

Cotton Farming Practices – Nutrition

– a snapshot from the 2011 Grower Survey

The 2011 grower survey was done for the Cotton CRC and the Cotton Research & Development Corporation. The survey looked into features of cotton properties, farming practices in the 2010-11 season and the use of information and research. 183 growers from a randomly selected sample participated, 167 of these were irrigators and 90 of these were groundwater users.

Survey information like this helps in targeting research and extension efforts for the industry and to track changes over time. This poster shows just some of the information about irrigation.

Many thanks to the growers who contributed to the 2011 Cotton Grower Survey.

A grower survey will be undertaken again in 2013 to help the industry to track changes over time.

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Growing Better all the Time



The rates of fertiliser applied nutrients varies hugely between farms. Some of this may be as we are looking at one season only whilst some farms use a program over a number of years for nutrition.

Key changes when compared with surveys of 2001, 2006 and 2007:

- Rates of all nutrients have increased markedly
- In-season use of N & P has increased
- The use of soil testing remains similar whilst the use of leaf/petiole testing appears to have declined.

Fertilisers were used by a number of growers for flood recovery – this may have contributed to the high rates seen in 2010-11. For example:

- *“Fertiliser program was unusual for 2010/2011 because it was too wet to soil sample, and couldn't put anything up front so applied urea by air.”*
- *“25 kg of in season nitrogen fertiliser was placed after floodwater was drained”*

| Applied Nutrients (kg nutrient/ha) | Irrigated | | | Dryland | | |
|------------------------------------|-----------|-----|-----|---------|-----|-----|
| | Avg | Min | Max | Avg | Min | Max |
| Preseason N – solid | 142 | 11 | 350 | 89 | 50 | 150 |
| Preseason N – gas | 155 | 60 | 300 | 84 | 50 | 140 |
| In season N – solid | 99 | 9 | 300 | 45 | 0 | 180 |
| In season N – gas | 83 | 11 | 200 | 40 | 20 | 60 |
| In season N – water applied | 57 | 9 | 250 | 5 | 5 | 5 |
| Total applied Nitrogen | 217 | 30 | 534 | 96 | 33 | 330 |
| Preseason P | 42 | 1 | 250 | 14 | 2 | 50 |
| In season P | 20 | 1.0 | 100 | 13 | 3 | 40 |
| Total applied Phosphorus | 40 | 1 | 250 | 16 | 2 | 50 |
| Preseason K | 32.6 | 0.4 | 120 | 7.6 | 0.4 | 20 |
| In season K | 15.2 | 1.1 | 60 | 2 | 2 | 2 |
| Total applied Potassium | 28.3 | 0.4 | 120 | 6.7 | 0.4 | 20 |
| Zinc | 6.9 | 0.2 | 105 | 3.7 | 0.2 | 15 |
| Sulphur | 6.3 | 0.1 | 55 | 2.4 | 1 | 6 |
| Trace elements | 21 | 7 | 65 | 4.0 | 4 | 4 |

There is uncertainty of how to use variable rates. *“Variable rates and yield mapping is the way of the future – it's hard to find people with good info on how to set it up”*

Manures or composts are being used by a number of growers. These are generally from a local source and as part of an overall program.

