NSW GOVERNMENT Department of Primary Industries

primefact

Royal Honey Murcott (RHM) mandarin

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Figure 1. A Royal Honey Murcott (RHM) mandarin tree.

Figure 2. Royal Honey Murcott (RHM) mandarins.

Estimated maturity period

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

Origin

The Royal Honey Murcott (RHM) mandarin is a natural mutation from the central Burnett region of Queensland, Australia. The variety has Plant Breeder's Rights (PBR) protection and its development in Australia is managed by Variety Access.

Fruit quality

Table 1. Royal Honey Murcott (RHM) mandarin fruit quality* characteristics.

Skin	Easy peel, orange, smooth. Maintains good external appearance with prolonged storage on the tree.
Average rind thickness (mm)	2.6
Internal quality	High juice content. Low acid content which continues to decline with on-tree storage.
Average number of seeds	<1–2.7, but variable depending on location and seasonal influences. Individual pieces of fruit have recorded 8 seeds whereas other fruit collected at the same time from the same tree had no seed.
Juice per cent (%)	50
˚Brix	11.0
Acid per cent (%)	0.55
Brix:acid ratio	20
Average fruit weight (g)	117
Average fruit diameter (mm)	65

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

Comments

- The first Royal Honey Murcott (RHM) mandarin fruit produced in 2016 had a low seed count that was not typical for the variety. The seed count is higher in fruit produced in Queensland. Difficult climatic effects (e.g. high heat) during October 2015 may have affected pollination at the Dareton evaluation site as low seed counts were also common in other varieties. The average number of seeds per fruit was again low in 2017 and 2018 but increased to 2.7 in 2019.
- The upright, very vigorous tree will require specific management to develop a cropping habit. Limb girdling and using GA sprays at flowering in 2015 helped to set fruit at the evaluation site.
- Some basal fruit splitting has occurred on trees top-worked to Valencia orange and nursery propagated field trees.
- Asian fruit buyers familiar with RHM commercially produced in Queensland inspected and tasted a range of new mandarin varieties at the evaluation site in early July 2016; they favoured the RHM over other selections. Key criteria were the visual appearance of the fruit, low acid content with high juice, low seed number and medium fruit size.

Table 2. Fruit quality of RHM mandarin top-worked to Valencia orange on Carrizo citrange rootstock, Dareton Primary Industries Institute, NSW 2016-2018. See 'Estimated maturity period' to interpret this data.

Date	% Juice	°Brix	% Acid	Brix:acid ratio	BrimA
6.5.2016	53	10.1	0.64	15.8	124
16.5.2016	55	10.0	0.67	15.0	121
27.5.2016	52	10.6	0.58	18.2	136
7.6.2016	47	10.2	0.51	19.9	135
21.6.2016	54	11.2	0.58	19.4	147
4.7.2016	51	11.2	0.46	24.3	154
18.7.2016	49	11.3	0.40	28.0	160
22.5.2017	58	10.0	0.62	16.1	124
5.6.2017	53	10.4	0.60	17.5	132
15.6.2017	58	11.2	0.63	17.7	143
26.6.2017	56	11.7	0.54	21.5	157
7.7.2017	55	11.0	0.40	27.7	155
28.5.2018	51	11.0	0.65	17.0	139
7.6.2018	60	12.3	0.75	16.4	154
15.6.2018	54	12.7	0.64	19.8	167
25.6.2018	56	12.9	0.50	25.8	180
9.7.2018	54	12.6	0.48	26.3	176
Mandarin minimum standard	35	–	–	–	110

A future market for this variety may be as an export mandarin to Asia.

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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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