



COTTON TALES

Central Queensland

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2008/09

No.09

19/11/08

Day Degree accumulation to the 18 Oct 08

District	Season 08/09	Season 07/08	Season 06/07	Cold Days	Hot Days
Emerald (from 15/09/08)	784	811	795	2	4
Theodore (from 25/09/08)	630	682	629	2	8

Center pivot & lateral move evaluations

Lance, with assistance from Merv Jessen (Irrigation Australia), will be conducting evaluations of center pivot & lateral move machines in Central Highlands from 8-12th December. They recently conducted similar tests in the Dawson/Callide area, demonstrating the value of this process to operators. A range of problems and their possible solutions were identified amongst the machines tested. In many cases performance could be readily improved via relatively simple, inexpensive adjustments.

- The most common problem identified was discrepancies between the control panel readout & actual performance, in areas such as amount of water delivered & machine speed.
- Modifications planned by one enterprise have been cancelled as the intended changes would actually decrease performance.
- One grower was able to plant cotton under his pivot as his concerns about adequate system capacity have been allayed.
- Another grower has reduced the impact of wheel rutting through simple modifications to the boom backs.

Whilst the number of system checks that can be conducted are restricted to the five days available, anyone that would like their machine evaluated should contact Lance as soon as possible (49837416).

Storage Project - Tender for Consultants

The Cotton Industry Storages Project is seeking consultants to undertake storage, seepage & evaporation evaluations. The project aims to undertake 135 storage evaluations over the next 3 years and then to re-evaluate up to 70 of these storages after they have been ameliorated. The tender process to select consultants has been announced. For further information and contact details or to order the information pack and submission form go to the Cotton & Grains Irrigation Website www.cottonandgrains.irrigationfutures.org.au. Interested consultant will need to organise landholder participation & tender submissions by **December 4 2008!**

Tobacco Streak Virus (TSV) in Theodore & Emerald

TSV has been identified in samples collected from volunteer cotton plants & crownbeard (*Verbesina encelioides*) in the Dawson. TSV has again been detected in numerous Emerald cotton crops. At this stage it is believed that TSV will not cause yield losses in cotton. For more info on TSV including photos of symptoms, please see the Cotton CRC website:

http://web.cotton.crc.org.au/content/Industry/Publications/DiseaseMicrobiology/Tobacco_streak_virus_in_cotton_in_Central_Q_LD.aspx

Plant Monitoring

Most crops around CQ are powering along, having had ideal growing conditions & low insect pressure. This has resulted in some very high fruit retention, with some early planted crops having up to 95% retention as they approach flowering. These crops are particularly sensitive to stresses as retaining too much fruit early in the season can cause problems like premature cutout.

The various Crop Development Tools can now be found at www.cottassist.cottoncrc.org.au

First Position Fruit Retention:

Monitoring first position fruit retention is a technique that is best used from squaring to early flowering. It is a quick way to estimate early signs of insect damage. How to measure first position fruit retention:

1. Select a plant & count the number of fruiting branches. Count as high as the last fully expanded leaf.
 2. Count the number of first position squares and bolls. First position fruit are those closest to the main stem.
 3. Conduct this fruit retention on at least 30 plants per field at a number of points.
 4. Calculate 1st position fruit retention:
= (1st position squares / fruiting branches) x 100
- Low retention (<50%) may signal some caution, although consider other fruiting positions.
 - High retention (>80%) can be associated with a yield penalty and premature cut out.

Fruiting Factor:

Fruiting factor allows total fruit load to be considered. How to measure Fruiting factor:

1. Select a plant & count number of fruiting branches. Count as high as the last fully expanded leaf.
2. Count the total number of squares & bolls.
3. Conduct fruiting factor on at least 30 plants per field at a number of points.
4. Calculate Fruiting Factor

Fruiting factor = Total Fruit/ Fruiting branches

The optimum fruiting factor changes at different stages of crop growth

Stage of Growth	Optimum Fruiting Factor
Pre Flowering	0.8 to 1.0
Flowering	1.1 to 1.3
Peak Flowering	1.3 to 1.4
Boll Maturity	1.0

Vegetative Growth Rate (VGR)

The VGR tracks the rate of change in plant height relative to the rate of node development. This can aid in decisions about the use of mepiquat chloride (PIX) to avoid excessive vegetative growth. Measurements should start as the crop approaches first flower.

1. Measure plant height (cm) from ground to growing point of main stem (not to the end of the top leaf)
2. Count number of nodes from cotyledons (numbered 0) to top node that has a fully unfurled leaf.
3. Repeat for at least 20 randomly chosen plants.
4. Carry out the same procedure 1 week later

VGR (cm/node)	=	$\frac{(\text{current height} - \text{last week's height})}{(\text{current nodes} - \text{last week's nodes})}$
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To interpret use the VGR table on CottAssist website