

Alkantara mandarin

March 2020, Primefact 1739, First edition

Dave Monks and Graeme Sanderson, Research Horticulturists, Dareton



Figure 1. An Alkantara mandarin tree.



Figure 2. Alkantara mandarins.

Estimated maturity period

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

Origin

The Alkantara mandarin was bred in Italy and is a hybrid of Oroval clementine × tetraploid Tarocco orange. It has Plant Breeder's Rights (PBR) protection and is managed in Australia by the Australian Nurserymen's Fruit Improvement Company (ANFIC).

Fruit quality

Table 1. Alkantara mandarin fruit quality* characteristics.

Skin	Easy peel, orange, slightly pebbled.
Average rind thickness (mm)	4.0
Internal quality	Mild, sweet flavour. No development of red anthocyanin pigment in 2009, 2010, 2011 or 2012.
Average number of seeds	<1
Juice per cent (%)	48
°Brix	10.8
Acid per cent (%)	0.76
Brix:acid ratio	14.2
Average fruit weight (g)	230
Average fruit diameter (mm)	88

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

Comments

- The first fruit produced in 2009 was very large with a prominent 'neck'. Increased crop load and reducing fruit size made this feature less prominent.
- Trees are slow to crop; 4 years from field planting and top-working.
- Juvenile trees are thorny and vigorous.
- Trees are prone to leaf drop with high nutrient application.
- Trees have not performed well at national test sites apart from in 2011 in Sunraysia.
- The skin of some fruit often retains a green tinge at full internal maturity.
- No external or internal red blush from anthocyanin pigment occurred at any test site in Australia for the first 4 harvests, 2009 to 2012. It is unlikely that the climatic requirements for the development of anthocyanin pigmentation can be met in citrus growing regions of Australia for this variety.
- Early maturity and large fruit size are the commercial characteristics of most interest.

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

Rootstock	Average yield per tree (kg)		
	2010	2011	2012
Citrango	<1	44	30
Cleopatra	18	29	5
Trifoliata	20	109	17

*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.

Small scale commercial plantings have occurred, but commercial interest is low.

Acknowledgements

Australian Nurserymen's Fruit Improvement Company (ANFIC)
 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: PUB20/145

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.