

Project ID-CRDC1215 "Scoping consultants' needs in  
adopting best practices in southern NSW"

During my two visits to the emerging cotton areas in southern N.S.W. early January and early March, 2012, I was able to meet with all but three of the key people supplying agronomic advice to the cotton area. Two of the three, Allen Jones (Agronomic Business Solutions) and Joran Millyard (MIA Rural), I was able to have long phone conversations with. Danielle McKay (farm agronomist with Peter Touhey farm) I was unable to contact.

I had meetings with Heath McWhirter, Junice McCosker and John Ronan (all from Elders), Peter Hill (Yenda Prods), Brett Hay and Mark Zanatta (Rawlinson & Brown), Adrian Hayes and David White (MIA Rural), Jemima Maslem (Twynam, Gundaline) and Tom Webb (Agronomic Business Solutions). I was able to catch up with Patrick McInnes from Hillston, a private consultant whose major client is Harris Farms.

These meetings all revolved around IPM earliness, PIX management and late insects. In the case of Yenda Prods, we had a formal office meeting in the morning followed by farm inspections in the afternoon. In most cases we met with the grower and most of his neighbours.

Elders held a shed meeting last Monday - 25 growers turned up. Points of discussion were IPM, boll development and late insects.

I was also fortunate on both occasions to have time with Kieran O'Keeffe (District Agronomist, Coleambally). Kieran is doing the Cotton Production course at UNE and sees cotton as an alternate crop to rice.

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"Skill needs of consultants/agronomists for delivering best practice crop scouting and agronomic recommendations in southern NSW."

1. All commercial resellers have a lead consultant with some cotton experience. For example - CGS, Twynam, Macgregor Gourley, David Clark and Pablo Vega.
2. There is a good understanding of growing cotton in short season areas.
3. An understanding of IPM principles which flowed through from insect management in soybean crops is adequate.
4. After the January trip a much better understanding of using half rates plus oils and in some cases using oils with other sprays - for example - PIX. Very little salt is being used.
5. There is some overspraying taking place. When a plane is flying PIX, a mirrid spray is added. The reason for this adding of the insecticide is that it is cheap and it is, therefore, not necessary to come back in a few days time to respray for insects. I do believe this could be happening in other areas within the industry. I do not believe that this practice is being sales driven.

Because rice and cotton are being grown together and PIX affects rice production, it means that spraying can only be carried out with the right wind direction; and, therefore, spraying can be delayed by up to 10 days. It does seem that this practice is site specific.

6. Crop Scouting - There does not seem to be major areas where insects have caused major damage, so it could be assumed that the scouting techniques and skills are adequate - bearing in mind that this was a very light insect year. Between my two visits, I have had agronomists ring me, and we have discussed checking procedures for Helicoverpa, and the decision after three checks was not to spray, which to me shows an understanding by the consultant of what is required.

Beat sheeting is being used as well as visual. Fruit loads show good insect control and large areas have not required spraying.

There may be a need for more work on newer consultants coming into the industry, as this will be required as the area increases. But the key people in the reseller operations will have had experience with running teams of bug checkers and individuals.

"Knowledge needs of consultants/agronomists for managing agronomic risks in cotton production in southern NSW."

1. The key understanding of short season agronomy is very good. They really are trying with all decisions relating to earliness. Early spraying for thrip is because of a fear of delaying crop maturity due to tipping out.
2. Nitrogen use could be high. This will delay maturity, and will be discussed later in the report.
3. Because this area has had water, the water management is very good. However, the last watering trials could be useful, bearing in mind the soil types and day temperatures during March.
4. Use of cut-out rates of PIX are very well understood. This is probably coming from experience of James' and Allen Jones' experience with cotton growing in the Macquarie. This is having a notable effect on evenness and could even be shortening the season. Maybe the rest of the industry could learn something from these applications.
5. Possibly that mirrid spraying is connected to a fear of delay from fruit loss. Again this is understandable in a short season area. With more experience consultants should become more relaxed with mirrid management, and we should see reduced spraying.
6. Early thrip spraying could also be questioned, but again this is because of the fear of delayed maturity with tipping out. With better understanding and experience, thrips spraying should only be necessary in cold starts like this year. It would be preferable to see one off knock downs with OPs not SP. Not all farms and all fields were sprayed this year, which is a good sign.
7. Nitrogen useage seems high. However, in the March trip crops seemed to be cutting out well. Perhaps the number of waterings and the yields being obtained could be reducing these nitrogen rates.

There will probably be some regrowth on the later crops which could indicate excessive nitrogen. More will need to be done on nitrogen rates.

"Channels and networks currently being used by consultants/agronomists to access information about cotton production in southern NSW."

1. Web on Wednesday is being used. James' work and effort has been excellent. This is shown in the understanding of IPM and PIX usage and season length.
2. Some agronomists have joined CCA. Some agronomists call Lewis Wilson directly regarding thrips and GVB.
3. Most publications have been sighted - for example, "Pest Management Guide", "Pests & Beneficials in Australian Cotton Landscapes", and "Australian Cotton Grower".
4. A list of CRDC publications could be sent either to Kieran O'Keefe or James for distribution. I assume this is already being done. A list of key researchers numbers to be sent to consultants - for example, Mosan Kahn and Mary Whitehouse with reference to mirrids and GVBs, Ian Rochester on nitrogen and Grant Herron on aphids. If and when major outbreaks occur, Skype sessions have been set up with the help of Kieran. Disease publications from Steve Allen are now out of print, and this pocket guide would be useful for the consultants - "Symptoms of Diseases and Disorders of Cotton in Australia".
5. Bob Ford (CSD) is active and doing a great job in the area. Commercial reps are visiting the area, so this is being covered for their respective products.
6. A big thing missing is meetings for the consultants to get together during the season to share information. This has happened to some degree in Coleambally this season with reference to GVB.
7. Evening meetings with a Skype session, a BBQ and a few beers would be very useful. Kieran O'Keefe has been and could be very useful in bringing this to pass as he is seen as being neutral territory. This is very important because of the commercial competition between competing resellers.

# Concerns and Unknowns

1. Development south - Finley, Hay and Swan Hill  
My understanding is that most of these growers are rice growers and have had little or no row cropping experience. It has been pointed out that because of their location, yield expectations would be lower than the Griffith area. It should also be noted that cotton could "not be grown in Breeza and Spring Ridge."
2. Whether there will be enough agronomists with cotton experience to handle this southern expansion and the expansion which will occur in northern areas is questionable.
3. The adding of insecticides because the plane is spraying - hopefully with experience this should decline.
4. Lack of farmer trials being carried out in the area -
  - a. Nitrogen rate trials
  - b. Last watering trials
  - c. PIX rate application and nitrogen rate trialsThese could be done independently by Ag Research, however information should be available to all growers. The Macquarie used to co-ordinate all farmer trials, print them up in booklet form, and distribute them widely.
5. I do not see a big increase in independent consulting. Cotton is still in early days, and the area could revert back to original crops; so it's difficult to see consultants taking the risk and going out by themselves.
6. GVB - Due to diverse cropping - for example, corn and soybean (both organic and non organic), lucerne and rice - could become a major pest. A question mark over white fly still exists.
- \*\*\*\*\* 7. James Hill's position - Very well respected, very hard worker. Will need some assurance of work commitments required for the coming season. If possible, this should be done as soon as possible. Maybe James could be offered more days per week. Losing James would be a huge loss to the extension services for southern growers.

### Conclusion

The original decisions made in the mid '60s to grow cotton in the Griffith, Darlington Point seems to be coming to fruition. The crop in this area for this season looks too good. They are loaded up, cutting out and will be defoliated within the next 15 - 25 days; and this all in a very cool year.

If I have one fear for this region, it is that the region tries to adopt too many northern techniques. You cannot grow cotton like this "by doing the big things wrong" - which they are not. There are probably some small tweakings which may be helpful. Picking could be fun and very pleasing.

I would like to thank CRDC for the opportunity to be part of this exciting new area. I feel I have been able to have a practical input into the development of some very enthusiastic and energetic young people. With people such as these, I see only a bright future for this southern cotton region.

Between my first and second visits, I have fielded calls from agronomists on insect management decisions. The increase of half rates plus oil mixtures has been very pleasing to see. On Sunday I had a call regarding GVB. After a discussion, the consultant decided to spray with Shield and oil knowing he will probably get a knockdown and a 60% kill. His alternate spray was going to be an SP; so I feel we are getting somewhere.

It may look as though the understanding of IPM is low. I disagree. In a short season area and cold starts to the season, thrips will need to be controlled in some years. Therefore, the use of knockdowns (OPs and not SPs) is a good sign. Hopefully SPs, as used in soybeans, will not be used at the end of a cotton season. Once we get a better understanding of the ecology of GVB, we may be able to handle this pest a lot better than we are now.



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