

Eye in the sky is peace of mind

By BRITTANY PICKETT

For Neil Gardyne, investing in drones is paying off on his Southland hill country sheep, beef and cropping farm.

The 466ha Otama Valley farm has been using drones to fly over sheep stocks. Neil and Philippa Gardyne's son Mark, then 11, started researching them online before the family decided to buy a Chinese-made Hexacopter from the United States.

In 2013, they received funding support from Beef + Lamb New Zealand to investigate drone applications for farming.

Neil Gardyne presented some of the applications the farm is using, and hopes to use in the future, with AbacusBio consultant Nadia Mclean at the Deer Industry Focused Farming Project Deer Technology Expo in Gore.

Mark, now 16, couldn't be at the expo because of school, but his



Southland farmer Neil Gardyne and AbacusBio consultant Nadia Mclean discuss drones at the Deer Technology Expo in Gore.

dad was on-hand to describe what had been happening on the farm since they began using drones.

At first, the Gardynes were using the drone to monitor stock in difficult terrain, such as chec-

king for cast sheep during lambing, Neil said.

The drone flies a pre-determined flight plan, following pre-programmed waypoints, feeding back pictures to a laptop computer.

He's even used it to herd the cows to a different paddock. "I open the gate out by the house and send the drone to drive them through. The buzzing noise is all new to them and they're a bit scared so they just walk away from it," he said.

The cows better not take too long though. His drone battery lasts just 28 minutes before needing a one-hour recharge. "I send it out for 25 minutes to get it home in time, but you can have spare batteries on hand."

The drone flies up to 5km away and as high as 500 metres in the air, making for some fantastic

count stock, monitor weeds, and monitor trough levels.

Gardyne hoped to eventually be able to measure dry matter from the air.

AbacusBio began working with the Gardynes in 2013, as well as Mandeville farmers Russell and Pam Welsh, to help them find the applications of drone use in agriculture.

Mclean said AbacusBio would be working with Callaghan Innovation to find out why there had not been a huge uptake in drone use by farmers.

Two pilot farms, Telford and Lonestar Farms, would buy drones and be followed for 12 months to see whether they used the technology and how they were using it.

"We're hoping that this will help us, and the wider sector, understand how we can use this technology and hopefully we can develop some other applications along the way," Mclean said.

Drone shifts cows at Oamaru farm

By SUE FEA

It's a case of 'let your fingers do the walking' for Waimate sharemilker Troy Yaxley, who has taken to using his new drone to assist with farming duties on the 230ha property near Oamaru where he works.

For Yaxley, who flies large model helicopters for a hobby, his new Phantom 4 was bought as more of an expensive but fun gimmick. However, he's increasingly realised it's a great time-saving device around the farm. Even for just over a cool \$2500, his drone has been proving its worth.

"I can send it out to check on the cows and buzz around the farm to check the likes of water troughs and irrigation ponds and systems," Yaxley said.

He uses remote controls linked to his iPad to fly the drone, which has a camera attached to it. When the drone is flying over the farm and the cows, the images from the camera are relayed back to Yaxley's iPad which allows him to see what is happening.

"I can even buzz it right out to the end of the farm to check on the

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TROY YAXLEY
Waimate sharemilker

beefes. That takes five minutes, instead of the half hour it takes to grab the ute, head to the farm, hop on the motorbike and head out there."

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Sharemilker Troy Yaxley says his Phantom 4 drone is a great time-saver around the farm.

already be carried out using lasers attached to farm bikes.

"Technology is so awesome," he said.

My boss thinks it's great and came over straight away when I got it, wanting to have a go."