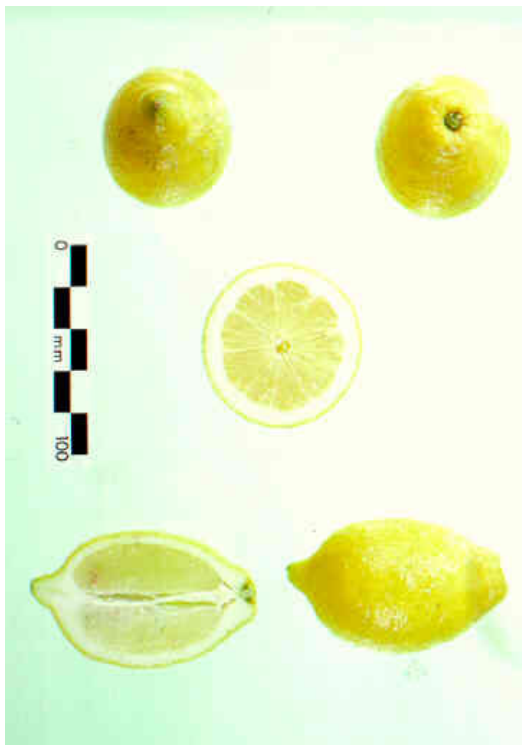


lemon variety fact sheet

Verna



Origin

Verna lemon is a Spanish variety of unknown origin that accounts for around 60% of Spain's annual lemon crop. It is also grown in Algeria and Morocco. Verna lemon was imported into Australia from Spain and released from plant quarantine in 1994.

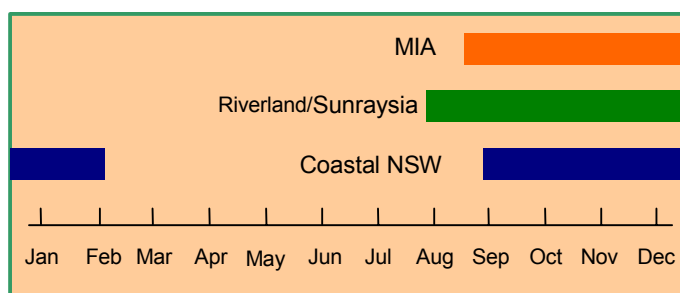
Type

Verna is a late maturing lemon that produces large fruit and low seed numbers. Verna lemon produces a single crop in southern Australia and on the NSW Central coast produces several crops throughout the year.

Market

Domestic. Verna lemon was imported with the aim of producing high quality summer lemons in Australia. Lemons marketed during summer attract premium prices on the Australian domestic market. Australia currently imports lemons from California during this period.

Marketing season (estimated)



Internal quality

Verna lemon is virtually seedless and has less juice than Eureka lemon. Verna has tender pulp and good acid content. The rind of fruit from the main crop is medium to thick but is thinner in second and third crops. Preliminary assessment of trial fruit grown at Renmark indicates that fruit with the highest juice content were from trees grown on *Poncirus trifoliata* and Benton citrange.

External quality

Fruit from the main crop is large in size and often excessively large from young trees. Verna fruit has a pronounced nipple and well developed neck. Fruit shape is oval/elongated in shape and intense yellow in colour. Rind texture is coarse and oily.

Postharvest performance

In a storage trial on the Central Coast of NSW fruit were harvested from two rootstocks (Benton citrange and Cox hybrid) in August 2000 and put into cool storage (10°C and 90% RH) until January 2001, a period of 20 weeks. Fruit spoilage rates due to infection by blue and green moulds were 15% for Benton citrange and 30% for Cox hybrid. Fruit from Cox hybrid trees has higher spoilage rates as a result of cold damage to the fruit. Fruit weight loss was 36% for Benton citrange and 44% for Cox hybrid.

Field performance

Trees are large, spreading and productive. Verna produces a main crop in late winter and spring in southern Australia, and in coastal NSW several crops are produced throughout the year. Under Spanish conditions Verna usually flowers twice a year and in some years a third crop is produced. The second crop ('Secundus') is of inferior quality and of little commercial importance. Spanish growers will sometimes force the tree (through water stress) to produce a larger third crop known as 'Verdelli' with fruit maturing in summer. To obtain good quality fruit under Spanish conditions, Verna needs arid conditions and poorer soil. Late harvesting of fruit has a tendency to induce alternate bearing, especially following 'Verdelli' treatment. The long-term compatibility of Verna on *Poncirus trifoliata* and Troyer and Carrizo citrange is unknown at this stage but early observations at Dareton indicate that the Verna scion overgrows *Poncirus trifoliata* rootstock.

Early results from trials at Renmark (SA) and Sunnycliffs (Vic.) indicate that the largest trees are on *Citrus volkameriana* rootstock and the smallest are on *Poncirus trifoliata* rootstock. Some overgrowth at the bud union has been observed on Schaub Rough lemon and *Citrus volkameriana* and the most suckers arose from Verna on Schaub Rough lemon. At Renmark, Verna on Benton citrange had the highest yield and Verna was more productive than Fino lemon. At Sunnycliffs, Verna on *Citrus volkameriana* and Cox hybrid produced the highest yields, however Verna was less productive than Fino. Results from the trial site at Kulnura on the Central Coast of NSW indicate that Cox hybrid and *Citrus volkameriana* produced the largest trees and Fraser hybrid produced the smallest trees. Some overgrowth at the bud union has been observed on Fraser hybrid and Benton citrange. The highest yield was from Verna on Benton citrange (35kg/tree in the 4th year) and Verna is less productive than Eureka and Fino lemons. On 4 year old trees 80% of the crop is produced in winter with the remaining 20% harvested between summer and autumn.

At all trial sites in Australia Verna appears to have a much later maturity period than either Eureka or Fino. At the Kulnura trial site the winter crop was still half to three quarters green when Eureka and Fino were completely coloured.

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Pest and disease

Pest and disease susceptibility appears to be similar to other lemon varieties grown under Australian conditions. Verna lemon is highly susceptible to mal secco disease when grown in Italy and other regions of the Mediterranean. This disease does not occur in Australia.

Extent of plantings

Minor commercial plantings in Australia. Demand for budwood from Auscitrus has been low. Several early commercial plantings are planned for removal as a result of unfavourable fruit quality characteristics (primarily fruit shape) and the failure of trees to produce more than one crop in southern Australia. On the Central coast of NSW, Eureka is preferred over Verna.

Verna lemon is currently under evaluation at three trial sites across Australia on a range of rootstocks. Trials were established at Renmark, South Australia (1994), Sunnycliffs, Victoria (1997) and Kulnura, NSW (1997) as part of project CT97002 'Production of Quality Lemons' funded by Horticulture Australia Limited. The trials are due for completion in June 2003.

State of knowledge

very
limited

very
high

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

Last Revised: November 2002

