



Costa Renmark Citrus Site Tour - October 2017



Citrus category overview

- Costa is the #1 grower, packer and marketer of citrus in Australia, with a 16% market share (both Costa grown and third party grown). 13% Costa produce, 3% third party.
- Renmark in the South Australian Riverland is the citrus growing region for Costa with an April to December production period.
- The Riverland region is the only major Australian citrus growing region designated as a fruit fly free zone, which provides growers with a competitive advantage.
- Exports are a key sales channel for the citrus industry in Australia, with circa 27% of the Australian crop exported. Costa is currently exporting up to 70% of its own crop.



Costa citrus operations

Costa has five farms in the Riverland with the largest growing site at the Kangara farm – Murtho.

As at the end of FY17 Costa farms 1,920 hectares of citrus, as well as operating two packing facilities.

- Oranges 1,195 ha's – peak supply between April and December
- Mandarins 614 ha's – 12 varieties grown, harvested between March and late October
- Lemons/Limes 98 ha's – peak supply from June to October
- Grapefruit 13 ha's – peak supply from August to September

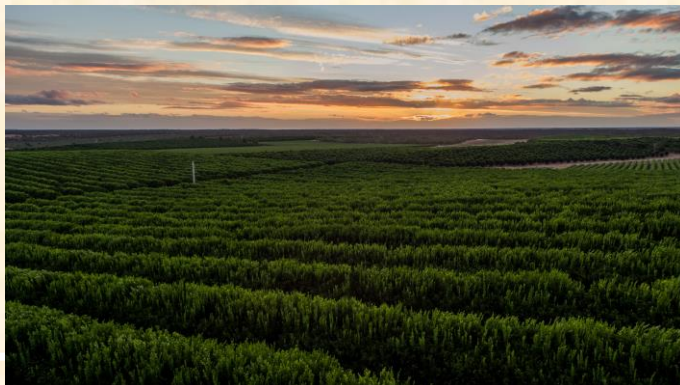
Avocados, persimmons and wine grape plantings bring the total hectares under planting to circa 2,165 hectares.



Riverland Farm and Packing Facility Locations

Farm	Planted hectares	Unplanted hectares	Total hectares
Kangara – Murtho (+Avocados & Persimmon)	799	99	898
Yandilla - Renmark (+Vines & Avocados)	545	356	901
Solora – Bookpurnong (+Avocados)	422	50	472
Amaroo - Paringa	290	10	300
Pike Creek	109	11	120

Packing Facilities
Yandilla-Renmark
Kangara – Murtho



Distribution and supply

● Marketing

Costa citrus is sold under the Vitor brand which represents quality, consistency and near year round supply. Vitor also markets citrus produce from other selected growers and packing facilities with all of the fruit marketed by Vitor Citrus sourced from the Riverland SA, Sunraysia VIC, Riverina NSW and Central Burnett QLD.

● Exports

Exported 70% of crop in FY17 to over 25 countries of which Japan, USA, China, Hong Kong and Malaysia are the biggest markets.

The fruit fly free status of the Riverland saves circa \$3 cost per carton of citrus exports as it removes the need for the cold infestation treatment prior to shipping.



Investing in Productivity



- Costa has upgraded its citrus packing facilities with the adoption of the latest vision grading technology and brix sorting equipment.
- The upgraded citrus packing lines incorporate the Spectrim vision system which views 240 images of each piece of fruit at high speed, significantly reducing the need for manual sortation narrowing down quality specifications. This technology has proved to be very accurate with respect to colour and blemish.
- This is crucial for export markets, such as Japan where the appearance and taste of the fruit is a key part of consumer preference.
- It also refines the margin of error with respect to grading of fruit, resulting in less fruit being discarded for juicing and improving packing throughput and efficiency by approximately 50%.

Water Use

- Costa has a permanent water allocation of 11,412 ML per annum, with an annual usage of circa 20,750ML. Approximately 9,000 ML to 9,500 ML of this water is leased, with this requirement varying based on the rainfall level and temperatures experienced during the growing season.
- Costa utilises cutting edge drip irrigation technology to precisely determine water usage. Enviro scan probes have been installed to monitor moisture in different patches of soil, with approximately 270 probes currently in use across our farms.
- Each probe has 5 x soil moisture sensors mounted on the probe rod. The sensor uses 'capacitance' technology, which measures the electrical resistance in the soil (dry soil = more resistance, wet soil = less resistance). Sensors are normally placed at 10, 30, 50, 80 & 120cm below the soil surface, depending on the citrus variety, soil type and irrigation system.
- The sensors take a reading every hour of every day, and transmit the data back to the irrigation computer at each farm. The data is displayed in a graphical format on the computer for easy interpretation, and whilst data is available at each farm, it is also transmitted to the main office so the Horticultural Manager & Agronomist can view it remotely.



Growth

Future growth in the citrus category will be driven by:

● 3IP programme

3IP is a competitive grants program created by industry to support the restoration of a healthy Murray-Darling Basin environment. The program aims to recover 40 gigalitres of water access entitlements from participating irrigators.

With funds received from the programme through the sale of permanent water entitlements, Costa is undertaking 300 hectares of new citrus plantings and top working of existing plantings.

This activity is expected to deliver a crop uplift from FY18 onwards, with 152 hectares being planted in FY18 with the intention to plant a further 69 hectares in FY19.

● M&A Activity

Costa maintains an active interest in M&A opportunities in the citrus industry. Over the last 3-4 years this activity has included the leasing of the Amaroo farm, with yield increases having been improved through agronomic practices and tree maturity. The Pike Creek farm was acquired in 2016, with planned expansion to 120 hectares through 3IP.

These initiatives will contribute to increase yield progressively through to 2025.

Research and new development

● Crop Netting

Over 24 hectares of permanent net structures are being erected over mandarins and persimmons.

The main benefit of these structures are:

- Reduce the water usage of the crop by 10% to 20%.
- Reduce the fruit damage from wind which increases the average quality and price as there is a higher percentage of first grade fruit.
- Stops bees from pollinating a fourer mandarins which reduces the seed count and increases the marketability of the fruit.
- Protects the trees and crop from hail events and reduces sunburn on the fruit.



Research and new development

● Regulated 'deficit irrigation'

Is a practice that has been trialled and developed over recent years to increase the sweetness of the fruit while not affecting yield or fruit size.

This practice involves applying less water to the trees during autumn. This results in the trees experiencing mild water stress and increases the sugar content of the fruit, making it more attractive to consumers and leading to more favourable pricing in many Asian markets.

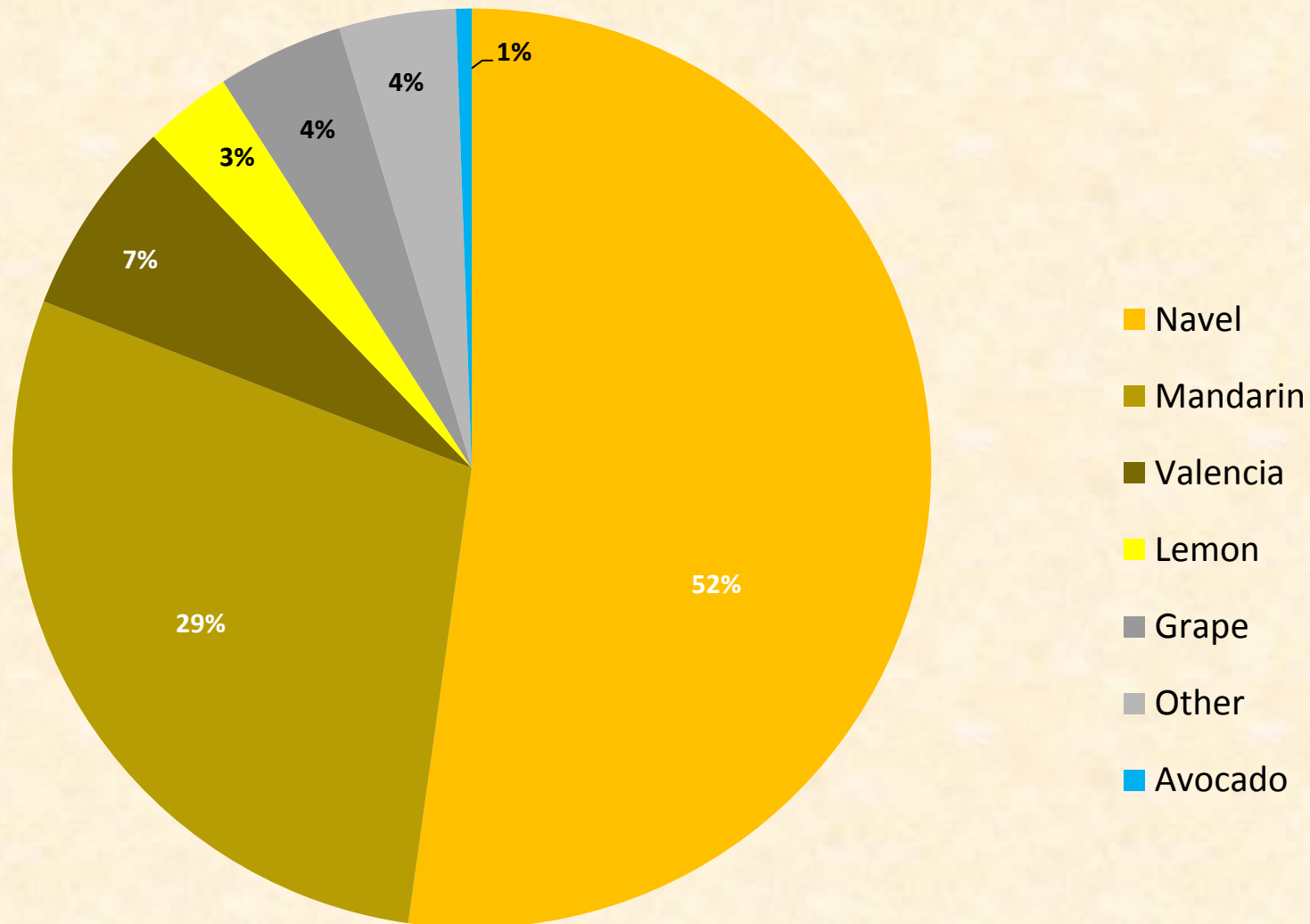
● New Varieties

Several new mandarin, orange and lemon varieties are being trialled on commercial sized blocks that have market potential with improved attributes including:

























- Seedless
- High brix,
- Red coloured
- Different maturity timing.











Production Mix - FY17 tonnes



Riverland crop and harvest calendar

Month	Orange	Orange	Orange	Orange	Orange	Orange	Lemon	Lime	Mandarin	Mandarin	Mandarin
Variety	Valencia	Summer Navels	Navelina	Leng	Washington	Cara cara	Lisbon		Satsuma	Clementine	Daisy
Jan											
Feb											
Mar											
Apr											
May											
June											
July											
Aug											
Sept											
Oct											
Nov											
Dec											

Riverland crop and harvest calendar

Month	Mandarin	Mandarin	Mandarin	Mandarin	Mandarin	Grapefruit	Grapefruit	Persimmon	Persimmon	Tangelo	Avocado	Avocado
Variety	Imperial	Afourer	Honey Murcott	Orri	Ortanique	Marsh	Red	Fuyu	Jiro	Minneloa	Hass	Reed
Jan												
Feb												
Mar												
Apr												
May												
June												
July												
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Dec						