

## BARLEY VARIETY HERBICIDE TOLERANCE

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### Key Points:

- This research aims to evaluate all new varieties in the NVT program.
- Data can be used to identify herbicide by variety combinations which minimise yield loss and best suit individual farming practices, primarily to obtain weed and herbicide resistance control.
- Information on varieties which have been tested in one year, only should be treated with caution pending further trials.

Within herbicide by varietal tolerance trials conducted in the Kybunga district over many seasons, barley varieties have generally not shown herbicide intolerance (measured by yield loss) to the extent of that seen in wheat varieties. However the herbicides Cadence, Banvel, Tigrex and Bromoxynil/MCPA have commonly caused some yield loss and as Table 1 highlights, Cadence on Buloke, Tigrex on Fleet and Tigrex and Bromoxynil/MCPA on Keel have been some of the more sensitive combinations over time.

Despite not being present in the below table, recently released varieties such as Fathom, Flinders, Navigator, Skipper and Wimmera have undergone preliminary testing. Fathom has shown some increased level of sensitivity to Broadstrike and dicamba than other varieties when applied at rates exceeding label recommendations.

For more extensive information please visit NVT Online [www.nvtonline.com.au](http://www.nvtonline.com.au).



**Table 1: Long-term summary of safety rating and potential % yield loss for barley varieties to various herbicides and tank mixes**

Variety	Buloke	Commander	Flagship	Fleet	Hind-marsh	Keel	Mari-time	Oxford	Scope	Rates (product/ha)	Crop stage at spraying
<b>Years tested</b>	2006-2009	2005-2007	2004-2009	2004-2006	2007-2009	1998-2001	2003-2005	2009-2012	2010-2012		
<b>2,4-D Amine 625</b>	✓(4)	✓(3)	10 (1/6)	✓(3)	✓(3)	✓(4)	✓(3)	✓(2)	✓(2)	1.4L	2 node
<b>Achieve®</b>	N (1/4)	✓(3)	5 (1/6)	N (1/3)	✓(3)	✓(4)	N (1/3)	✓(1)	-	380g	4 leaf
<b>Affinity®</b>	12 (1/4)	✓(2)	N (1/4)	✓(1)	N (1/3)	-	-	✓(2)	✓(2)	60g	4 leaf
<b>Ally®</b>	N (1/4)	✓(3)	✓(6)	✓(3)	N (2/3)	✓(4)	N (1/3)	✓(2)	✓(2)	7g	4 leaf
<b>Axial®</b>	✓(4)	✓(2)	N (1/4)	✓(1)	11 (1/3)	-	-	✓(2)	9 (1/4)	250mL	4 leaf
<b>Banvel M®</b>	N (1/4)	N (2/3)	16 (1/6)	5 (1/3)	8 (1/3)	4 (1/4)	✓(3)	N (1/4)	✓(2)	1.4L	6 leaf
<b>Boxer Gold®</b>	✓(1)	-	6 (1/1)	-	✓(1)	-	-	✓(2)	✓(2)	2.5L	IBS
<b>Broadstrike®</b>	✓(4)	✓(3)	✓(6)	✓(3)	N (1/3)	✓(4)	5 (1/3)	✓(2)	✓(2)	25g	6 leaf
<b>Bromoxynil/ MCPA</b>	10 (1/4)	✓(3)	12 (1/6)	N (1/3)	6 (1/3)	3-8 (2/4)	N (1/3)	✓(2)	✓(2)	1.4L	4 leaf
<b>Cadence®</b>	9-11 (2/4)	12 (1/2)	14 (1/4)	N (1/1)	✓(3)	-	-	✓(2)	✓(2)	200g	6 leaf
<b>Decision®</b>	12 (1/4)	✓(3)	✓(5)	N (1/2)	7 (1/3)	-	✓(1)	✓(2)	✓(2)	1.0L	4 leaf
<b>Diuron/MC PA</b>	13 (1/4)	✓(3)	N (1/6)	7 (1/3)	10 (1/3)	✓(4)	N (2/3)	✓(2)	✓(2)	500mL/350 ml	4 leaf
<b>Glean®</b>	✓(2)	✓(3)	✓(4)	✓(3)	✓(1)	N (1/3)	N (1/3)	✓(1)	-	20g	4 leaf
<b>LVE MCPA</b>	✓(3)	✓(3)	✓(5)	✓(3)	✓(2)	4 (1/4)	4 (1/3)	-	-	1.2L	6 leaf
<b>Terbutryn</b>	-	✓(1)	N (1/2)	N (1/2)	-	✓(4)	4-7 (2/3)	-	-	850mL	4 leaf
<b>Tigrex®</b>	✓(4)	✓(3)	8 (1/6)	7-8 (2/3)	8 (1/3)	4-6 (3/4)	7 (1/3)	✓(2)	✓(2)	1L	6 leaf

**X-y% (w/z)**

Significant yield reductions at recommended rate in w years out of z years tested. eg 6-10 (2/4) is yield losses of 6 to 10% in 2 out of 4 years tested

**x% (w/z)**

Significant yield reduction at recommended rate in 1 trial only in z years of testing eg 8 (1/2) is 8% yield loss in 1 out of 2 years tested

**N (w/z)**

Narrow safety margin – yield loss at higher than recommended herbicide rate only w years of z years tested.

**✓(z)**

No yield loss during z years of testing