

GRDC Releases Spray Application Manual

Timely accurate application of herbicides, insecticides and fungicides is of critical importance to Australian agriculture. The more accurate and efficient spray application is the better the results expected.

Recently the GRDC has released a new spray application manual designed to provide detailed information for farmers and contractors to use to enhance the efficiency of application. The manual includes 23 modules and can be sourced in detail on the GRDC website; www.grdc.com.au. This is an excellent resource with practical tips for producers.

What is included in the Spray Application Manual

The first module talks about planning and efficiency. It suggests that efficiencies can be increased if growers review the mixing and handling components of spray application. Growers need to work to make this aspect as streamlined as possible. This can be done with the use of a mixing unit and a water trailer. Both should be mobile and should be positioned in field to minimise down time for the spray rig.

Ideally the water trailer should be large enough for several loads, a minimum of half or a full day is best. This should be used for clean water. To accompany this, growers should consider investing in a mixing unit. When looking at mixing units a cone tank is ideal as this will reduce the potential for residue to be left behind. Systems with a pump to suck product into the mixing vat will reduce the potential for foaming. Mixing units with dry mate fittings such as Banjo valves (double ball design allows for maximum flows and a lever design is easy to use) are also beneficial as they reduce the potential for spills and are thus safer to use. Mixing trailers should also have space to carry necessary chemical, granules, drums and bulk storage units. Components or custom-built units can be sourced from many spray applicator suppliers.

The second module deals more with product requirement, how various products work and factors that affect performance. To get the best results it is important that applicators have chosen the correct product for the target species. The product rate and application volume should also be adjusted specifically for the target species.



Linked with this is the set-up of the sprayer, the water quality and the choice of adjuvant. The environmental conditions before, during and after application should also be considered. Getting as many of these aspects correct increases the potential for a good result, getting too many wrong will lead to poor results. The third module provides details on nozzle design and function. It talks about properties that affect how droplets gets to the target and how they are retained on the target. There is also detail on droplet velocity and trajectory. Module four talks about drift while module eight provides information on correct calibration of the spray system to ensure accuracy of application. There is a wealth of information in the manual which is well worth a look.

The manual can be found at; <https://grdc.com.au/resources-and-publications/grownotes/technical-manuals-national/spray-application-manual>, and individual modules sourced from there. Modules are available on line and are supported by short videos.

