

## SPECIFIC GUIDELINES FOR GROUP 4 HERBICIDES

|       |   |           |
|-------|---|-----------|
| GROUP | 4 | HERBICIDE |
|-------|---|-----------|

### Moderate resistance risk

Globally herbicide resistance to the Group 4 herbicide mode of action has been confirmed and documented in more than 30 grass and broadleaf weed species across more than 20 countries. Resistance to the Group I mode of action is common.

Group 4 resistance exists in Australia in 4 weed species including capeweed, more than 50 populations of common sow thistle, more than 1,000 populations of wild radish and more than 50 populations of Indian hedge mustard. Resistance has occurred after a long history of use of Group 4 herbicides. The number of populations with Group 4 resistance is increasing.

Of particular concern is the resistance in wild radish, which is the most important broadleaf weed in broadacre agriculture. Some populations may also have resistance to other modes of action e.g. Group 12 herbicides which can be important for control of wild radish in lupins where other selective non-Group 4 options are limited. Because of the long soil life of wild radish seed, measures to reduce seed return to the soil would be useful for this weed. Wild radish seed that is confined to the top 5 cm soil has a shorter life than seed buried deeper.

As a general rule in high resistance risk situations:

1. Avoid applying 2 applications of Group 4 herbicides alone onto the same population of weeds in the same season. To assist in delaying the onset of Group 4 resistance, rotate and/or tank mix with herbicides from other modes of action.
2. Where possible combine more than one mode of action in a single application. Each product should be applied at rates sufficient for control of the target weed alone to reduce the likelihood of weeds resistant to the Group 4 herbicide surviving.

The above recommendations should be incorporated into an Integrated Weed Management (IWM) program. In all cases try to ensure surviving weeds from any treatment do not set and shed viable seed. Keep to integrated strategies mentioned in this brochure including cultural weed control techniques to reduce the weed seedbank. Make sure you mix and rotate herbicides from different mode of action groups. Always consult the product label prior to use.

#### Please note:

This strategy is a guide only and does not endorse particular products, groups of products or cultural methods in terms of their performance. Always follow the product label for specific use instructions. While all effort has been made with the information supplied in this document, no responsibility, actual or implied, is taken for the day to day accuracy of product or active constituent specific information. Readers should check with the Australian Pesticides and Veterinary Medicines Authority's product database for contemporary information on products and actives. The database can be sourced through [www.apvma.gov.au](http://www.apvma.gov.au). The information given in this strategy is provided in good faith and without any liability for loss or damage suffered as a result of its application and use. Advice given in this strategy is valid as at 16 July 2021. All previous versions of this strategy are now invalid.

| Chemical family                                       | Active constituent (first registered trade name)   |
|---|--|
| <b>GROUP 4</b>  |  |
| <b>Disruptors of plant cell growth (Auxin mimics)</b> |  |
| Benzoates   | dicamba (Banvel®, Banvel M®*, Barrel®*, Casper®*, Lawnweeder plus®*, Lawn weedkiller*, Mecoban®, Methar Tri-Kombi®*, Nuturf Millennium®*, Sandoban®*)  |
| Phenoxy-carboxylates<br>(Phenoxys)                    | 2,4-D (Actril DS®*, Amicide®, Fallow Boss Tordon®*, Methar Tri-Kombi®*, Pyresta®*, Vortex®*), 2,4-DB (Trifolamine®), dichlorprop (Lantana 600®), MCPA (Agtryne® MA*, Banvel M®*, Barrel®*, Basagran® M60*, Bucril® MA*, Buffalo Pro Weedkiller®*, Condor®*, Flight®*, Lawnweeder plus®*, Lawn Weedkiller*, Midas®*, Paragon®*, Precept®*, Quadrant®*, Silverado®*, Spearhead®*, Thistrol Gold®*, Tigrex®*, Tordon 242®*, Triathlon®*), MCPB (Legumine®, Thistrol Gold®*), mecoprop (Mecoban®, Mecopropamine®, Methar Tri-Kombi®*, Multiweed®*) |
| Pyridine carboxylates<br>(Pyridines)                  | aminopyralid (Fallow Boss Tordon®*, ForageMax®*, Grazon Extra®*, Hotshot®*, Stinger®*, Vigilant II®*), clopyralid (Lontrel®, Nuturf Millennium®*, Spearhead®*, Trimac Plus®*, Velmac Plus®*), florypyrauxifen (Agixa®*, Ubeniq®), halauxifen (ForageMax®*, Paradigm®*, Pixxaro®*, Rexade®*), picloram (Fallow Boss Tordon®*, Grazon Extra®*, Tordon®, Tordon 242®*, Tordon Regrowth Master®*, Trinoc®*, Vigilant II®*),  |
| Quinoline-carboxylates                                | quinclorac (Drive®)  |
| Pyridyloxy-carboxylates                               | fluroxypyr (Crest®*, Hotshot®*, Pixxaro®*, Starane®), triclopyr (Garlon®, Grazon Extra®*, Tordon Regrowth Master®*, Tough Roundup® Weedkiller*, Ultimate Brushweed®* Herbicide)  |

\* This product contains more than one active constituent

## Notes:

1. List of chemical families, approved active constituents and, in parenthesis, the trade name of

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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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