GILTRAP AG

DUNCAN

Giltrap Ag has sourced a new electric drive system for its Duncan drills. Australian company Smart Ag supplies the 7500 seeder controller and colour touchscreen monitor.

Smart Ag 7500 electric drive offers easy calibration, accurate sowing rates, variable rate control, and GPS mapping.

It also gives the ability to monitor critical factors of the drill's performance during a job. These include ground speed, hectares covered, bin levels, motor speeds, fan speed and area cut-out.

Giltrap Ag South Island area manager Matt Moodie says Smart Ag is a cost-effective electric drive system.

"Smart Ag's system is about half the price of the electric drive we were using. It can be fitted to all new Duncan box drills and air seeders, and we can also retrofit it to most current model drills.

"For contractors or farmers who want to have full ISOBUS integration with their drill, we offer a Topcon system instead of the Smart Ag. We can also fit the Topcon system to all current model drills."

Matt says with Smart Ag you can control up to four metering units. The seed hopper, fertiliser hopper, small seed box and slug bait spinner are each controlled by their own meter.

Smart Ag can measure the speed of the drill using one of three different methods – GPS, wheel sensors or radar.

"Using GPS is best in wide open spaces. It is simple to use and very accurate. If you work in lots of paddocks lined with high trees or you have trouble with your GPS signal, then wheel sensors provide a good alternative.

"If you work on lots of steep ground then radar is better, although it is a bit slower than the other two systems."

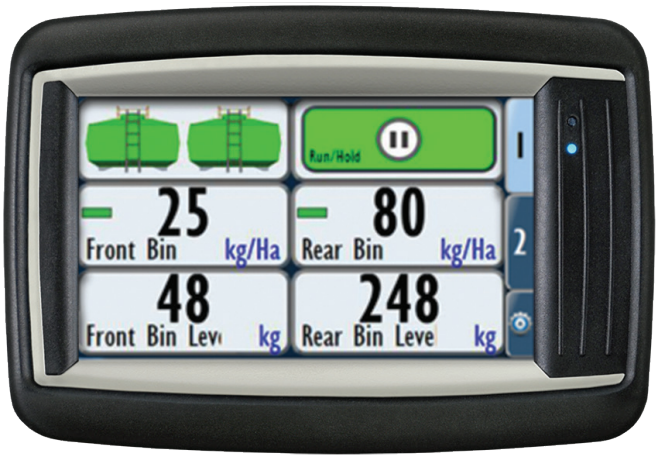
GPS mapping comes standard with the Smart Ag system. It can be used to create placement maps, which is very handy when applying fertiliser as you drill.

"One of the big advantages Smart Ag electric drive offers is if you change the application rate on the go, you do not have to recalibrate.

"For example, if you are nearing the end of a job and you are going to run out of fertiliser, you can drop the rate from say 100 kg/ha to 50 kg/ha and you do not have to recalibrate."

Matt says the low cost of the Smart Ag system is prompting farmers and contractors to step up to electric drive, and one of the main incentives is easy calibration.

To calibrate you set the sowing rate, for example 25 kg/ha, and



select the calibration screen. You then enter a calibration amount, which is the amount you want to be dispensed during calibration, say 2 kg.

Once you push the button to start calibration, the motor turns and dispenses what it thinks is 2 kg. You then weigh the actual amount dispensed and put that number into the monitor.

The monitor then recalculates the motor speed so to achieve the target rate. The next time you calibrate, the motor will spin at the correct speed and the correct amount will be dispensed, generally well within 2 percent accuracy.

Once calibrated this can also be stored so next time you plant the same seed you can use that as a starting point with your calibration.

"The old way of calibrating Duncan drills is to turn a handle 30 times to dispense the seed. You do that two times for each box you are calibrating. The Smart Ag system is definitely much easier," Matt says.

"Another very convenient feature is that you can enter the amount of seed you have put into the hopper. Then, as you drill, the kilograms count down, so you have an accurate idea of how much seed is left. You can refill in the middle of a job and add that to the tally and it will keep track of the current amount in the hopper."

With the Smart Ag system, alarms can be set to notify bin levels, fan speeds and whether the drill is in or out of the ground. An alarm can also tell you if a seeding unit stops working.

Smart Ag is Australian based, so if any advice is needed or tricky questions arise Duncan can phone. They are in a similar time zone, and technicians understand the issues farmers face. **RC**