

Gilgai Farms, Geurie NSW

Demonstrating a better approach to stock water management

The challenge

Gilgai Farms comprises seven adjoining properties just east of the NSW central west slopes. With 600 cows and 5,000 sheep on 2,700 hectares of undulating pasture and wooded areas, Eric Harvey and his son Luke were spending two hours every day on water runs.

Mark Gardner, Director at Vanguard Business Services, provides farm management consulting to local farming families around Dubbo. He also serves on Gilgai Farms' Board of Directors as an Independent Chair.

"Mark knew the hours we were spending on water and the frustration involved, especially in summer months," says Eric. Mark also understands the pressures of rising costs and lifestyle concerns for rural families, and thought Observant's technology might be the answer. He saw an opportunity for a real life trial of the Observant technology, and Eric's farm topography presented some unique challenges for the technology.

The farm's ecologically regenerative farming system is also unusual, and means that Eric is already capturing and recording data about the soil and livestock. "Unlike a lot of Australian farms, we have a lot of records. You need a methodology to make observations and draw conclusions," explains Eric. He already opens his farm up to visitors for Soil Management Field Days, so demonstrating the Observant technology at the same time made a lot of sense.

Mark submitted a proposal to the Meat and Livestock Australia (MLA) to support the project and the equipment was partly financed with a leasing solution from Rivwest Finance.

The Observant solution

Stock water is supplied by 101 dams and three boreholes at Gilgai Farms. One of the three pumps is solar powered, the others run on diesel. 44 kilometres of pipeline feeds water to 94 watering points. The rolling land, with drops of up to 84 metres, had presented a challenge for the water engineer in designing the initial pipeline.

This was a large operation with limited mobile coverage in some areas. Observant C2 units were retro-fitted to the existing pump system, as well as the tanks and three rain gauges. Using Observant's technology, a UHF signal links the units back to a mobile station. A mobile camera was placed on troughs when in use, moving with the livestock.

Adding up the cost savings

Gilgai Farms captured data to calculate the payback period for the technology.

Allowing for wages, fuel costs and wear and tear, the payback period was less than one year – or 10 months to be precise. "Even if the payback was two years, it's still a huge gain," says Eric. "Really, it's also just peace of mind."

Gilgai Farms can now:

- Save up to 14 hours a week on water runs, or almost two working days
- Visually check on livestock and troughs with four camera images a day – saving an additional 30 km trip every day
- Capture data on rainfall and water usage
- Identify and fix leaks immediately, saving water and maintenance costs



Remote pump management

Adding value to the savings

Eric no longer spends any time on water runs. "Luke monitors from his phone every morning. He might need to top up a pump with diesel fuel once a week or once a fortnight. So that's about half an hour a week." A great deal less than the 14 hours a week they spent driving over rough ground to check water.

Eric and Luke are putting that time back into the livestock. Two years ago they started selling meal-sized meat packs online through www.gilgaifarms.com.au. They ship grass-fed lamb and beef to customers from Brisbane and the Sunshine Coast to Sydney and Canberra. "Now I can manage all that without working 18 to 20 hour days," says Eric.

Making forecasts with accurate data

As well as saving time, Eric is impressed with the quality of data he can access from his computer. He can tell a great deal about the livestock and troughs with four camera images per day. "We've now got a roving camera that follows the mob, so we're saving a trip to those troughs as well – that's another 30 km round trip we're not making every day. I can see there's no leaks and everything is watering OK."

"It's really interesting as well because we can now see the watering times are not matching what the experts always told us. The livestock just drift in at any time." This means the pumps don't need to fill the troughs every night for their early morning drink, but they are set to start whenever there's 40% left in the tank.

Luke receives an alert on his phone if there's any problem with the tanks, and he recently called Eric when he was away on the coast to let him know a tank had dropped to 2%. But, thanks to the monitoring technology, Eric already knew about the problem and had taken care of it.

Eric also gathers valuable data from his telemetry at three rainfall stations. He has weather data dating back to 1951, and can now make reasonable calculations about weather patterns.

At Eric's most recent field day there was a positive response towards the technology, as it's clearly paying off for his farming operations. He can now focus on the health of his livestock and of the land itself, and effectively manage the farm as a healthy business.



View

Keep track of critical water information on your computer or online.

Alert

Receive alerts via SMS or by email upon critical events.

Control

Control your equipment remotely with Observant software.

Observant Global™ Software Services



Roving camera to monitor stock and trough water levels

About Us

Observant is an Australian-owned company that designs, manufactures and distributes products and services for agricultural, urban and environmental water monitoring and management applications.

The solution, designed and built in Australia, was specifically developed to improve water use efficiency in agriculture and to provide a tool for accurately gathering and interpreting information about remote water infrastructure for livestock and crops from a distance.

The Observant system is accessible for properties of all sizes and is supplied through a national network of resellers. It is simple to install and extremely cost-effective.

Observant's products have received certification from Smart Approved WaterMark, Australia's independent water conservation label, for their ability to demonstrate real water savings.



Observant® is a registered trademark of Observant Pty Ltd. All other trademarks are the property of their respective holders. Smart Approved WaterMark is Australia's water saving labelling program for products and services which are helping to reduce outdoor water use.

Awards

2009 NAB Agribusiness Award for Excellence
Environment and Energy Management Award
Department of Agriculture, Fisheries and Forestry
(Finalist)

2009 Endeavour Awards
Australian Consumer / Trade Product of the Year
(Highly Commended)

2008 NAB Agribusiness Award for Excellence
Technology and Innovation Award
Australian Institute of Agricultural
Science and Technology
(Winner)



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