

IRM1 mandarin

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Figure 1. An IRM1 mandarin tree.



Figure 2. IRM1 mandarins.

Estimated maturity period

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

Origin

IRM1 is a low-seeded Murcott mandarin developed by irradiation breeding in Queensland, Australia. It has Plant Breeder's Rights (PBR) protection.

Fruit quality

Table 1. IRM1 mandarin fruit quality* characteristics.

Skin	Yellow to orange. The rind can adhere tightly to the flesh. Skin removes relatively easily once initial break in the skin has begun. Predominantly smooth with some ridging at the stem end of the fruit. Skin is sensitive to sunburn and wind scar.
Average rind thickness (mm)	1.9
Internal quality	Rich, sweet flavour with high °Brix and juice content.
Average number of seeds	2.4
Juice per cent (%)	51
°Brix	14.9
Acid per cent (%)	1.1
Brix:acid ratio	13.5
Average fruit weight (g)	104
Average fruit diameter (mm)	61

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

Comments

- IRM1 is a sweet fruit with high juice content. Initial fruit quality testing suggests IRM1 is slightly later maturing than IRM2.
- In 2009, the average fruit yield from trees top-worked in 2005 to mature Valencia orange with a citrange rootstock was 31 kg per tree. Hand thinning to balance the crop load accounted for 30% of the fruit produced on the tree, and of this, one third was removed due to sun damage. Average fruit size was 61 mm in diameter as determined from fruit used for quality testing. Fruit grading showed that 63% of the fruit harvested was in the 58–64 mm size range.
- Murcott mandarin types do not seem to reach large fruit sizes in southern Australian climatic conditions. The adoption of IRM1 low-seeded Murcott in Australia has been predominantly by Queensland citrus growers.

Table 2. Average yield per tree* on nursery propagated field trees (Sunraysia).

Rootstock	Average yield per tree (kg)			
	2010 (4-y-old trees)	2011 (5-y-old trees)	2012 (6-y-old trees)	2013 (7-y-old trees)
C35 Citrange	5	51	1	34
Citrange	33	35	41	10
Cleopatra	19	15	42	2
Swingle	39	57	37	57
Trifoliata	18	42	40	51
Volkameriana	29	27	31	12

Table 3. Average yield per tree* on trees top-worked to Valencia orange.

Rootstock	Average yield per tree (kg)			
	2010	2011	2012	2013
Citrange	64	52	48	44
Cleopatra	31	56	19	74
Trifoliata	80	75	56	86

*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.

There has been enquiry from southern Australia growers about IRMI due to its late maturity, larger fruit size and low seed content.

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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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