



**Media Release
March 16, 2010**

Farm tools with 'eyes' to be launched in New Zealand

A weed sprayer that automatically identifies weeds from plants, a fertiliser sprayer that avoids patches of effluent and a plant vitality reader are three amazing farm tools being launched in New Zealand next week.

The tools – one a world-first - are the foundation products for new farming-based business Agri Optics New Zealand Ltd.

Agricultural industry representatives will attend the company's launch near Methven on Tuesday 16th March and view the technology in action.

The three management tools are examples of the very latest in what is known as precision agriculture.

The WeedSeeker® and Smart-N 'read' the difference in colour of the material they are passing over and dispense or withhold an application in response.

The GreenSeeker® analyses plant chlorophyll and maps it, showing a grower the crop's health and biomass variation over a certain area, enabling accuracy in decisions on where to apply inputs.

Agri Optics director Craige Mackenzie said precision agriculture was the best way farmers could sharpen their practices for environmental and economic benefit without huge changes to current farming practices.

"I first came into contact with the sensing technology aspect of precision agriculture when I was in the States as part of the Nuffield Scholarship in 2008.

"WeedSeeker® is essentially an automatic spot sprayer that can be done on a small or large scale. Its sensing technology means it provides significant savings on herbicide by only targeting weeds."

Applications for the WeedSeeker® are vast, and include farms, municipal authorities, schools, parks and viticulture enterprises.

After trialing the WeedSeeker® on his own arable farm and then viewing his dairy farm paddocks one day last year, Mackenzie wondered if the technology could be reversed to avoiding over-fertilizing urine and dung patches already high in nitrogen.



He worked out a way to reconfigure the sensor utilising existing technology so it could recognise patches of urine and dung and withhold application when sensed.

Now sporting a brand new patent, the Smart-N is essentially a site-specific fertiliser application tool that, by avoiding application on pasture already high in nitrogen (N) due to urine and dung, equalises out the amount of urea on a paddock. This helps farmers reduce their NO₃⁻ (nitrate) and N₂O (nitrous oxide) output.

As far as the Mackenzies know this is a world first for fertiliser application. “These tools are like having an extra pair of eyes and hands at work,” Mackenzie explains. “They are quite revolutionary in terms of reducing impacts on the land and you don’t need a PhD to use them.”

Assisted by Mackenzie’s wife Roz and Lincoln University graduate daughter Jemma, Agri Optics will also provide a high quality data management service which helps farmers interpret all the information in their farming system to make economic sense.

“We’ve put all the tools together that help us run our farm businesses and developed a system that farmers can apply to their own operation. There are a lot of tools out there but sometimes its tying the data together that makes all the difference to bottom-line profit.”

Agri Optics is the sole distributor of GreenSeeker® and WeedSeeker® in New Zealand as well as their new Smart-N application system. Farmers and members of the public can view the GreenSeeker®, WeedSeeker®, and Smart-N at the Methven Show on March 20th.

For more information please contact

Craige Mackenzie
Director
Agri Optics Ltd
(03) 302 8753
(021) 796092

or

Fleur Robinson
Tactic Communications Ltd
(03) 307 0198
(0274) 661 777