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# Western Australia

## Seasonal outlook

The seasonal outlook from June to August shows winter days and nights are very likely to be warmer in the far north of WA. The remaining citrus production regions will experience cooler than average days and nights. There are roughly equal chances of a wetter or drier three months for the southwest, and for north of Perth a slightly higher chance of higher rainfall than normal.

Check out the 4-minute video on the Bureau of Meteorology for an overview of the temperature and rainfall outlook for Australia.

<http://www.bom.gov.au/climate/outlooks/#/overview/video>.

## Evaporation and irrigation

Average daily evaporation rates for the coming month of July are: Harvey 2.3 mm, Karnet 1.8 mm and Carnarvon 3.7 mm. A large citrus tree (14 metre square canopy area) will use an average of 17 – 25.5 litres of water each day during June in the south-west and up to 36 litres each day in Carnarvon.

Loamy soils in the Harvey area hold around 20 mm of water that is readily available to a citrus tree. With an average daily evaporation rate of 2.3 mm, water within the soil will run out if there is more than twelve consecutive days with no rainfall in July. Note: small amounts of rain may not be enough to maintain good soil moisture.

***Be sure not to over-water, saturated soil at harvest time can impact negatively on fruit quality.***



## Phenology

We are now in the **floral induction stage** where buds in the tree are making the transition from vegetative to floral buds. Cooler temperatures during winter induce citrus buds to flower. The number of flowers produced and the proportion of different types of flowers is strongly influenced by crop load in the previous season. Most flowers are produced on shoots that grew during last year.

## Internal maturity

Monitor fruit maturation rates closely to ensure fruit meets Australian Citrus Quality Standards before harvest. Citrus fee-for-service payers can have the internal quality of fruit independently tested without charge (two samples per variety per grower). Just drop your samples to any agent at Market City, from Monday to 12pm on Friday to ensure timely testing.

Apply GA to Imperial mandarins at three-quarter colour for the management of watermark.

## Management

The long-term management goal during the floral induction stage is to achieve consistent levels of flowering with a high proportion of leafy inflorescences carried on strong bearing shoots.

Light crop loads (for oranges < 3.5 to 4.0 fruit per 0.5m quadrat); drought or water stress and good vegetative growth in the previous season can all result in excessive flowering. To achieve balanced flower numbers and good fruit size next season it's important to act now by applying winter Gibberellic Acid (GA) and ensuring a well-pruned canopy.

More information is available at the DAFWA website: [Improving citrus quality using gibberellic acid](#).

## Flower manipulation (Winter GA)

Application of GA in the form of Ralex during floral initiation will reduce the number of leafless inflorescences (white blossom) and increase the proportion of leafy inflorescences. Leafy inflorescences set more fruit and have a higher initial growth rate, resulting in larger fruit at harvest.

The first opportunity to apply Ralex is in mid-June however there will still be an effect if applied up to bud break. The timing of bud burst varies depending on variety and location, occurring between early August and mid-September in different varieties in WA.

Apply Ralex in sunny conditions in the middle of the day, allowing trees to dry before nightfall to avoid the risk of marking fruit.

## Pruning

A well-pruned canopy with a good distribution of strong bearing shoots close to main scaffold branches promotes leafy inflorescences. Pruning after harvest therefore assists in balancing crop load if heavy flowering is expected. Information on pruning is available from the DAFWA website.

See: [Citrus pruning](#)

## Harvest timing

Think carefully about the timing of harvest as this can have a significant impact on the rind quality of the current crop and on flowering and fruit set next season. A late harvest for any given variety will reduce flowering the following season, particularly in many mandarin varieties. For mandarins, have an early select pick, taking the largest and most coloured fruit first. This takes the load off the tree and allows the remaining fruit to increase in size.

## Preparation for flowering

After harvest consider foliar applications of urea and micronutrients to promote flowering for the next season particularly if you suspect a light flowering year. Do not apply urea if you expect a heavy flowering.

### **Oleocellosis**

Oleocellosis is rind damage usually in the form of spots or dark areas resulting from picking in poor weather conditions (too cold or too wet) and rough handling of fruit. Damage does not fully appear for up to 4 days after the injury/damage occurred and can significantly reduce the value of your fruit. To minimise oleocellosis, harvest in the warmest part of the day and pick from the northern side of the tree first. As a rough guide, ambient air temperatures should be above 12°C, however a wet bulb temperature and rind oil release pressure test should be conducted to provide a more reliable guide. It is best not to harvest if fruit are wet.

### **Pests and diseases**

Continue monitoring and bait spray programs for fruit fly until after harvest.

Keep an eye out for pests such as scale and mealy bug in the orchard whilst harvesting and record observations. This will help you take the correct action when determining control programs for the spring and summer period when juveniles of these pests are active.

# Queensland

## Climatic conditions

Extremely warm and dry conditions prevailed again during May. The table below shows that minimum temperatures are approximately 3 degrees above long term averages while maximum temperatures have been approximately 4 degrees above long term averages.

Rainfall has been well below average in all of the growing districts in Queensland. Queensland has now experienced its warmest autumn on record and the temperatures shown in the table below support this.

Location	Monthly Rainfall mm	Historical Avg Rainfall	AvgMax Temp °c	Historical Avg Max Temp	Avg Min Temp °c	Historical Avg Min Temp
Gayndah Airport	3.4	29.4	29.1	25.4	13.2	10.4
Mundubbera Post Office	1.6	39.6	N/A	N/A	N/A	N/A
Emerald Airport	0.0	21.3	29.6	26.1	15.9	12.9
Gin Gin Post Office	15.8	59.4	N/A	N/A	N/A	N/A

## Phenology

Harvest of the early season varieties is nearing completion with the Imperial harvest expected to be completed within a month. There has been a very heavy crop of most early season varieties, with enough small sized fruit evident as growers get into strip picking.

Significant levels of creasing is now showing up in some of the late hanging fruit in Navels and Novas.

The harvest result of the Imperials has been relatively poor for most growers with lower returns being received for the majority of the harvest season. This have been attributed to a combination of factors:

- The volume of fruit harvested early in the season which is immature in the rind which subsequently shows various forms of rind breakdown postharvest (and therefore impacting on buyer demand)
- A large volume of fruit delivered to the market, with significant levels of Class 2 fruit involved.

Flowering of some of the lemon blocks that were harvested early is now starting to occur. Growers should be aware that thrips and broad mite can still be quite active on fruit at this stage of the year.

## Pests and diseases

Oriental mite continues to show up in some blocks. This is mostly in low numbers, however in some blocks there have been reasonable populations. Dry and dusty conditions (as are being experienced at the moment) exacerbate this pest and particular attention should be paid to edges of the block adjacent to dusty roadways.

Black spot continues to be a major issue for some growers this season with the most severe infection being present in Imperials, Navels and Lemons. Low levels of the disease are now showing up in Murcott mandarins, however it is hoped that the disease will not express to the levels seen in other varieties.

Queensland fruit fly pressure remains low, although growers should be baiting all mid and late season varieties together with any early season varieties that remain.

Emperor brown spot levels continue to be very low for this time of the year. There is no doubt that the dry conditions are helpful to this, however growers should continue to apply protective fungicides during the winter months until the fruit is harvested.

# Riverland, Murray Valley and Riverina

## Climate

Mean daily maximum temperatures and minimum temperatures were 1 to 2 degrees above average. No frosts occurred. Moderate rain (10-200mm) occurred throughout the regions in the second and third week of May. Apart from the rain interruptions conditions have been generally good for harvest, but slightly unfavourable for fruit colour due to above average temperatures.



## Phenology

Washington navels are near full colour. Most trees will enter the floral induction stage from the middle of May. This period is likely to extend to early/mid-June. Floral induction is the transition of vegetative buds to floral buds. Low temperatures during winter induce citrus buds to flower. The number of flowers produced and the proportion of different types of flowers is strongly influenced by crop load in the previous season. Most flowers are produced on shoots that grew during the previous year.

## Harvest

Navelina harvest has proceeded well and is drawing to an end. General feedback is that this variety is becoming less in demand and the M7 are more favoured. Internal quality of fruit is very good with low to medium levels of acid and good levels of sugar, most fruit have been passing internal quality standards, but do not have adequate colour. Leng navel harvest has commenced. Washington navel harvest has commenced on early maturing blocks (1st week of June) and more blocks are expected to reach adequate colour by mid. Size and quality are good.

## Low Murray Basin water inflows

Murray-Darling Basin Authority information indicates that in-flows into the river system are at low levels.

The basin is currently [30% full](#).

Storage in Hume and Dartmouth is about 1,250,000 ML lower than this time last year. If a dry year persists full allocation may not occur. Growers are recommended to seek updated information from their local water authority.

VIC - <http://nvrn.net.au/outlooks>,

NSW - <http://www.water.nsw.gov.au/water-management/water-availability>

SA - <http://www.environment.sa.gov.au/managing-natural-resources/river-murray/water-allocation-and-trade/water-allocations-and-announcements>

Allocation announcements are expected on Friday, July 1.

NSW DPI is in the process of updating the Primefact 'Managing citrus orchards with less water', incorporating the latest research as well as experience and case studies from the previous drought period.

### **Crop regulation – winter GA**

The application of registered forms of GA during floral induction period mid-May to early/mid-June, will reduce flowering and yield (crop regulation). It is difficult to predict crop load next season as there has been a few of seasons of yields around the average.

There is significant variability within regions and blocks, and growers should assess individual blocks for signs of biannual bearing (graph yields over numerous years and observe leaf flush levels).

Many Late navels blocks have a low yield this season, this could mean a higher yield next year however other factors such as late harvest can counteract this. If the mild conditions experienced to date extend into June this might reduce the intensity of flowering.

GA crop regulation sprays reduce the number of leafless inflorescences (white blossom) and increase the proportion of leafy inflorescences. Leafy inflorescences tend to set more fruit and have a higher initial growth rate, resulting in larger fruit at harvest. Trees will soon enter the first peak of sensitivity: mid-May to early/mid-June. Allow trees to dry before nightfall to avoid the risk of marking fruit.

### **Pruning**

A well-pruned canopy with a good distribution of strong bearing shoots close to main scaffold branches promotes leafy inflorescences. Pruning after harvest therefore assists in balancing crop load if heavy flowering is expected (in an “on” year).

### **Pests & diseases**

Red Scale has been a problem in some blocks this autumn as occurred in the previous two seasons. This was due to mild autumn conditions encouraging an extra generation of scale. Maintain a good weed control program to reduce the incidence of Fullers Rose Weevil and to help control snail populations. Apply snail baits as required.

### **Oleocellosis**

Oleocellosis is rind injury damage resulting from rough picking and handling of fruit. Damage does not fully appear for up to 4 days after injury and can significantly reduce the value of your fruit. It is most likely to occur when the cells on the surface of the orange are fully swollen due to adequate irrigation or cold weather. It is important to familiarise yourself with optimum harvest practices to reduce the incidence of oleocellosis, taking special care with new pickers.

# Processing Report

Citrus processors are currently dealing with an oversupply of Valencia which has led to lower spot prices for industrial fruit.

Current price levels on the cash market for juicing fruit are between AUD150-200/tonne farm gate, compared with AUD180-200/tonne last month.

Contract prices were fixed before the season began at AUD270-300/tonne. Valencia juice ratios have dropped slightly on last month and are now registering around 15. Juice yields are healthy at around 50-55% or 500-550 litres per tonne of fruit.

Growing conditions are favourable and there has been enough rainfall in most regions. The industry is now moving from the summer fruit to the winter fruit.

Processors have been crushing Navels for around a month now. In spite of the abundance of Valencia, producers say Navels are good, cheap, Australian-grown fruit and can be used to blend with Valencia for the non-premium juice products.

## 2016/17 Valencia

It is still too early for any solid indications on next season's Valencia crop, which will begin in September/October. Some industry sources expect production will be on par with this season. Others suggest that tree stress from the current bumper crop combined with tree attrition in the Riverina and northern NSW will see the output fall by 30% on the current crop. There are also reports of patchy growth in some areas.

One problem that is likely to occur is both old and new season fruit being picked at the same time come September/October. Processors do not like running 'double crop' supplies because it causes problems with juice yields and juice ratios.

Nevertheless, a slightly smaller crop next season would probably be advantageous to the industry given the abundance of fruit on the market at present.

Contract prices for 2016/17 season Valencia fruit are on par with last season at AUD270-300/tonne. While it is probably a fairly low-risk strategy – and certainly cheaper – to procure a larger percentage of the juicing fruit supply from the spot market this year, processors say they will make the usual forward contracts in order to secure fruit and give the farmer good returns.

## Juice retail

Juice packers say there has been a small uptick in movement (+3%) for chilled premium 100% juice at the expense of juice-from-concentrate. This is reportedly a result of discounting, promotional work and re-launches.

## Overseas

The USDA has increased the forecast for Florida's 2015/16 orange crop to 81.1 million boxes, down 16% from last season's final production. If realized, this harvest will be the lowest output since the 1963/64 season.

Frozen concentrated orange juice futures are currently trading around 1.52/lb solid – significantly higher than the USD1.34/lb at the same time last month.

Probably the most important piece of information out of Brazil over the past month is the crop forecast for the 2016/17 season from Fundecitrus at 246 million boxes. Before this report was released industry sources were working off a figure of 270-275 million boxes. Last year the Brazilian industry harvested 301 million boxes.

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