Getting the Most from Guidance

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Getting the most from guidance is as simple as using it for every possible application on the farm. The requirement for higher efficiency, cost savings and greater production are enormous right across the whole spectrum of farming activities. I believe every broadacre cropping farmer should be using some sort of satellite guidance system on their farm. It is a useful tool for saving money in this time of extortionately high input costs, for the increased production benefits, for the ease of setting up a tram tracking system, for the improvements that come with offsetting crop rows, and the ease with which offsetting can be achieved.

There is, however, a more fundamental reason why every cropping farmer should be using satellite guidance, especially when spraying. That reason is, when a computer drives your tractor to spray your paddock with high accuracy guidance, you can guarantee to cover every square inch of the paddock. That gives you the potential to kill every single weed, every time you spray. Given that the rate is right and the equipment is set up properly, if you kill every single weed every time you spray, you never let those weeds seed, your chances of getting weed resistance in a no-till situation are drastically reduced. Guidance also makes it simple to spray at night and still get perfect coverage, when summer weeds are easier to kill. Weed resistance can be influenced by numerous factors, but it is essentially a numbers game – if you have high populations of weeds partly due to previous populations seeding because they slipped around the end of the spray boom when the foam dropped in the crop and you couldn't see it, you are never going to be free of the burden of weeds. Don't be one of the farmers to see weed resistance because you are trying to kill high numbers of weeds with relatively weak (in-crop) chemicals. Help keep the weed numbers low, keep the chemical strong – don't allow weed resistance. What is it worth to you not to get weed resistance? In the long term, for many broadacre cropping farmers – many thousands of dollars. For this reason alone, a high accuracy guidance system is cheap. View it as an insurance policy.

Of course, there is the huge cost saving from only putting out the correct amount of chemical, seed and fertiliser on your land. Every paddock has a constant area - there is no sense or point, economically, environmentally, or for any other reason, in spraying 10% more, or sowing 10% more, than you are going to harvest. The paddock area is fixed – spray and fertilise only what's there. Guidance makes this possible.

Tram tracking offers many benefits. High accuracy, repeatable guidance makes a move to tram tracking extremely simple, in terms of putting the tracks in the paddock and keeping them in the same place. Keeping the tracks in the same place means less compaction and greater air content in the soil - a softer soil allows faster infiltration and greater capacity for holding water. Essentially, if you don't compact your soil, you increase the size of the bucket. Some research has indicated up to 50% increase in some soils. What is it worth to have up to 50% more moisture in your soil when things get hot in September? In the long term the value of that in any given season could be hundreds of thousands of dollars.

With the high cost of machinery these days and trash handling ability being paramount in a no-till system, high accuracy guidance means that you don't need a machine that can handle trash, you just need a machine that can avoid it. By running tynes and disks away from where last year's trash rows are, you don't have to handle the trash, you don't disturb it, you just plant between it. Anyone that has ever watched a machine that blocks up will know that as soon as you run into the residue rows, machines block quickly. If you can keep the residue away from a tyne, particularly, the blockages don't occur.

There is also evidence that offsetting rows leads to less crop diseases when you are planting the same family of crop, such as cereal on cereal, if you can keep the new crop row away from last years root

zone. You can also achieve better establishment by keeping canola, for example, out of a thick row of stubble.

High accuracy guidance allows you to perform tasks such as shielded spraying, which can offer advantages in killing certain types of weeds, and there are cost savings depending on what you are trying to kill in what situation.

You can use guidance in a wide row cropping system to leave a large part of the paddock permanently undisturbed between the rows. This is only possible with repeatable high accuracy guidance. The undisturbed soil becomes a moisture bank which acts like a sponge, soaking up the water and releasing it to the ensuing crop.

Putting a header on tram tracks with high accuracy guidance means that this very expensive machine is running at full capacity all the time. You take a full cut, you don't have to steer, all you have to do is control the speed of the machine and keep the capacity up. A header running on tram tracks has more horsepower available to drive the rotor because it is not being wasted compacting your paddock. It is hard to imagine a more efficient harvesting situation.

Satellite guidance also maximises the human resource, allowing an operator to focus on the task at hand rather than on driving straight. Concentration levels are higher for longer. You need less labour and those you have do a better job.

There are many other uses for guidance around the farm, including putting in fencelines that are perfectly compatible with your cropping rows, which means less corners and low efficiency or wasted areas. I put in tank drains, roaded catchments, and roads, all using the guidance, so that they are fully compatible with my cropping paddocks. This increases efficiency. When I am laying out paddocks, the whole farm layout is based on achieving efficiency with tram tracks. The longest, straightest runs mean highest efficiency. You should not be doing any farm re-designing without using your guidance system to get everything compatible. This is the best way to achieve the most from your land resource, your applied inputs, your time, and to maximise total farm production.

Based on all these factors, I believe that a high accuracy repeatable guidance system is as important as the tractor in a modern farming system. No serious broadacre cropping farmer can reasonably argue a case for not adopting guidance technology.