Nules Clementine

Origin
A bud mutation from a Fina tree, discovered at Nules, Castellón province in Spain in 1953. The selection was released in South Africa in 1985.

Ownership
Open.

General Description
This is the most popular mid maturing Clementine selection world wide. It produces well, has good fruit size and quality and has an extended blossom period.
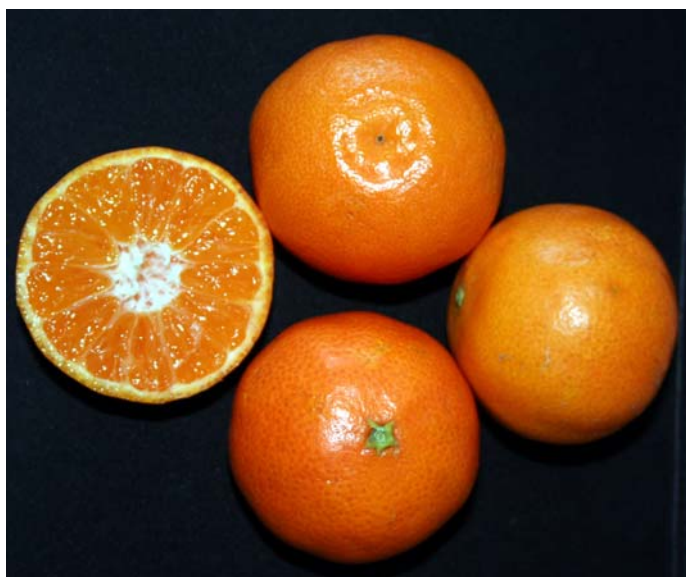
Tree Characteristics
The trees are vigorous and large with a round shape. Yields are good, out yielding the Fina (SRA 63).

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange and Swingle citrumelo. Nules on Minneola x trifoliate performed equally as well as Swingle citrumelo in the Sundays River Valley. The rootstock X639 has potential while Cleopatra mandarin is marginal. Trees on Rough lemon do produce larger fruit size with good quality but are prone to granulation and low acid in some years - rough lemon is therefore not a suitable rootstock. Rootstocks inducing small fruit size and lower acid are not recommended.

Fruit characteristics
Fruit size is good, slightly smaller than Oroval, varying from 55 to 70 mm (counts 1X to 3). The blossom is protracted resulting in selective picking with up to three harvests. The fruit shape is slightly round to flat, developing a slight neck when planted inland away from coastal areas. The rinds are fairly smooth and thin and the fruit develops a good colour. Internal flesh colour is orange and the flavour is good with high sugars, however acid levels can drop rapidly. The fruit does not hang well and can become puffy with low acid. The fruit is seedless in solid blocks. Maturity in the cold production areas is from early May to mid June and from mid April in cool inland areas. It matures about one week ahead of the SRA 63.

Production
Yields of 50 to 60 tons per hectare are expected for mature orchards.

General
Trees need to be regularly pruned to avoid production of smaller fruit. Nules Clementine trees have up to 3 fruit sets and should not be left to hang on the tree. The Nules Clementine is not susceptible to any pests and diseases other than those common to all Clementines. Harvest, packing and shipping requirements are as for other Clementines.

Status, Area Suitability and Availability
The Nules Clementine is the main commercial Clementine selection in South Africa, making up more than 50% of plantings. It is suited to the cold and cool inland citrus production areas in South Africa. Commercial quantities of propagation material available from the Citrus Foundation Block.

Nules Clementine fruit showing typical colour, rind texture and shape.

A Typical Nules Clementine tree showing spreading growth with the crop opening the tree canopy.

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Key References
The information in this fact sheet is based on evaluations by Citrus Research International.

Evaluation Data

Internal Quality - Nules Clementine on Carrizo citrange - Count 2					
Date	**Juice %**	**Brix**	**Acid**	**Ratio**	**Seed**
21/5/2009	55.0	10.5	1.10	9.5	0.0
27/5/2009	59.7	11.1	1.09	10.2	0.5
03/6/2009	60.0	11.3	0.93	12.2	0.0

Note: These data are from 14 year old trees in the Fort Beaufort region of the East Cape Midlands.

Count Distribution

Count	1XX	1X	1	2	3	4	5
%	4.6	9.7	20.1	23.7	26.8	10.2	4.9

Production
105.0 Kg per tree and 70 tons per hectare at 6 x 2.5m spacing.

Export %

Grade	Percentage
1	75
2	11
3	14
4	

Note: These data are from 15 year old trees in the Patensie region of the Gamtoos River Valley of the Eastern Cape for the 2008 season. Much higher yields (219 kg/tree and 146 tons/ha) were recorded in the same region; but it is possible that this is due to the orchard developing an alternate bearing cycle.

Comments:
The Nules Clementine has been the main Clementine selection planted in South Africa and it presently makes up approximately 53% of Clementine plantings.

Disclaimer: Information contained in this publication is provided as general advice only. For application to specific circumstances, professional advice should be sought.