CottonInfo **Information** *when you need it*

the gwydir grower

14th May 2019

Crop Check – Moree & Mungindi

Irrigated Cotton

- Majority of irrigated cotton now picked
- Field yields 11-16 b/ha
- Quality very good, only the occasional bit of high Mic.

Dryland Cotton

- About 60-70% of dryland crop picked/stripped.
- Field yields 0.4 – 2.2 b/ha
- Quality generally poor, short length, low strength. Colour been good.

What the consultants are saying:
"Irrigated all picked, dryland approximately 60% to go. Irrigated yields 12-13b/ha. Dryland unknown yet as waiting on weights etc but not good! As expected".
"Irrigated all picked with a yield range 6 - 14b/ha from semi irrigated to fully irrigated, most yet to be ginned".
"Dryland 20% left to strip/pick, yield range: 0.4 to 1.9b/ha, short and some high micronaire discount. Good colour.
"One of my dryland fields picked has averaged 2.2b/ha. It picked very clean due to good defoliation results, colour was good, but there were some discounts for length".
"Early dryland done. Hard dry finish, all short staple 32, 33, Colour~ Trash = 21~3, 1.7 b/ha. Late dryland 40% stripped 1.6-2.1/ha. Still a dry finish Quality may be slightly better than early plant".
"Around 75% dryland left to pick. Lots close, leaf fall slow now. So far yield from 1-1.8. Some quality ok, some very short"
"Irrigated cotton really good quality, occasional high mic. Fully irrigated farm average of 12.5b/ha. Still picking dryland, ¾ of the way through. Yield 0.5-1b/ha and quality very low, discounts around $100/bale"

Ginning Summary:

- Irrigated cotton excellent quality, very small percentage of borderline high mic.
- Yield range 10-14b/ha fully irrigated, 4 – 8b/ha partially irrigated, 0.5-1.5 Dryland.
- Turnout:
    - Irrigated: Sicot 748B3F 38.5% – 41.8%, Sicot 746B3F 40.6 – 43.5%

- Dryland: 37.1 – 41.4%

What the Ginners are saying

"Due to good season for defoliation, nice and clean with no rain at picking the quality is excellent on all cotton:

- *Classing 11-1, 11-2, 21-1, 21-2*
- *Length 38 – 40, average staple*
- *Mic 3.8 – 4.9 small amount of 5.0-5.2 mic in irrigated cotton*
- *Strength 30.0+"*

"The small amount of dryland we have ginned so far has had good quality, good turnout, obviously classing specs such as length, strength and mic have been discounted due to dry growing season, 11-1/11-2, average discount being $100-$150/bale discount

"Colour continues to be good with a high percentage of 11 and 21 colour so far. Starting to see a little more around base grade (31) in the last fortnight but colour quality overall is remaining consistent"

"Staple length and strength is good in irrigated samples, there has been a little high micronaire but it remains a low percentage of the overall crop".

"The dryland cotton has been characterised by short staple, and in some but not all cases low mic and low strength"

"We are seeing 11's and 21's, a bit of high mic creeping through 5.2-5.3+. Staple in irrigated 37-41", dryland 32-34"

This is a summary of responses from 7 consultants based in the Gwydir & Mungindi districts. Thanks to Qld Cotton, NW Ginning, Brighann Cotton & Namoi Cotton for ginning summaries.

Picking & Ginning Information

The current edition of the Spotlight magazine has timely articles on:

Optimising Spindle Harvester Operation – the article reviews studies showing that compressor plate adjustment, spindle tip clearance and use of scrapping plates can substantially affect fibre quality and turn out.

Keeping an eye on module wraps – the article reviews the problem of plastic contamination in cotton and makes a series of recommendations to minimise contamination risk.

A link to the magazine can be found here**.**

The latest CottonInfo e-new on Contamination at Cotton Picking can be found here.

CSD Facts on Friday Considerations for Ginning here.

What is Turn Out (Lint) Percentage?

The turn out percentage is a simple measurement of the weight ratio of lint to seed cotton in any particular field. Each module is comprised of lint, seed, trash, burr, mote fibres and moisture. For example if the lint percentage is 40%, 50% may be seed and the remaining 10% by weight of extraneous matter such as trash and mote. These ratios can be influenced by many environmental and management influences (CSD).

What affects turn out?

1) Inherent turn out of the variety, due to seed size and weight.
2) Trash content. High trash levels reduce turnout. Timely and effective defoliation will help reduce the amount of trash.
3) Moisture content at Picking and Ginning – very dry years turn out is usually higher. However modules with higher moisture require extra heat during ginning and this can reduce the turnout.

4) Irrigated vs Dryland cotton - dryland turnouts generally a few percent below that seen in fully irrigated conditions for the same variety.
5) Fertile Conditions Late into the Season (adequate N and H20) after cutout can increase seed size and micronaire. Larger seed size will reduce turn out.

Turn out percentage is not correlated to final crop yield, it is made up of how well you have grown the crop to maturity, how well the defoliation process has gone, how well picking goes in terms of how clean the pick was and moisture content.

Example to describe Turn Out:

- Deliver 2300kg Round Module to gin
- Gins out at 44% turn out equating to 4.46bales or 1012 kg of lint for that Round Module.
- Assume Seed factor for gin @260kg per bale
- 4.46 bales by 260kg gives 1159kg of seed
- Therefore if you add up the lint and the seed, Total weight of Lint and Seed sums to 2171kg
- Therefore 129kg (2300kg minus 2171kg) of the original round is not accounted for in either seed or lint. This 129kg is made up of moisture, leaf, burr, trash, some of the immature fibres (mote) and any wrap contamination.
- It's the fluctuation in this 129 kg that changes the turn out percentage.

This information has come from CSD. Refer to CSD Facts on Friday for more detailed information: http://www.csd.net.au/fofs/218-turn-out-percentage---factors-involved

What is Micronaire?

Micronaire is a measure of fibre diameter and is a combination of fibre fineness (linear density) and maturity (wall thickness). It is a critical measurement in determining how easily cotton fibre can be processed, and is a key quality parameter.
There is a base range of fibre micronaire (3.5 - 4.9) with discounts for lower and higher levels.
Low micronaire is generally equated to immature fibre, which does not readily absorb dye and thus creates an uneven dye pattern in the finished cloth. Low micronaire cotton is more likely to form neps (minute knots of tangled fibre) in the ginning and yarn manufacturing process.
High micronaire cotton can only be used in coarse fabrics like denim.

Micronaire management
The micronaire of the fibre is determined in the second half of the boll fill period when secondary filling of the fibre occurs, management factors affecting micronaire will affect this time of growth including:

- Premature defoliation can result in low micronaire.
- Potassium deficiency and premature senescence can result in low micronaire.
- Dense stands and/or high nitrogen/irrigation frequencies. These conditions can promote rank growth causing increased shading of lower leaves thereby reducing carbohydrate supply.
- Cool conditions, late in the season, often causes low micronaire conditions as crops will have a good boll load from ideal conditions and when it turns cool/ cloudy, carbohydrate production is reduced, thereby reducing the amount of secondary filling of the late set bolls.
- The risk of low micronaire cotton is greatly increased with late crops.
- Higher micronaire come from issues like water stress, high temperatures during boll fill or higher yields. In these scenarios, the plants overproduce carbohydrates, which make the fibres cell walls thicker.

This information has come from CottonInfo's Australian Cotton Production Manual and A basic guide to cotton pricing quality

Congratulations – Finalists Australian Cotton Awards

The Gwydir Valley CGA are delighted to have two finalist in the 2019 Cotton Industry Awards. Congratulations the Alice Downs Farming team, for being names a finalist in the Bayer grower of the year. Alice Downs Farming are regular participants and past winner of the Gwydir crop competition, a CSD ambassador grower and a consistent dryland grower.

Congratulations to Murray Connor from AFF for being nominated as a finalist in the ADAMA Chris Lehmann Trust Young Cotton Achiever of the Year. Murray is the current chair of the Gwydir Valley CGA and representative on the Cotton Australia grower panel.

We wish them all every success in the awards.

The "Alice Downs" team, Agronomist Brad Cogan, Owner/manager Katie Ledingham and Farm Manager Tim Leifels.

Murray Connor, AFF, Moree

Recipients for the 2019 Australian Cotton Industry Awards will be announced in Griffith as part of the Cotton Collective on 24th July 2019.

NRM Top Tips – Protect Hollows

Did you know a River Red Gum has to be at least 100 years old to form a small hollow that's suitable for an eastern pygmy possum. Larger hollows that would fit a large owl or brushtail possum, take over 200 years to form!

In this month's CottonInfo NRM Blog, Stacey Vogel (NRM TechLead, CottonInfo) talks to Anna Madden, a cotton grower near Wee Waa who has enhanced the habitat for microbats and owls by installing microbat and owlet boxes in areas of her farm where hollows were limited. *"They are another tool in our toolbox of pest management options".*

Read the full blog here.

Dates for the Diary

CSD Cotton Management Tour

- Moree, NSW – 1 July 2019 at 5pm
- Mungindi, QLD – 18 July 2019 at 10am

CCA Cropping Solutions Seminar

- 20-21 June, The Crossing Theatre, Narrabri NSW.
- https://cropconsultants.com.au/events/cca-seminar-2019/

Cotton Collective

- 24th-25th July, Griffith

CCA Regional Workshop

- 29 August, Town & Country Club, Moree NSW. *Free for CCA members.* Non-members welcome

2019 Australian Cotton research Conference

- Date: 28-30 October 2019
- Place: Armidale
- For more information and to register http://www.australiancottonscientists.org/2019-conference/

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