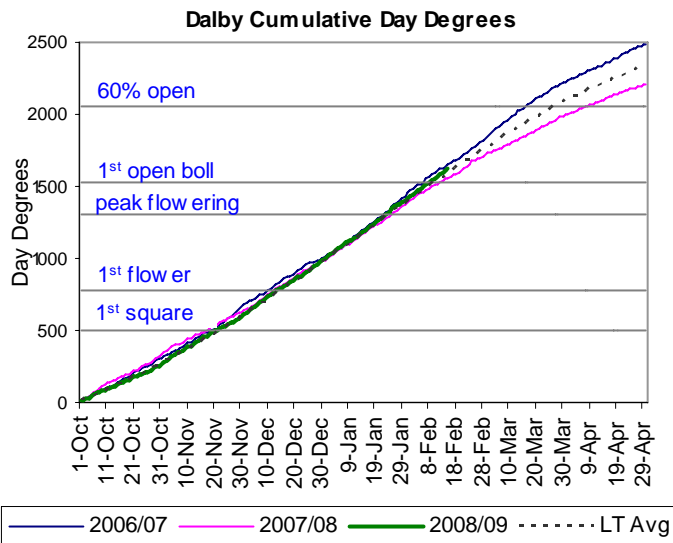


Day Degree Accumulation Oct 1- Feb 15

Region	08/09	07/08	Cold Days	Hot Days
Dalby	1618	1560	16	13
Brookstead	1556	1480	15	11
Jondaryan	1549	1483	15	9
Warra	1700	1620	13	24

Source: <http://www.cottassist.cotton.org.au/>



Saving Irrigation Water, Money and the Environment

Darling Downs Cotton Growers and their Agronomists work together on improving water management.

A recent project has endeavoured to improve the uptake of irrigation best practice on irrigated cotton farms within the Condamine Catchment. The project, which was initiated by Condamine Alliance (Regional NRM body for the Condamine Catchment), Cotton CRC and DAFF, was managed by Cotton Australia. Aimed at building the capacity of agronomic consultants and their cotton clients to implement best irrigation practice, all organisations involved were committed to creating synergies with other similar industry initiatives such as RWUE 3 consultant mentoring program and Cotton CRC Irrigation Knowledge Management project.



Brad Tatzenko of Tatzenko Consultancies measuring a furrow profile for one of his clients as part of a Surface Irrigation Evaluation

Dedicated resources were made available to agronomists and their growers including monetary co-investment. Coordinated specialist extension staff, researchers and irrigation engineers provided critical information and

support and economists calculated the estimated return on investment of proposed management options (Table 1). Brad Tatzenko said, "The collaborative approach to the project was fantastic. It was really good to be part of a team of interested consultants, extension personnel and researchers to address these issues together."

Table 1: Economic (NPV) and Environmental (Water Savings) outcomes of improved irrigation practices on the Darling Downs

Activity	Best Practice	Water Savings	NPV (20 yrs)	Pay Back (yrs)
Improved Furrow Irrigation	Increase Siphon Size from 2" to 2.5"	0.3 MI/ha	\$104000	1
Improved Furrow Irrigation	Double Siphons and Decrease Shift	0.3 MI/ha	\$123000	0
Improved Furrow Irrigation	Change head ditch position on field	0	\$103000	4
Improved Furrow Irrigation	Install Lateral Move	0.7 MI/ha	\$270000	7
Improved Overhead Irrigation	New Sprinkler package	0.125 bales/MI	\$32000	1
Improved Storage Management	Storage Curve, Meter, EM Survey & Earthworks	0.14 MI/ha	\$68500	11

Researchers, economists, engineers and extension staff worked closely with the agronomists and their clients in order to achieve the following results:

1. 25% of the Darling Downs Cotton Consultants improved their knowledge and skills in irrigation water use efficiency and their ability to access industry irrigation information and networks
2. Managers of over 10 000 ha of irrigated farming country on the Darling Downs completed the Cotton BMP Land and Water Module pre-certification assessment
3. Over 3000 ha of irrigated cotton country managed according to irrigation best practice
4. Estimated savings range from 0.14 MI/ha to 0.7 MI/ha for participating farmers
5. All investments resulted in positive net present values and a payback period of 1 – 11 years

The coordinated and dedicated effort was a significant factor in the success of the project. Jenelle Hare, RWUE3, commented "this has been a tremendous opportunity - a "win win" situation for everyone involved in the project. The on-going momentum and delivery, occasionally with a few hiccups, has been very successful largely due to the effective partnerships and networks developed. For growers it has meant obtaining quantitative measurements including the return of investment in changing current practice. Consultants in a very short time have finetuned their irrigation service and delivery with increased confidence, knowledge and skills."