CottonInfo Information when you need it

the cotton tale

24th February 2020

Crop stage – Range of 2-4.5 NAWF and 24 to 26 nodes

Insects/beneficials – Light to threshold mirid pressure with some crops sprayed. Whitefly numbers still low. Some patches of Green vegetable bug.

Weeds – Some Pigweed misses.

Disease/Environmental – Light Alternaria. Some shedding of squares and small bolls has occurred in last two weeks but boll numbers on plant still good.

General comments – Crops progressing well with 2nd last irrigation just applied. Boll maturity at base of crop a bit slower with cooler weather. Some cavitation has occurred.

Final irrigation trial 2020

Last season a trial looking at the effect of changing the time of the final irrigation on yield and quality was conducted by Steve Buster (Rivcott/Summit Ag). A summary of the trial in 2019 follows

- All fields that had a mid-March irrigation did not have a corresponding yield increase. As this irrigation is typically 0.6 to 0.8Ml/ha this water could have been saved and or sold.
- Final irrigation at the end of February had the same yield as that in March.
- Final irrigation in the 3rd week of February had between 0% and 25% yield loss compared to March irrigations. The field yielding 10 b/ha had a yield loss of 10% by terminating at irrigation. Thus if 0.8 Ml/ha water is applied at a cost of $500/Ml equates to a cost of $400/Ml to gain an extra bale per ha making the purchase of water cost effective.
- Terminating irrigations in early February had the greatest loss effect in three of the four fields. Yield loss was between 8% and 44% depending upon final yield. Terminating the crop with this irrigation has significant yield penalties but did not seem to affect quality into the discount range.

The SVCGA through Emma Ayliffe (Summit Ag) has been funded by CottonInfo to repeat the trial at the same four sites using siphon irrigation in the current season. The early termination of irrigation at the start of February has been dropped as the impact on yield was too severe. Yields will be assessed in the different replicated treatments using the SVCGA bale trailer and quality will be assessed at Proclass.

The following is an extract from the CottonInfo website on timing the final irrigation

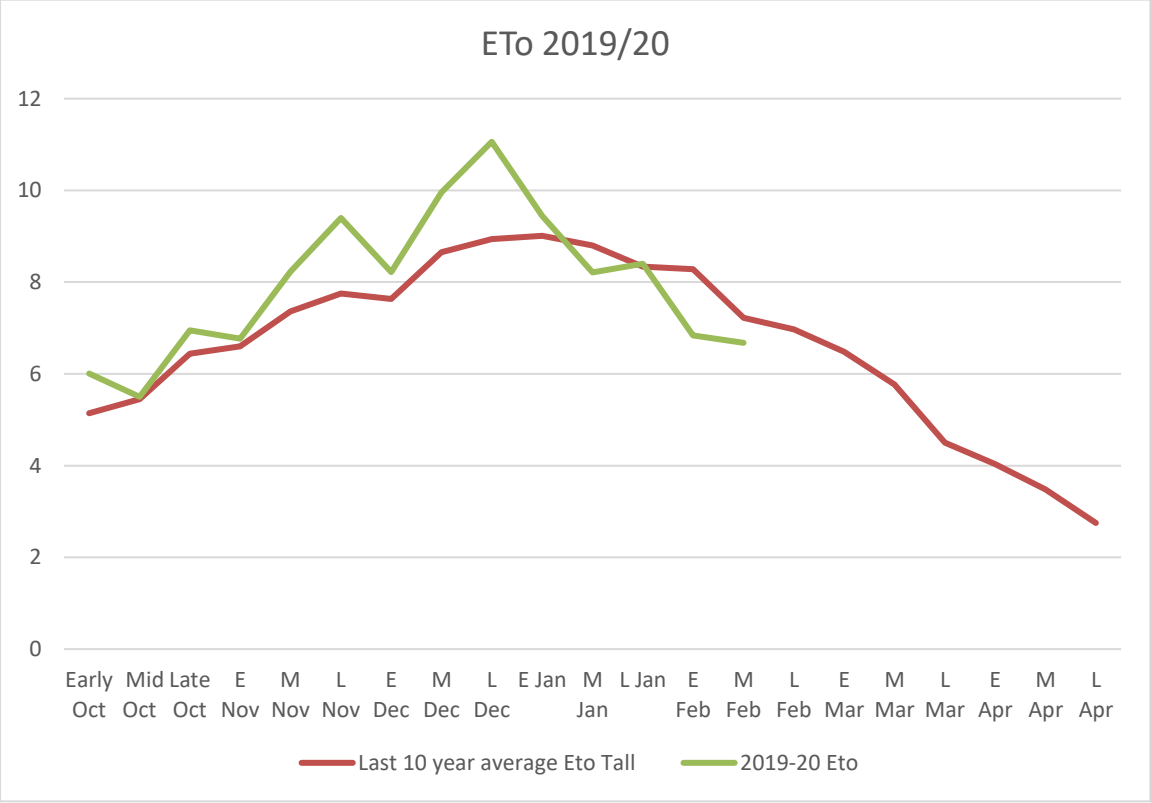
End of season water requirements can be determined by estimating the number of days until defoliation and predicting the amount of water likely to be used over this period.

Depending on sowing date and temperature the last effective white flower will take 50 to 65 days to reach maturity (about 5 days after 1st defoliation). This means for early sown crops there are at least 50 days left in the growing season in which you need to manage your irrigations and preferably not stress the plant so as to enable this last flower to reach maturity.

At the time of first open boll, crop water use may be 5-7mm/day, but this can decline to only 3-4mm/day during the last 2 to 4 weeks prior to defoliation. See graph below.

If roots are extracting to a good depth (at least 1m) at cutout, plants can easily extract 70 percent of the available water prior to last boll maturity. In good water holding soils, plants can extract 125 to 150mm soil moisture, which is equivalent to 25 to 30 days water use (5mm/day) with little effect on yield or quality.

Therefore, on many soil types unless water use is above 5mm/day there is no need to irrigate in the 20 to 25 days before defoliation. Any new flowers that develop in that last 25 days will not have time to mature with the last bolls making up a small contribution to yield. Hence, you only have only 25 to 30 days in which to schedule irrigations from cut out assuming an irrigation is made at cutout and the final irrigation will occur 25 to 30 days later. You can plan to apply one or two irrigations between the cutout irrigation and the final irrigation depending on soil type, the deficit you prefer, rooting depth and plant water use.



Cover crop trial

Planning is underway for a CottonInfo trial to look at the effect of winter cover cropping on the following cotton crop. A simple plus and minus cover crop of cereal crops of wheat and barley will be planted in the next few weeks then terminated in late July in planning for a

cotton crop in October. This is a simple trial that any grower/consultant could set up and follow through to yield.

8 m	24 m	24 m	24 m	24 m	24 m	8 m
Buffer	Cover crop	Bare	Cover crop	Bare	Cover crop	Buffer

The cash price of Australian cotton.

There are three main factors that influence the cash price of cotton: • New York Futures • Basis • Currency

Each of these variables can move independently, with 80 per cent of price volatility attributed to futures and currency.

Futures – Australian cotton prices are based on the New York cotton futures which are traded in US dollars. A futures contract is a commitment to make or take delivery of a specified quantity and quality of cotton at an agreed price at some time in the future.

Basis – The basis is the difference between the cash price of a physical bale of cotton (at a specified location) and the New York Futures price. It can be a premium to the price (on) or a discount to the price (off). For example a merchant may quote to purchase cotton ex gin at 400 points on Dec. If Dec futures are at 55.49USc/ lb, the merchant is buying cotton at 59.49USc/lb, the basis is +4.00USc/lb (400 points on).

Currency – The price of an Australian bale of cotton is fixed in US dollars and as Australian cotton growers prefer to be paid in AUD, the sale price needs to be converted from USD to AUD.

Example • Futures - July 2020 - 70.24 USc/lb • Basis - 1200 points on July futures • Currency - Spot AUD 0.66 AUD/ USD exchange rate

Step 1. Add futures and basis to obtain US cents per pound: 70.24 + 12 = 82.24 USc/lb

Step 2. Multiply US cents per pound by 500 pounds to obtain US dollars per bale: 0.824 x 500 = $412

Step 3. Divide USD per bale by forward AUD exchange rate. Result is AUD per bale: $412/0.66 = $624

How do we calculate GFS?

- **Cotton Seed Prices are currently driven by domestic demand, currently little to no exports.**
- For Example; Seed Price is $580/tonne.
- The Seed factor that is used to calculate GFS (Net ginning is usually an average based on the previous years seed factor.)
- Seed Factor currently being used is 4.10. *This means 4.10 bales produces 1 tonne on Cotton Seed. (or 244 kgs of seed/bale of cotton)
- Value of Seed per bale;
- $580 / 4.10 = $141.46 (* $141.46 dollars worth of seed = 1 bales cotton)
- To calculate GFS (Net Ginning) Seed per bale – Gross ginning price $56.46 = Price $85 credit to the grower

The cotton marketing system is a niche market when compared to grain marketing - consisting of approx. 1000 growers and 13 merchants.

Merchants involved in the cotton market tend to build robust relationships with clients and may be contracting forward contracts with these growers up to four years into the future. It is common that cotton merchants will approach growers to lock in business. Only a very small proportion of cotton is traded on the spot market at harvest.

A list of merchants is available at the Australian Cotton Shippers Association site: www.austcottonshippers.com.au.

Further market information is available at: www.cottoncompass.com.au.

Dates and reminders

- **NSW DPI Cotton Field Day Wednesday 26th February, Leeton Field Station, 7 Rourke Rd Yanco 8.30 am – 11am. Contact Hayden Petty 0447 825 052 hayden.petty@dpi.nsw.gov.au**
- **SVCGA Charity Golf Day 20th March 9am -2pm Contact Eliza 0436 008 200 admin@svcga.com.au**
- **Save the date, Riverina and NSW Soil science, Cotton soil management workshop, Yanco, April 6 and 7. Details to come**

Where is this? Somewhere along the Newell…

January answer – Griffith Airport, 8 bottles

Regards Kieran