NSW GOVERNMENT Department of Primary Industries

primefact

Eureka SL lemon

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Figure 1. Eureka SL lemon tree.

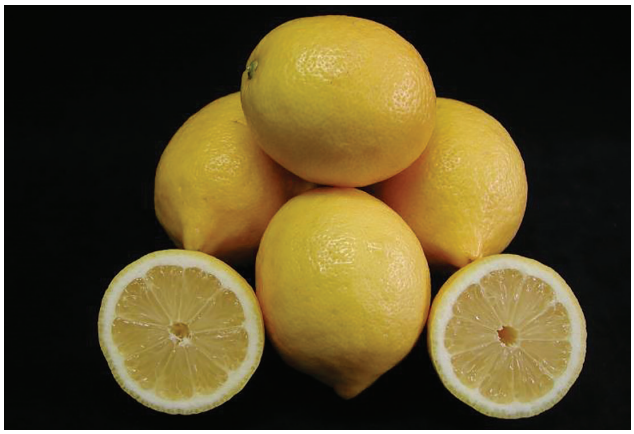

Figure 2. Eureka SL lemons.

Estimated maturity period

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

Origin

Eureka SL is a seedless Eureka lemon developed from irradiation breeding in South Africa. It has Plant Breeder's Rights (PBR) protection and is managed in Australia by the Australian Nurseryman's Fruit Improvement Company (ANFIC).

Fruit quality

Table 1. Eureka SL lemon fruit quality* characteristics.

Skin	Smooth, fine-textured and yellow at full maturity.
Average rind thickness (mm)	5.8
Internal quality	Flesh is greenish–yellow, medium juice content with high acidity.
Average number of seeds	0
Juice per cent (%)	43
˚Brix	7.8
Acid per cent (%)	5.6
Brix:acid ratio	1.4
Average fruit weight (g)	197
Average fruit diameter (mm)	70

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

Comments

- A medium vigour, spreading tree. Fruit tends to set in terminal clusters, which is typical of Eureka lemons. A range of fruit stages can be on the tree due to the extended flowering characteristic of lemons.
- The fruit is seedless. Initial juice quality tests suggest it is earlier maturing than its parent Eureka lemon.
- Exposed fruit is very sensitive to sunburn in hot southern Australian conditions.
- Extreme heat conditions occurred at the Sunraysia evaluation site during late January and early February 2009, when temperatures exceeded 40 °C for 12 consecutive days (average temperature 42.7 °C, Bureau of Meteorology, Mildura, Victoria). Extremely high and sustained air temperatures caused significant burns to exposed fruit, as well as internal desiccation of fruit within the canopy. The effects were most severe on young seedling trees under drip irrigation that had not yet developed a large canopy similar to top-worked trees.
- Fruit thinning was done in 2009 on trees top-worked to mature Valencia trees in 2005. The heavy crop on top-worked trees in 2009, combined with high air temperatures during mid-November, affected fruit set and retention, which affected the 2010 crop (Table 4).

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

Rootstock	Average yield per tree (kg)		
	2011 (6-y-old trees)	2012 (7-y-old trees)	2013 (8-y-old trees)
Benton citrange	81	30	60
Cox hybrid	73	54	98

Table 3. Average yield per tree* on nursery propagated field trees (Queensland).

Rootstock	Average yield per tree (kg)		
	2011 (6-y-old trees)	2012 (7-y-old trees)	2013 (8-y-old trees)
Benton citrange	72	108	155
Cox hybrid	74	130	175

Table 4. Average yield per tree* from trees top-worked to Valencia orange in 2005 (Sunraysia).

Rootstock	Average yield per tree (kg)									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Citrange	96	22	170	120	99	106	134	88	197	133
Cleopatra	41	20	129	90	49	73	99	33	146	93
Trifoliata	58	18	120	76	83	74	91	68	112	105

*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.

A high level of citrus grower enquiry began in 2012 and 2013 about seedless lemons for establishment in southern Australia.

Acknowledgements

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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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