

Turkey Valencia orange

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Figure 1. A Turkey Valencia orange tree.



Figure 2. Turkey Valencia oranges.

Estimated maturity period

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

Origin

The Turkey Valencia was found in a Valencia orchard near Mersin, Turkey in 1987 and developed as a commercial variety in South Africa during the 1990s. The variety has Plant Breeder's Rights (PBR) protection and is managed in Australia by Variety Access.

Fruit quality

Table 1. Turkey Valencia orange fruit quality* characteristics.

Skin	Relatively easy to peel, orange-yellow, slightly pebbled.
Average rind thickness (mm)	6.2
Internal quality	Early maturity, consistently high juice content, soft flesh, good eating quality and low seed number help to differentiate the Turkey Valencia from the standard Valencia orange.
Average number of seeds	1.8
Juice per cent (%)	51
°Brix	10.6
Acid per cent (%)	0.92
Brix:acid ratio	11.6
Average fruit weight (g)	270
Average fruit diameter (mm)	82

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

Comments

- First fruit production in Australia was in 2014 from top-worked trees.
- Features of the first crop included early maturing, high eating quality and large fruit size.
- The Turkey Valencia was commercialised in South Africa under the trade name Juvalle®, meaning 'juicy Valencia'.
- It is considered a dual purpose orange; suitable for both the fresh fruit and fresh juice markets.
- South African experience suggests the Turkey Valencia is a heavy bearing variety with a consistent cropping pattern.
- Maturity in South Africa is considered to be six weeks earlier than Valencia oranges and the initial fruit quality tests in Australia confirm that Turkey can be added to the early Valencia group of selections currently in Australia such as Midnight, Delta and McMahon.

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

Rootstock	Average yield per tree (kg)				
	2014 (3-y-old trees)	2015 (4-y-old trees)	2016 (5-y-old trees)	2017 (6-y-old trees)	2018 (7-y-old trees)
Carrizo citrange	Approx. 40	91	74	154	50
Trifoliata	Approx. 40	56	91	132	61

*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.

Table 3. Fruit quality of Turkey Valencia orange top-worked to Valencia orange on Carrizo citrange rootstock, Dareton Primary Industries Institute, NSW, 2014–2017. See 'Estimated maturity period' to interpret this data.

Date	% Juice	°Brix	% Acid	Brix:acid ratio	BrimA
23.5.2014	48	8.9	1.44	6.2	52
3.6.2014	49	10.0	1.36	7.4	75
12.6.2014	47	9.2	1.25	7.4	69
26.6.2014	53	9.6	1.24	7.7	76
14.7.2014	50	9.4	1.07	8.8	85
23.7.2014	49	10.2	1.20	8.5	89
13.8.2014	51	10.1	1.09	9.2	94
1.9.2014	48	9.8	1.10	8.9	89
17.9.2014	51	10.6	0.92	11.6	114
7.10.2014	49	11.1	0.95	11.7	121
17.7.2015	51	10.4	2.02	5.2	39
29.7.2015	52	10.7	1.78	9.1	99
10.8.2015	52	11.2	1.13	9.9	110
20.8.2015	49	10.5	1.02	10.3	106
1.9.2015	44	10.4	0.97	10.7	107
11.9.2015	48	10.2	1.01	10.1	102
2.10.2015	48	10.9	0.83	13.2	125
19.10.2015	47	10.3	0.74	14.0	121
7.6.2016	46	10.3	1.34	7.7	81
21.6.2016	47	11.2	1.28	8.8	100
4.7.2016	50	11.0	1.17	9.4	104
18.7.2016	48	10.8	1.13	9.5	103

Date	% Juice	°Brix	% Acid	Brix:acid ratio	BrimA
29.7.2016	47	11.2	1.08	10.4	113
11.8.2016	49	11.6	1.04	11.1	123
29.8.2016	48	11.5	0.97	11.9	126
12.9.2016	52	12.5	0.92	13.6	145
22.9.2016	50	12.4	0.88	14.1	147
13.10.2016	47	12.4	0.77	16.1	154
31.10.2016	43	12.0	0.76	15.9	148
7.7.2017	54	10.6	1.50	7.0	76
17.7.2017	51	10.8	1.26	8.6	95
28.7.2017	53	10.7	1.29	8.3	92
11.8.2017	51	11.2	1.19	9.4	106
25.8.2017	51	12.1	1.17	10.3	122
12.9.2017	48	11.5	1.13	10.2	115
27.9.2017	49	12.0	1.00	12.0	132
25.10.2017	42	11.4	0.87	13.1	131
Orange minimum standard	38	9.0	–	9	90

Initial fruit quality tests in Australia confirm that Turkey can be added to the early Valencia group of selections in Australia, such as Midnight, Delta, McMahon and Benyenda.

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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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