

## mandarin variety fact sheet

# Clementines

(Marisol, Nules, Fina, Oroval)



### Origin

Fina probably originated in Algeria, sent to Spain 1925. Nules (deNules) bud mutation of Fina 1953. Oroval bud mutation of Fina 1950. Marisol bud mutation of Oroval 1970. All mutations selected in Spain. Imported into Australia in 1987 and released to selected nurserymen in 1989.

### Type

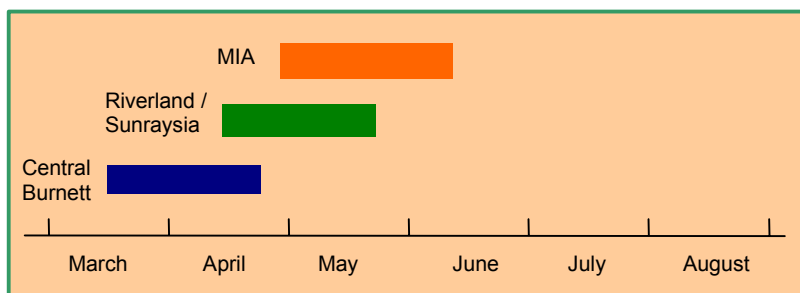
Early season easy peels.

### Market

Fresh, domestic and export, although success with any of these clementines is yet to be consolidated. Many early plantings of these varieties in Australia have since been pulled-out or reworked. Significant areas, particularly of Nules, have yet to come into production.

### Marketing season (estimated)

*Marisol is marginally earlier than the other three clementines*



*Brix:Acid reached 7:1 in mid-to-late April in the Riverland*

### Internal quality

Fruit is easily peeled, and potentially seedless from isolated blocks. In mixed plantings clementines can be quite seedy. Marisol generally has the least seeds (approx. 2/fruit) in mixed plantings. Nules has higher sugar levels making it the preferred choice. Internal quality deteriorates rapidly once maturity is reached giving them a short harvest season. Granulation prior to maturity can be a serious problem in some areas.

### External quality

Internal maturity is reached before external colour development, making degreening necessary particularly in northern production areas. They have a pebbly external texture, and can develop a deep orange colour (particularly Fina) in colder production areas.

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## Postharvest performance

The loose skin makes clipping essential. Fruit store well once picked, but can't be stored for long on the tree. As early season varieties there is generally little call for extended storage. Shipments to the USA from the Riverland/Sunraysia area have arrived in good condition.

## Field performance

These four clementines have not lived up to the expectations associated with their importation in the late 1980s. Nules is the only one considered to have sufficient quality for commercial production, and flush dieback can result in mixed fruit maturity and the need for select picking. These problems may be partly due to inappropriate management practices and production environments. Rootstock trials at Gosford have shown superior yield on Trifoliata compared with Swingle, with similar fruit quality. Trials at Hillston have shown similar results when using Cleopatra and Trifoliata, although seed numbers were slightly lower on the latter. Rootstock trials near Loxton showed that Fina on Carrizo gave the highest yields, although fruit size was small. Sweet Orange and Swingle have also proven satisfactory in the Riverland. Clementines require a high degree of management input with fruit thinning and tree pruning essential for quality fruit production.

## Pest and disease

No specific pest and disease problems are known to be peculiar to these varieties. There is some indication that clementines may be particularly prone to fruit fly attack.

## Extent of plantings

Commercial: Approx. 3,000 bearing, 51,000 non-bearing trees.

Research: Widely planted in arboretum. Semi-commercial plantings and rootstock experiments. Now terminated.

Growers should ensure that trees are propagated from Approved Budwood obtained from AusCitrus.

**Last Revised:** September 2002

### Disclaimer:

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

## State of knowledge

very  
limited

very  
high

Of these four clementines, Nules is the only one considered to have a commercial future, and this is likely to be limited to particular production environments.

