FarmWater

January 2014

Benefits outweigh costs

Katamatite grain grower Jarrod Lukies says that without Farm Water Program funding, a difficult to irrigate outblock bought in 2009 would have been under-utilised.

Jarrod, who runs Lanivet Farms with his parents Graham and Robyn, said the block had been too hard to irrigate efficiently.

"It had lots of small bays and contour banks - it was just not worth irrigating - it would have taken days," he said. "We were using it as dry land, getting one crop a year."

Irrigation designer Doug Walker alerted them to funding from the Victorian On-Farm State Priority Project that had become available through the Farm Water Program.

At a glance:

Who: Jarrod, Graham and Robyn Lukies

Where: Lanivet Farms, Katamatite.

Project area: 88 ha on a 250 ha outblock

What: Installed universal traveler sprinkler system, supply channel and dam

Water Service Area: Murray Valley

Total water savings: 212ML, half transferred to the Government for environmental purposes

The Farm Water Program, a consortium of Northern Victorian agencies lead by the Goulburn Broken Catchment Management Authority, helps irrigators achieve farm water savings by funding upgrades to farm irrigation systems. The water savings are shared between farmers and the environment.

The Lukies grow wheat, barley and canola on the 1500 ha of property they own and lease in the area. They applied for Farm Water Program funding to upgrade an 88ha section of the 250ha outblock, recognising that it was a once-in-a-lifetime opportunity to make it more productive.

Jarrod said they had considered flood irrigation improvements but instead decided to install a sprinkler system.

"The lasering work that would have been needed would have been quite expensive – the property is quite flat," he said. "In the meantime we had been looking into sprinklers and had done a lot of research on them. We really liked that (with sprinklers) you could control the amount of water to suit your crop."

The Lukies decided to install a Valley Universal Linear System from Cobram Irrigation. The sprinkler is a combination of linear traveler and a pivot. Its 310m span travels in a straight line along one side of a 1.25km supply channel. Once it reaches the end of the channel, the span pivots to irrigate land on the other side of the channel as it travels back.

During an intense four-month period, the Lukies removed old fences and channels from the property, built a pump site and supply channel, as well as a 40ML dam.

“Project management took up a lot more time than I expected but it was worth it in the end,” Jarrod said. “We’ve basically got a customised system, with all the right specs that can be adjusted to suit us and our crops.”

The sprinklers have been set up to deliver 16mm in 24 hours over the entire 88ha site. A computerised “dashboard” allows the Lukies to adjust the amount of water quickly and easily to optimise the crop’s growth patterns.

Jarrod says the first crop under the new system – barley – yielded quite well although it was affected by a late frost.

“We were hoping for about 7 tonnes/ha, well up on the 4 tonnes/ha we’d got growing it as a dryland crop, but the frost brought the yield back to just under 6 tonnes/ha,” he said.

The automated system is easy to operate – Jarrod is kept informed of the sprinkler’s progress, rate and any problems via SMS.

He says the benefits of the system far outweigh the costs of running it.

“The ease, the speed, the fact that I can start the machine and have 88ha irrigated in 24 hours without really having to be there are all benefits, but the real advantage is that unlike flood irrigation you have complete control over the amount of water you use and when.”

He says with the dam providing water out of the irrigation season they could triple production by growing crops year round.

“While the project management was pretty intense, the upside is we know the system really well and we’ve had very few problems,” Jarrod said. “We’re really glad we’ve done this - we would never have done it without the (Farm Water) program.”