

season update

This publication has been facilitated by HAL in partnership with Australian Citrus Growers & has been funded by the national citrus R&D levy. The Australian Government provides matched funding for all HAL's R&D activities.

Summary Edition: March 2007

RIVERLAND, MURRAY VALLEY & RIVERINA

Heat units – possible early season.

Heat units for February in the Southern states were above average. This has pushed the cumulative heat units up to about 10% above average. The above average heat units compounded with the early flowering may contribute to an early crop maturity season. Field observations indicate that fruit are at an earlier than normal fruit development stage. Water/drought stress can increase sugar and acid content of fruit and also slightly advance rind colour development. All of these factors may have rind quality implications; blocks that mature earlier also decline in rind quality earlier. Growers are advised to consider colour break GA sprays as a strategy for blocks targeted for a later harvest (see GA section) and conduct an early season maturity test to assess the internal maturity of fruit. The March heat units will be updated by early April on the ACG web.

GA

The early flowering and above average heat units may bring on an early season. Growers should consider the application of GA for blocks scheduled for a later harvest. Not all fruit can be harvested/shipped/marketed in the early part of the season. If winter rains delay your harvest you could be left with over mature fruit that have a high susceptibility to rind breakdown and are unsuitable for export. The application of GA at colour break on winter navels will delay rind colour development by about 3-4 weeks. You should discuss GA options for your conditions/situation (rates and spray volumes) with your packer and advisor. Always follow label recommendations. A fact sheet on GA application options is available from the ACG resources web page.

Red Scale Alert

Populations have been on the rise and careful monitoring is required NOW to prevent blemished fruit at harvest (see pest reports).

Depleted sub soil moisture

Due to the combination of low rainfall and reduced irrigation application rates, depleted sub soil moisture levels have been seen on a number of blocks. Growers are advised to check subsoil moisture levels with a dig stick or shovel. Depleted sub soil moisture will have a significant impact on the stretching out of irrigations during autumn and winter.

Nutrition

Conventional application of nitrogen and potassium should have ceased. Excessive and or late application of N and K can cause fruit quality problems and delay colour development. Optimum phosphorus levels are important for good rind texture and colour development. Targeted fertigation P application and/or P foliar sprays may assist in rind texture and colour development in some deficiency situations.

Leaf Analysis

Last chance to take a leaf sample to check the nutritional status of your orchard. Ensure you pick 4-7 month old spring flush leaves for sampling. A picture guide of the correct leaves is available from the ACG resource web page.

Foliar Sprays

Calcium nitrate sprays may assist in rind quality. Apply a micronutrient spray on new autumn leaf flushes.

Snails & Fuller Rose Weevil

Rains have begun and now is the time to apply snail baits to control snails before breeding occurs. Spray copper for disease control and to deter snails entering the canopy. Ensure tree skirts are maintained and good weed control program is implemented to reduce FRW risk and soil diseases affecting fruit. FRW management fact sheet is available.

Crop Levels

Riverina preliminary crop forecast indicates a decrease of Navels by about 40% from previous season and fruit size is similar to the previous season. Official crop forecast report for Riverina will be released in the end of April. South Australian estimates indicate a healthy navel crop that is expected to be higher in tonnage as compared to last season. Fruit size is slightly above average. More details are available from CGSA. Expectations in Sunraysia are for a navel crop slightly above the previous season and with better fruit size. MVCB official Sunraysia crop forecast will be available in the last week of March.

Drought Update

If no significant rainfall occurs then water storages for the Murray River will be at very low levels by the end of May (February MDBC drought update No.6). There is enough irrigation water in the Murrumbidgee River system (Riverina) till the end of March however two rostered water releases will occur in April and special considerations for drip irrigators for more frequent watering are being assessed. Long term forecasts are predicting an above average rainfall from Autumn. As of 14th of March Hume Dam was 4.4% capacity and Dartmouth Dam was 14.1% capacity.

Fruit size estimates

Estimate the fruit size distribution at harvest for your block. This can help you determine which blocks to target for export markets. Take 200 fruit size measurements and enter the data in the fruit size model downloadable from the ACG resources page web site.

Riverland

General

The incidence of Red Scale and Mealybugs in many orchards has been above average this season. The incidence of other pests including Leaf Miner and Spined Citrus Bug has also been higher than usual.

Red Scale

Infestations have become high to extreme in some orchards where moderate populations have been overlooked or ignored during Jan / Feb. Irrespective of whether or not treatments have been used to control scale this summer, it is recommended that growers have a close look over all varieties for evidence of scale infestations now as time to control scale effectively this season is fast running out.

Parasites, although being found in reasonable numbers, will not give adequate control of high scale populations without intervention.

Areas showing unacceptable scale populations should be targeted with a 0.8-1% oil spray *as soon as possible*. Due to the difficulty of achieving complete control with spray applications, growers should consider the use of Aphytis parasites following an oil application to improve overall control. Parasites are best released 1-2 weeks after an oil application.

Oil works through suffocation so high volume / good coverage sprays are vital to achieve effective control. Oil can be in some instances combined with autumn copper applications but growers should seek advice before using an untried combination. Growers should be aware that oil can delay colour and can interfere with de-greening resulting in uneven colouring. Consequently oil sprays should be completed by the end of March in mid-late season varieties and avoided altogether in any early harvest blocks. Growers with early season blocks with scale problems should seek advice as to the best method of control be it insecticide, parasite releases or nothing.

Mealybug

Like scale populations, Mealybug numbers have become moderate to high in some orchards where no controls have been applied over summer. Mealybugs are generally only a problem in navel and grapefruit varieties, but can infest all types of citrus albeit at lower intensity. Growers should focus monitoring in navel ends, under calyxes and between touching fruit as Mealybugs prefer sites out of direct sunlight.

Oil sprays are generally less effective on Mealybug than scale and are normally only recommended on low to moderate infestations. Higher populations require insecticide, or insecticide / oil mixes for effective control. As for scale, spray applications need to be high volume to be effective.

Spined Citrus Bug

SCB Populations have remained quite persistent in lemons and mandarin varieties with a higher than usual percentage of blocks requiring control during Feb / March this year. Growers should continue to check these varieties fortnightly until mid-late April. SCB do not damage orange or grapefruit varieties so infestations detected in these varieties can generally be left untreated. Action could be considered in these varieties only where extreme populations are leading to the re-infestation of susceptible varieties nearby.

Citrus Leaf Miner

Pressure from leaf miner is high in most growing areas. Ongoing controls may still be warranted in young trees or newly top worked trees with young immature leaf flushes present. The requirement for leaf miner treatments should end soon as the autumn flush matures.

Fullers Rose Weevil (FRW)

FRW feeding damage and egg laying under fruit calyxes has been noted in some orchards. Growers are reminded that orchards registered for China, Korea and Thailand must maintain tree skirts and manage weeds under tree canopies to meet export protocols.

Snails

The current rain event will create conditions favourable for snail movement. Growers should take advantage of this opportunity to bait and control areas with known active populations before they lay eggs for the next generation. Snails are highly attracted to bait following the end of the summer dormancy period. Coppers / Bordeaux sprays are due now and will help to retard snail movement into trees. Repeated sprays are required to repel snails out of tree canopies.

Riverina

Red scale

Red scale levels continue to rise as a new generation of crawlers is produced. Good levels of parasitism are being detected with some blocks already showing over 50% parasitism. Both the level of infestation and the percentage of parasitism should be considered when making treatment decisions. Natural parasitism may control red scale in some blocks, whilst others may require a parasite release and/or an oil spray. Growers are encouraged to consider an autumn release of Aphytis wasps, for red scale control. Contact Riverina IPM Pty Ltd for more details.

Snails

Snail activity is rising and it is critical that baiting commence before snails have a chance to lay eggs and multiply. Snails are an import pest of quarantine concern for the highly valued US market. Trees skirts should not be touching the ground.

Apply baits now and reapply monthly until harvest. Spray copper to deter snail movement into trees.

Soft scales

Soft scale levels are generally low. High levels of naturally occurring parasitoids are causing significant mortality except where broad-spectrum insecticides have been used or ants are disrupting biological control.

Spined citrus bug (SCB)

Moderate to high levels of spined citrus bugs have been detected in some lemon blocks.

Fullers Rose Weevil (FRW)

FRW eggs are occasionally being detected. Monitor under the calyx for eggs and continue to maintain tree skirts.

Citrus leafminer

Leafminers are common in the autumn flush but usually not of concern to mature trees. At very high levels damage can occur to young or top-worked trees which may require treatment.

Sunraysia

LBAM

Larvae numbers have started to increase. Most detections are occurring between fruit clusters and around the navel end of the fruit.

Scale

Soft and red scale populations are now being found in large numbers across all districts. Red scale is the main concern. All stages of red scale (crawlers, white caps & adults) are being detected. Regular (fortnightly) monitoring is required. Monitor young fruit inside the canopy and between trees where spray coverage is often poor. Extremely high numbers of soft and red scale are being detected on younger trees and are affecting tree health. Oil sprays at this stage can delay fruit colour on early maturing varieties.

Leaf Miner

Leaf miner numbers have been rapidly increasing in all districts with some trees having up to 90% of new foliage affected. Leaf miner is generally not a concern on larger trees however they can retard growth on younger trees and control measures are recommended.

Spined Citrus Bug

High numbers of SCB are being detected on this season's fruit. Eggs, juveniles and adults are still being found in most lemon, murcott, Ellendale and Imperial mandarin blocks. Lemons are mainly being affected however a large population was detected feeding on new season Valencia's. Monitor the first thing in the morning on the sunny side of the tree.

Kelly's Thrip

Negligible detections.

Mealy Bug

Mealy Bug is now being detected in reasonable numbers in and around the calyx and navel ends. Some sooty mould was detected around the calyx of fruit. The main variety affected is grape fruit however an increasing number of navel blocks are showing signs of activity. Cottony cushion scale is also being found mainly in the crown areas of trees (young trees). Most are districts are affected and regular monitoring is required right through to harvest.

Aphid

Black citrus and Green Peach aphids are now being detected feeding on new growth. Numbers are currently low however they are increasing and if left unchecked numbers could quickly exceed damage threshold levels. Aphids can cause sooty mould and retard new growth.

Two Spotted Mite

TSM was detected on a number of lemon blocks in Sunraysia. They are not causing any major damage but if left unchecked they can cause yellow spotting on fruit and leaves. Heavy infestations can cause leaf drop and substantial fruit blemish. TSM populations are facilitated by excessive use of insecticides that eliminate predatory insects. Sometimes the extensive use of insecticides is unavoidable due to the high prevalence of other damaging insects (i.e. SCB). Monitor for TSM on the underside of leaves. TSM will also be detected on

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the top side of leaves in heavy infestations especially where dust problems occur.

Fullers Rose Weevil

All blocks targeted for FRW quarantine sensitive export markets (China, Korea and Thailand) needed to implement now FRW control management strategies. Excellent skirting and weed control practices need to be implemented. No foliage must be in contact with the ground or weeds.

WESTERN AUSTRALIA

Climate

Mean daily maximum and minimum temperatures and evaporation rates have been higher than average. Temperatures in excess of 35 °C were recorded four times in southern growing areas and up to nine times in northern areas (including Carnarvon). These extreme conditions have caused significant sunburn problems throughout northern growing regions particularly on trees with upright growth habits and young trees. Average daily evaporation rates for the coming month (April) are: Harvey 4.3 mm, Gingin 4.7 mm, Carnarvon 6.6 mm and Kimberley Research Station 7 mm.

There are water shortage issues in the Bindoon - Chittering area and on properties relying on surface water storages and soaks. Some have extremely limited or no water supply left and the trees are suffering.

Phenology

All varieties are in fruit growth stage two 'cell expansion'. Keep an eye out for colour break and record when this occurs, this will assist with application of GA treatments.

Production

Harvest of White Flesh Grapefruit finished mid month in Burekup, Valencia harvest finished towards the end of the month. Crop loads and fruit size for the coming season appear to be average. Fruit splitting has been an issue in some areas due to moisture stress and large fluctuations in nutrient availability related to orchard management practices.

Management

Monitor irrigation requirements and ensure soil moisture is maintained at all times. Continue with fertiliser programs applying 25% of annual nitrogen and 30% of annual potassium in the January to April period, supplementing potassium with foliar applications of potassium nitrate. Leaf nutrient analysis and soil analysis (for nutrient, pH and salinity) should be carried out before the end of March. Pull rootstock suckers of before they get too large, this limits re-growth from the injury point. Apply GA to navels one month before colour break for the management of Albedo breakdown and to delay rind aging.

Pests and Diseases

Fruit fly has been an issue in all areas. Continue monitoring and bait spray programs. Monitor scale crawlers and leaf miner applying targeted oil sprays where necessary. Ensure you have your ants under control as they will exacerbate a scale problem. Consider releasing Green lacewings if Mealybug is a problem and a second release of aphytis for red scale control if the parasitism rate is below 25%. Monitor snail activity and bait when they become active or at the break of season.

QUEENSLAND

Production

Red scale

Red scale is generally well behaved with aphytis parasitism at better than 75% in most IPM blocks. Chemically treated orchards are also showing good scale control at this stage.

Jassid

Jassid levels are also generally at low levels despite the strong flush that followed good rainfall last month. Only relatively few blocks have required treatment for Jassids so far this season.

Mango Flatid

Mango Flatid continues to be a problem in some orchards. It remains a difficult pest to control and can generate high quantities of sooty mould. An egg parasite has been collected from North Queensland and attempts are underway to try to rear some for field release. Effective biological control remains the best long-term option for the management of this pest.

Spined citrus bug

SCB has required treatment in some blocks but levels are low overall.

Fruit fly

Fruit fly pressure remains high. Some reports of fruit fly damage are being noted. Although damage levels are still very low growers are urged to remain vigilant. While the weather remains warm and imperial mandarins (and other early varieties) are showing signs of early ripening, the risk is high. All early varieties should be baited twice weekly at present. Other varieties should receive bait applications weekly at present. Growers should consider the use of thickeners to further improve fruit fly control. The last round of MAT cups is now being distributed for placement in the field.

There are still reports of some **oriental mite** activity although overall mite pressure is low.

Predatory mites have been abundant in orchards where disruptive sprays are withheld.

Black spot counts have also been very low this season. Even historically difficult blocks are recording very low levels of black spot so far.

Emperor brown spot (EBS) is also at low levels.

Crop levels are generally very good. Many growers have made a real effort with thinning but quite a bit of further thinning is needed on several blocks throughout the district. Although some **sunburn** damage occurred during a period of unseasonally hot weather in early March, there is far less damage compared with previous seasons.

In coastal districts **fruit piercing moths** have been non-troublesome however **borers** are an issue.

PROCESSING

The 2006/07 Valencia processing season is now through its peak production period and packers already beginning to size up next years availability. One of the major processors expects to be all but finished with this year's fruit in eight weeks time.

Water restrictions in the MIA region have now been postponed and most other growing areas will have no limitations from next month onwards.

Fruit sizing remains down, but yields are holding up very well. Trade sources reiterate that only very limited volumes of fruit have been put to concentrate this season. In spite of the high price of overseas frozen concentrated orange juice (FCOJ), the domestic juice market is short of fruit and therefore the majority of Australian Valencia has been, and will be, crushed into not-from-concentrate (NFC).

Meanwhile, fruit ratios have come up to around 14 from 11 last month – only marginally lower than this time last year. The milder temperatures over the past few weeks have meant that both brix and acidity levels have dropped down to 9.5-10 and 0.7 respectively.

Spot offers for Valencia fruit are similar to last month and on par with contract prices for the season at AUD230-240/tonne.

Meanwhile, the current 2006/07 national Valencia crop has recently been revised downward to 190 000 tonnes from an initial estimate of 220 000 tonnes.

While early forecasts on the 2007/08 Valencia crop are pegged at 180 000 tonnes, processors suggest that the MIA region could produce 10% more than the current season.

Retail

Retail sales have been healthy so far this year and packers report that consumption has been above projections.

The bottlers are now reportedly looking at other ways to reduce costs such as focusing on multi-fruit blends that include orange. Any brand-name NFC products on supermarket shelves that have not already increased in price will go up by around 5% in the very near future, say industry sources.

Overseas

Trading of foreign FCOJ is reportedly quiet with most of the local market covered until the third quarter of the year. Contracts were fixed between USD2200-2650/tonne 66 brix delivered Australia.

Traders do not expect a change in the firm Brazilian price policy until at least October due to the fact that global consumption almost certainly outweighs production this year. Buyers are particularly concerned that 90% of the world's export supply is in the hands of four producers.

MARKETING

This is a quiet time of the year for citrus, with very few items available for sale. Prices for juice grade oranges for processors have risen in line with lack of supply and this has kept domestic and export prices firm. Prices for USA fruit on their own domestic market have fallen back to pre-frost levels after the market attempted to extract a premium from the perceived short supply. However it is expected the season will finish early, paving the way for Australian fruit to come in to empty shelves

LEMONS

Domestic

Small volumes of lemons are coming out of N.T. and selling prices for first grade range from A\$25.0-50.0/ctn and for grade 2 A\$20.0-30.0/ctn. We expect this fruit to be finished by late March. Queensland fruit is still available and the packs in the market look fresh and good quality.

Export

Nil

VALENCIA

Domestic

Fruit is now being de-greened for domestic sales and this is returning better prices. Most sales are in bags with a few carton sales.

Export

Demand is exceeding supply from Malaysia for counts 125 and smaller for class 1 fruit and counts 150/162 for class 2.-163.

This is expected to continue into April, although weekly volumes are lighter now, as several growers have finished for the season

RED GRAPEFRUIT

Domestic

Fruit is now being sourced from N.T. with light supply. Best demand and prices for counts 48 and larger. Those de-greened for domestic sales are returning better prices. Most sales are in bags with a few carton sales.

Export

Demand is exceeding supply from Malaysia for counts 125 and smaller for class 1 fruit and counts 150/162 for class 2. This is expected to continue into April, although weekly volumes are lighter now, as several growers have finished for the season

QUEENSLAND

Marketing

Reasonable rains in February failed to solve the water shortage problems in the main growing area. The rainfall has been sufficient to meet the immediate needs of the 2007 crop, but has done nothing to replenish storages and or to kick off next year's crop. The Queensland Imperial mandarin season appears to be fairly early and some Central Burnett growers are test picking at the present moment (20 March) and light supplies are expected to come onto the market over the next 2 weeks. The Mareeba District is also about to start with the first Imperial of the season from the far north already reaching the markets.

QCG held a (Central Burnett) growers pre-season meeting this week, and indications are that the Imperial crop will be slightly down on last year – meaning that with disciplined marketing there shouldn't be any marketing (oversupply) problems. However, severe hail storms in various parts of the Central Burnett in November, and again in February, will see a significant increase in Class 2 fruit.

CONTRIBUTORS:

Steve Falivene, NSW DPI;
Dan Papacek, Bugs for Bugs, Qld (Production),
Chris Simpson, (Qld Marketing) Qld Citrus Growers Inc.,
Helen Ramsey, WA Dept of Agriculture;
Stefan Worsley, www.juicemarket.co.uk;
Scott Searles, AHEA.

Weekly domestic market reports can be accessed from the Murray Valley Citrus Board website:
www.mvcitrus.org.au/publicat.html.

For further information, visit the ACG website at:
www.australiancitrusgrowers.com