



**WESTERN**  
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# **GRDC™** **GROWNOTES™**



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GRAINS RESEARCH  
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CORPORATION

# **BARLEY**

## **SECTION 11**

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## **CROP DESICCATION/ SPRAY OUT**

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# Crop desiccation/spray out

Diquat is registered for pre-harvest weed control in barley. See [GRDC late season herbicide use fact sheet](#).

In-crop spray topping with diquat in barley is an effective strategy for controlling a range of annual grasses. It should be used as a tool with other integrated weed management (IWM) techniques such as cutting crops for hay, breakcrops and green and brown manuring. Timing of application and rates of product are crucial to maintaining crop yield while reducing ryegrass seeds.

The application of herbicides late in the season to prevent weeds setting seed or to desiccate crops must be carried out with caution and in line with herbicide label recommendations. It is essential to check if these practices are acceptable to buyers, as in some situations markets have extremely low or even zero tolerance to some pesticide and herbicide residues. There are three reasons to apply non-selective herbicides late in the season:

- to manage late season weeds with an alternative chemical group to that used in-crop
- in-crop spray topping of weeds to prevent seed set;
- for pre-harvest desiccation of the crop and weeds to accelerate or even-up ripening to assist with harvest, especially after a wet spring

Timing is when the crop is fully mature; spraying earlier than this can result in decreased yields and small or shrivelled grain that may be downgraded by the buyers

Diquat, including Reglone®, is the only registered herbicide for pre-harvest weed control in barley. The malting barley industry is opposed to pre-harvest applications of herbicides to barley that may be sold as malt grade. Contact your buyer prior to any pre-harvest applications to malting grade barley.

Some formulations of diquat may be applied by air pre-harvest.

**Table 1: Product registrations for pre-harvest weed control and desiccation vary by crop type. Always check product labels (note: Paraquat/diquat products, for example Spray.Seed® are not registered for pre-harvest weed control or desiccation).**

Crop	Paraquat	Diquat	Glyphosate
Wheat	<p>Paraquat is not registered for:</p> <ul style="list-style-type: none"> <li>• in-crop spray topping;</li> <li>• pre-harvest crop desiccation;</li> <li>• pre-harvest weed control.</li> </ul> <p><b>DO NOT USE PARAQUAT PRODUCTS FOR THESE USE PATTERNS</b></p> <p>These use patterns are unregistered.</p>	<p>Pre-harvest weed control (all states): Spray as soon as the crop is mature and ready for harvesting. Under wet spring conditions crops can periodically become infested with weeds which seriously interfere with harvest operations. Diquat will control these weeds allowing for efficient harvest.</p> <p><b>WHP: NOT required when used as directed.</b></p>	<p>Not all glyphosate formulations are registered for this use Apply to mature crop from late dough stage (28 per cent moisture) onwards. The higher rate will be required when crops are heavy and leaf shading effects may occur.</p> <p>DO NOT use on crops intended for seed or sprouting. Where wheat is grown in rotation with any herbicide-tolerant crop, management should be consistent with implementation of any management plan for herbicide-tolerant crops.</p> <p><b>WHP: DO NOT harvest within 7 days of application.</b></p> <p><b>Only weedmaster®DST® can now be applied at higher use rates in wheat with a 5-day harvest withholding period.</b></p>

## SECTION 11 BARLEY

### TABLE OF CONTENTS

### FEEDBACK

Crop	Paraquat	Diquat	Glyphosate
Barley	<p>Paraquat is not registered for:</p> <ul style="list-style-type: none"> <li>• in-crop spray topping;</li> <li>• pre-harvest crop desiccation;</li> <li>• pre-harvest weed control.</li> </ul> <p><b>DO NOT USE PARAQUAT PRODUCTS FOR THESE USE PATTERNS</b></p> <p>These use patterns are unregistered.</p>	<p>Winter cereals – pre-harvest weed control (all states): Spray as soon as the crop is mature and ready for harvesting. Under wet spring conditions crops can periodically become infested with weeds which seriously interfere with harvest operations. Diquat will control these weeds allowing for efficient harvest.</p> <p><b>WHP: NOT required when used as directed.</b></p>	<p>Glyphosate is not registered for:</p> <ul style="list-style-type: none"> <li>• in-crop spray topping;</li> <li>• pre-harvest crop desiccation;</li> <li>• pre-harvest weed control.</li> </ul> <p><b>DO NOT USE GLYPHOSATE PRODUCTS FOR THESE USE PATTERNS</b></p> <p>These use patterns are unregistered.</p>
Canola	<p>Paraquat is not registered for:</p> <ul style="list-style-type: none"> <li>• in-crop spray topping;</li> <li>• pre-harvest crop desiccation;</li> <li>• under-the-cutter-bar spraying during swathing or windrowing activities;</li> <li>• pre-harvest weed control;</li> <li>• spraying over the top of swaths or windrows</li> </ul> <p><b>DO NOT USE PARAQUAT PRODUCTS FOR THESE USE PATTERNS</b></p> <p>These use patterns are unregistered.</p>	<p>Pre-harvest crop desiccation (all states):</p> <p>Spray when 70 per cent of the pods are yellow and the seeds are brown or bluish and pliable. Canola ripens unevenly and is prone to pod shatter and seed loss. Direct harvest four to seven days after spraying.</p> <p><b>WHP: DO NOT harvest for at least 4 days after application.</b></p>	<p><b>Only weedmaster®DST® is registered for pre-harvest use in canola.</b></p> <p>Apply to mature standing crop from early senescence (minimum of 20% seed colour change to a dark brown/black colour from within the crop) prior to windrowing or direct harvest. Use the higher when crops or weeds are dense and/or where faster desiccation is required.</p> <p>DO NOT use on crops intended for seed</p> <p>DO NOT harvest for 5 days after application to standing crops DO NOT overspray windrows</p> <p>DO NOT apply to standing crops and again at the time of windrowing</p> <p>Refer to the complete weedmaster®DST® label and critical comments section.</p>
Chickpeas Faba beans Field peas Lentils Pigeon peas+ Lupins@ Vetch# Adzuki beans^ Cowpeas^ Mungbeans~ Soybeans~	<p>Spray topping to reduce seed set – annual ryegrass (NSW, Victoria, SA, WA, ACT only).</p> <p>Chickpeas/Faba beans/Field peas/Lentils/Lupins/ Vetch: Spray the crop when the ryegrass is at the optimum stage, that is when the last ryegrass seed heads at the bottom of the plant have emerged and the majority are at or just past flowering (with anthers present or glumes open) but before haying off is evident – usually October to November.</p> <p>Use of the higher rate in these crops is usually more reliable and gives a greater reduction in seed set.</p> <p>Reduction in crop yield may occur especially if the crop is less advanced relative to the ryegrass; that is, if crops have a majority of green immature pods. The higher rate may also increase any yield reduction. In practice crop losses in excess of 25 per cent may occur.</p> <p><b>WHP: DO NOT harvest for 7 days after application.</b></p>	<p>Pre-harvest crop desiccation (all states):</p> <p>Dry beans/Dry peas/Pigeon peas/ Lentils/Chickpeas/Faba beans/Lupins/ Soybeans/ Mungbeans: Spray as soon as the crop has reached full maturity. Helps overcome slow and uneven ripening and weed problems at harvest.</p> <p><b>WHP: NOT required for dry beans, dry peas, mungbeans when used as directed.</b></p> <p>Lentils/Chickpeas/Faba beans: <b>DO NOT harvest for 2 days after application.</b></p> <p>Pigeon peas, Soybeans: <b>DO NOT harvest for 4 days after application.</b></p>	<p><b>Not all glyphosate formulations are registered for these uses.</b></p> <p>Field peas/Faba beans: Pre-harvest application to reduce viable seed set of annual ryegrass.</p> <p>Adzuki beans*/Chickpeas*/Cowpeas*/Faba beans*/Field peas*/ Lentils*/Mungbeans*/ Soybeans*: Pre-harvest application to desiccate a crop as a harvest aid and weed control – annual weeds.</p> <p>Chickpeas*: Glyphosate + metsulfuron tank mix for pre- harvest application as harvest aid and weed control – annual weeds.</p> <p><b>WHP: DO NOT harvest within 7 days of application.</b></p> <p>Refer to label for specific timings.</p> <p>*Application to crops intended for seed production or for sprouting may reduce germination percentage to commercially unacceptable levels.</p>

# Paraquat only ^ Glyphosate only + diquat only / ~ glyphosate and diquat only @ Paraquat products and diquat only whP withholding period \* registered trademark