

Innovation key for AgFirst Engineering

It is a big year for Te Awamutu company AgFirst Engineering Waikato, which has made huge strides since opening its doors just three years ago.

Business owner Davieth Verheij came 'home' from Hamilton in 2014 and expanded from a one man business to five in his Bruce Berquist Drive premises.

Next month AgFirst Engineering Waikato is on the move again to the former Costain Engineering building in Bond Road to cope with the growth of their business.

Mr Verheij says the business has been challenged from day one, as the dairy pay out began to slump right as the company made significant capital investments, including the importation of a huge amount of effluent management product from Italy and Denmark.

But the investment is paying dividends. Mr Verheij says the company has projects underway from Masterton to Kerikeri, including multiple stock water reticulation projects in the Rangitikei, Port Waikato and Northland plus a large rural water scheme near Wanganui.

"Stock water is a huge part of our business, this combined with our specialist dairy effluent systems gives us a great variety of exciting work," he says.

And at National Fieldays 2016 AgFirst Engineering Waikato launched the new Weta Irrigator — both in the Innovation Tent and from their Fieldays site.

The Weta Irrigator was launched at Fieldays following extensive development and testing using Italian componentry and AgFirst's design and practical experience.

The irrigator has been subject to robustly tested over the past two years in a variety of environments. One is being used locally on a Te Awamutu farm and another on a large dairy farm on the Napier — Taupo road.

Mr Verheij was instrumental in the development of the innovative irrigator — using 3D CAD technology to ensure the most efficient design.

The Weta is driven by a stainless steel low pressure turbine and hydraulic drive system.

Mr Verheij says there is no gear box, so less energy loss. And winch system is a superior design which requires two to three times



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AgFirst Engineering Waikato owner Davieth Verheij at Fieldays with the newly launched Weta Irrigator.

less energy to drive than other models on the market.

The rope is made up of 12 strands and has a three tonne breaking strain. Wire rope is also an option.

"The drum acts as a gear and the wider the drum the more even the spread," says Mr Verheij.

"The turbine only uses the flow required at any one time to achieve the required speed, meaning all the flow and pressure is not restricted by

the turbine and maximum flow and pressure is delivered direct to the gun."

"As a result the higher flow produces greater jet lengths, meaning larger areas can be irrigated with less labour and a smaller pump.

"When there is increased drag, due to increased hose length, undulating terrain or travelling up a hill, the irrigator adjusts its travel speed automatically," says Mr Verheij.

The result is an even spread of nutrients over the whole irrigation area — confirmed by extensive testing.

The gun's travel speed is controllable with the push of a button or turn of a dial.

Power to charge the battery comes from two solar panels on the side of the Weta.

Built in fail-safe systems include automatically turning off at the end of the run. It will also turn off if the travel

speed can't be reached during the run.

Optional extras include text or call alerts, remote control or monitoring via smart phone, GPS, telemetry, pressure sensing and flow measurement.

A plug in camera unit could also be used on the irrigator so farmers could watch it spreading from their phone.

Mr Verheij believes the Weta Irrigator ticks all the boxes.

"It's efficiency and performance is second to none, maintenance is very low and its fail-safe and data capturing ability provides the tools needed to effectively manage nutrients and monitor full system performance.

Rotā 2000 Drum Separator

Pond Stirrer and Mono Pump

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Farm Water Supply Pumps



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Moving to
328 Bond Road
in August!