvesting or netting off the trees. This can be done with a little experience in judging when fruit is ready by fruit size after some initial fruit has begun to fall. Hold fruit and give a gentle wiggle to tell if ready. The main harvest is April – May in cooler areas and from February - April in the North.

### **Plant Availability**

Stock of all varieties are normally available throughout each year. For availability and prices please contact our office.

Please note that although we endeavour to provide the most accurate information, varietal performance will vary in different locations. All information provided herein is given as a guide only. Liability is disclaimed to any person in respect of anything done or not done in reliance on this information.

### **Useful Contacts**

New Zealand Feijoa Growers Association www.feijoa.org.nz New Zealand Tree Crops Association

www.treecrops.org.nz



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# Feijoa Varieties for Fruit Growers



# **About Waimea Nurseries**

The Simpson name has been synonymous in the nursery and fruit industries in New Zealand since the early 1900's, but it was in 1971 that Doug Simpson and his wife Georgina founded Waimea Nurseries Ltd. Their son Michael joined the company in 1977 and is now Executive Chairman. Waimea Nurseries is now New Zealand's leading fruit tree nursery for professional growers with current annual production of 1 000 000 rootstocks and 750 000 trees. The company activities covers approximately 120 ha on the Waimea Plains, with over 100 staff, including 40 permanent employees.



One of the key areas of focus is on variety development through the subsidiary Waimea Variety Management. Our inclusion in the International New-Variety Network (INN), and associations with many other breeders and agencies throughout the world has allowed the development of many fruit varieties in New Zealand, as well as the development of New Zealand varieties globally.

### **Commitment to Growers**

Waimea Nurseries is committed to the development and long-term future of New Zealand's feijoa industry and seeks to respond to market conditions accordingly.





# **Selection of Varieties to Plant**

Considerations such as early frosts, climate, short or long growing season, availability of irrigation, soil type and final end usage will all have a bearing on what varieties you plant. Having considered all the options it is generally recommended that you plant three or four different cultivars. This covers the pollination issue and spreads the time for harvest and market options.

### **Site Location/Region**

This is important due to climate issues affecting pollination and fruit maturity. The earlier maturity varieties are recommended for colder areas, as if it starts getting too cold in early autumn the fruit will not mature properly.

#### **Pollination**

Selecting varieties which successfully cross pollinate each other is vital. Flowering times vary from region to region so local information is useful.

#### **Fruit Market**

The end use of the fruit is an important factor as certain varieties have characteristics which make them more suited to some uses rather than others. It is also a good idea to spread the harvesting season for lengthened supply periods. As well as the local market for fresh fruit, growers may choose to grow for processing. Feijoas are being increasingly used for food products like wine, juice, vodka and cereal. Some feijoa growers grow at least part of their crop for export markets. Although there are higher returns to be made, fruit handling, storage and quarantine/border issues (especially in USA) can be challenging.

### **New Varieties**

# **Exclusively Grown by Waimea Nurseries**

Waimea Nurseries is very pleased to be the exclusive suppliers of three new Feijoa varieties bred by Roy Hart. Roy should need no introduction but for newcomers to the Feijoa industry, he has been involved with the breeding of Feijoas since the days of the Riwaka Research Station. Two of his early selections - Kakapo and Pounamu - continue to grow in popularity in both the commercial and home garden markets. After HortResearch discontinued Feijoa breeding, Roy continued breeding Feijoas and introduced a selected Brazilian strain into his crosses. The following selections all have Apollo in their parentage and were chosen on the following criteria: Exceptional taste with high brix levels, good fruit size, and prolific crops. Subsequent testing has found that the varieties are very early season ripening, with excellent storage qualities in initial testing. Therefore there are some exciting possibilities for early market supply and exporting.

















\*\* Provisional NZ Plant Variety Rights (PVR) protection.

# **Varieties Grown by Waimea**

In order of fruit maturity from early to late season:

#### Kakariki\*\*

Exceptionally sweet and large very early fruit. Appears to mature 4 weeks before Unique.

#### Kaiteri\*\*

Prolific early cropper with large smooth fruit on a vigorous tree. Appears to mature 2-3 weeks before Unique.

#### Anatoki\*\*

Good sized, smooth fruit with sweet, mild flavour. Compact habit. Appears to mature 2-3 weeks before

#### Unique

The only reliably self-fertile selection to date. Light green, medium to large fruit with rough skin. Flesh is smooth, soft, juicy and mildly aromatic. Excellent eating. Prolific producer from an early age. Storage life is best if fruit harvested a little early. Tree habit is upright and spreading with moderately weak branches. Heading back of branches and thinning of fruit is recommended.

Early season selection with smooth, dark green (greenstone/pounamu), attractive, medium size fruit. Flesh is moderately smooth, juicy and with pleasant flavour. Stores well. Trees has an upright to spreading habit with moderate vigour.

# Apollo

Large, long sweet fruit with excellent eating qualities. Skin light green and rough. Relatively upright tree with strong, very vigorous shoot growth. Forms a well-branched framework that does not bent excessively with fruit weight. Early - mid season.

Heavy, regular yielder of nice looking fruit. Flowers early. Fruit matures about the same time as Apollo.

# Kakapo

Medium to large size fruit with good shelf life and stores well. Mild, sweet refreshing taste with wide appeal. Fruit shape is blocky oval. Mid season cultivar. Easy picking due to naturally good, open tree habit.

## Wiki™ Tu (Anilvinkoru\*)

Produces very large fruit (up to 300 grams) in mid to late season. Meaty flesh with good taste and smooth texture. Stores and handles well. Ideal selection for high density plantings due to its dwarf habit. Reported as self fertile in some parts of New Zealand.

Classic shaped, smooth, dark green skinned fruit medium to large in size. Flesh is smooth and juicy and very aromatic. One of our reliable mid season maturing varieties. Grows naturally into a strong, compact tree requiring little pruning. Heavy cropping. Stores well. Some fruit thinning may be necessary.

### Triumph

This old favourite produces large oval shaped fruit, firm and rough skinned with excellent flavour. Flesh is slightly gritty, soft, and juicy and extends towards the centre of the fruit. Heavy late cropping. Stores and handles well. Upright and strongly vigorous grower especially when young.



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