Producer Case Study- SEELIGER DAIRY, FLAXMAN VALLEY, SA.
360 Tanks Tank Monitor Device

Stephen and Verica Seeliger own and operate a dairy in Flaxman Valley. They milk large numbers of dairy cows twice a day. The Tanks 360 tank level monitor was initially installed into a tank that watered 100 cows, located 15 kilometres away from their house property. However, reception was an issue with this device, and they could not obtain adequate reception to operate the device. A booster modification would have been needed to assist with reception; however the Seeligers' moved the device to another tank servicing their diary, closer to their house.

The 360 tanks device was installed into a tank located 100 metres away from their house that services their dairy. This tank holds water before it is heated by a cooling system, which is used for cleaning the dairy. It is critical that this tank does not to run out of water. If the tank levels are not kept to optimal levels, there will be no hot water for cleaning their dairy, which is needed to be done a number of times each day.

Before the device was installed, it took no longer than 5 minutes to manually check the tank, however this needed to be done a minimum of 14 times a week. This device has been successfully monitored from the dashboard app. From a significant distance away from the tank site. Stephen tells me that he was remotely monitoring tank levels when recently in Adelaide.

The Seeligers' would like to install a tank level monitor that has reception hilly terrain for their landholdings located 15 kilometres away. They have 100 dry cows in this location. To check this tank every day takes 30-40 minutes round trip, fuel costs, and labour costs.

The current monitoring device is very accurate, with the data indicating what the tank level is in real time if the water level is dropping or rising. However, this only works if the tank is in direct line of sight. This device is not ideally suited to hilly terrain or regions that have undulating landscape, unless a booster mechanism is installed.

Figure 1: Tanks 360 Tank Level monitor
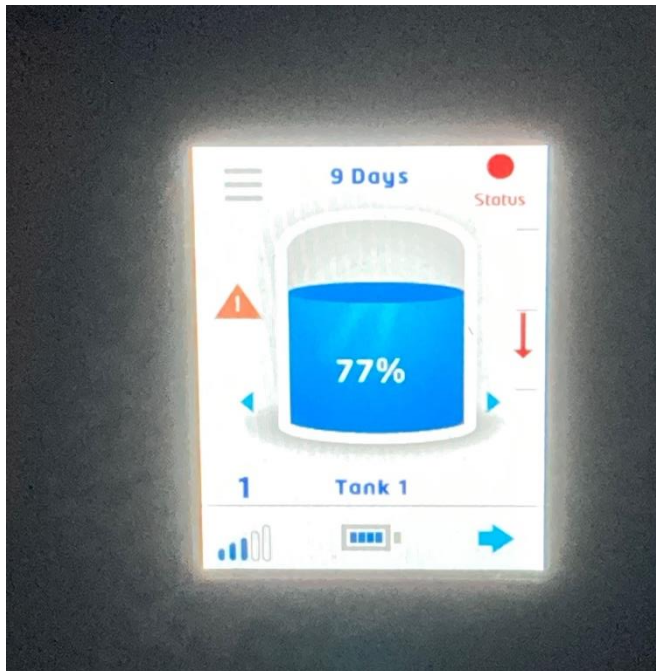
The reading frequency can be programmed for 20-minute level readings.

Low, High, abnormal usage detectors. Levels are configurable through the touchscreen or the app. Up to 12 tanks can be monitored on a single system.

THE SEELIGER'S 360TANKS ESTIMATED COST SAVINGS CALCULATOR:

Total Time (Hours)	171.00
Total Kilometres Driven	Nil
Labour Cost (@ $50/hr)	$8,580
Fuel Cost	Nil
Current Cost to Check Water Tank	$8,751.00

360Tanks Operating Costs: Over 3 Years

360Tanks Hardwater/software	$590.91 (+GST $59.09) = $650
Operational Costs with 360Tanks	Free monitoring first year, then $15.00 per year.
360tanks Costs to Check Water	$680.00

360Tanks Costs Savings: Over 3 Years

Total Costs Savings	$8,071.00

Communications and Connectivity:

The Tank Units: Lorawan up to 10 kms line of sight to the gateway (extendable.) The unit is solar powered with a rechargeable lithium battery.

Gateway: WiFi-Lorawan gateway. Connects to local Wi-Fi network. There is a supplied DC power pack with the unit.

Sensors have a 4 or 10 metre range, high accuracy (0.1% full scale) submersible hydrostatic sensor. It is constructed with stainless steel for long life.

Your tanks do not need to be in WiFi range, only the indoor LCD panel.

Installation:

No skillset is required. Easy to install with DIY instructions.

Power:

Tank Units: Solar powered with a rechargeable lithium battery.

Gateway: Supplied with a DC power pack.

How can I contact the suppliers:

Ph: 1300 859 360

info@360tanks.com

23 Milton Parade, Malvern, 3144, Victoria, Australia.

Contact
- Contact Jane Evans: The Barossa Improved Grazing Group, Project Officer.
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