

Central Highlands

Most crops in CQ have reached cut out, with some crops already having open cotton. For some, showers in the days after Christmas has done little to dampen spirits, with a few able to delay an irrigation. While cloudy, humid weather has slowed some crops, yield potential remains high. Crops with cotton have some boll rot, while the later planted crops have lost some fruit due to shedding with the cloudy weather.

A number of crops in Theodore had problems with root development resulting in significantly stunted plants that failed to thrive. While there are quite a few affected fields, they range from the odd stunted plant (particularly where a plant was in an area of slightly lower plant stand) to a few significantly affected fields. Large populations of symphylans have been identified in the soil under these crops.

Symphylans are white, soft-bodied 'centipede-like', soil-inhabiting arthropods, three to seven mm long with 12 pairs of legs and a pair of antennae. Symphylans are sensitive to light, they are very active when exposed and are generally considered decomposers and a part of healthy soil biota. Typically, the symphylans eat out the soft root tips, with the effect of repeated root tip loss resulting in a 'witches broom' symptom. Symphylans are not able to burrow, but instead use the cracks to move around. As a result they favour moist, well structured soils rich with organic matter.

Dave Murray and Zara Ludgate (QDPI&F) collected samples from fields and estimate they were recovering about 50 individuals per shovel full. At this abundance, Dave believes the symphylans have been a serious factor in contributing to the stunted plant growth identified this season. Dave and Zara have set up a colony and aim to conduct pot experiments before the end of summer. He has also contacted an agrochemical company to find information, regarding chlorpyrifos use as it relates to symphylans in sugarcane and to flag the fact that the industry may seek a permit for next season in order to evaluate this treatment.

There were reports from late-December of up to 1.5 medium-large larvae per metre surviving in Bollgard II fields on some properties in Central Queensland. All affected fields were at mid-flowering to late-flowering. Of the 85 *Helicoverpa* larvae received from Bollgard II plants in Emerald by the end of December, 31 were *H. punctigera* and 54 were *H. armigera*.

This value is similar to the percentage of *H. armigera* in the sample of eggs collected during December in Emerald, and does not suggest that either species may be differentially surviving on Bollgard II. As in previous seasons, the moths from these collections have been

submitted for the F2 screening component of the Bt resistance monitoring program.

Silverleaf whitefly (SLW) populations were suppressed during the cloudy weather, but numbers are now starting to explode. High levels of parasitism (up to 75 per cent in Emerald) detected in small samples collected from Emerald, Theodore and Biloela, are probably a reflection of the low insect pressure early in the season which has reduced the number of mirid sprays, ensuring beneficial numbers remained high.

Samples collected from one site in Emerald and Biloela had signs of other beneficials feeding on whitefly, indicated by large numbers of empty pupal cases with no emergence holes. In Biloela there was high levels of predators such as the apple dimpling bug feeding, and *E. hayati* (SLW parasitoid) were easily visible on leaves.

Susan Maas
January 16, 2009

Border Rivers

Following a relatively wet start to the season, December and January have been generally clear and sunny – perfect cotton-growing weather for those with enough water.

Some rainfall events in the upper reaches of the Macintyre system over the Christmas period allowed another small pumping event for irrigators on both sides of the border – meaning most crops will now have adequate water to get them through.

Any rain that has fallen in-crop has been via storms, meaning it has been intense and variable. So from mid-December onwards it's been 'full steam ahead' for irrigators. There have been some isolated cases of waterlogging where irrigation has coincided with storms. An intense wind-storm hit Boggabilla and Goondiwindi on December 30. While crops looked tatty after this, damage was more evident to sheds, tanks, and vehicles (including planes).

Insect pressure has been unusual this season. Mirid numbers have been an unprecedentedly low, meaning most Bollgard II crops were not been treated with any insecticide until the middle of January when some crops reached threshold. Consequently most Bollgard II crops have fruit retentions of over 90 per cent. In conventional crops, heliothis pressure has generally been moderate but persistent until early January when there has been a spike in moth and egg numbers. Conventional control of heliothis has been good, aided possibly by the fact that, according to CSIRO resistance testing data, populations were predominantly *Helicoverpa punctigera* (average 85 per cent).

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The high fruit retention has been a contributing factor to many growers having to work hard to keep crops flowering – particularly in the western parts where temperatures are generally 2-3°C warmer. Most crops started flowering at only six to seven NAWF (Nodes Above White Flower) and these levels were maintained only when tight irrigation schedules were maintained. In cases when moisture has been lacking — such as late irrigations, steep tail drains or red sections of fields — crops have cut-out very quickly.

Dryland crops are looking impressive also, aided by the wet start. They are carrying large fruit numbers so will be very reliant on some January–February rainfall to get them to their full potential.

There have been a number of cases of hormone-based herbicide drift again this season – certainly not as bad as last season, but it is there.

With good boll numbers, clear skies and enough irrigation water to get most crops through, things are looking good for the current crop.



Inspecting CSD's large-scale, replicated dryland cotton variety trial at 'Getta Getta' are agronomist Iain Macpherson, Elders agronomist Andrew Macpherson, CSD's David Kelly and Guy Ellman-Brown, 'Getta Getta'.

David Kelly
January 15, 2009

Darling Downs

Darling Downs planting estimates in November appear to have been a little too optimistic especially for the dryland crops. Actual plantings are of the order of 20,000 hectares irrigated and 6000 hectares dryland.

Generally, crops are progressing well with potential for good yields on the back of reasonably good rainfall until early January despite prolonged cloudy weather conditions in late December and early January. But hot and dry weather in mid January resulted in significant

drying, so good rainfall for the rest of the season will be critical, especially for dryland crops. Many crops are short but looking good with a well developed boll load.

Most irrigators have sufficient water supplies to complete full irrigation for the season, although some crops could finish short by half an irrigation in areas dependent on overland flows in the southern parts of the Downs.

Heliothis pressure has been relatively low on cotton but very high on sorghum with most crops treated with virus sprays. Recent heavy egg lays in cotton have not caused problems to date and egg parasitism levels are good. Mirid numbers are rising and many crops have been sprayed once.

With most crops well setup for a good finish and high yields, rainfall is the key ingredient required to achieve expected yields.

Geoff McIntyre
January 16, 2009

Gwydir Valley

The Gwydir Valley has been experiencing warm weather recently which has kept day degrees in line with the long term average. Only 60 mm has been recorded at Moree Airport for the months of December and January, but there were some wild storms over the Christmas period with huge winds and hail. Moree was largely spared, but further north, Boggabilla and Goondiwindi took the full brunt of storms, with damage to trees, houses, sheds and silos.

Monsanto has advised the total cotton areas for this season from their planting audit data. For the 2008–09 season in the Gwydir 29,400 hectares (green) of cotton has been planted compared to the 11,800 last season. This figure comprises of 24,700 green hectares of irrigated cotton and 4700 green hectares of dryland cotton.

Most cotton crops around the region are at peak flowering, with some earlier and later crops either more advanced or in flowering stages. Bollgard II crops have been sprayed between two and four times for sucking pests, and insecticides have been applied to conventional crops up to 10 times for heliothis control.

The warmer weather has put most irrigators on a 10 day turnaround or less to keep up to the crop during peak flowering and boll fill. Some growers are beginning to run short of water and crops could be subjected to a dry finish if rain is not received later this month.

Despite efforts by Cotton Australia and regional extension officers to increase the awareness of spray drift, many farms in the valley have suffered herbicide drift damage. For most crops the degree of damage is not significant, but there are cases where drift has caused considerable damage. The Gwydir is not the only valley experiencing drift problems this season. Almost all other regions have had some damage, with areas like the Namoi reporting many cases. Cotton Australia urges

farmers affected by spray drift to contact them in order to document the frequency and severity of herbicide damage, and to enable them to take further steps to prevent spray drift.

Lauryn Hanna
January 16, 2009

Namoi Valley

Crops in the lower Namoi are progressing well. We had a taste of summer in mid January when the thermometer got to 40°C for a few days but generally temperatures have been near perfect for cotton growth since November. The wet early summer has disappeared now with almost no rain in January. The Namoi river has returned to its normal summer trickle following two minor floods late last year but the good news is that Keepit is now 40 per cent capacity and we look forward to further rises over the summer.

This, combined with supplementary allocations pumped and placed in farm storages gives good water security for this year and next season. Widespread hail in December caused moderate to severe damage to about 800 hectares of cotton. About 500 hectares of cotton has since been ploughed out.

Crops have very good fruit numbers. About 40 per cent of crops in the valley have been tending towards early cut out and growers are struggling to keep up growth rates. This is surprising given the relatively mild season. The majority of the crop looks very good. Its very early to be making yield assessments but prospects are good at this stage. Crop development is on target for April picking. A few early crops will be ready for picking by mid to late March.

Heliethis pressure has been high since Christmas. Heavy egg lays through January have challenged Bollgard and the few conventional crops in the valley. Generally speaking, control from Bollgard and insecticides has been very good although spray intervals have been tight given the pressure and growth dilution. Most other insects have been relatively quiet. Some mirids and GVB are just starting to require control in late January. Mites also appear to be a little more abundant this season and will need to be managed carefully.

Unfortunately 2,4-D drift has been a major problem again this year. Virtually all the crops in the valley have experienced some damage and several crops have been severely damaged. A few crops in the Pilliga area have been ploughed out as a result of severe 2,4-D drift.

Dryland crops have been progressing well and have very good yield potential. But a dry early January has emptied the soil profile and good rain during February will be needed to achieve this potential.

There has been quite a bit of Verticillium evident in crops this season. Lower than average temperatures early in the season encouraged the disease, although it is now in remission. I expect quite a few crops will

be showing severe symptoms later in the season if the weather turns cool.

Overall the relative small crop in the Namoi is looking good and there is now a glimmer of hope for next season as well.

Robert Eveleigh
January 20, 2009

Macquarie Valley

After a stop start, rain delayed wheat harvest widespread rain has stayed away. A wet harvest caused many problems and resulted in large quantities of downgraded weather damaged grain with subsequent price reductions.

December was quite a dry month in many areas. Warm weather now is making up for the mild temperatures in early summer. Irrigation is a full time job in many crops as there is no forecast of substantial rain for the short to medium term.

Herbicide drift damage from phenoxy products has raised its ugly head again. This is becoming an annual problem despite ongoing education and awareness programs. Varying levels of damage can be seen in many areas. The worst cases are close to total crop destruction.

Crop progress has been good with mild diurnal temperatures helping with pollination and fruit development. Fruit retention rates are quite high as many crops approach cut out. Insect pressure has been light. Both Helicoverpa and mirid numbers are low with some crops not having been sprayed as yet.

Recent severe hail damage to some crops in the Warren area has substantially reduced their yield potential and will delay maturity. Scattered hail activity was experienced in other areas from scattered storms.

Burrendong Dam is around 27 per cent of capacity after some inflows in December. The general security allocation is only eight per cent. After a cool and wet spring, summer has turned out to be warm-hot and dry. Growers are now looking to next autumn and winter's cropping opportunities leading through to summer with hopefully a lot more general security water allocation to work with.

Craig McDonald
January 14, 2009

Southern NSW

Crops in the southern area are looking good considering the cool season so far as illustrated by the day degrees table. Planting date this year has meant a significant difference in maturity with early crops (late September planting) taking advantage of warm weather during germination whereas crops planted in the first two weeks of October had to deal with lower temperatures during germination (as low as 4°C). The most advanced Hillston

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TABLE 1: Climate data calculated October 1, 2008 to January 16, 2009

Met site	2008-09	2007-08	Average DD	C/Shock 2007-08	H/Shock2007-08
Benerembah	1023.8	1196.5	982	35 (41.5)	14 (14.4)
Hay	1019.4	1202.0	1024	33 (37.8)	15 (16.7)
Hillston	1106.5	1256.9	1080	27 (31.5)	21 (19.1)
Whitton	1029.5	1188.5	979	34 (41.4)	15 (14.2)

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crops are approximately 20 nodes and will be cut-out, while the later Murrumbidgee crops are approximately 14 nodes and may not be cut out until early February.

There have been ongoing announcements of additional water allocations with the Murrumbidgee now



Liberty Link field walk in January at Merowie Station, Hillston.

ANSWER TO IAN'S MYSTERY TRACTOR QUIZ

The tractor is a British Wallis, manufactured in Lincoln, England by Ruston and Hornsby between the years of 1920-1929. The English firm held a licensing arrangement with The Wallis Tractor Co. of America, which was owned by the J. L. Case Plow Works of Racine, Wisconsin. The tractor pictured is owned by B. W. Lyon of Temuka, New Zealand.



at 21 per cent. Unfortunately the Lachlan which is the water supply for Hillston is still on zero per cent. The combination of cool temperatures and occasional well timed rain has resulted in few irrigations with some growers applying their first in crop irrigation just prior to Christmas.

Mirids and helioverpa numbers have been extremely low with the first significant egg lay occurring this week. A couple of Murrumbidgee growers have had to control mirids yet have sprayed using Canopy oil on its own as highlighted by Robert Mensah recently at a field walk.

During January there was a Liberty Link field walk held at Twynam's Merowie with growers taking the opportunity to look at a commercial field of 43LL. There is also a crop cut-out field walk planned on one of the Murrumbidgee farms aimed at new and perspective growers.

I would like to take the opportunity to wish the Southern Gin manager Ernie Silcock and his family all the best for their move back to Goondiwindi. Ernie has managed the gin at Hillston for the nine years that it has been in operation.

James Hill
January 16, 2009

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