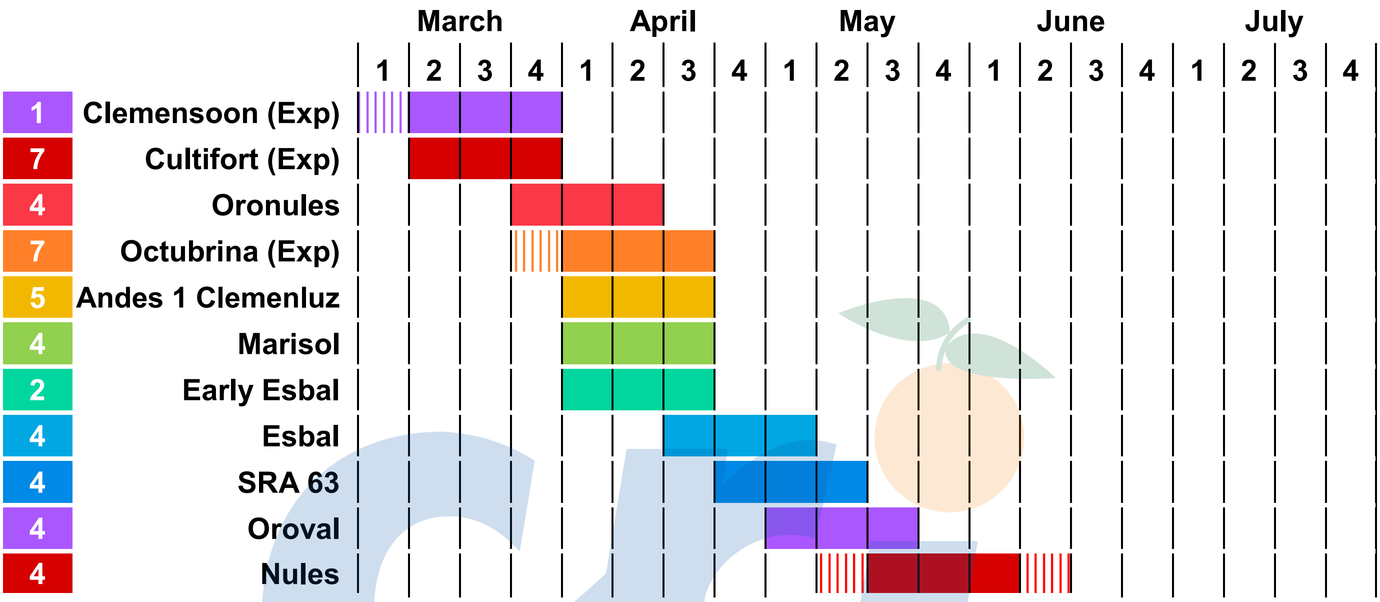
Clementines

Clementine Maturity Periods

Western Cape



Key:

Exp Experimental Cultivar
1 CGA Cultivar Company
2 Citrogold
3 Eurosemillas
4 Open
5 Stargrow
6 XLnT
7 Citrus Genesis

Updated: July 2024

Arrufatina Clementine

Origin
A Clemenules bud mutation from Castellón province, Spain. The selection was released in South Africa in 1992.

Ownership
Open.

General Description
An early maturing Clementine selection with similar characteristics to Clemenluz from Chile. The Clemenluz is also a bud mutation of Clemenules discovered in Chile.

Tree Characteristics
Trees are not as vigorous as Marisol and have a round to slightly upright growth habit with occasional thorns.

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing small fruit size, lower sugars and later colour are not advised.

Fruit Characteristics
Production is generally good with fruit up to 5mm larger than Nules, but smaller than Marisol. Stylar ends are usually slightly sunken with an occasional navel. Fruit is flattish and rinds are slightly coarser than other Clementines rendering the fruit less attractive. The rind is thin and breaks up into small pieces, but is not as oily as Marisol. Matures internally before the rind colours fully. Internal colour is not as deep as other selections, particularly earlier in the season. Sugar levels are good but acid levels can be low. Taste is better than Marisol, but it does not have the rich flavour of Nules. Fruit tends to be slightly dry at maturity and gets worse if left to hang, resulting in low juice percentages. Maturity is from mid April in the cold production areas.

Production
Production is good although figures are still to be included.

General
The trees are reported to set a crop easily. Deficit irrigation may be necessary to enhance sugar and acid levels. The Arrufatina 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 Arrufatina has only been evaluated in the cold production areas in South Africa on an experimental basis. It does not appear to be suited to other areas. Due to its negative characteristics this selection is not currently recommended for commercial planting. Propagation material is currently not available from the Citrus Foundation Block.

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

Evaluation Data

Internal Quality
Still to be included.

Count Distribution
Still to be included.

Production
Still to be included.

Export %
Still to be included.

Comments
It is unlikely that the Arrufatina will be of value to the South African Soft Citrus Industry.

Updated: May 2012

Late Clementine

Origin
A Fina mutant that was released in South Africa in 1988.

Ownership
Open.

General Description
A late maturing selection of medium to medium large fruit size having a green stylar end and low sugars at harvest. The fruit colours up later than internal maturity.

Tree Characteristics
The tree is vigorous and extremely dense with a brittle, weak structure, resulting in broken branches with a heavy crop load. The stem has a dark colour. The trees are slow to come into production due to their vigour and are prone to alternate bearing with heavy yields in “on“ years and very light crops in “off” years.

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing small fruit size, lower acid and later rind colour maturity are not advised.

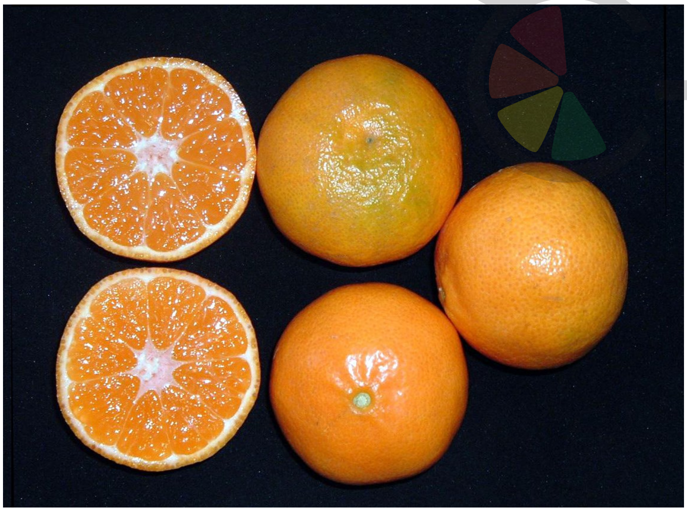
Fruit Characteristics
Fruit size is larger than Fina and smaller than Nules. Fruit shape is round and the rind not as smooth as Fina. The rind colour develops later than internal maturity. The stylar end tends to remain green well into maturity, although there is considerable variation. The fruit has good eating quality with high sugars, but acid levels tend to be low. Due to the delayed rind colour, acid levels may drop too low before the onset of natural rind colour. Internal flesh colour is not always an intense orange. Maturity in the cold citrus production areas is at the end of the Nules season, around the first two weeks of June, although the rind colour may still be slightly retarded.

Production
Yields during an “on” year are heavy, although figures are still to be included. The objective would be to move away from “on” and “off” years through careful crop management procedures.

General
Pruning is necessary to improve the tree structure and reduce the tree density. In addition, crop and fruit size manipulation would be necessary to improve yields and fruit size. The Clemlate 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. Due to the delayed rind colouration, growers must beware of harvesting too late when acid levels have dropped resulting in the possible onset of granulation.

Status, Area Suitability and Availability
The Clementine Late makes up less than 2% of Clementine plantings with no further plantings taking place. It is suited to the cold citrus production areas. Propagation is not currently available from the Citrus Foundation Block.

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



Clemlate fruit showing typical shape, colour, rind texture and rind thickness.

Updated: May 2012

Evaluation Data

Internal Quality - Late Clementine on Rough Lemon - Count 2						
Date	Juice %	Brix	Acid	Ratio	Seed	Colour
09/06/2009	61.8	12.2	0.80	15.3	0.2	2-3
15/06/2009	61.7	13.1	0.72	18.2	0.2	3
23/06/2009	67.5	12.3	0.63	19.5	0	2-3
09/07/2009	63.4	12.2	0.61	20.0	0.1	1-3

Count Distribution
There is insufficient information at this stage to give an accurate count distribution.

Production
15.4 Kg per tree and 15.4 tons per hectare at 5 x 2 m spacing.

Export %

Grade	Percentage
1	78
2	22
3	
4	

Note: These data are from 9 year old trees in the Patensie region of the Gamtoos Valley

Comments
Although the Clementine Late is not considered a superior Clementine selection it currently makes up nearly 2% of Clementine plantings. The results given in this Cultivar Fact Sheet reflect an 'off' year as these trees were in an alternate bearing cycle. The Clem Late is prone to alternate bearing which can be rectified by thinning in 'on' years.

Marisol Clementine

Origin
A bud mutation of an Oroval discovered at Bechi, Castellon province, Spain, in 1970.

Ownership
Open.

General Description
A high yielding, early maturing Clementine of large fruit size and inferior fruit quality to Nules. The tree has a weak structure.

Tree Characteristics
Marisol is precocious with high yields, often resulting in broken branches from the excessive fruit mass and poor tree structure. Trees are vigorous with a narrow crotch angle and upright growth habit which tend to aggravate this problem.

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing small fruit size, lower sugars and later colour are not advised.

Fruit Characteristics
The fruit does not have a wide count range and size is between that of Nules and Oroval. The fruit shape is fairly round, sometimes necked and a pebbly rind. The fruit is reasonably peeled but oily. Internal quality tests are generally good, with good juice levels, sugars over 10.0% and acid over 1.0%. This causes lower ratios than Nules as the Marisol sugars are lower and acid higher.

Fruit taste is often poorer than the tests indicate. Acid levels can be too low in the hotter areas. Fruit colour and maturity is ahead of Nules and Oroval. Colour can be delayed relative to internal maturity. Colour break occurs in early March and maturity is towards the end of April in the cold production areas. Maturity is two to three weeks ahead of Nules and Oroval respectively. The fruit is seedless in solid plantings.

Production
Yields of 18 tons/ha have been recorded on 3½ year old trees in the Eastern Cape with the majority of the fruit falling between counts 1-2.

General
Deficit irrigation enhances sugar levels and reduces fruit size, but can also retain high acid levels. The larger fruit, large for a Clementine, tends to be coarser and of poorer quality than the standard more normal sized fruit. As with most Satsuma selections, over irrigation based on production practices for Clementine selections and other cultivars has reduced the potential of the Marisol. The Marisol 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.

Marisol fruit showing typical colour, shape, rind thickness, rind texture and seedlessness.

Four year old Marisol trees under pulse drip fertigation showing good yields and fruit colour with frost damage on the tops of the trees (tree height 1.8m).

Updated: May 2012

Status, Area Suitability and Availability
Marisol is suited to the cold productions areas and not recommended in the cool inland and intermediate areas due to inferior quality. Limited quantities of propagation material are available from the Citrus Foundation Block.

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

Evaluation Data

Internal Quality - Marisol Clementine on Troyer citrange - Western Cape - Count 2/3						
Date	**Juice %**	**Brix**	**Acid**	**Ratio**	**Seed**	**Colour**
07/03/2011	62.7	10.9	1.76	6.2	0	5-6
06/04/2011	63.2	11.5	1.40	8.2	0	2

Count Distribution
Data still to be included.

Production
Data still to be included.

Export %
Data still to be included.

Comments
Although the Marisol still makes up 8% of Clementine plantings, the introduction of improved earlier maturing Clementine selections has resulted in it no longer being planted.

Nour Clementine

Origin

A mutation of the Moroccan Cadoux (similar to SRA 63) from Sunérine. The selection was released in South Africa in 1999.

Ownership

Open.

General Description

A late maturing Clementine selection with medium fruit size. The fruit is high quality and rind colour can be delayed. The trees are dense and the stem dark in colour. Characteristics are similar to Late Clementine.

Tree Characteristics

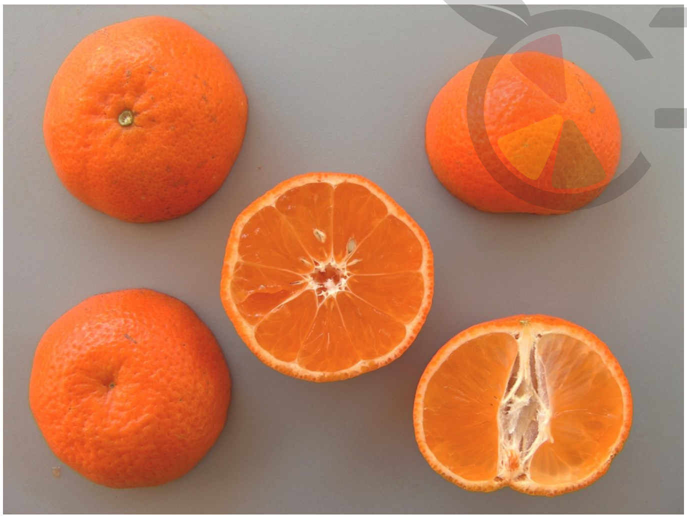
The tree is vigorous and dense with a dark stem. The fruit tends to be borne on the inside of the tree. Yields on young trees in the cold production areas of South Africa have been poor and fruit size medium to medium small with some variability. Yields in the cool inland areas are better but with similar fruit size. Alternate bearing is reported to be possible.

Rootstock Options

Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing small fruit size, lower acid, drier fruit and later colour are not advised.

Fruit Characteristics

The fruit shape is round sometimes with a nipple at the stem end and a ring at the stylar end. The rind is pebbly, sometimes with prominent oil cells and is reasonably peeled but oily. Rind colour can be delayed compared to internal maturity, but is slightly more advanced than Hernandina and later than Nules. Fruit sometimes have green stylar ends although this tends to vary and most disappear with maturity. The flesh can be coarse and has on occasions been slightly dry and raggy. Internal quality is very good with very high sugars and normally sufficient acid (close to 1.0%), somewhat higher than other late maturing Clementine selections. Maturity in the cold production areas varies between the end of May and late June and mid to late May in the cool inland areas, ahead of Clementarde.



Nour fruit showing typical shape, colour, rind texture and rind thickness.

Production

Production is reasonable, however figures are still to be included.

General

Pruning is necessary to reduce the tree density, let in more light and improve fruit size. The Nour 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. Degreening could be necessary to enhance the rind colour.

Status, Area Suitability and Availability

The Nour has only been evaluated in the cold costal and cool inland production areas in South Africa. Although the internal quality is high the fruit has relatively small fruit size and rind colour can be delayed. As yields are light and fruit size tends to be small this selection is not currently recommended for commercial planting. Limited quantities of propagation material are available from the Citrus Foundation Block.

Key References

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

Updated: May 2012

Evaluation Data

Internal Quality - Nour Clementine on Troyer citrange - Count 1 - Western Cape						
Date	**Juice %**	**Brix**	**Acid**	**Ratio**	**Seed**	**Colour**
28/05/2003	58.0	11.8	1.09	10.8	0	6
10/06/2003	54.6	11.5	1.03	11.2	0	4-5
23/06/2003	55.2	11.1	0.91	12.2	0	4

Count Distribution
Data still to be included.

Production
Data still to be included.

Export %
Data still to be included.

Comments
Although not popular in South Africa the Nour makes up 50% of Clementine plantings in Morocco - fruit quality is very good under Moroccan conditions.

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.

Updated: May 2012

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.

Orogrande Clementine

Origin
A Nules Clementine mutant of unknown origin. The selection was released in South Africa in 1992.

Ownership
Open.

General Description
In Spain the Orogrande is reported to yield more fruit of larger and more consistent fruit size than Nules, as well as being slightly earlier maturing, similar to Marisol. In South Africa it appears to have variable maturity.

Tree Characteristics
The tree has a fairly round shape, similar to Nules, although it can sometimes be slightly upright in growth habit - there are no thorns. Yields are good.

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing smaller fruit size, lower acid and later colour are not advised. Mandarin rootstocks can also be considered.

Fruit Characteristics
Fruit size is variable, mainly medium to medium large, but slightly smaller than Nules. Fruit shape is rounder than usual for Clementines with a smooth rind and good colour. The flavour is good, with high sugars, but acid levels can be borderline (low), normally less than 1.0% at maturity and lower in warm areas. Maturity has not been consistent in South African evaluations sometimes maturing slightly before to slightly after Nules. Fruit colour development is similar to Nules. In the cold citrus production areas maturity starts around the end of April to early May and around mid April in warmer areas.

Production
Production is believed to be good, although figures are still to be included.

General
Manipulation requirements are similar to other Clementines. The Orogrande 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 Orogrande has only been evaluated experimentally in South Africa, except for one semi commercial orchard in the East Cape. In experimental plantings it has shown no real benefit over any other selections and has therefore not been planted on a commercial scale. It appears more suited to the cold citrus production areas. Limited quantities of propagation material are available from the Citrus Foundation Block.

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

Updated: May 2012

Evaluation Data

Internal Quality
Still to be included.

Count Distribution

Count	1XX	1X	1	2	3	4	5
%	7.8	12.6	27.9	27.2	18.8	3.8	1.9

Production
60 Kg per tree and 60 tons per hectare at 5 x 2m spacing - planted in 1999.

Export %

Grade	Percentage
1	68
2	13
3	19
4	

Note: These data are from 11 year old trees in the Patensie region of the Gamtoos River Valley of the Eastern Cape for the 2008 season.

Comments
This is a relatively unknown Clementine selection in South Africa. From the figures obtained from one small commercial planting it is evident that the Orogrande's fruit size is larger than other Clementine selections and further evaluation needs to be considered.

Oronules Clementine

Origin
A Fina (SRA 63) mutation discovered near Nules, in the Castellon area, Spain in 1970. Also known as Caffin in Morocco. The selection was released in South Africa in 1996.

Ownership
Open.

General Description
An early maturing Clementine with good rind colour and quality.

Tree Characteristics
The tree is fairly upright growing and dense with small, unique dark green leaves. Crops are light and fruit matures around mid April in the cold citrus production areas.

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing small fruit size, lower sugars and later colour are not advised.

Fruit Characteristics
Fruit size is medium to small and fruit shape is round. Fruit rinds are generally smooth and develop a deep orange red colour. Peelability and rind oil are reasonable and similar to most other Clementine selections. Internal flesh colour is deep orange and young trees can produce slightly raggy fruit. The flavour is good with high sugars and acid can be on the low side. There are some seed under cross pollination, but the fruit is seedless in solid plantings. It matures ahead of Marisol which is in mid April in the cold production areas.

Production
Production is light, although figures are still to be included.

General
Crop and fruit size manipulation would be necessary to improve yields and fruit size. The Oronules 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 Oronules has only been evaluated in the cold production areas in South Africa. As yields are light and fruit size tends to be small this selection is not currently recommended for commercial planting. Limited quantities of propagation material are available from the Citrus Foundation Block.

Key References
Evaluations and reports from Citrus Research International.

Evaluation Data

Internal Quality
Still to be included.

Count Distribution
Still to be included.

Production
Still to be included.

Export %
Still to be included.

Comments
The Oronules is not presently a commercial cultivar in South Africa. Its early maturity may make it worth further evaluation which should include treatments to improve fruit size and set.

Updated: May 2012

Oroval Clementine

Origin
A mutation of the Fina, discovered at Quart de les Valls in the Valencia province, Spain in 1950. The selection was released in South Africa in 1985.

Ownership
Open.

General Description
An early maturing Clementine selection of large fruit size, reasonable quality and poor tree structure.

Tree Characteristics
Trees are vigorous with a narrow crotch angle and upright growth habit. Yields are often very good resulting in broken branches from the excessive fruit mass and poor tree structure.

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing larger fruit size, lower sugars and later colour are not advised.

Fruit Characteristics
Oroval has the largest fruit size of all the Clementines, one to two counts larger than Nules. The fruit shape is fairly round, sometimes necked with a pebbly rind and prominent oil cells. The fruit is reasonably peeled, but oily. Internal quality tests are generally good, with good juice levels. The Oroval sugars are generally 1-2% lower than Nules and acid about 0.2% higher, resulting in a lower ratio than Nules. Fruit taste is poorer than Nules, but better than Marisol. Acid levels can be too low in the warmer areas. Fruit colour and maturity is before Nules. Maturity is approximately the last three weeks of May in the cold production areas. The fruit is seedless in solid plantings.

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

General
Deficit irrigation enhances sugar levels and reduces fruit size, but can also retain high acid levels. The larger fruit, large for a Clementine, tends to be coarser and of poorer quality than the standard more normal sized fruit. As with certain Satsuma selections, over irrigation based on production practices for Clementines and other cultivars has reduced the potential of the Oroval. The Oroval 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. The Oroval has a short harvest period which usually lasts 2 - 3 weeks.

Status, Area Suitability and Availability
Oroval is suited to the cold productions areas where it has been planted commercially and not recommended in the cool inland and intermediate areas due to inferior quality. It is no longer planted as it has been replaced by Nules, which has similar maturity and better quality. Limited quantities of propagation material are available from the Citrus Foundation Block.

Oroval tree showing typical tree shape with a large crop of typical sized large fruit.

Updated: May 2012

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

Evaluation Data

Internal Quality - Oroval Clementine on Swingle citrumelo - Count 2 - East Cape						
Date	**Juice %**	**Brix**	**Acid**	**Ratio**	**Seed**	**Colour**
14/04/2010	66.5	11.3	1.18	9.6	0	1-2
21/04/2010	61.4	12.0	1.16	10.3	0.5	1

Count Distribution

Count	1X	1	2	3	4	5
%	0.4	13.1	30.6	32.3	15.6	8.0

Production
110 Kg per tree and 57 tons per hectare at 5.5 x 3.5m spacing.

Export %

Grade	Percentage
1	68
2	15
3	8
4	9

Note: These data are from 9 year old trees in the Patensie region of the Gamtoos Valley.

Comments
The Oroval was originally one of the two improved size Clementine selections imported from Spain, the other being the Nules Clementine. The Nules' superior internal quality and production factors resulted in the Oroval being planted on a much smaller scale than the Nules. It now only makes up approximately 4% of Clementine plantings.

SRA Clementine

Origin
The SRA Clementines are numbered Mediterranean selections established at the INRA Citrus Research Station, Stationes Researches Agronomique (SRA), at San Nicolao, Corsica. The SRA 63 as we know it in South Africa is similar to the Spanish Fina. In South Africa we have a range of SRA selections: SRA 63, 70, 84, 85, 88, 89 and 92. Most of these selections were released in South Africa in 1985. The SRA 63 was released somewhat earlier, with the first trial plantings established in various areas in South Africa in the first half of the 1970s and initially making up all the commercial plantings in South Africa.

Ownership
Open.

General Description
The selections produce well with medium to small fruit size. They are mainly mid-maturing and of high quality.

Tree Characteristics
The trees are vigorous, forming large, dense trees with typical small Clementine leaves. Yields are generally good with medium fruit size.

Rootstock Options
Suggested rootstocks are Carrizo/Troyer citrange. Rootstocks inducing small fruit size must be avoided.

Fruit Characteristics
The majority of fruit fall into the 50 - 60 mm range, (Count 3 to 4), with a mean size of 55 mm. There is little difference between the selections, although the SRA 89 and 92 are reported to be slightly larger than SRA 63. In local evaluations, SRA 70 has proved to be different - smaller fruit size, earlier colour (1-2 weeks) and paler, a thinner rind, some splitting and of inferior quality. SRA 92 has slightly larger fruit size, although not as large as Nules. The SRAs tend to have smooth, thin rinds and are not always easy to peel. Colour, except for the paler SRA 70 is good and uniform. Flavour is generally very good and of the best flavoured Clementines, with high sugars and adequate acid. Maturity of all, except SRA 70, is a week later than Nules, starting from the second week in May to early June in the cold production areas. SRA 70 is up to two weeks earlier. The fruit is seedless in solid blocks, although seed in young trees has been reported.

SRA 63 fruit hangs well between 4 to 5 weeks after maturity (firm fruit, good acids and extended shelf life), compared to Nules with a hang limit of 3 weeks after peak maturity (puffy fruit, acids drop and shelf life problems). In the maturity table, SRA 63 matures before Nules but can be picked later due to this characteristic and no selective picking will be necessary (strip trees).

Production
Yields of 40 to 50 tons per hectare are expected for mature orchards.

General
Fruit thinning and appropriate pruning will be necessary to enhance fruit size. The SRAs are 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 SRA 92 is the most suitable SRA selection for commercial planting; however, it cannot compete with Nules in terms of fruit size. SRA 63 was the most widely planted Clementine selection until the Nules and Oroval became available. The SRAs are generally not suited to the coldest of the cold citrus production areas due to small fruit size, but chemical thinning does improve size. Due to the excellent fruit quality and high Brix levels growers in cold areas generally have less cold damage to the fruit and are able to extend their season slightly due to the better hanging characteristics. However, keep in mind that the SRA 63 will achieve better size in the warmer parts of the winter rainfall region. Recently some demand has been shown for the SRA 63 selection. Limited quantities of propagation material is available from the Citrus Foundation Block.

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

SRA 63 fruit showing typical shape, colour, rind texture and rind thickness.

Updated: June 2020

Evaluation Data

Internal Quality - SRA 63 on Carrizo citrange - Count 2 - Gamtoos River Valley						
Date	**Juice %**	**Brix**	**Acid**	**Ratio**	**Seed**	**Colour**
13/04/2010	63.2	10.8	1.13	9.6	1.4	7
20/04/2010	61.4	11.0	1.03	10.7	0.4	6
04/05/2010	50.8	11.0	0.98	11.2	1.5	3-4
10/05/2010	66.5	12.8	0.85	15.1	0	1

Count Distribution

Count	1XX	1X	1	2	3	4	5
%	3.0	5.5	12.5	18.0	33.0	18.0	10.0

Production
70 Kg per tree and 45 tons per hectare at 5 x 3m spacing - planted in 1985

Export %

Grade	Percentage
1	62
2	10
3	28
4	

Note: These data are from 23 year old trees in the Patensie region of the Gamtoos River Valley of the Eastern Cape for the 2008 season.

Comments
Recent interest in the SRA 63 Clementine has resulted in its re-release into the Citrus Foundation Block.