primefact

Bintangcheng No 2 orange

March 2020, Primefact 1738, First edition

Dave Monks and Graeme Sanderson, Research Horticulturists, Dareton



Figure 1. A Bintangcheng No 2 orange tree.



Figure 2. Bintangcheng No 2 oranges.

Estimated maturity period

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

Origin

The Bintangcheng No 2 is an early maturing processing style orange from China. It was introduced into Australia by Auscitrus as two selections; Bintangcheng No 2 and Bintangcheng Renbin No 5. It was introduced to Australia as a Public variety.

Fruit quality

Table 1. Bintangcheng No 2 orange fruit quality* characteristics.

| Skin | Achieves full orange skin colour when internal maturity is deteriorating. Fruit with a 'green tinge' is often at peak internal quality. | | |
|-----------------------------|---|--|--|
| Average rind thickness (mm) | 4.3 | | |
| Internal quality | A low acid content late in the maturity period can give an insipid flavour if consumed as fresh fruit. | | |
| | °Brix tends to range 10–11 at maturity with °Brix:acid ratios of 11 – 20 depending on harvest timing. | | |
| Average number of seeds | <1 | | |
| Juice per cent (%) | 44 | | |
| °Brix | 10.3 | | |
| Acid per cent (%) | 0.82 | | |
| Brix:acid ratio | 12.6 | | |

| Skin | Achieves full orange skin colour when internal maturity is deteriorating. Fruit with a 'green tinge' is often at peak internal quality. |
|-----------------------------|---|
| Average fruit weight (g) | 185 |
| Average fruit diameter (mm) | 79 |

^{*}Juice quality levels considered adequate for harvest and developed by sequential analysis of fruit from topworked evaluation trees.

Comments

The Bintangcheng processing orange was initially imported into Australia as seed. After germination and seedling selection, trees were propagated on trifoliata rootstock and field planted in Sunraysia and the Riverina in 1997. Commercial interest in the early maturing nature of this variety resulted in Auscitrus introducing the variety as budwood. Two selections provided by China, Bintangcheng No 2 and Bintangcheng Renbin No 5, were included in the national variety evaluation program.

- Bintangcheng No 2 produced its first fruit in 2010 and confirmed its early maturing habit.
- The maturity period in Sunraysia is early May to mid-June.
- The first crop produced on 3-year-old top-worked trees was low, with an average yield of 6.8 kg per tree from trees on Valencia orange with a citrange rootstock.
- A role for Bintangcheng No 2 would be as a blend into late season Valencia juice to impart sweetness and fresh juice characteristics.
- Young trees were initially thorny but began to 'settle-down' as new foliage was produced and the trees matured.

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

| Rootstock | Average yield per tree (kg) | | | | | | |
|------------|-----------------------------|------|------|--|--|--|--|
| | 2011 | 2012 | 2013 | | | | |
| Citrange | 52 | 69 | 48 | | | | |
| Cleopatra | 60 | 71 | 68 | | | | |
| Trifoliata | 66 | 65 | 51 | | | | |

^{*}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.

Some commercial interest has been noted on this variety in the Riverina region of New South Wales and Riverland of South Australia with trees established for juice processing.

Acknowledgements

Auscitrus

Citrus Australia Ltd (CAL)

Department of Primary Industries and Regional Development, WA

Hort Innovation Australia



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: PUB20/144

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.