Moderate resistance risk

The herbicides in the new CropLife Group 5 and Group 6 were previously all in Group C in Australia. The Mode of Action was described as "Inhibitors of photosynthesis at photosystem II". Now, to match international grouping, this MOA has been split into two, identified as Group 5 (PSII D1 Serine 264 binders) and Group 6 (PSII D1 Histidine 215 binders). The rationale is that there is still no demonstrated target site cross-resistance between these two groups. (GHRAC MOA Update 2020).

Globally herbicide resistance to the Group 6 herbicide mode of action is not as common as Group 5, but exists in 5 weed species.

In all situations the resistance status of "at risk weeds" should be determined prior to sowing. For "at risk weeds", avoid using Group 6 herbicides as the only means of control in the same paddock in consecutive years.

- Watch and record weed escapes in paddocks with a long history of Group 6 use.
- Control survivors to prevent seed-set using a herbicide with a different Mode of Action to Group 6 or use another weed management technique, particularly in heavily infested paddocks.
- Avoid dry sowing in heavily weed infested paddocks. Wait for a germination of weeds after the opening rains in weedy paddocks and use a pre-plant knockdown or cultivation to maximise weed control at this stage.

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.

Continued on next page.

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Chemical family	Active constituent (first registered trade name)
GROUP 6 **Inhibitors of photosynthesis at photosystem II (D1 Histadine 215 binders)**	
Benzothiadiazinones	bentazone (Basagran®, Basagran® M60*, Lawnweeder plus®*), pyridate (Tough®)
Nitriles	bromoxynil (Barrel®*, Buctril®, Buctril® MA*, Buffalo Pro Weedkiller®*, Eliminar C®*, Flight®*, Jaguar®*, Monsoon®*, Talinor®*, Quadrant®*, Triathlon®*, Velocity®*), ioxynil (Actril DS*, Totril®)

* *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) to obtain a complete list of registered products from the PUBCRIS database.

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