Cotton Catchment Communities CRC
Queensland Government Department of Primary Industries and Fisheries

COTTON *TALES*

Central Queensland

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Precision Ag – local perspectives

Many farms have embraced various aspects of precision ag technologies, such as yield monitors & GPS guidance, however there are a multitude of other technologies that can help to identify & quantify problems with a high degree of accuracy.

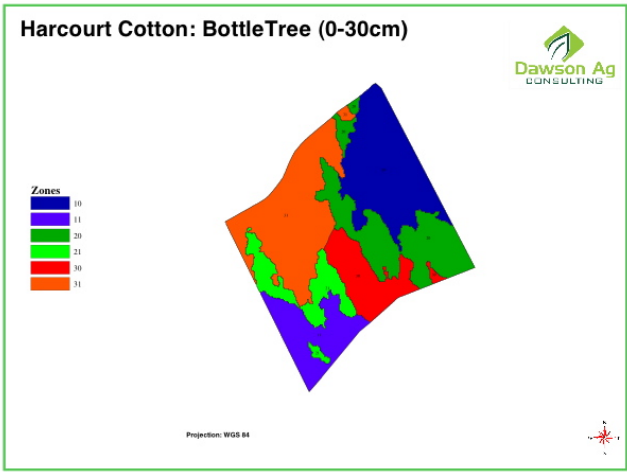
Part 1 - Variable rate nutrition

"I know my soils are variable but by how much?"

Damien Erbacher (Dawson Ag Consulting) has been working with his clients to map & quantify soil variability & use this to improve management.

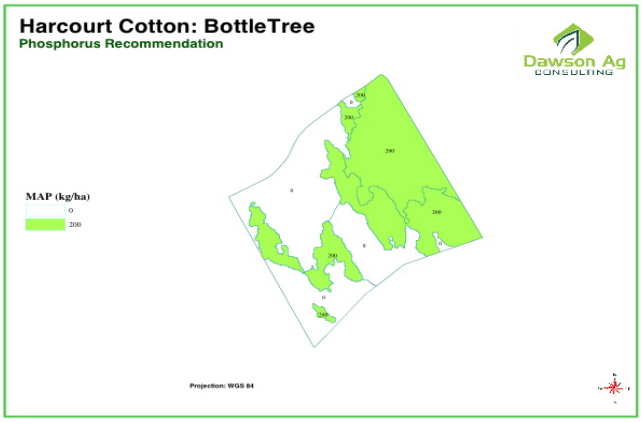
Damien uses a Veris EC machine, which has 6 culti discs, two of which have a current passing through them. The two closest discs monitor this current at a shallow depth (0-30cm) whilst outer discs monitor the current down to 90cm.

Similar to an EM survey, the flow of current is affected by salts, moisture and clay content, & provides a relative comparison across a field. Zones of different soil types within a field can then be identified by ground truthing the EC image. While soil sampling should be conducted every two to three years, once these zones are mapped, they remain current until major changes, such as levelling, occur.



In this 74ha field at 'Harcourt' (0-30cm), there are two blue areas which are a lighter soil, & two red/orange areas which are a heavier clay, with the green areas being transition between the two. Using GPS, the different zones are soil sampled separately & this information is interpreted to produce nutrient recommendation maps.

Prior to EC mapping, soil samples would have been taken across the field & the averaged result would have most likely resulted in a recommendation of 100 kg/ha of MAP spread across the entire field.



With the same amount of phosphorus, & using a 3 point linkage spreader with variable rate capacity, the recommendation map was used to apply 200 kg/ha of MAP only to the areas that required it. This targeted approach to nutrient application has contributed to an excellent crop.

"It's nice to be so precise with fertilizer application. The technology worked well, and we certainly saw an improvement in the evenness of the field." **Mike Austin, 'Harcourt'**

Thanks to Damien Erbacher & Mike Austin for their assistance with this article.

Draft Insecticide Resistance Management Strategy (IRMS) 2009-10 Available for Review

The TIMS Insecticide Technical Panel has considered a range of issues in the development of version 1 of the proposed 2009-10 IRMS. Proposed changes to Northern IRMS include:

- Proposed window for Altacor®
- Warning on neonicotinoid use on aphids
- Addition of Shield® to IRMS aphid window
- Addition of IRMS direction for Whitefly
- Later Endosulfan use window?
- Later Pyrethroid use window?

Written submissions on any IRMS matter are due **Friday 19 June 09**. For more information including full changes & background information please go to the Cotton Australia web site: www.cottonaustralia.com.au