

SECTION 11

Crop desiccation

11.1 Weedmaster DS



Figure 1: Nufarm's Weedmaster® DST® is the only glyphosate product registered for pre-harvest weed control in canola, providing another tool to reduce weed seed set. Photo: WeedSmart

In some grain producing areas clethodim has been observed to suppressing rather than controlling ryegrass.

A GRDC funded trial carried out by Dr Chris Preston, University of Adelaide investigated the pre-harvest use of a number of herbicides, looking at efficacy, crop safety and residue levels. The trials concluded that only glyphosate was effective and safe to use for pre-harvest weed control in canola, resulting in a recommendation that Nufarm's Weedmaster® DST® be registered for pre-harvest application in canola.

Dr Preston cautions that pre-harvest weed control with glyphosate must not be over-used in the rotation. It is essential that many other non-glyphosate measures are also being used in a weed management strategy."

Keep track of how often you are applying glyphosate across the rotation and include as much diversity as possible. For example, if you use glyphosate for pre-harvest control in canola it would be wise to use a different harvest weed seed control tactic in your cereal crop and consider paraquat as a better choice to crop top pulses.

Both over the top and under the windrow applications are equally effective as weed seed set control measures. Efficacy is reduced in hot, dry weather conditions so an over the top crop topping application offers some extra flexibility provided growers have

access to a self-propelled boom with sufficient clearance. In some situations this will make direct harvesting a more practical option as well.



Figure 2: For optimal ryegrass control and no impact on yield, wait until at least 20 per cent of the canola seed has changed to dark brown or black before a pre-harvest application of glyphosate in a standing crop. Photo: WeedSmart

A harvest weed seed operation, such as narrow windrow burning, will also assist to remove any survivors and help prolong the efficacy of glyphosate across the rotation.

The timing of the application is critical and must not occur before there has been a minimum of 20% grain colour change across the paddock as going in too early will cause yield reductions. No withholding period applies when the product is applied under the windrow but direct harvest must not occur until five days after application to a standing crop.

While annual ryegrass is a key target weed for this use pattern, other key target weeds controlled include wild radish, sow thistle and many other annual grass and broadleaf weeds.¹

More information

[Options for crop-topping canola](#)

[Nufarm: Weedmaster now registered for use in canola](#)

11.2 Chemical desiccation

Chemical desiccation is an alternative to windrowing and very effective where crops have lodged or where weeds have emerged in maturing crops. The most commonly used desiccant is diquat (Reglone®), which is registered for aerial application on canola crops (refer to product label for application rates).

(For information on windrowing, see [Section 12. Harvest.](#))

Desiccation can be a useful strategy on variable soil types; for example, where heavier soil types or drainage lines keep the crop greener for longer, a desiccant can hasten harvest of these areas and reduce the risk of problems arising from high moisture. It can also be used where windrowing contractors are not available.

Desiccants have no detrimental effects on the seed or its oil quality if applied at the correct time. They work through contact action and require almost complete coverage

¹ WeedSmart (2015), Options for crop topping canola, <http://www.weedsmart.org.au/bulletin-board/crop-topping-canola/>

More information

[Pre-harvest herbicide use. Fact Sheet.](#)

[Harvest options for canola—windrowing timing, direct heading, desiccation with Reglone and treatment with Pod-Ceal. Effects on yield and oil percentages.](#)

of the plant to work effectively. An experienced aerial operator can apply a crop desiccant to ensure uniform coverage with minimal spray drift.

The correct time for desiccation is when 70–80% of seeds have changed colour in middle pods, which is when the crop has passed its optimal windrowing stage. The crop will be ready to harvest within 4–7 days after the desiccant is applied, depending on the size and density of the crop.

Desiccate only an area of crop that can be harvested over a period of 1–2 days. The harvester must be ready within 3 days of a desiccant being applied to minimise the potential of losses from shattering. Withholding periods should be adhered to.

Desiccation is generally considered a special-purpose management aid to be used when problems with windrowing, weeds or harvesting are anticipated. Specialist agronomic advice should be sought.²

² P Carmody (2009) Windrowing and harvesting. Ch. 14. In Canola best practice management guide for south-eastern Australia. (Eds D McCaffrey, T Potter, S Marcroft, F Pritchard) GRDC, http://www.grdc.com.au/uploads/documents/GRDC_Canola_Guide_All_1308091.pdf