Barley variety response to herbicides in Victoria

This research has been conducted across the Victorian Mallee to determine if new and existing varieties of barley vary in tolerance to commonly used herbicides

Preliminary Evaluation - herbicides applied at greater than recommended rates to identify cultivar herbicide combinations which may lead to yield loss.

The sensitivity of the variety is summarised, using the following symbols based on the yield responses across all trials:

- \- not tested or insufficient data
- ✓ (z) no significant yield reductions at recommended rates or higher than recommended rates in (z) trials
- **N** (w/z) narrow margin, significant yield reductions at higher than recommended rate, but not at recommended rate
- significant event occurring w years out of z years tested. Eg. (2/5) = tested for 5 years, 2 returning a significant yield loss
- x% (1/z) yield reduction (warning) significant yield reduction at recommended rate in 1 trial only in z years of testing
- x-y% (w/z) yield reductions (warning) significant yield reductions at recommended rate in w years out of z years tested.

Always follow label recommendations. All pesticide applications must accord with the currently regisetered label for that particular pesticide, crop, pest and region. Any research regarding pesticides of their use reported in this website does not consititute a recommedation for that particular use by the authors, the author's organisations of ACAS. It must be emphasised that crop tolerance and yield responses to herbicides are strongly influenced by seasonal conditions.

Herbicide		2,4-D Amine 500	Achieve®	Affinity® + MCPA	Ally® + MCPA	Axial®	Banvel M®	Boxer Gold®	Broadstrike
		2,4-D Amine	Tralkoxydim	Carfentrazone - Ethyl + MCPA	Metsulfuron-methyl + MCPA	Pinoxaden + Cloquintocet-Methyl	MCPA + Dicamba	Prosulfocarb + S-Metolochlor	Flumetsulam
Variety	**Years Tested**	2009-2015	2013-2015	2009-2015	2009-2015	2009-2015	2009-2012	2009-2015	2009-2015
Baudin	2010-2011	✓(2)	-	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
Commander	2013-2015	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)
Compass	2014-2015	✓(1)	✓(1)	✓(1)	✓(1)	✓(1)	-	✓(1)	✓(1)
Fathom	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	16(1/2)	N(1/2)	✓(2)	N(1/2)
Fleet	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	✓(2)	✓(1)	✓(2)	✓(2)
Gairdner	2013-2015	✓(2)	✓(2)	✓(2)	N(1/2)	✓(2)	-	✓(2)	✓(2)
GrangeR	2013-2015	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)
Henley	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	✓(2)	N(1/2)	✓(2)	✓(2)
Hindmarsh	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	✓(2)	✓(1)	✓(2)	✓(2)
LaTrobe	2013-2015	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(1)	✓(2)	✓(2)
Macquarie	2013-2015	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)
Maritime	2013	✓(1)	✓(1)	✓(1)	✓(1)	✓(1)	-	✓(1)	✓(1)
Navigator	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	✓(2)	N(1/2)	✓(2)	✓(2)
Oxford	2013-2015	✓(2)	✓(2)	✓(2)	✓(2)	19(1/2)	-	✓(2)	✓(2)
Scope	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	✓(2)	N(1/2)	✓(2)	✓(2)
Skipper	2011-2012	✓(2)	✓(2)	N(1/2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
Sloop SA	2010-2011	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
Sloop Vic	2010-2011	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
SY Rattler	2013-2015	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	N(1/1)	✓(2)	✓(2)
Vlamingh	2010-2011	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
Westminster	2013-2015	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)	N(1/1)	✓(2)	✓(2)
Wimmera	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	✓(2)	✓(1)	✓(2)	✓(2)
Rates (product/ha)		1.4 L	380 g	100 mL + 330 mL	7 g + 330 mL	250 mL	1.4 L	2.5 L	25 g
Crop stage at spraying		2 node	4 leaf	4 leaf	4 leaf	4 leaf	6 leaf	IBS	6 leaf

Herbicide		Bromoxynil MCPA	Cadence® + MCPA	Decision	Diuron + MCPA	Tigrex®
		Bromoxynil + MCPA	Dicamba + MCPA	Diclofop-methyl + Sethoxydim	Diuron + MCPA Amine	MCPA + Diflufenican
Variety	**Years Tested**	2009-2015	2009- 2015	2009-2012	2009-2015	2010-2015
Baudin	2010-2011	✓(2)	N(1/2)	✓(2)	N(1/2)	✓(2)
Commander	2013-2015	N(1/2)	N(1/2)	-	✓(2)	✓(2)
Compass	2014-2015	✓(1)	✓(1)	-	✓(1)	✓(1)
Fathom	2012-2013	✓(2)	N(1/2)	✓(1)	✓(2)	✓(2)
Fleet	2012-2013	✓(2)	✓(2)	✓(1)	✓(2)	N(1/2)
Gairdner	2013-2015	✓(2)	N(1/2)	✓(2)	N(1/2)	✓(2)
GrangeR	2013-2015	✓(2)	✓(2)	-	✓(2)	✓(2)
Henley	2012-2013	✓(2)	✓(2)	✓(1)	✓(2)	✓(2)
Hindmarsh	2012-2013	✓(2)	✓(2)	✓(1)	N(1/2)	✓(2)
LaTrobe	2013-2015	✓(2)	✓(2)	-	✓(2)	✓(2)
Macquarie	2013-2015	✓(2)	24(1/2)	-	✓(2)	✓(2)
Maritime	2013	✓(1)	N(1/1)	-	✓(1)	✓(1)
Navigator	2012-2013	✓(2)	✓(2)	✓(1)	✓(2)	N(1/2)
Oxford	2013-2015	N(1/2)	N(1/2)	-	✓(2)	✓(2)
Scope	2012-2013	N(1/2)	✓(2)	✓(1)	✓(2)	✓(2)
Skipper	2011-2012	✓(2)	✓(2)	✓(2)	✓(2)	✓(2)
Sloop SA	2010-2011	✓(2)	N(1/2)	✓(2)	N(1/2)	✓(2)
Sloop Vic	2010-2011	✓(2)	N(1/2)	✓(2)	N(1/2)	✓(2)
SY Rattler	2013-2015	✓(2)	✓(2)	-	✓(2)	✓(2)
Vlamingh	2010-2011	✓(2)	N(1/2)	✓(2)	N(1/2)	✓(2)
Westminster	2013-2015	✓(2)	✓(2)	-	✓(2)	✓(2)
Wimmera	2012-2013	✓(2)	N(1/2)	✓(1)	✓(2)	✓(2)
Rates (product/ha)		1.4 L	200 g + 330 mL	1.0 L	500 mL + 330 mL	1 L
Crop stage at spraying		4 leaf	6 leaf	4 leaf	4 leaf	6 leaf

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Trial location: Birchip/Culgoa, Victoria.
Texture: Sandy Mallee Loam.
pH: 7.6 - 8.6 at depth
Average Rainfall: 374mm