

Dekopon mandarin

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Figure 1. A Dekopon mandarin tree.



Figure 2. Dekopon mandarins.

Estimated maturity period

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

Origin

The Dekopon mandarin was developed in Japan as a hybrid of Kiyomi (Miyagawa satsuma x Trovita orange) and Ponkan mandarin. This variety used to be known as the Shiranui. The current variety manager in Australia is Pacific Fresh.

Fruit quality

Table 1. Dekopon mandarin fruit quality* characteristics.

Skin	Easy peel, yellow-orange, coarse rind with a prominent 'neck' at the stem end
Average rind thickness (mm)	4.8
Internal quality	High sugar content at maturity with good acid balance. Juice content generally exceeds 40%. High eating quality
Average number of seeds	1
Juice per cent (%)	43
°Brix	13.8
Acid per cent (%)	1.04
Brix/acid ratio	13.3
Average fruit weight (g)	365
Average fruit diameter (mm)	90

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

Comments

- The Dekopon is a Japanese mandarin hybrid developed at a government fruit research station in 1972. Initially the variety did not create much interest due to the unusual appearance of the fruit, but its popularity increased as its high eating quality became known.
- The Dekopon was introduced to Australia by Pacific Fresh citrus packing group, Leeton, NSW. It was released from Post Entry Plant Quarantine in 2003 and the first plantings were in the Riverina region, NSW. New plantings in other citrus growing regions have begun under licence to Pacific Fresh.
- The first commercial harvest in Australia was in 2011 and test shipments were sent to the USA and Japan. Dekopon is marketed under the brand name 'Sumo Citrus™' in the USA and it has also been licenced for use in Australia.
- Fruit is held on the trees until a high Brix is achieved to aid marketing as a sweet, easy peel mandarin variety.
- Careful handling of the fruit at harvest and during packing is necessary to avoid damage to the rind. The stem end 'knob' is particularly sensitive and a specialised fruit packing line in combination with hand sorting is in use by Pacific Fresh to reduce mechanical damage to the fruit. The fruit can rot due to accumulation of water in the 'well' of the knob at the stem end and this has been an issue during wet periods.

Table 2. Fruit quality of Dekopon mandarin top-worked to Valencia orange on Carrizo citrange rootstock, Dareton Primary Industries Institute, NSW, during 2014–2017. See 'Estimated maturity period' to interpret this data.

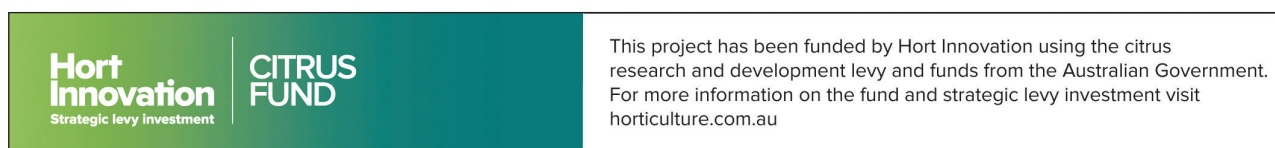
Date	% Juice	°Brix	% Acid	Brix:acid ratio	BrimA
3/4/2014	42	8.9	1.50	5.9	48
23/5/2014	51	10.8	1.20	8.9	98
3/6/2014	47	11.6	1.09	10.7	120
12/6/2014	47	12.6	1.12	11.3	134
26/6/2014	45	12.2	0.99	12.4	136
14/7/2014	44	13.8	1.07	12.9	157
30/7/2014	47	13.4	0.96	14.0	158
13/8/2014	40	15.1	1.09	13.8	177
1/9/2014	39	14.1	0.91	15.5	173
8/5/2015	42	11.4	1.02	11.1	121
29/5/2015	45	11.1	0.86	12.8	126
11/6/2015	42	12.0	0.98	12.3	133
22/6/2015	39	12.0	0.85	14.1	142
6/7/2015	39	12.3	0.85	14.5	147
17/7/2015	31	14.2	0.99	14.3	169
29/7/2015	31	15.0	1.02	14.6	180
6/5/2016	50	11.6	1.41	8.2	98
16/5/2016	49	12.0	1.34	8.9	109
27/5/2016	46	11.7	1.40	8.4	101
7/6/2016	43	12.5	1.41	8.9	113
21/6/2016	41	13.0	1.28	10.2	130
4/7/2016	42	12.7	1.25	10.2	127
18/7/2016	41	13.7	1.15	11.9	150
28/7/2016	39	14.1	1.24	11.4	151
3/8/2016	37	12.7	1.04	12.2	141
15/6/2017	43	12.9	1.52	6.6	64
26/6/2017	45	13.0	1.03	12.6	146
7/7/2017	45	13.4	1.10	12.2	149

Date	% Juice	°Brix	% Acid	Brix:acid ratio	BrimA
17/7/2017	38	13.3	1.05	12.7	150
28/7/2017	41	14.4	1.00	14.4	171
11/8/2017	40	14.9	1.01	14.7	179
28/8/2017	37	16.4	1.13	14.6	196
Mandarin minimum standard	35	–	–	–	110

Dekopon is a mid-late season mandarin now sold on the domestic market. New plantings came into production in 2018 and a significant volume of fruit will be available for continued market development.

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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.

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