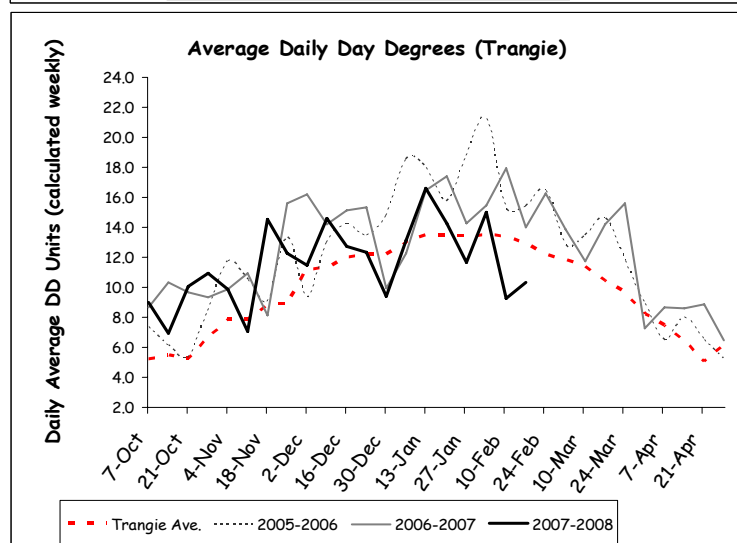
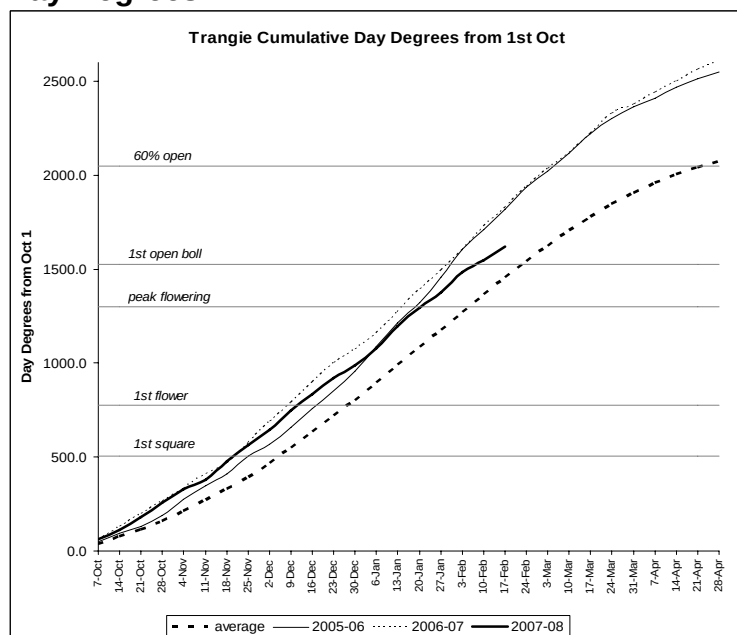


Day Degrees



Hot days (>36°C) up until 17/02/08 – 11

Long term average hot days for 1st Oct to 31st Mar - 30

Macquarie Cotton Growers Association 2007-08 Crop Competition

Nomination forms for the MCGA 07-08 Crop Competition have been sent out. If you did not receive one please contact Warren Secretarial Services on 6447 3244.

The crop competition is a great opportunity for sharing knowledge and promoting the achievements of our industry.

Upcoming Events

Narromine Watersmart Expo 29th – 1st March, Narromine Showground.

Crossing the Divide Festival 3rd - 9th March, Trangie. Contact Anne Mabey for more information 6880 8001.

MCGA Annual Cotton Field Day 18th March.

Macquarie Valley Cotton Industry Golf Day 3rd April.

Timing of the Final Irrigation

The prime objective of the last irrigation is to ensure that boll maturity is completed without water stress. It is also desirable to have the crop at refill point at the time of defoliation. At the time of last irrigation all bolls have been set, vegetative growth is limited and the majority of carbohydrates are used to satisfy boll demands. Once a boll is 10-14 days old, the abscission layer that causes boll shed cannot form: it is for this reason that boll numbers are not significantly reduced by late water stress, but fibre development can be affected. Crops that come under stress prior to defoliation can suffer some yield and fibre quality reduction. The level of reduction obviously increases the longer the stress occurs.

End of season water requirements can be estimated from the date of the last effective flower (nodes above white flower = 4). The last harvestable bolls take 600 to 650 degree days to reach maturity.

Therefore, for crops to be defoliated towards the end of March, the last effective flower needs to have occurred in the last week of January. Crop water use needs to be considered for this period. At the time of first open boll, crop water use may be 5-7 mm/day and may decline to around 4 mm/day prior to defoliation.

The following table shows two examples of determining final water requirements.

	Crop A	Crop B
Total fruiting branches	13	13
% open bolls	25-30%	0%
NACB	9	13
Days to defoliation	(9 - 4) x 3 15	(13 - 4) x 3 27
Est. daily water use until defoliation	5 mm/day	5.5 mm/day
Total water requirements	75 mm	148 mm

To finish it off, Crop A needs 75 mm of water or one irrigation if the plant available water capacity (deficit) of the soil is about 75 mm. If there is 35 mm of water in soil profile an irrigation could be recommended to top up the profile, which will ensure that, when the crop is mature, it is at the refill point. This will ensure a dry soil profile for picking. Crop B requires close to two full irrigations. Likely rainfall would need to be considered in any such decisions.

For further information on the timing of final irrigation refer to WATERpak – a guide for irrigation management in cotton. Available from the Cotton CRC website www.cottoncrc.org.au under industry/publications/water.