



## Quondong

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*This Agriculture Note provides information on the Quondong (Santalum acuminatum).*

### Product

An Australian native shrub or small tree which grows to approximately three metres in height with a dense crown of pale green leaves. The red or occasionally yellow fruit of the tree was sought by the aboriginals and known to them as the native peach. The outer fleshy layer of the fruit is harvested for preserves such as jellies and jams as well as a major ingredient for pies, the taste whilst hard to describe because of its uniqueness is comparable to the tart taste of rhubarb. The fruit contains a hard pitted stone in which is a kernel or nut which is edible and highly nutritious, it was a major source of food for the aboriginals who were noted for their ability to obtain the kernels from the droppings of Emus; the outer fleshy coating of the Quandong is a favourite food of these animals. The kernel contains such high amounts of oil that it can be ignited in a similar way to a candle. Records also show that the leaves of the plant were used by aboriginals who ground or macerated them for the medicinal qualities in the treatment of infections such as boils and sores.

The Quandong is native to the arid inland areas of Australia and has shown that it can be cultivated with some success under extreme harsh conditions as long as plants receive adequate irrigation during their establishment over the first summer whereafter they will survive and continue to produce fruit successfully with minimal or poor quality water.

### Physical requirements

Quandongs should be planted in areas of low seasonal rainfall with a well-drained soil in spring, care must be taken to minimise root disturbance germination takes place at 16 - 20°C. Initial plantings will require irrigation during the first twelve months for the establishment of healthy trees; all seedlings should be "hardened - off " prior to their introduction into the soil and require the presence of a host plant such as Clover, Kikuyu grass or Lucerne to be grown at the base of the tree and these may need mowing or pruning to protect the new seedling from host smothering and attack by snails and rabbits. Seedlings are now being grown and planted in biodegradable pots to minimize root disturbance during the planting process. The

trees will reach a mature height of three metres with a similar width (although some varieties may have a slightly differing growth habit ) and plants should be spaced at approximately three to four metres apart. Minimal pruning is necessary on established plants except for management practicalities whilst plants may be fertilised in spring and autumn using 50 grams of an organic fertiliser per tree depending on the proportion of growth being experienced by the individual. Established trees are frost resistant and will bear fruit within about four to five years, flowering in summer and bearing the following spring.

Common pests of the Quandong include attack on newly established plantations by snails, rabbits, kangaroos, Emus and other native species looking for feed, however good cultural practices and the use of adequate fencing or guards will protect the orchard from these invaders. The most prevalent pest in the fruit grown in the native habitat is *Paraepermenia santaliella*, a small grub which feeds on the ripened flesh and is controllable by the use of insecticides applied at late fruit development. Scale insects have also been observed on the leaves of the plant and infestations would result in reduced vigour but this may be easily controlled with the application of petroleum oil pesticides when monitored. Some scabbing of fruit has also been noted and causal agents presently have not been conclusively identified.

### Production

Current production requires the establishment of healthy varieties introduced to fairly arid areas of agriculture to allow for successful ripening of the fruit. Much work has been evaluated to produce superior selections within the CSIRO's Division of Horticultural Research departments at Adelaide (S A) and Merbein (Vic) however no marketable varieties have been named and most varieties that are currently under trial by growers are those chosen from the wild which display marketable characteristics such as good colour, taste, size and thickness of the carapace as well as good vigour and high fruit production per tree.

### Marketing

Current marketing targets are varied with growers establishing their own outlets for the plant and its fruit usually in the form of preserves and jams although some

fruit processing is performed at Beerenberg in South Australia.

Other distinctive products being promoted using quandong include:

- Quandong meal liquer
- Pickled Quandongs
- Sweets (Quandong chews, Quondongs coated in milk chocolate)

The greatest potential appears to be the production success as a food crop as it has the advantage of being available on the market in late spring when there is little fresh fruit appearing on the shelves. Most growers are currently using entrepreneurial skills to gain market acceptability by the introduction of the fruit as a native bush tucker and preserve.

There may be use for the kernel in culinary dishes where normally popular nut varieties may be used and the use of the foliage to produce medicinal treatments. However, research is yet to be properly implemented to ascertain these properties.

The two companies which dominate in the growing and processing of Australian native foods are Australian Native Produce Industries (ANPI), based in Renmark SA, and Australian Native Fine Foods, based in Sydney, NSW.

## Financial aspects

The capital investment required for the establishment of a plantation will vary according to size but compared to other fruit cropping situations would appear to be greatly reduced as minimal irrigation is necessary following the initial twelve-month pre establishment period and cultural practices become less as well conceived plantings will virtually rid the grower of time consuming and expensive practices such as continual protective pesticide applications, heavy fertilisation and extensive pruning. Returns on production are widely varied, according to market outlets. However, current pricing is around \$8.00 per kilogram for whole fruit, \$18.00 per kilogram for cut and frozen and \$50.00 per kilogram for dried fruit.

## References

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Useful Internet sites:

[www.anpi.com.au](http://www.anpi.com.au)

[www.bushtucker.com.au/](http://www.bushtucker.com.au/)

[www.senet.com.au/~samantha/bushfood.html](http://www.senet.com.au/~samantha/bushfood.html)

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