

## Moderate resistance risk

Globally herbicide resistance to the Group 12 herbicide mode of action has been confirmed and documented in 15 weed species across 3 countries.

Group 12 resistance exists in Australia in 3 weed species including more than 1,000 populations of wild radish and more than 50 populations of Indian hedge mustard. Resistance has generally occurred after a long history of use of Group 12 herbicides. The number of populations with Group 12 resistance is increasing following increased use of these herbicides.

Avoid applying Group 12 herbicides in any two consecutive years unless one application is a mixture with a different mode of action that is active on the same weed, or a follow up spray is conducted (using a different mode of action) to control escapes. Always use the label rate of herbicide whether or not a single active ingredient (e.g. diflufenican) or combinations of active ingredients are applied (e.g. diflufenican/MCPA, picolinafen/MCPA), apply to weeds at the labeled growth stage and ensure that no weeds set and shed viable seed. Control survivors to prevent seed set with a herbicide with a different mode of action to Group 12 or use another weed management technique.

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.

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Chemical family	Active constituent (first registered trade name)
<b>GROUP 12</b> <b>Inhibition of carotenoid biosynthesis at the phytoene desaturase step (PDS inhibitors)</b>	
N-Phenyl heterocycles	norflurazon (Solicam®)
Phenyl-ethers	diflufenican (Brodal®, Gangster®, Infinity Ultra®, Jaguar®, Mateno® Complete®, Quadrant®, Spearhead®, Tigrex®, Triathlon®, Pathweeder®), picolinafen (Eliminar C®, Flight®, Paragon®, Quadrant®, Sniper®)

\* This product contains more than one active constituent

### Notes:

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.

### 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 26 June 2025. All previous versions of this strategy are now invalid.