

Near harvest weed control in cereals

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With the recent wet period leading up to harvest many farmers are now facing summer weeds and late green tillers that can interfere with harvest by contaminating the grain. As such, crop topping to kill weeds and desiccate tillers may be an option in some cereals. Crop desiccation refers to drying down the crop for harvest and is considered separately to pre harvest weed control in chemical registration and practice.

Table 1. Basic guide for herbicide options for near harvest weed control and crop desiccation for wheat and barley.

	Weed control				Desiccation		
	Glyph.	Para.	Diquat	2,4-D's	Glyph.	Para.	Diquat
Wheat - delivered	✓	x	✓	✓	✓	x	✓
Wheat – seed grain	x	x	nr	?	x	x	x
Barley – malt and seed grain	x	x	nr	nr	x	x	x
Barley - feed	x	x	✓	✓	x	x	x

✓ = yes, x = no, nr = not recommended, ? = can be used (best not), check seed quality.

Glyphosate and paraquat are not registered for the desiccation of barley or for use as a pre-harvest application for weed control in Australia. Use of these to desiccate or crop top contravenes the labels approved by the Australian Pesticides and Veterinary Medicines Authority (APVMA). The improper use of glyphosate and paraquat may reduce germination percentage and the germinative energy of barley grain in the malthouse and a reduction in germination by as little as 5% can significantly impact on the performance of the malted barley in the brewery. The use of these chemicals can also result in detectable levels of residue in grain which may affect further exports.

Paraquat is not registered for desiccation or pre-harvest weed control in wheat in Australia. Glyphosate is registered for wheat from the hard dough stage as a harvest aid and weed control if grain is not intended for use as seed. Do not harvest within 7 days of application.

Diquat (originally Reglone® etc) is registered for use for pre-harvest weed control in winter cereals. As such, this is allowable for wheat and barley crops provided it is applied in accordance with the label instructions. However, diquat is intended to be used as a crop desiccant in barley and should not be used at all on crops that will be delivered for malting. Under no circumstances should the commonly available paraquat/diquat mixtures be used even though they may be cheaper to apply. There is no harvest withholding period for diquat.

2,4-D, both amines and permitted esters can be used to reduce the plant height and/or desiccate broadleaved weeds such as fleabane in cereals once the grain has reached the firm dough stage. The rates will vary depending on the active constituent concentration of the product. Check with the label of product being used. For maximum effectiveness, allow 10-20 days from spraying to harvest. Heavy rain after spraying can reduce the effectiveness of the treatment. If used as directed, no harvest withholding periods are required.

Be careful of spray drift onto vines, homesteads, townsites and other sensitive situations, if you are near a sensitive area use a non phenoxy treatment such as glyphosate. Spray drift is most likely to occur during calm conditions with inversions

present, typically in the late evening with very low winds. ***However all products can drift if fine spray droplets are entrapped in a low level inversion.***

Always check that the particular product you intend to use has this use on the label for WA as not all labels of similar products are the same.

Do not use coloured foam markers when applying any chemical near harvest on cereal crops. While the dye does not affect the basic qualities of the grain, its presence is not acceptable in many markets. Coloured grain can be confused at delivery with grain that is treated with a seed dressing or is infected with a disease. A zero tolerance level applies for seed stained with dye to avoid the confusion associated with pickled grain. Grain treated with seed dressings is not saleable as it will exceed pesticide residue limits. Farmers are referred to Farmnote 325 (2008) Barley grain quality – pesticide residues and foam marker dye staining.

www.agric.wa.gov.au/content/fcp/cer/bar/me/barleygrainqualityfn2008final.pdf

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