

ARCCIT 9 (Nadorcott LS)

Origin

ARCCIT 9 - also known as ARC Nadorcott LS - is an irradiated Nadorcott mandarin, acknowledged as essentially derived from Nadorcott, and developed by the Agricultural Research Council (ARC) in Addo, Eastern Cape, South Africa.

Ownership

The Agricultural Research Council (ARC) is the PBR holder of the variety. Given that the variety is essentially derived from Nadorcott, the ARC shares the commercialisation rights with the Nadorcott Protection Company (NCP), the owner of the Nadorcott variety. Citrogold (Pty) Ltd has been appointed to manage the commercialisation of the ARC Nadorcott LS variety in South Africa.

General Description

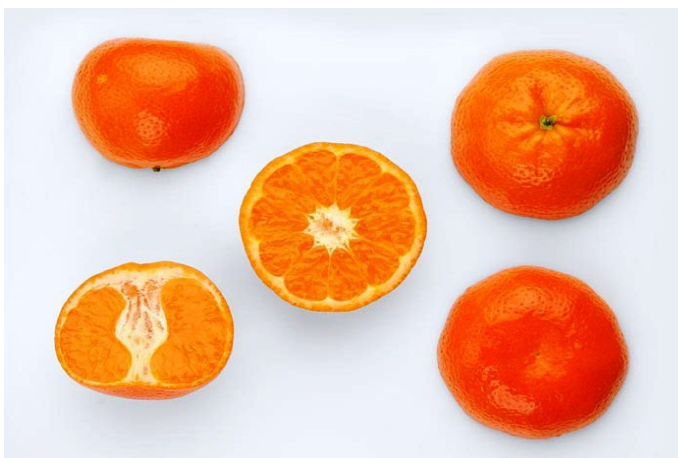
ARCCIT 9 is a mid to late maturing low seeded mandarin hybrid. Fruit size is medium to large with a deep red-orange rind colour and a deep orange internal colour. The mandarin is prone to alternate bearing. Trees have a vigorous growth pattern.

Tree Characteristics

The tree shape is upright with vigorous growth and without thorns, similar to Nadorcott.

Flowering time and intensity is similar to that of Clementine mandarin and is not protracted. Through trials it has been seen that the ARCCIT 9 mandarin has low percentage of viable pollen and is a weak pollinator, the ovules have low fertility which decreases sensitivity to cross-pollination.

Yields should be managed (girdling & Gibberellic acid sprays during flower time), as the selection is prone to alternate bearing. The variety is also very tolerant to Alternaria.



ARCCIT 9 fruit showing typical shape, colour, rind texture and rind thickness.

Rootstock Options

Carrizo citrange, C35 citrange, Swingle citrumelo, X639 and Sunki 812 citrandarin.

Fruit Characteristics

Fruit size is larger than Clementines and Nova; the shape is more oblate. The rind is deep red-orange with a slightly pink albedo, this makes it distinguishable. The fruit have a natural wax or shiny external appearance. Internal fruit colour is a brilliant deep orange.

The rind texture is smoother in humid and coastal production areas compared to drier inland areas. Fruit splitting rarely occurs and ribbing at the stem is a moderate occurrence.

Easy peelability with little to no oil and adhering albedo.

Maturity in the warm areas varied from late May to June and in the cool production areas from late July to August. ARCCIT 9 have high sugars and moderate acids that leads to good quality fruit with a well balanced distinct flavour.

Production

ARCCIT 9 are precocious and they should produce an average of 50 t/ha depending on the growing area.

General

As ARCCIT 9 trees are quite vigorous, planting density must be appropriate to accommodate the tree size. Harvest, packing and shipping requirements are the same as for other mandarin hybrids. Fruit does well under cold sterilization and cold storage conditions.



Seven year old ARCCIT 9 trees on Carrizo citrange showing typical fruit size and yield.

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Status, Area Suitability and Availability

This selection was evaluated in different citrus production areas (cold, intermediate and hot) of South Africa. It is gaining popularity due to the deep orange rind colour, good flavour, low seediness, good crop and favourable fruit size. 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.

Evaluation Data

Internal Quality - ARCCIT 9 on Carrizo citrange - Hoedpsruit							
Date	Count	Juice %	Brix	Acid	Ratio	Seed	Colour
29/03/2018	1-3	50.7	14.3	2.05	7.0	0.3	T3
01/06/2018	2-1X	62.2	14.6	1.25	11.7	0.2	T1-3

Internal Quality - ARCCIT 9 on Carrizo citrange - Kirkwood							
Date	Count	Juice %	Brix	Acid	Ratio	Seed	Colour
31/05/2017	1X	56.7	11.9	1.13	10.5	0.2	T5
19/06/2017	1XX	62.0	11.8	1.16	10.2	0.0	T3-4
05/07/2017	1XX	60.7	11.6	0.94	12.3	0.0	T1
02/08/2017	1	64.0	11.5	0.84	13.7	0.0	T1

Count Distribution

Data still to be included.

Production

Data still to be included.

Export %

Data still to be included.