



CSIRO PLANT INDUSTRY

Dried Grape Varieties Fact Sheet

Sunglo – a rain tolerant seedless grape for drying

The Sunglo variety was named and released by the United States Department of Agriculture (USDA) and CSIRO, in December 2010. It is a seedless, high yielding, rain tolerant variety that produces a dried product similar to Sultana when treated with drying emulsion. Sunglo resulted from the cross of Calmeria x C4-37 (Muscat of Alexandria x Sultanina) made by Elmer Snyder between 1943 and 1947 at the USDA, Fresno. It was tested, but discarded, as a late ripening table grape in the USA.

Sunglo, was imported by CSIRO and released from quarantine in Australia as an unnamed selection, F 64-74 in 1971. F 64-74 was tested as a drying variety by CSIRO in the 1980's. In those studies, after application of drying emulsion and rack drying it produced light golden-amber coloured dried fruit with a pleasant acidic flavour.

Its potential as a rain tolerant type was particularly evident in season 2003 when significant rain events occurred in mid February causing significant losses to the Sultana crop. The fruit of F 64-74 was undamaged by the rain and subsequently produced an excellent light type, dried product.



A, semi-commercial test planting of Sunglo was established by top working existing Sultana vines grafted on Ramsey rootstock in 2005 to assess its potential as a rain tolerant variety. The site is managed on a Swing-arm trellis and trellis dried.



Key characteristics of Sunglo

Rain tolerance:

The rain tolerance of Sunglo has been proven in the semi-commercial site in 2010 and 2011 when rain damage to Sultana caused major losses associated with berry splitting, berry abscission and mould development.

Yield:

Sunglo produced modest yields when assessed in the initial trials planted on own roots since 1971, i.e. around 5t/ha. However, when grafted on Ramsey rootstock and managed on a Swing-arm trellis in the semi-commercial trial it has been highly fruitful and very productive as shown in the table below, with an average dry yield of 9.6 t/ha compared to 6.6 t/ha of Sultana.

Dried grape yields of Sunglo and Sultana grafted on Ramsey rootstock and managed on a Swing-arm trellis and trellis dried over 4 seasons (2008-2011) are shown below.

Season	Sunglo (dry t/ha)	Sultana (dry t/ha)
2008	11.0	6.7
2009	13.0	12.2
2010	8.0	4.3
2011	6.3	3.0
mean	9.6	6.6

Suitable rootstocks:

High vigour rootstocks are required for Sunglo, to optimise production and minimise losses associated with sunburn. It has performed adequately when grafted on Ramsey and 1103 Paulsen without any signs of incompatibility.

Susceptibility to pests and diseases:

Sunglo is not disease resistant; hence standard applications of fungicides are required.



Planting spacings:

Vine spacings will depend on soil type, trellis type and rootstock used. A 2.5 m spacing is used with the Swing-arm trellis at the semi-commercial site.

Pruning systems:

Sunglo can be cane pruned using traditional trellises or cordon based hanging cane systems. The variety is not suited to spur pruning as it is not fruitful in the basal nodes.

Bunch structure and berry size:

The bunch structure is loose and is well suited to trellis drying.

Berries of Sunglo, weighing about 2.1g are 25% larger than Sultana berries.

Maturity:

Sunglo ripens about 10 days later than Sultana. In the CSIRO studies, optimum maturity levels for drying of 23.0 °Brix were achieved in the second week of March.

Drying ratio:

The ratio of fresh to dry weight is estimated to be around 4.0 provided adequate maturity levels are achieved.

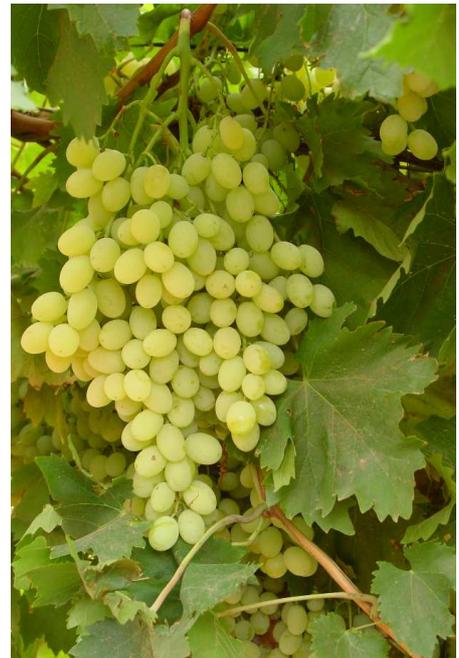
Product type and quality:

The dried product of Sunglo is considered a 'sultana type' which cannot be differentiated from the standard dried product from Sultana. With the exception of season 2011, dried fruit quality of Sunglo from the semi-commercial site has consistently been graded as 4 crown light fruit. In contrast, the dried product of Sultana was lower in quality in 2009 and 2010, i.e. 3 light and 4 brown, respectively.

In common with Sultana, the dried berries of Sunglo will darken under difficult drying conditions due to rain and high humidity.

Storage and processing:

The fruit stores very well prior to processing with excellent colour retention and good friability. Capstems are easily removed during processing, ensuring minimal skin damage and maintenance of product quality (i.e light amber colour without sugaring problems).



Grower returns:

Adoption of Sunglo should provide considerable benefits over Sultana associated with its rain tolerance, higher and more consistent yield and quality.

Further information and material availability:

Dried Fruits Australia has been appointed by CSIRO and Horticulture Australia Ltd as the commercialiser for Sunglo. Growers wanting information or seeking to obtain grafted vines, should contact Dried Fruits Australia on (03) 50235174.

Growers will be required to sign a Registered Grower agreement before vines can be supplied.

CSIRO acknowledges the support of the dried grape industry and Horticulture Australia Ltd.



Disclaimer

CSIRO gives no warranty and makes no representation that the information contained in this document is suitable for any purpose or is free from error. CSIRO and its officers, employees and agents accept no responsibility for any person acting or relying upon the information contained in this document, and disclaim all liability for any loss, damage, cost or expense incurred by reason of any person using or relying on the information contained in this document or by reason of any error, omission, defect, or mis-statement contained therein.