

Etna mandarin

March 2020, Primefact 1730, First edition

Dave Monks and Graeme Sanderson, Research Horticulturists, Dareton



Figure 1. An Etna mandarin tree.



Figure 2. Etna mandarins.

Estimated maturity period

Region	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sunraysia												

Origin

Etna mandarin was bred in Italy and is a hybrid of Okitsu satsuma x Comune clementine. It was introduced to Australia as a public variety.

Fruit quality

Table 1. Etna mandarin fruit quality* characteristics.

Skin	Easy peel, orange-yellow at full maturity, slightly pebbled.
Average rind thickness (mm)	3.5
Internal quality	Mild, distinct flavour with low sugar and acid content typical of the satsuma parent.
Average number of seeds	1
Juice per cent (%)	48
°Brix	9.6
Acid per cent (%)	0.8
Brix:acid ratio	12.2
Average fruit weight (g)	187
Average fruit diameter (mm)	79

*Juice quality levels considered adequate for harvest and developed by sequential analysis of fruit from top-worked evaluation trees.

Comments

- Etna mandarin has a short harvest window of approximately three weeks with fruit beginning to lose juice content in early June, particularly on trees top-worked to Valencia orange with a Cleopatra mandarin rootstock.
- It is a public access mandarin hybrid introduced to Australia by Auscitrus. The first fruit was produced from top-worked trees in 2013 in the Sunraysia region (north-west Victoria and south-west NSW).
- Etna has low tree vigour with a spreading canopy habit.
- Seed number averaged one per fruit even in a mixed planting under strong pollination pressure.
- Exposed fruit is very susceptible to sunburn.
- Etna has many of the characteristics of its Satsuma parent but is later maturing and has a lower tendency to soften and become 'puffy' at the end of its maturity period. Initial taste testing suggests a richer flavour than Satsuma mandarin grown under the same climatic conditions and cultural practices at the evaluation site.
- Large fruit size and intense orange skin colour that is developed at peak maturity gives the variety visual appeal.

Table 2. Average yield per tree* on trees top-worked to Valencia orange.

Rootstock	Average yield per tree (kg)	
	2013	2014
Citrango	27	49
Cleopatra	11	31
Trifoliata	20	35

*Average yield per tree results are from a small number of evaluation trees and should only be used as a general indication of the variety's potential yield.

Etna's commercial potential in Australia appears low as Satsuma and Satsuma hybrids are minor plantings in southern citrus producing regions apart from the recently introduced Dekopon.

Acknowledgements

Auscitrus

Citrus Australia Ltd (CAL)

Department of Primary Industries and Regional Development, WA

Hort Innovation Australia

**Hort
Innovation**
Strategic levy investment

**CITRUS
FUND**

This project has been funded by Hort Innovation using the citrus research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

Reference number: PUB20/136

State of New South Wales through the Department of Planning, Industry and Environment ("Department") 2020. The content has been developed by the Department using funds provided by Horticulture Innovation Australia Limited ("Hort Innovation").

The information contained in this publication is based on knowledge and understanding at the time of writing (December 2019) and was generated from field and nursery trees at Dareton Primary Industry Institute, Sunraysia, NSW, unless otherwise stated. Where quantitative data are presented (e.g. % Juice or rind thickness) they are based on measured properties. Where qualitative data are presented (e.g. thorniness or tendency to split), they are based on observations or brief notes recorded in the field.

Because of advances in knowledge, users are reminded of the need to ensure the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Department

and the user's independent advisor. Any reliance on the contents of the publication (or any part thereof) will be entirely at the user's own risk and neither Hort Innovation nor the Department will be responsible or liable for any loss, damage, cost or expense allegedly arising from any use or non-use of this publication.

Whilst care has been taken in the preparation of this publication, Hort Innovation and the Department make no representations and (to the extent permitted by law) expressly exclude all warranties regarding the accuracy, completeness or currency of the information, recommendations and opinions contained in this publication.