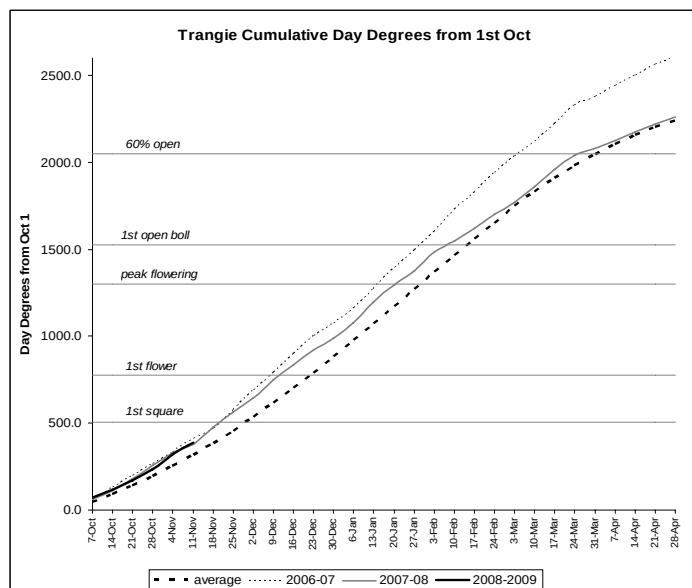




Period	Cold Shock	Hot Days
15 – 30 th Sep 08	12	
1 st Oct – 11 th Nov 08	15	1

Timing of First Irrigation

Timing of the first in-crop irrigation is the most difficult scheduling decision. It requires a balancing act of not stressing the crop while ensuring water stored in the soil profile is fully explored by the cotton roots. Delaying the first in-crop irrigation for as long as possible, without stressing the crop, can be beneficial in maximising root development, however it can be difficult to get a crop growing again if water stress has stopped or slowed growth.

On most heavy clay soils, cotton that has either been pre-watered or watered up shouldn't need irrigating again earlier than halfway between squaring and flowering (60-70 days from sowing). On lighter textured or compacted soils, crops may need irrigating earlier. Close examination of root extraction patterns using soil moisture data and the crop daily water use is the most accurate way of monitoring the crop's water status. Visual clues and crop growth are also important tools for monitoring moisture stress. Plants under stress will have a change in leaf colour from a bright green to darker green. Plants that are not under moisture stress should exhibit bright green new growth. Crop wilting is also a visual clue to moisture stress.

At 28°C *daily max* and 20°C *daily min* a cotton plant will produce a new node every 3-4 days (or every 40 day degrees). Crop growth slower than this may indicate moisture stress; however other factors such as plant disease, insect pressure and nutrient deficiencies can influence plant growth rates.

This season, a number of crops have been planted on rain moisture. Depending on the amount of moisture stored in the soil at planting, these crops may need to be irrigated earlier than 60-70 days after planting.

The following table shows an example of the relative decrease in final yield caused by delays in the first in-crop irrigation. The first flower in this example occurred between 65 and 75 days after sowing.

Days after sowing of first irrigation	Final yield (%)
60	100
70	96
80	90
90	81
100	66

Source: Hearn and Constable 1984.

Acknowledgements: Thanks to Roth G, Gibb D and Henggeler S: *Irrigation scheduling of cotton, WATERpak – a guide for irrigation management of cotton, for information in this article.*

Cotton Field to Fabric Training Course *Bursaries available*

Managing for quality through the production chain
25th – 27th November 2008

This training course is designed to give participants an overview of the entire cotton pipeline from the farm to predicting fabric performance. It is recommended for people involved in any part of the cotton industry from growers to technologists and aims to give a better understanding of how segments of the industry operate and how each related to one another.

The course won the 2007 Cotton CRC 'Impact in Adoption' Award and comes highly recommended.

The next course will be held on the 25th – 27th November 2008 at the CSIRO Textile & Fibre Technology Centre, Belmont, Victoria and costs \$550 pp for the three days, including lunch each day and dinner on the Tuesday.

Application forms can be downloaded from <http://www.csiro.au/resources/pfzt.html> or contact me and I can send one out. For more information please contact Rene van der Sluijs on 03 52 464738 or Rene.vandersluijs@csiro.au.

CRDC have 2 bursaries available to cover the costs to attend this course. For more information contact myself or Helen Dugdale at CRDC on 67 92 4088.

Field Walk

Buddah Station

Monday 17th November 3-5pm sharp

- CSD seed treatment trials
- Weed management in a Roundup Ready Flex System – Graham Charles (NSW DPI, Cotton CRC)
- New insecticide developments – Dr Robert Mensah (NSW DPI, Cotton CRC)

All welcome, please meet at Buddah office by 3pm.

Contact myself or Craig Farlow (CSD) for more information.