New technology could replace plate metering

By GERALD PIDDOCK

A fledgling agri-tech company is looking for farmers to help it trial drone technology used to collect and monitor pasture data.

This data is captured by a US-built multi-spectral camera fitted under the drone when flown over a farm.

It can then be sent straight to farmers' smartphones or computers for immediate analysis, helping them manage their farms more efficiently.

The technology has been adopted by Auckland-based company Haptly, which has taken the camera and developed a way for its data to be extracted and presented in a form for use by farmers.

Haptly co-founders Rab Heath and Nelson Shaw showed off the technology at Fieldays at the site of Vodafone which they have partnered with.

The company is still fine-tuning its research and development and hopes to have a product on the market in early 2017. Currently, the drones are being manually flown. However, it hopes the released product will be fully automated.

Their next step is finding farmers to trial it and provide feedback to go towards its finished product.

"We are really keen for any farmers that are interested to reach out. We want to build something that farmers want," Heath said.

Haptly leased the drones which are built by Waikato drone company Altus Unmanned Aerial Solutions. This reduced the scale of the investment needed from farmers, who paid according to how large their farm was.

Shaw said they were exploring options to find the best option for farmers to house the drone.

Heath and Shaw hope the technology can provide an alternative to the time-consuming task of plate metering.

The camera re-mapped the farm every time there was a fly-over, which increased farms' data sets and allowed farmers to make more informed decisions.

Once large data sets are developed, they can be used to detect early signs of pasture damage from grass grub and other weeds and pests.

Nelson Shaw and Rab Heath want farmers to help them test and provide feedback for a camera they have developed that when attached to a drone, can be used to collect data on pastures.

Heath said they were also aware of the issues farmers were having with velvetleaf and while it was not an immediate priority, they hoped to be able to use the drone to identify infestations.

Their immediate focus was using the technology to capture paddock data that lets farmers know the dry matter content as well as how much grass cows have consumed.

The drone is primarily aimed at dairy farmers, but the pair are also interested in the technology's applications for sheep and beef farmers.

"For dairy, beef and lamb, the quality and quantity of your pasture directly correlates to how much money you make. If you can better manage that and do it easily, it creates all sorts of optimisations," Heath said.

Heath and Shaw spoke to farmers at Fieldays where the drone and accompanying software was available for demonstrations.

"We're encouraged by the level of interest, especially from farming consultants wanting to offer it to their clients as a way to better manage farm inputs and optimise farm performance.

"The conversations we've had throughout Fieldays will help us to refine the technology further and tailor it to farmers' specific needs," Heath said.