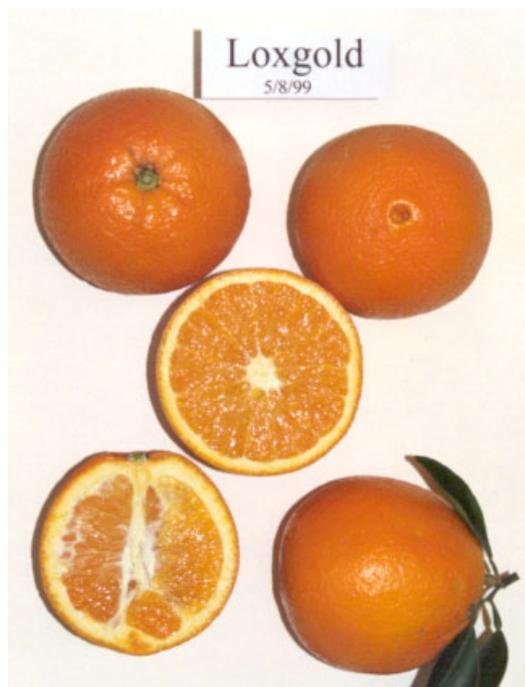


orange variety fact sheet

Washington



Origin

Washington navel was introduced into Australia in the late 19th century from California. It is the major navel orange variety currently grown in Australia. The predominant Washington navel selections planted in Australia are Houghton and Herps. Houghton is a nucellar selection from the property of J. Hutchison at Glenorie, NSW. Herps is a selection from the property of B.F. Herps at Leets Vale, NSW. A new selection from Herps known as Loxgold is currently under trial in South Australia.

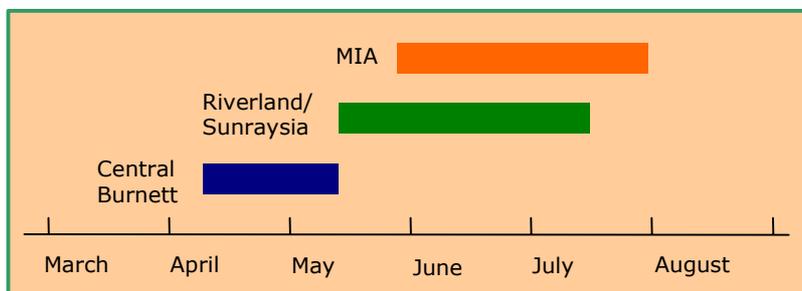
Type

Navel orange, seedless, mid-season maturity

Market

Fresh fruit, domestic and export markets. Washington navel is the major navel orange variety grown in Australia for domestic and export marketing. Lucrative markets currently exist in the United States and Asia for high quality Australian Washington navels.

Marketing season (estimated)



Internal quality

Washington navel is the benchmark to which all other navel oranges are compared. At optimum fruit maturity it has a rich sweet flavour and high juice content (>40%). Washington navel has the disadvantage of not being suitable for fresh juice production due to high levels of limonin which give the juice a bitter taste.

External quality

Early season fruit have yellow-orange rind colour, turning deep orange later in the season. Fruit size is medium to large and rind texture is medium to coarse. Fruit shape is usually round. Rind is medium to thick and relatively easy to peel.

Postharvest performance

Washington navel responds well to ethylene de-greening and can be cool-stored for long periods. Fruit undergoing long-term storage should be treated with Gibberellic acid

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on the tree to improve rind quality and reduce susceptibility to albedo breakdown and fungal infection. Washington navels require careful handling during picking. Fruit picked in cold, wet conditions have an increased risk of developing oleocellosis (rupture of rind oil cells) during packing and shipping, leading to browning of the skin after a few days in storage.

Field performance

Washington navel is highly productive in the citrus growing areas of southern Australia but trees older than twenty years may display severe alternate bearing patterns and a tendency to small fruit size. Washington navel trees produce their best quality fruit in the warm summer/cool winter growing conditions of southern Australia, and are sensitive to climatic extremes during flowering and fruit set. Fruit held on the tree late in the season may require treatment with a 'stop-drop' spray to prevent premature fruit drop. Early trial results from South Australia indicate that Loxgold may have higher yields than other Washington navel selections, but long-term yield performance is still to be determined.

Extent of plantings

Washington navel is the most widely planted navel orange in southern Australia. In 1997 there were 5585 ha of Washington navel trees planted in Australia. There are also large numbers of non-bearing trees being established to supply the growing demand for export quality fruit.

Pest and disease

Washington navel tends to have a large open navel that provides a potential site for snail and mealybug infestation. The fruit calyx (button) may also be a potential site for larval infestation by light brown apple moth. All three pests are quarantinable pests for export of navel oranges to the United States, requiring field monitoring of orchards and possible field treatment of problem areas.

State of knowledge

very
limited

very
high



Growers should ensure that trees are propagated from Premium budwood obtained from Auscitrus.

Last Revised: July 2002

Disclaimer:

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

