

## Mountain pepper production

Family: Winteraceae

### Introduction

The Mountain Pepper (*Tasmannia lanceolata*) is native to moist temperate forest areas in Tasmania, Victoria, Southern NSW and the ACT. A related species (Dorrigo pepper - *Tasmannia stipitata*) is found in cool elevated areas on the mainland east coast, from Victoria to Queensland.



Figure 1. Mountain pepper. Dried, ground leaves and whole berries

The plant's fruits and foliage contain a hot chilli/pepper-like factor (polygodial), with a unique aroma and flavour. The peppercorn-like fruits, produced only on female plants, may be dried, ground or preserved in brine. The leaves of both male and female plants are dried and milled and used to flavour sauces, chutneys, meats, cheeses, pate, breads, dampers, pastas etc. Extracts from the plant are added to chewing gum in Japan and are being examined for their anti-microbial, anti fungal and insect anti-feeding properties.

Most of the Mountain Pepper leaves and berries currently used are harvested from the wild from previously cleared lands in Victoria and forestry concessions in Tasmania, though increasing amounts are being harvested from plantations. It is an early coloniser on previously disturbed lands where wet forest or rainforest canopies has been removed. (Chris Reid). There appears to be good potential for cultivated production and trial plantings have been established in the Adelaide Hills, the South East and Kangaroo Island and Victoria. Other cooler areas in South Australia may have potential and continuing information is required on the performance of Mountain Pepper under a range of climates and soil conditions.

### Plant characteristics

Mountain Pepper is a dioecious species, i.e. male and female plants are needed to produce berries, though occasionally plants contain flowers of both sexes. Generally berries will appear only on female trees. It grows naturally as a shrub to small tree (2 to over 8 m high and wide), with glossy dark-green leaves and attractive bright red stems. It produces cream coloured flowers from October through to January depending on locality. Its berry-like fruits are 5 to 10 mm in diameter, beginning dark red and turning shiny black when ripe in summer or autumn.

Plant growth is moderate to fast under favourable conditions.

The plant appears to prefer neutral to acid organic soil, but will tolerate a broad range of soil types as long as they are well aerated and constantly cool if not regularly moist. It will tolerate severe frosts and even snow.



Figure 2. Mountain pepper female flower



Figure 3. Mountain pepper male flower

### Production requirements

As well as being cool-climate adapted, the Mountain Pepper belongs to one of the earliest families of flowering plants and has a relatively primitive vascular system. As a result it has difficulty in transpiring enough water in high-demand situations. Adequate and carefully monitored irrigation and the use of mulching, overhead sprinklers and shade protectors, particularly when young, can help reduce water demand and cool the plant and the soil. This species benefits should be protected from warm to hot winds where possible.

Over watering should also be avoided as the plant appears susceptible to root-rot pathogens. Open soils with free drainage should help to mitigate root disease problems.

The plant responds well to pruning and hedging and high density hedgerow-type plantings, combined with mechanized leaf harvesting (similar to the system used in tea production) may be a feasible large-scale production option.

### Potential returns

It is too early to provide useful yield and production cost estimates for Mountain Pepper grown under cultivation in South Australia. Currently, wholesale prices paid for dried, milled leaf range from \$5 - 10 per 100 gram depending on the supplier and quantity purchased. Wholesale prices paid for whole dried berries are from around \$10 per 100 grams or milled format range from around \$5 to \$7.50 per 100 grams. These prices are likely to fall if increased supplies become available from cultivated sources.



Figure 4. Fresh and dried leaves

## Conclusion

While much needs to be learned about production methods, site and area suitability, the national and international market demand, for Mountain Pepper appears to be consistently good, and in cooler areas of South Australia the plant could present a useful diversification opportunity for primary producers.



Figure 5. Mountain pepper berries (Photo: Chris Read)

## Further reading

“Native pepper” by Chris Read, in “The new crop industries handbook”, Edited by S. Salvin, M. Bourke and T. Byrne, RIRDC 2004, pages 368 – 372.

## Further information on native crops is contained in the other publications in this series:

*Australian Native Citrus – Wild Species, Cultivars and Hybrids*

*Bush Tomato/Desert Raisin Production*

*Miscellaneous Native Food Crops – Davidson and Illawarra Plums*

*Miscellaneous Native Food Crops –Herbs and Vegetables with Potential in S.A.*

*Mountain Pepper Production*

*Muntries Production*

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*Wattle seed Production*

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