

Wind back pre-Christmas spray regime pressure by planning ahead

By Jamie Brown

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Planned spray applications can save industry-wide grief and do a better job on farm. File photo.

In the weeks before Christmas crop producers will be busy, stripping late winter cereals or binning valuable chickpeas.

They will focus more on what needs directing from the header and less on what is starting to grow in their fallowed paddocks.

An ideal start to this summer for weed emergence is already placing pressure on farmers to cover their country quickly before the summer holidays.

In the days before Christmas, families will be packed and dressed in colour for the beach. If someone is dragging the chain because more herbicide must be applied, then the push to hurry comes to the fore.

"This year, in particular, is one to watch and play it safe with herbicide applications," says Mark Congreve from the Independent Consultants Australia Network, who has been advising farmers on this subject for 35 years.

"We can expect to have a lot of fleabane probably mixed with sow thistle, barnyard grass and feathertop Rhodes grass," he says.

"Grasses tend to germinate at this time of year with storm rain. However, four to five days of soil with a wet surface will trigger new broadleaves."

Due to herbicide resistance many growers will opt for a two pass program, with a glyphosate-based application likely in early December and a double knock again, just before Christmas.

"But by December 24 most operators are going to stop, regardless," Mr Congreve says. "The pressure to get the job done may make it tempting to lift the boom a little bit more and travel just a bit faster, or to keep spraying and get out another tank load when inversion conditions are starting to deteriorate."

"Even good operators may be tempted to push boundaries when the rush is on. You might think one sprayer releasing a bit of product into the atmosphere is no big deal, but if every sprayer in the district is all operating at the same time then the cumulative effect of hundreds of contributors creates an industry-wide issue."



Western Australia built robotic boom spray with Calibre Spraying director Daniel Watkins and SwarmFarm mechanical engineer Tom Holcombe. The future is bright for autonomous farmhands that let the boss focus on more pressing jobs. File photo.

Hormone sprays like 2-4-D are well recognised as harmful to cotton during the December growth stage. The problem shows up visually one to two weeks later and so tends to get most of the attention.

However, other products in the tank will be drifting.

"Glyphosate also causes damage, but is harder to detect to the untrained eye. It's not as visual," Mr Congreve says, "but there is often as much if not more drift containing glyphosate."

"Apart from drifting next door, crop chemicals get on your roof and into your rain tank."

A trend in the last 10 to 15 years to buy-out neighbouring blocks and cover more country with the same staff, has led to more time pressure and encourages those doing the spraying to go faster.

"Spray cabs are just too comfortable these days," Mr Congreve quips. "Inexperienced drivers are happy to travel at 25-30km/h thinking that this will be a good outcome to get the job done quicker."

Another issue created by the challenge of saving time is the desire to tank mix multiple herbicides.

"Most broadleaf chemistry added to glyphosate helps on those weeds but can often reduce the performance of glyphosate on grasses by up to 20 percent or more," he says.

"Prior to resistance, we were often able to increase the glyphosate rate slightly to compensate for the tank mixed broadleaf partner. Now these tank mixes show incompatibility on resistant populations."

"Often we see that a well-timed glyphosate application used on its own against small weeds under good conditions does a better job than many complex tank mixes.

"A lot of what we do in the paddock is for operational convenience, not optimising weed control."

Mark suggests that there are some strategies which are working well. "Growers should not dismiss the idea of flying on a first application of glyphosate while the weeds are small and the soil is still moist," he says.

"This can free up sprayer capacity to concentrate on applying the double knock as soon as the paddocks dry out enough to support a sprayer," he says.

This strategy often works better than applying a multi-product tank mix two to four weeks later when weeds are bigger, the soil is drier and the temperature is hotter.

Of course emerging robotics are very exciting, and those already using autonomous spray rigs report how they are surprised by how much country they cover, despite the slow and steady pace.

"Having an autonomous sprayer take care of the fallows while the farm staff concentrate on finishing the harvest is proving to be a major winner," he says.

"Residual herbicides applied at the start of the fallow are the other key tactic to reducing the time demand on the sprayer.

"Provided you understand the expected weed problem for the individual paddock and have a reasonable idea of the rotational crop, then there is most likely a suitable residual herbicide for your situation," Mr Congreve says.

"Having residual herbicides applied before spring storms on at least some of your fallow can substantially reduce the time pressure of spraying in December."

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