Cotton Catchment Communities CRC

NSW DEPARTMENT OF PRIMARY INDUSTRIES

COTTON *TALES*

Gwydir Valley *"What's happening in the north west"*

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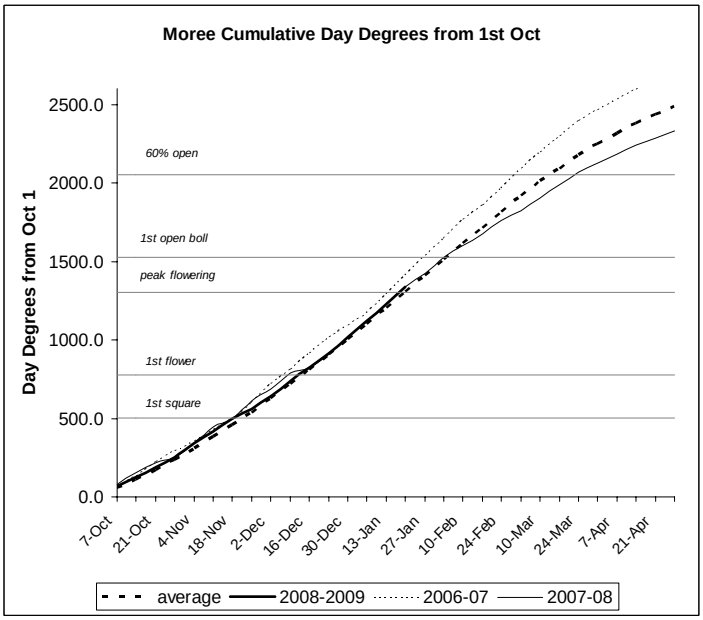
2008/09
10
23/01/09

Moree Day Degree Accumulation to 20th January 2009

Moree Aero	Season 08/09	Season 07/08	Hot Days	Cold Days
15/09/08 – 30/09/08	126.8	117.5		8
01/10/08 – 20/01/09	1335.1	1334.7	11	7

Crop Stages vs Day Degree Accumulation				
1st Square	1st Flower	Peak Flower	Open Boll	60% Open
505	777	1302	1527	2050



NSWIC
NEW SOUTH WALES IRRIGATORS' COUNCIL

Sharing the Knowledge

Irrigation Efficiency Techniques

For Irrigators – By Irrigators

Irrigators from across NSW share techniques that have enabled them to:

IMPROVE PRODUCTIVITY
DECREASE WATER USAGE
BOOST FARM PROFITABILITY

Rob Tuck (Narromine) – soil moisture, lateral move & stubble retention.
Matthew Stott (Griffith) – sub-surface drip irrigation techniques.
Alan Whyte (Wentworth) – managing poor quality water.
Andrew Watson (Narrabri) – irrigation for soil and topography types.

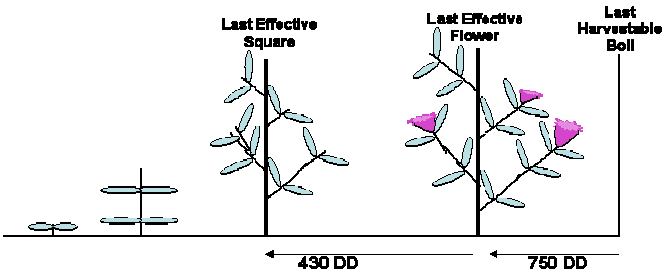
Moree Services Club
Tuesday 3rd February at 2 pm.

This forum is presented by NSW Irrigators Council with the support of the NSW Government's Natural Resources Advisory Council.

Last effective flower and cut out dates

The date of the **Last Effective Flower** can be used to determine target cutout dates.
The date of the last effective flower can be used to match the time when a manager may choose to cutout the crop based on Nodes Above White Flower (NAWF). Cutout occurs when NAWF equals 4 or 5. Physiological cutout is described as the time when production of new fruiting site/square ceases and can be estimated using the date that represents the time of last effective square.

The **Last Effective Flower Tool** is available at http://www.cottassist.cottoncrc.org.au/LEFT/
The LEFT uses temperature data and day degree targets for boll period (flower to open boll) and square period (square to flower) to estimate the date of the last effective flower in a season that will contribute to a harvestable boll.
The LEFT works on the principle that it takes 430 day degrees for a square to become a flower and 750 day degrees for a flower to become a mature open boll (below).



To use the LEFT, simply select your nearest weather station, and define the date of the last harvestable boll and click Run Simulation. The date of last harvestable boll can be defined in one of two ways:

By Temperature - the time of the first frost can be defined by setting a daily minimum temperature. A minimum temperature of 2°C in a weather station equates approximately to a frost on the ground surface. The LEFT will scan the historical dataset to determine the first day (from 1st Jan through to 30th Jun) which reached this minimum temperature.
By Date - a calendar date can be entered to define when the last harvestable boll will open.
The output provided by the LEFT includes the earliest, the latest, and the average date, on which the last effective square, flower and harvestable boll occurs.

The following table shows the LEFT results for the Gwydir Valley by a selected date.
For a crop to be ready to harvest by 15th April, on average in the Gwydir the last effective flower will occur on the 10th Feb and the latest this will occur is the 18th Feb.

	Last Effective Square	Last Effective Flower	Last Harvestable Boll
Average	**11-Jan**	**10-Feb**	**15-Apr**
Earliest	30-Dec	02-Feb	15-Apr
Latest	21-Jan	18-Feb	15-Apr

Changing the date of harvest (late harvestable boll) will result in changes to the last effective flower date.