

VINE TALK: Fine tuning glyphosate and paraquat/diquat use

Viticulture
02.05.2017



Vine Talk with Dave Antrobus

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Over-reliance on glyphosate for weed control under vines is leading to an ever-increasing number of Group M resistant Annual Ryegrass populations across Australia. Incorporating different Modes of Action in your weed control strategy will ensure you have a robust rotation of chemistry to help delay the onset of any resistance problems. The next important step is to make sure you maximise the result from both the Group M glyphosate products and the Group L products, which includes GRAMOXONE® and SPRAY.SEED®.

Glyphosate and SPRAY.SEED have broad-spectrum grass and broadleaf weed activity. Diquat added to paraquat in SPRAY.SEED brings together this annual broadleaf and grass weed control. GRAMOXONE contains paraquat only, which has activity mostly on annual grass weeds.

Identify your target weeds

The first decision you will face is what are your target weeds and that will dictate which product is right for your situation.

No matter which product you use, herbicide rate is critical for successful results. Use too little and you

increase the risk of resistance. Match the selected rate and water volume to the size of the key weeds present. Follow the instructions on the labels.

Figure out optimum water rate

The optimum water rate largely depends on the herbicide. As a rule, glyphosate works better when sprayed in a concentrated manner. It is a very systemic herbicide so coverage is not as critical as it is with SPRAY.SEED or GRAMOXONE, which are both contact herbicides. With dense and/or large weed populations, increase the water volume when spraying contact products. If you use more than 100 L/ha (of water volume), the SPRAY.SEED label instructs you to add additional wetter. It's a good idea to read the specific instructions for adding adjuvants to GRAMOXONE 250 and GRAMOXONE 360 PRO as they differ for each product.

Importance of time of day

Time of day for spraying is very important to get the best from both types of herbicides discussed here. Spray glyphosate during the morning, preferably on a sunny day and it will work more effectively than spraying in the late afternoon. The opposite is the case for both SPRAY.SEED and GRAMOXONE. These products work best when applied in low light conditions. Spraying these contact products towards the end of the day often achieves best results.

Water quality

Water quality is critical for many herbicides. If your water is dirty, active ingredients like paraquat and diquat can be deactivated relatively quickly and that can greatly reduce the level of weed control. Water pH and hardness are not as critical for SPRAY.SEED and GRAMOXONE as they are for glyphosate. Many agronomists recommend adding ammonium sulphate to address hard water issues when spraying glyphosate. They will also recommend the inclusion of a pH-buffering agent if the water is too alkaline or acidic.

Adding a Group G spike can also improve the result on some hard to control weeds, so talk with your local agronomist about your circumstances.

Summary

In summary, use rates that match weed size, rotate your herbicide groups, spray at the right time of day with the right water volume, quality and correct amount of adjuvant and you give yourself the best chance of success!

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