Bug Check - Moree

- Mirids active again in late cotton
- SLW remain at low numbers generally decreasing slowly, good evidence of parasitism
- Some fields SLW numbers constant but not in high numbers at this stage
- Some farms with mites, but low numbers and not requiring any treatment

Crop Check - Moree

- Defoliation well underway on early sown crop
- Later sown crops defoliation will start in next week
- Still a number of fields 6-10 NACB

What the consultants are saying:
“Whitefly has been fine with the admiral spray. Some fields out west might still be a bit thick but seeing a fair amount of parasitism in areas where numbers are quite low
“Vert has been really showing up badly in the last few weeks as the crop is finishing off. So will be mapping areas in fields to keep an eye on in future seasons”

Day Degrees – Moree

Accumulated day degrees from planting date of 15 October until 19 March - Moree

- From 15th Oct – 2177
- 2016 – 2294
- Long Term Average – 1995
### Day Degrees - Mungindi

Accumulated day degrees from planting date of 15 October until 19 March - Mungindi

- From 15th Oct – 2378
- 2016 – 2495
- Long Term Average – 2175

<table>
<thead>
<tr>
<th>Date</th>
<th>2017</th>
<th>2016</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Days</td>
<td>52</td>
<td>61</td>
<td>24.3</td>
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<tr>
<td>Cold Shock</td>
<td>5</td>
<td>16</td>
<td>10.1</td>
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### Defoliation

Defoliation is well underway in the Mungindi District and Gwydir Valley. Unfortunately the recent rains have hampered some crops with major regrowth after the first defoliation pass. A number of consultants sent in some questions for Mike Bange to address regarding defoliation.

<table>
<thead>
<tr>
<th>Date</th>
<th>2017</th>
<th>2016</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Days</td>
<td>68</td>
<td>82</td>
<td>46.2</td>
</tr>
<tr>
<td>Cold Shock</td>
<td>3</td>
<td>13</td>
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</table>
Question 1:
How much impact does Ethephon have in affecting how well Thiadazuron (TDZ) works on dropping leaf off the plant? In the past I have noticed the more Ethephon I use in the first defoliation the worse job I get in regards to leaf drop. We don’t seem to have any problems getting bolls to open, just getting the leaf to drop so, in a system where we now budget for 3 defoliation sprays are we better using straight TDZ on the first defoliation, then using a combination of both on the following 2?
For example, Traditional 3 spray program
1) • 150ml Thidiazuron (may be higher, depending on temperatures)
   • 500ml prep Ethephon
2) • 180ml Thidiazuron
   • 2L Ethephon
3) • 200ml Thidiazuron
   • 2.5L Ethephon
Suggested new 3 spray program
1) • 150ml Thidiazuron
2) • 180ml Thidiazuron
   • 2L Ethephon
3) • 200ml Thidiazuron
   • 2.5L Ethephon
Certainly not an expert on this (experience and knowledge of the crop situation counts most), but the high amounts of ethephon in addition to the stress caused by thiadazuron would cause high amounts of ethylene instantaneously which simulates a severe stress. Some clues maybe in the action of the two. Thiadazuron acts to stimulate a stress response and create the right balance of the appropriate hormones to enable ethylene to act. Ethephon is like a direct shot in the arm of ethylene and is more associated with contact (the reason why it is good for boll opening). This done in warm temperatures allow the action of all products to work really well.
The second strategy when warm is more likely to avoid the problems but continues to aim to redress the plant balance of hormones that help to age the plant and allow leaves to drop that rely more on this process (the abscission layer)

Question 2:
Unfortunately for some crops the rain came just as they were going to defoliate, or perhaps had one pass. There is a lot of re-growth, why?
Simply the crop is matured and the demand for resources by the fruit is no longer present. Cotton is a perennial and if there is warmth, water and N it will grow again. Very hard to prevent especially if all the ingredients are in abundance.

Question 3:
Dryland: Major regrowth after first defoliation pass post a rain event what are the best brew or rates of drop/prep
Also any advice for late cool season defoliation for May. Product choice etc
In the case of regrowth I will continue to treat them as leaves and use thidiazuron. Because they are healthy I would consider higher rates to readdress the hormone imbalance to stimulate a stress effect and generate ethylene.

Use the label advice and consider products that have better efficacy in cooler temperatures. Warmer temperatures are your strongest ally in defoliation. Let’s consider that the optimal plant temperatures range for cotton are from 28 to 32. We are even challenged for hormone function when we get temps of around 20. Plants can cool but not warm. This the reason why we use higher rates to compensate for the poor hormone function.

**Question 4:**
Should the Thidiazuron rate be higher on a crop that has quite a bit of regrowth on the top of the plant to blow off and if so what rates can you go to before burning leaves?

Not quite sure about the top end however regrowth is young vigorous growth and higher rates are probably what is needed. Temper the rate when temps are warmer though, given the observations from consultant above (Question 1).

**Cotton Crop Competition - Gwydir Valley**
Thanks to all the growers and consultants who entered the 2017/18 Gwydir Valley Cotton Crop Competition. Field judging is now complete, and we wait for ginning reports to finalise judging.
With almost 30 entries including 8 dryland entries it’s going to be a tough competition. Some impressive crops in both categories despite another hot, dry summer. Winners will be announced later this year at the Gwydir Valley Cotton Industry Charity Gala.

**Gwydir Valley Cotton Growers Association (CGA) needs YOU!**
The newly elected Chair, Murray Connor, invites all cotton growers from family and corporate businesses and associated industry representatives (that includes consultants and other support businesses) to come along to a special general meeting of the Gwydir Valley CGA.
**Date: Thursday 22nd March 2018**
**Time: 8am**
**Place: Gwydir Valley CGA and GVIA Office, 100 Balo St, Moree.**

The CGA is the voice of cotton growers to: industry, community and the public. The responsibilities of the CGA include;
- Providing feedback to industry on what the Gwydir sees as research priorities and direction.
- Provide Gwydir Valley perspectives on policy positions and local issues.
- Deliver information to cotton growers on behalf of industry.
- Promote the cotton industry to the local community.
Come along and have your say on the future direction of the Gwydir Valley CGA, provide feedback on research priorities and discuss the 2,4-D spray recommendations presented to Cotton Australia by the Walgett CGA which resulted from the recent spray drift issues in the Walgett area. These recommendations include:
1. Distribution of the Spraywise spray clock to all grain and cotton growers by Cotton Australia and GRDC.
2. Recommended label change to 2-4D phenoxy products that will NOT allow spraying at night time.
3. Addition to the labels that TTi nozzles must be used while spraying these products.
4. A restriction to be put in place on 2-4D products. This being, no use of 2-4D during the months from October to end of February in cotton growing regions. It was the consensus of the group that we should not call it a ban, but rather a restriction. This will allow growers that must use 2-4D to be able to, although discussions were raised about having a register or notification process that must be undertaken for anyone wishing to do so.
5. Better labelling from the manufacturers of these products to warn specifically about the dangers of the chemical with cotton.

Look forward to seeing you there. Flyer attached.
For further information or to RSVP please contact GV CGA on 02 67521 399 or via email Gwydircotton@gwydircotton.com.au

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