



# Passionfruit growing: what you need to know

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Every year high prices for passionfruit over the October - November period attract the attention of potential growers.

Unfortunately many only see the high prices over a short period and fail to understand some of the pitfalls in growing the crop and the difficulty of producing fruit at this time of the year.

Passionfruit production on the north coast of NSW has a long history of 'ups and downs' due to oversupply, depressed market prices, and viral and fungal disease problems.

Consequently, a number of important points need considering when making a decision to grow passionfruit.

## **You need:**

- frost-free land facing north to east that is sheltered from the wind;
- a water supply and irrigation system to irrigate the crop over a 5 to 6 month period;
- a good understanding of the diseases and pests which attack and defoliate vines;
- the correct equipment to spray the vines – a power or boom spray is satisfactory in young vines, however an airblast sprayer is required when vines thicken up;
- a commitment to maintain the vines. Without regular spraying, irrigation and fertilising the production and quality of fruit is substantially reduced;
- a supply of labour to maintain vines and to harvest and pack fruit.

## **LOCATION**

Passionfruit growing is best suited to the far north coast of NSW because the varieties bred at the Centre for Tropical Horticulture over the last 15

years are hybrids between the tropical passionfruit (*Passiflora edulis forma flavicarpa*) and the common passionfruit (*Passiflora edulis*). These hybrids are suited to subtropical conditions but are cold sensitive and susceptible to frosts. Plantings should only be made in sheltered, frost-free sites on the far north coast. Growing these vines in other locations may result in lower performance and productivity.

Other areas may be suited to the common black passionfruit but hybrid passionfruit should not be planted in the cooler areas.

## **LABOUR REQUIREMENTS**

Passionfruit growing is well suited to family operated farms. Many passionfruit growers have other fruit crops or agricultural enterprises.

Passionfruit growing involves intensive use of labour throughout the year. Labour is needed for disease and pest control, fertilising, harvesting and packing over a 10-month period. Passionfruit vines bear over an extended period – carrying summer, autumn and winter crops. During the summer, fruit has to be picked up early in the morning every day to avoid losses from sunburn and fruit diseases.

New technology has recently been developed to mechanically harvest passionfruit from the ground. Plantations should be designed for mechanical harvesting in regard to row spacing, degree of slope and headlands for turning. Rocky soils are unsuitable.

## **PRODUCTIVITY**

Vines commence cropping at 6 months of age and reach full bearing in 18 months. Vines have a productive life of 3 to 4 years. New plantings should be made on a continuous 3 year rotation to maintain production.

Well managed vines can produce 20 to 30 kg, or 2 to 3 cartons, per vine each year. Not all fruit is of fresh market standard. Budget on 70% fresh fruit and 30% processing.

### **ESTABLISHMENT COSTS**

Excluding the cost of land, fencing, dam construction and pump, the vine establishment cost per hectare can amount to \$15 000. The main costs are trellising \$6000, irrigation \$4000, vine purchase, planting and training \$3500.

### **PRODUCTION COSTS**

The gross income for one years' production based on 15 tonnes per hectare, with 70% fresh market fruit at \$2.00/kg and 30% processing fruit at 53 cents/kg would be \$23 400, with annual variable costs totalling \$17 500. Owner labour is costed for all operations. Some overhead costs, e.g. insurance, electricity and depreciation are not included.

### **DISEASES AND PESTS**

Passionfruit growing involves extensive use of fungicides and some insecticides. A number of leaf fungal diseases can infect vines at most times of the year. For this reason a regular spraying program is needed. Up to 20 fungicide sprays can be applied in a year. Insect pests such as Queensland fruit fly, red scale, fruit spotting bug, passionfruit mite and mealy bug can all cause major problems resulting in leaf and stem damage and fruit rejection if not controlled.

### **IRRIGATION**

Passionfruit growing should not be attempted on the north coast without an adequate supply of irrigation water. Irrigation is needed over the spring and summer periods when the vines are making lush vegetative growth and are carrying a heavy crop.

Supplementary irrigation based on a monitoring system for example soil tensiometers, is best applied using undervine microjets or sprinklers. Vines can require up to 400 L per vine per week from August to January depending on weather conditions, soil type and depth. To supply this amount of water you need a farm dam with a capacity of 2 to 3 megalitres per hectare of vines.

### **SUMMARY**

If you are considering growing passionfruit on your property ensure that:

- you have the correct type of land – a frost free area, an aspect facing east to north that can be sheltered from winds;
- you have an adequate water supply to irrigate the crop each year;
- you are prepared to spray regularly to control disease; and
- you are prepared to work the crop full time.

### **FURTHER INFORMATION**

For further information contact the author or your district horticulturist.

#### **DISCLAIMER**

The information contained in this publication is based on knowledge and understanding at the time of writing (August 2004). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the New South Wales Agriculture or the user's independent advisor.

#### **ALWAYS READ THE LABEL**

Users of agricultural (or veterinary) chemical products *must* always read the label and any Permit, before using the product, and strictly comply with the directions on the label and the conditions of any Permit. Users are not absolved from compliance with the directions on the label or the conditions of the permit by reason of any statement made or omitted to be made in this publication.

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