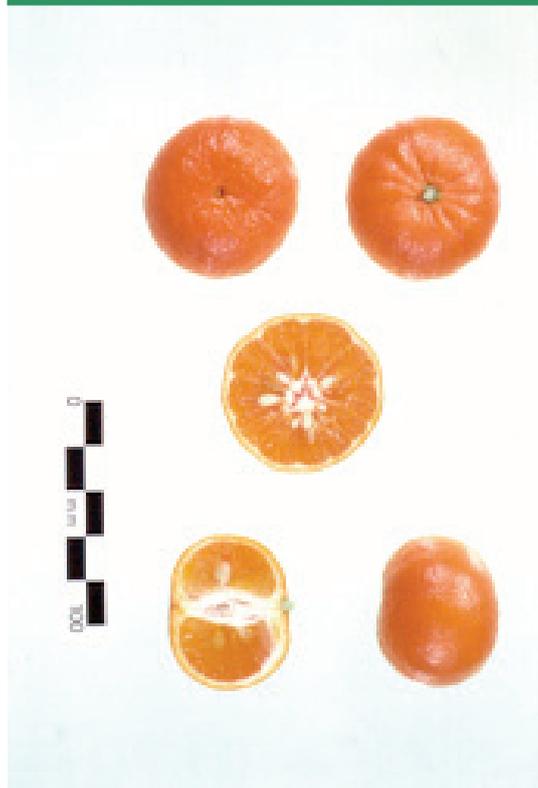


mandarin variety fact sheet

Fortune



Origin

California, a hybrid between Algerian clementine and Dancy mandarin made in 1964. Has gained popularity in Spain where it is a major mandarin variety. The Spanish selection of Fortune imported into Australia in 1993 and released to selected nurserymen in 1996.

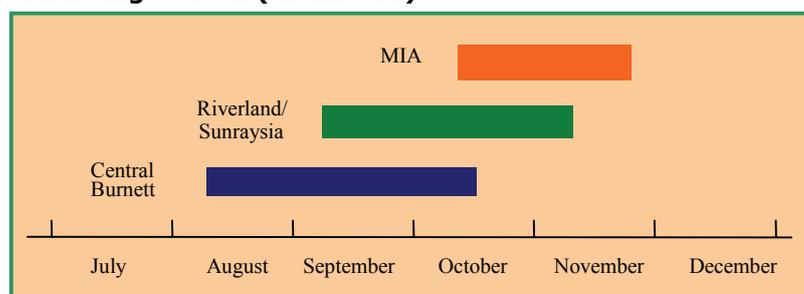
Type

Late season maturity, low seed number if planted in isolation from other citrus.

Market

Fresh, domestic. Export potential. Fortune is a major Spanish export citrus variety and is well accepted in the European market.

Marketing season (estimated)



Brix:Acid reached 10:1 on 13th September in Sunraysia in 1999, other areas still to be determined.

Internal quality

Preliminary juice testing shows Fortune to have a high sugar and also high acid content. In mid September in the Sunraysia region, °Brix was 15 and citric acid 1.5%. The acid content remained high even though fruit appearance began to deteriorate in late September. In a mixed mandarin planting, average seed number ranged from 15-22 per fruit. Fortune is self-incompatible and when grown as isolated, single variety blocks can be almost seedless.

Juice contents as high as 59% were reached in mid September. The skin is relatively thin and between 2.4 – 3.3 mm. The acid taste of the fruit may cause consumer problems when the variety enters the local market.

External quality

Skin colour is orange with a slightly glossy appearance. The skin is likely to deteriorate before the fruit becomes palatable. Stem-end ageing was occurring around the top of the fruit in early September. The skin also became "pebbled" and puffy as fruit reached acceptable palatability in late August/early September in the Sunraysia region. Fruit size was medium and ranged from 6.1 – 7.2 cm in diameter. Growth regulator manipulation (Gibberellic acid) will be required to delay the ageing of the skin until fruit reaches an acceptable palatability level. Fruit is relatively easy to peel.

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Postharvest performance

Overseas information suggests rind-pitting can occur during cold storage. This was confirmed with Fortune fruit from Sunraysia trials which discoloured when held at 4°C for 4 weeks. Other late varieties Murcott and Topaz did not exhibit rind breakdown symptoms during the same storage conditions.

Field performance

Trees established as grafts in 1996 are vigorous and spreading in habit. There has been limited limb splitting when compared to other Spanish varieties, such as Arrufatina, Hernandina and Clementard in a trial planting. Fruit set has been initially heavy but major fruit drop occurred in mid January 1999 and early February 2000 (but not in January 2001) in response to 40°C+ temperatures. Fortune appears more sensitive to sudden extremes of heat than other mandarin types in a trial planting (Sunraysia) and reacts by shedding fruit (in some seasons). Hand thinning of Fortune would need to be done later than other mandarin types in hot climates. Even with hand thinning, fruit size on young grafted trees has tended to remain in the small to medium size range.

Fruit set occurs throughout the canopy and will hang on the tree long after it has reached an unmarketable appearance.

Overseas experience with Fortune suggests it is a difficult variety to grow with high acid content and skin ageing problems cited as major drawbacks to its commercialisation. Climate also has an impact on its performance. Australia has imported the Spanish selection of Fortune which is supposedly a lower acid form, but early results have shown similar problems to those experienced in California and South Africa.

Pest and disease

No specific pest and disease problems have been noted to this point (January 2002).

Extent of plantings

Commercial: Several commercial plantings established. Budwood demand low.

Research: Research agency arboreta, small trials and trees planted for potential budwood supply.

State of knowledge



Fortune is potentially a lucrative late mandarin selection. To become commercial in Australia, it would need to be grown in very specific climatic and soil conditions to achieve lower fruit acidity levels. A high level of managerial input would also be required to manipulate skin condition and fruit size.

Last Revised: January 2002

Growers should ensure that trees are propagated from Approved Budwood obtained from AusCitrus.

Disclaimer:

Information contained in this publication is provided as general advice only.

For application to specific circumstances, professional advice should be sought.



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