

## New generation selective spraying promises savings

**B**rendan Williams from GPS-Ag believes his company's acquisition of the national distribution rights for WeedIT selective spraying systems will help farmers to significantly lower input costs.

The new generation weed identification spraying technology from Holland reduces chemical usage by 40–50 per cent compared with currently available systems. He rates it as the most beneficial development in spraying for many years.

WeedIT sensors were developed to meet stringent Dutch environmental regulations requiring absolute minimal rates of chemical usage when spraying roadsides and footpaths.

The reduction is achieved through a combination of more accurate recognition technology, segmented sensors and faster acting solenoids that produce the smallest possible spraying footprint even at speeds up to 25 km per hour.

"WeedIT is perfect for zero till farmers spraying stubbles after summer rains where weed coverage is typically only three to seven per cent of the paddock. Why spray

the whole paddock when you can spray just the weeds?" Brendan asks.

"It really is awesome technology. WeedIT projects red light that is absorbed by the plant's chlorophyll and then re-emitted as infrared which is picked up by a sensor in the unit. Calibration occurs automatically as ground colours change. And the sensor takes 20,000 background samples every second – at 25 km per hour that's every two mm! It works on a different principle and is far better than any weed seeking gear we have seen before."

Special, very fast solenoid drivers also contribute to WeedIT's efficiency. They open in one milli-second and close in five. This means spray nozzles turn on and off in a range of three to five cms before and after a weed.

"This is where the savings come from – you are only spraying weeds, not the surrounding areas."

### Works at variable speeds

Brendan said another advantage of the Dutch technology was its ability to work at varying speeds. "It's measuring speed all the time, so it doesn't matter whether you are travelling at 12 km per hour or 25 – it adjusts response times accordingly."

WeedIT can utilise speed signals from a wheel sensor, a radar device or GPS. Each sensor has five segments and covers a metre in the configuration GPS-Ag has developed to suit Australian conditions. The units are fully self-contained, waterproof and extremely robust.

WeedIT inventor, Roel de Jonge, said the sensors had been proven in the toughest conditions. "They've done over 3000 hours on steam weeders used on footpaths where they are subject to continuous vibration and heat. They are built for us by a contractor who also works for the electronics giant, Philips. All plastic fittings are UV resistant and we use only the best quality connectors."

Four sensitivity options are available via a simple, user-friendly controller that provides graphical displays of speed and pressure.

GPS-Ag calculates that chemical savings on a 3000 hectares property would pay for a WeedIT system in 12 months. Farmers would also save time due to the need for less tank fills. A WeedIT equipped sprayer would typically use only 15 litres per hectare.

The company is currently fine-tuning the technology for Australian conditions and is taking forward orders to have the first units delivered later in the year.

**More information about WeedIT is available from GPS-Ag on 03 5447 1777 or email [info@gps-ag.com.au](mailto:info@gps-ag.com.au).**

**WeedIT in action. The red light emitted by the sensors has been absorbed by the chlorophyll in the weed, and re-emitted as infrared. The sensor identifies it as a weed and turns on the individual nozzle – all in milliseconds.**

