

# NSW SUSTAINING THE BASIN *Irrigated farm modernisation*

## Why give up an appreciating asset?

April 2014

**Name:** Sam Coulton

**Location:** 'Alcheringa', Goondiwindi

**Water source:** McIntyre River

Sam Coulton of Goondiwindi believes a reliable water supply is the key to being a successful cotton grower. It provides confidence the crop can be grown.

"This is the next major challenge for the industry and the only way of making more out of the declining water resource is to increase water use efficiency."

Mr Coulton was a successful applicant in the NSW Sustaining the Basin: Border Rivers - Gwydir pilot program which finished in 2011.

Mr Coulton has always been a keen supporter of government initiatives to recover water through infrastructure modernisation.

When asked why he is prepared to give up an appreciating asset for a depreciating asset Mr Coulton says he can answer this easily.

"For one, I believe I am achieving water savings around 25 to 30 percent with the new lateral move system over the previous furrow irrigation system.

"The other big advantage is the reduction of maintenance on channels, head ditches and fields, and the labour needed to do that.

"I also believe the depreciation on the lateral move system is easily accounted for in the ongoing cost of putting in head ditches and rotabucks to run your furrows."

"Adding to this, the labour costs of a syphon system and the cost of installing and maintaining tail drains and return drains is significant to an irrigation enterprise," Mr Coulton said.



Sam Coulton with his new lateral move irrigator funded in the pilot program to STBIFM in 2010.  
Image: S. Bray

***"Water security is the next major challenge for the industry and the only way of making more out of the declining water resource is to increase water use efficiency."***

### What advice would you give others?

Mr Coulton's advice to other growers considering taking part in a similar program was to:

- Do a farm business plan that covers at least two years
- Complete an Irrigated Farm Water Use Efficiency Assessment (IFWUEA)

"Make sure you do your long-term planning in terms of where you will be up to with rotations and field layouts."

"It takes a lot of planning when you are altering these components with a new irrigation system."

"Also make sure the system you choose has the capacity to deliver enough water at critical times to your crops," Mr Coulton said.

STBIFM is unique in that it provides funding to support good planning through the IFWUEA process.

## Landholders experience

Mr Coulton thought the application process in the pilot program was pretty good.

“DPI did an excellent job with us, talking to us all the time so we felt we were a part of a team.”

“I could go back to them with any questions and it worked extremely well,” Mr Coulton said.

## Description of the project

The funded project included:

- The installation of a 1000m lateral move irrigator installed on two paddocks covering 115 hectares of previously furrow irrigated land.
- A pump located at the workshop which will have two supply pipes leading from the pump.
- All the latest monitoring and control systems and full telemetry (radio, phone, computer).

The system was designed to deliver 11 mm per hectare per day.

“This irrigation system provides greater flexibility with our irrigation management.”

“If rain is forecast, then the irrigation can be delayed, we can capture more rainfall and save irrigation water,” Mr Coulton said.

## The benefits of the project

Mr Coulton submitted an application in the pilot project because of a small cotton trial on another family farm at North Star.

The Coulton’s compared furrow irrigation to centre pivots and collected routine information for both crops where all fields started with a full profile of soil moisture.

### Results from the trial in 2008/09 season

| Irrigation method | Irrigation Water Use Index (bales/ML) |
|-------------------|---------------------------------------|
| Pivot             | 4.16                                  |
| Furrow            | 2.50                                  |

That was enough evidence for Mr Coulton.

When asked what benefits the funded project will provide he lists the following:

- An approximate 28% increase in water use efficiency
- Approximately 216 ML in water saving
- Labour and fuel savings because all fertiliser will be applied through the system
- Minimised traffic over the field.

## What are your thoughts on STBIFM?

Mr Coulton says the good thing about it was that it happened.

“A lot of government projects are talked about but they don’t always get off the ground.

“The pilot did, and it delivered a sizable amount of funds to irrigators.”

“Enough money to be able to do something substantial with and it has definitely been worthwhile.”

When asked if he would participate again, Mr Coulton replied “Yes, my word.”

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