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

COTTON *TALES*

Central Queensland

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2007/08
No.16
16/01/08

Day Degree accumulation to the 15th Jan 08.

District	Season 07/08	Season 06/07	Season 05/06	Cold Days	Hot Days
Emerald from 15/09	1652	1653	1889	3	21
Theodore from 25/09	1510	1462	1654	2	23

Crop Stages versus Day Degree Accumulation.

Emerg.	5th leaf	1st Sq	1st Flow	Peak Flow	Cracked Boll	60% open
80	330	505	777	1302	1527	2050

Flaxleaf Fleabane photos

Following CQ Cotton Tale 13, I have had requests for photos of Flaxleaf Fleabane. If you receive your cotton tale by fax, and would like to view the photos contact me on 0749837403.

Flaxleaf fleabane (Conyza bonariensis) is an annual herb up to 1m high. It typically has numerous main branches arising from the base of the plant with many small pale green to whitish fluffy flower heads located at the end of each branch. It is a prolific seed producer & seeds are readily dispersed by wind & water.

Baralaba Water Quality Monitoring Course

Do you know if you are losing valuable nutrients & soil in your runoff? Is the water you're using suitable for irrigation? Are you affecting the environment? DCCA, IAWM & 4T are running a workshop on how to sample & analyse water at the Baralaba Landcare Centre, 21st February 2008, 8.30am–4.00pm. Cost is $300 per person, and DCCA is offering a $150 subsidy. Please RSVP by Monday 18/2/08 to Jeanie Conachan on 49931547 or 0429 931547 or email to: ejconachan@bigpond.com.

Timing Of Last Irrigation & Defoliation

Many CQ cotton crops have cut out, (nodes above white flower (NAWF) less than 4), and so it seems timely to consider planning for final irrigation and defoliation. The final irrigation needs to be timed to ensure that boll maturity is completed without water stress, with the aim to be at the refill point at time of defoliation. Stress prior to defoliation (70% open or 4 Nodes above Cracked Boll (NACB)) can cause a reduction in yield and fibre quality.

End of season water requirements can be estimated from the date of the last effective flower (NAWF = 4). The last harvestable bolls take 600 to 650 day degrees to reach maturity. Crop water use during this period will vary, at the time of first open boll, water use may be 5-7 mm/day, and may decline to around 3-4 mm/day prior to defoliation. Rainfall needs to be considered in such decisions (don't forget to apply a rainfall efficiency of 40-50%, eg, if you get 20mm of rainfall assume only about 10mm is available to the crop).

Example: the following table shows the details for 2 crops, calculating total required water.

	Crop A	**Crop B**
Total Fruiting Branches	13	13
% Open Bolls	25-30%	0%
Nodes above cracked boll (NACB)	9	13
Days to Defoliation (4NACB)	(9-4)x3=15	(13-4)x3=27
Estimated daily water use till defoliation	5mm/day	5.5mm/day
Total Water Requirement	75 mm	149 mm

Assume soil refill deficit is 70mm.

- **Crop A**: Irrigate now? This will depend on the capacity of the crop to extract moisture below its normal refill point. If the crop can extract moisture to 90mm and there is 35mm (half the profile) of available water still in the profile, irrigation may not be necessary. If the crop cannot extract below 70mm, irrigation would be necessary (even if there is 35mm left in the profile).
- **Crop B**: Will require close to 2 full irrigations.

Did you get your **2008 Biodiversity in Cotton Landscapes Calendar** with the December edition of Spotlight? This calendar is filled with practical tips on how to enhance your natural resources. Each month's theme is supported by a fact sheet which can be found at www.cotton.crc.org.au. Please contact Susan if you did not receive a copy.