Welcome to the 4th edition of the Cotton Wrap!!

Dryland Cotton
Dryland cotton continues to surprise us with its resilience in these dry times, particularly some crops east of Moree and Narrabri. Mike Bange conducted a small trial at Ed Tomlinson property "Myall Plains" to see if Pix can be used to slow the crop, while waiting for rain. Here is Mike in action and I will keep you posted on any outcomes. Thanks to Ed for your support.

I will organise a trip for researchers down to "Windy Station" next year.

It is estimated that we still have at least 5000 hectares of Dryland cotton in the Upper Namoi.

Results from the planter survey are due to be finalised by early December so there will be some results in the next Cotton Wrap.

Around the Traps
FUSCOM is an annual get together of disease scientists and researchers and although rumour was that it was a little boring, that was not true at all! I would like to share some of what I learnt......

Fusarium is having a big impact in the US on Pima cotton and is causing many growers there to stop growing this variety. They are also having trouble with both Reniform and Root Knot nematodes and came here to share their experiences and knowledge.

Fusarium and Verticillium is increasing in its reach and has meant some growers have had to move out of cotton here as well and into other crops. These diseases have always been in the soil and only became pathogenic to cotton through continuous cropping. Over half the fields in the Gwydir (as an example) had Fusarium as found in the recent disease survey.

Thankfully resistant varieties are helping to manage its effect so far. Verticillium is decreasing in all areas except for the Namoi thanks to more resistant varieties also but why it is increasing in the Namoi is still a mystery. Potassium deficiency will increase the effect of these pathogens.

Reniform Nematode in Theodore caused up to 2 bales per ha in yield loss. It is suspected they have always been there but increased after flooding, although their pattern of effect is not explained by the flood. Dr Linda Smith and her team did an amazing job sampling the whole Theodore region to establish thresholds. So far corn, sorghum, rice, peanuts and fallows are known to be good rotations. As yet they are not sure about mungbeans and chickpeas and Soybeans do seem to be a host but not a good one.

Paul Grundy spoke about soil borne pests like Symphyla, Earwigs and Wireworms with the last 2 having quite severe impacts on cotton crop establishment. He mentioned that in one trial soil
tests showed no or very little numbers of pests but when crops did not thrive, potato baits (as pictured above) showed the soil amass with Earwigs and Wireworms. More stubble in our system has increased numbers. As seed dressings are not very effective the plant really relies on a strong robust start. Part of Paul’s project is to get more qualitative data on seed dressings and thresholds. He is seeing compaction play a negative role here also. The take home message was to sample your soil prior to sowing.

The good news is that Lily Pereg told us of the existence of super microbes which fix Nitrogen, produce plant hormones, enhance root systems and improve water uptake. She just needs to work out how to utilise them.

**Trials**
Crops are 5-6 nodes and in crop Nitrogen will be applied next week.

Some of you attended a field day during winter at Andy Watson to look at wheat trials. Below is a table outlining some of the results. This was double cropped after cotton and used 1.9ML under a lateral.

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<table>
<thead>
<tr>
<th>No</th>
<th>Treatment</th>
<th>Colour</th>
<th>Area t ha</th>
<th>Tonnage t/ha</th>
<th>Yield %</th>
<th>Protein 15.2</th>
<th>Weight kg/hl</th>
<th>Screenings %</th>
<th>Vitreous %</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urea 180kg + 60kg incrop</td>
<td>Blue</td>
<td>3.5</td>
<td>21.99</td>
<td>6.28</td>
<td>15</td>
<td>81</td>
<td>1.3</td>
<td>100</td>
<td>DR1</td>
</tr>
<tr>
<td>2</td>
<td>Entec 180kg +60kg incrop</td>
<td>White</td>
<td>3.73</td>
<td>23.7</td>
<td>6.35</td>
<td>15.2</td>
<td>80</td>
<td>1.5</td>
<td>99.3</td>
<td>DR1</td>
</tr>
<tr>
<td>3</td>
<td>Agricote 180kg +60kg incrop</td>
<td>Orange</td>
<td>4.17</td>
<td>25.23</td>
<td>6.05</td>
<td>14.8</td>
<td>81</td>
<td>1</td>
<td>99</td>
<td>DR1</td>
</tr>
<tr>
<td>4</td>
<td>ESN 180kg +60kg incrop</td>
<td>Red</td>
<td>3.88</td>
<td>24.16</td>
<td>6.23</td>
<td>14.9</td>
<td>80</td>
<td>1.5</td>
<td>100</td>
<td>DR1</td>
</tr>
<tr>
<td>5</td>
<td>Black Urea 180kg</td>
<td>Pink</td>
<td>3.35</td>
<td>21.84</td>
<td>6.52</td>
<td>14</td>
<td>81</td>
<td>1.5</td>
<td>100</td>
<td>DR1</td>
</tr>
<tr>
<td>6</td>
<td>Entec 240kg</td>
<td>Green</td>
<td>3.51</td>
<td>23.63</td>
<td>6.73</td>
<td>14.6</td>
<td>81</td>
<td>1.4</td>
<td>99</td>
<td>DR1</td>
</tr>
<tr>
<td>7</td>
<td>Urea 240kg</td>
<td>Yellow</td>
<td>3.73</td>
<td>22.42</td>
<td>6.01</td>
<td>14.4</td>
<td>82</td>
<td>1</td>
<td>100</td>
<td>DR1</td>
</tr>
<tr>
<td>8</td>
<td>GSP 150kg NH4 + 90kg incrop</td>
<td>Red/White</td>
<td>3.4</td>
<td>23.72</td>
<td>6.98</td>
<td>14.7</td>
<td>82</td>
<td>0.5</td>
<td>100</td>
<td>DR1</td>
</tr>
<tr>
<td></td>
<td>Nil strip</td>
<td></td>
<td>0.56</td>
<td>3.443</td>
<td>6.15</td>
<td>12</td>
<td>83</td>
<td>1.1</td>
<td>96.6</td>
<td>DR2</td>
</tr>
</tbody>
</table>
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People’s minds are changed through observations and not through argument, Will Rogers.

Never let your education interfere with your learning, Mark Twain.

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**Central Queensland Field Walk**
A bit of a look for those in the south of what is happening in the North.

Neek Morawitz had an excellent crop at Comet just approaching 1st flower on the 13th November.

**Update from Philip Armytage’s Darwin Trip**
The Northern Food Futures Roundtable was attended by all 3 Ag Ministers from WA, Qld and NT as well as Hon. Barnaby Joyce MP. It looked at opportunities for
Northern Australia and the Cotton Industry was sought for input as well.

From the 1960’s limitations to growth have been Government Policy, Land tenure, Infrastructure, Biosecurity and access to markets. Nothing much has changed, apart from perhaps the cross government support for development. It is 4 times more expensive to send a container from port of Darwin than Melbourne, as there are limited numbers of containers available for backloading. The Political will has improved markedly though, and plans are drawn up for an extension of Lake Argyle to 5000GL and a channel to the NT border is already in place waiting to be used to feed the proposed Ord stage 3.

Horticulture is paving the way with around 2 million mango trees at present. To highlight the dangers with Biosecurity the melon industry has been decimated by an exotic incursion and smudge disease has been found in the Cavendish bananas grown up there.

There is substantial water from mine dewatering in the Pilbara being used to irrigate hay. There is however also water and land in far North Qld on the Gilbert and Flinders rivers and this offers the greatest potential for cotton. Land at $12/ha sounds attractive, but development costs are around $12,000/ha. Leasehold tenure on less than 99 yr terms is not attractive.

Australian produce is viewed as ‘safe, clean and reliable’. Interestingly the language used has changed from Australia being the ‘food bowl of Asia’ to being the ‘delicatessen of Asia’.

What's On
2nd December- Weather forecasting and models, Wal and Jane Friend at Walgett, 4.30 pm.

3rd December- Pump Efficiency Test in Emerald Farm 169 Wills Rd, Cam Geddes at 10.00am. Phone Lance Pendergast for details.

John Ellis and Simon Logan beside the new weather station at "Miralwyn" Walgett, one of four installed thanks to CRDC’s Grassroots Grant Program.

Welshy’s Weather
Positive signs occurring in the tropical Pacific recently as anomalously cool water in the north-east shows signs of warming. This region is a major source of moisture for thunderstorms and trough activity. Scientists also watch the Tropical Convergence Zone on the equator north-east of New Guinea. This area is also in a favourable state. The forecast resurgence of the Madden-Julian Oscillation next week also provides some optimism for the summer. This moving wave of low pressure did not contribute at all to our monsoon last year. Watching the MJO can help determine when a rainy change may pass, equally scientists have found when in certain phases, can bring fine and hot weather. Keep an eye on fortnightly summaries in cottoninfo’s Moisture Manager.

Compare this graph to last month's - change in sea temperature in the Coral sea.