Herbicide Resistance Management Strategies
Developed by the CropLife Australia Herbicide Resistance Management Review Group
Valid as at 25 June 2015

SPECIFIC GUIDELINES FOR GROUP M HERBICIDES

GROUP	M	HERBICIDE

Moderate resistance risk

Group M resistance occurs in Australia in annual ryegrass, awnless barnyard grass, brome grass, common sow thistle, flax-leaf fleabane, liverseed grass, sweet summer grass, wild radish and windmill grass.

The following factors are common to all cases of Group M resistance:

- Lack of rotation of other herbicide modes of action;
- A Group M herbicide has been used for 12 – 15 years or more; and
- There has been minimal or no soil disturbance following application.

Given the very important role of glyphosate in Australian farming systems, the Australian agricultural industry has developed strategies for sustainable use of glyphosate. For more information refer to the Australian Glyphosate Sustainability Working Group website http://www.glyphosateresistance.org.au

A number of these cases of resistance to glyphosate have occurred in horticultural (vines, tree crops & vegetables) and non-cropping situations (eg. airstrips, railways, firebreaks, fencelines, roadsides, driveways, irrigation ditches, around sheds), with the balance occurring in no-till broadacre cropping systems.

To assist in delaying the onset of resistance, consider alternating Group M herbicides with herbicides from other modes of action. For example (Group L) eg paraquat, or (Group N) eg glufosinate or (Group Q) eg amitrole.

Given the demonstrated propensity of weeds to develop resistance to multiple herbicide classes, Integrated Weed Management principles should be incorporated wherever possible to minimise the risk of selecting for glyphosate resistance. Strategies may include the use of cultivation, the double knock technique[1], strategic herbicide rotation, grazing, baling etc.

For further information on Roundup ready crops visit:
http://www.monsanto.com/global/au/products/pages/roundup-ready-herbicide.aspx

[1] *The double knock technique is defined as using a full cut cultivation OR the full label rate of a paraquat-based product (Group L) following the glyphosate (Group M) knockdown application.*

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

CHEMICAL FAMILY	ACTIVE CONSTITUENT (FIRST REGISTERED TRADE NAME)
GROUP M	**Inhibitors of EPSP synthase**
Glycines:	glyphosate (Arsenal Xpress®*, Broadway®*, Illico®*, Resolva®*, Roundup®, Tough Roundup® Weedkiller*, Trounce®*, Yates Pathweeder®*)

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