

## 6. SPECIFIC GUIDELINES FOR GROUP B HERBICIDES

GROUP	<b>B</b>	HERBICIDE
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### High resistance risk

Globally herbicide resistance to the Group B herbicide mode of action has been confirmed and documented in more than 150 grass and broadleaf weed species across more than 40 countries. Resistance to Group B is extensive and prolific, with tens of millions of hectares affected, in fact it is the most likely herbicide mode of action to develop resistance.

Group B resistance exists in Australia in 26 species (9 grasses) including more than 20,000 populations of annual ryegrass, more than 200 populations of barley grass, brome grass, more than 200 populations of wild oats, paradoxa grass and crabgrass and in at least seventeen broadleaf weeds including more than 5,000 populations of wild radish, common sowthistle, black bindweed, charlock, more than 2000 populations of prickly lettuce, more than 1,000 populations of Indian hedge mustard, Mediterranean (wild) turnip and turnip weed. Resistance has developed in broadacre, rice and pasture situations. In respect to rice three broadleaf weeds, namely dirty dora, arrowhead and starfruit are known to have Group B resistant populations.

Research has shown that as few as four applications to the same population of annual ryegrass can result in the selection of resistant individuals and as few as six applications for wild radish. A population can go from a small area of resistant individuals to a whole paddock failure in one season.

A significant challenge facing growers managing Group B resistance is the control of brome grass and barley grass in winter cereal crops. Group B herbicides are presently the only in-crop herbicides that provide effective control of these grass weeds and this poses a severe risk of Group B resistance for growers with cereal dominant rotations.

If a pre-emergent application is made with a Group B herbicide for broadleaf or grass weed control, monitor results and, if required, apply a follow up spray; preferably with a non-Group B herbicide for control of escapes and to avoid seed set. If a follow up group B (post-emergent herbicide) is applied; ensure that complete weed seed set control is achieved.

Whether using group B herbicides as a pre-emergent, or post-emergent application; consider the use of registered tank mixes with herbicides from other modes of action.

When using a group B herbicide for post-emergent broadleaf or grass weed control, this should be preceded by a pre-emergent herbicide treatment with other modes-of-action.

1. Avoid applying more than two Group B herbicide treatments in any four year period on the same paddock. Where more than two treatments are applied introduce alternative control measures to avoid seed set and seed shed in the paddock.
2. A Group B herbicide may be used alone on flowering wild radish only if a Group B herbicide has not been previously used on that crop.
3. In all cases if there are significant escapes following the herbicide application consider using another herbicide with a different mode of action or another control method to stop seed set.

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Advice given in this strategy is **Valid as at 22 June 2018**. All previous versions of this strategy are now invalid.

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4. **Imidazolinone tolerant crops (Clearfield Systems):** Where OnDuty, Midas and Intervix are used refer to the Clearfield Production Systems – best management practice guide. If Sentry is to be used pre-emergent; consult the [Crop Care Best Management Guide](#)

All the above recommendations should be read in conjunction with the [Integrated Weed Management \(IWM\) strategies](#)

<b>GROUP B</b>	<b>Inhibitors of acetolactate synthase (ALS inhibitors), acetohydroxyacid synthase (AHAS)</b>
<i>Imidazolinones:</i> <i>(Imis):</i>	imazamox (Intervix <sup>®</sup> , Raptor <sup>®</sup> ), imazapic (Bobcat I-Maxx <sup>®</sup> , Flame <sup>®</sup> , Midas <sup>®</sup> , OnDuty <sup>®</sup> ), imazapyr (Arsenal Xpress <sup>®</sup> , Intervix <sup>®</sup> , Lightning <sup>®</sup> , Midas <sup>®</sup> , OnDuty <sup>®</sup> ), imazethapyr (Lightning <sup>®</sup> , Spinnaker <sup>®</sup> )
<i>Pyrimidinylthiobenzoates:</i>	bispyribac (Nominee <sup>®</sup> ), pyrithiobac (Staple <sup>®</sup> )
<i>Sulfonylureas:</i> <i>(SUs):</i>	azimsulfuron (Gulliver <sup>®</sup> ), bensulfuron (Londax <sup>®</sup> ), chlorsulfuron (Glean <sup>®</sup> ), ethoxysulfuron (Hero <sup>®</sup> ), foramsulfuron (Tribute <sup>®</sup> ), halosulfuron (Sempra <sup>®</sup> ), iodosulfuron (Hussar <sup>®</sup> ), mesosulfuron (Atlantis <sup>®</sup> ), metsulfuron (Ally <sup>®</sup> , Harmony <sup>®</sup> M, Stinger <sup>®</sup> , Trounce <sup>®</sup> , Ultimate Brushweed <sup>®</sup> Herbicide), prosulfuron (Casper <sup>®</sup> ), rimsulfuron (Titus <sup>®</sup> ), sulfometuron (Oust <sup>®</sup> , Eucmix Pre Plant <sup>®</sup> ), sulfosulfuron (Monza <sup>®</sup> ), thifensulfuron (Harmony <sup>®</sup> M), triasulfuron, (Logran <sup>®</sup> , Logran <sup>®</sup> B-Power <sup>®</sup> ), tribenuron (Express <sup>®</sup> ), trifloxysulfuron (Envoke <sup>®</sup> , Krismat <sup>®</sup> )
<i>Triazolopyrimidines:</i> <i>(Sulfonamides):</i>	florasulam (Gangster <sup>®</sup> , Paradigm <sup>®</sup> , Vortex <sup>®</sup> , X-Pand <sup>®</sup> ), flumetsulam (Broadstrike <sup>®</sup> ), metosulam (Eclipse <sup>®</sup> ), pyroxsulam (Crusader <sup>®</sup> Rexade <sup>®</sup> )

\* ***This product contains more than one active constituent***

List of chemical families, approved active constituents and, in parenthesis, the trade name of the first registered product or successor. Refer to the APVMA website ([www.apvma.gov.au](http://www.apvma.gov.au)) to obtain a complete list of registered products from the PUBCRIS database.

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