

Barley variety response to herbicides in South Australia

This research has been conducted across the mid north of South Australia to determine if new and existing varieties of barley vary in tolerance to commonly used herbicides

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

✓(z) no significant yield reductions at higher than recommended rates in (z) trials

N (w/z) narrow margin, significant yield reductions at higher than recommended rate, but not tested 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

Always follow label recommendations. All pesticide applications must accord with the currently registered label for that particular pesticide, crop, pest and region. Any research regarding pesticides of their use reported in this website does not constitute a recommendation 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	Years Tested	2,4-D Amine 500/625	Achieve	Affinity + MCPA	Ally	Aly + MCPA	Axial	Banvel M	Boxer Gold
		2,4-D Amine	Tralkoxydim	Carfentrazone - Ethyl + MCPA	Metsulfuron- methyl	Metsulfuron- methyl + MCPA	Pinoxaden + Cloquintocet- Methyl	Dicamba + MCPA	Prosulfocarb + S-Metolachlor
Variety	Tested	2009-2015	2009-2015	2009-2015	2009-2013	2014-2015	2009-2015	2010-2012	2009-2015
Bass	2009-2010	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	✓(1)	✓(2)
Baudin	2009-2010	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	✓(1)	✓(2)
Brewstar	2014-2015	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	✓(2)
Charger	2011-2013	✓(3)	✓(1)	✓(3)	✓(3)	-	✓(3)	✓(2)	✓(3)
Commander	2013 -2015	N(1/3)	✓(3)	✓(3)	✓(1)	N(1/2)	✓(3)	-	✓(3)
Compass	2013 -2015	✓(3)	✓(3)	✓(3)	✓(1)	-	✓(3)	-	✓(3)
Fairview	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	✓(1)	✓(2)
Fathom	2011-2012	✓(2)	-	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(2)
Flinders	2011-2012	✓(2)	-	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(2)
GrangeR	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	✓(1)	✓(2)
Hannan	2009	✓(1)	✓(1)	✓(1)	✓(1)	-	✓(1)	-	✓(1)
Henley	2011-2012	✓(2)	-	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(2)
Hindmarsh	2014-2015	✓(2)	✓(2)	N(1/2)	-	N(1/2)	✓(2)	-	✓(2)
La Trobe	2012-2015	N(1/4)	N(1/4)	N(1/4)	✓(2)	✓(2)	✓(4)	✓(2)	✓(4)
Lockyer	2009	✓(1)	✓(1)	✓(1)	✓(1)	-	✓(1)	-	✓(1)
Macquarie	2011-2012	✓(2)	-	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(2)
Maltstar	2014-2015	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	✓(2)
Navigator	2010-2011	✓(2)	-	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(2)
Oxford	2009-2010	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	N(1/1)	✓(2)
Roe	2009	✓(1)	✓(1)	✓(1)	✓(1)	-	✓(1)	-	✓(1)
Scope	2010-2011	✓(2)	-	✓(2)	✓(2)	-	N(1/2)	✓(2)	✓(2)
Shepherd	2011	✓(1)	-	✓(1)	✓(1)	-	✓(1)	✓(1)	✓(1)
Skipper	2010-2011	✓(2)	-	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(2)
Sloop SA	2009-2010	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	✓(1)	✓(2)
Spartacus	2015	✓(1)	✓(1)	✓(1)	-	✓(1)	✓(1)	-	✓(1)
SY Rattler	2012-2013	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	✓(1)	✓(2)
Vlamingh	2009-2010	✓(2)	✓(1)	✓(2)	✓(2)	-	✓(2)	✓(1)	✓(2)
Westminster	2011-2012	✓(2)	-	✓(2)	✓(2)	-	✓(2)	N(1/2)	✓(2)
Wimmera	2010-2011	✓(2)	-	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(2)
Rates (product/ha)		>1.4 L	>380 g	>100 mL + 330 mL	>7 g	>7 g + 330 mL	>250 mL	>1.4 L	>2.5 L
Crop stage at spraying		2 node	4 leaf	4 leaf	4 leaf	3 leaf	4 leaf	6 leaf	IBS

Herbicide	Years Tested	Broadstrike®		Bromoxynil MCPA	Cadence	Cadence + MCPA	Decision	Diuron + MCPA Amine	Glean	Precept	Tigrex
		Bromoxynil + MCPA	Bromoxynil + MCPA	Dicamba	Dicamba + MCPA	Dicofop-methyl + Sethoxydim	Diuron + MCPA Amine	Chlorsulfuron	Pyrasulfotole + MCPA	MCPA + Diflufenican	
		2010-2015	2009-2015	2009-2012	2014-2015	2009-2013	2009-2015	2009	2014-2015	2009-2015	
Variety											
Bass	2009-2010	✓(2)	✓(2)	N(1/2)	-	✓(2)	✓(2)	✓(1)	-	✓(2)	
Baudin	2009-2010	✓(2)	✓(2)	N(1/2)	-	✓(2)	✓(2)	✓(1)	-	✓(2)	
Brewstar	2014-2015	✓(2)	✓(2)	-	✓(2)	-	✓(2)	-	✓(2)	✓(2)	
Charger	2011-2013	✓(3)	✓(3)	✓(3)	-	✓(2)	✓(3)	-	-	✓(3)	
Commander	2013 -2015	✓(2)	N(1/2)	✓(1)	✓(1)	-	N(1/2)	-	✓(1)	✓(2)	
Compass	2013 - 2015	✓(3)	✓(3)	✓(1)	✓(2)	-	✓(3)	-	✓(2)	✓(3)	
Fairview	2012-2013	✓(2)	✓(2)	✓(2)	-	✓(1)	N(1/2)	-	-	✓(2)	
Fathom	2011-2012	N(1/2)	✓(2)	N(1/2)	-	✓(2)	✓(2)	-	-	✓(2)	
Flinders	2011-2012	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	-	N(1/2)	
GrangeR	2012-2013	✓(2)	✓(2)	✓(2)	-	✓(1)	N(1/2)	-	-	✓(2)	
Hannan	2009	✓(1)	✓(1)	✓(1)	-	✓(1)	✓(1)	✓(1)	-	✓(1)	
Henley	2011-2012	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	-	✓(2)	
Hindmarsh	2014-2015	N(1/2)	N(1/2)	-	✓(2)	-	✓(2)	-	✓(2)	✓(2)	
La Trobe	2012-2015	✓(4)	N(1/4)	✓(2)	✓(2)	✓(1)	✓(4)	-	✓(2)	N(1/4)	
Lockyer	2009	✓(1)	✓(1)	N(1/1)	-	✓(1)	✓(1)	✓(1)	-	✓(1)	
Macquarie	2011-2012	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	-	✓(2)	
Maltstar	2014-2015	✓(2)	✓(2)	-	✓(2)	-	✓(2)	-	✓(2)	N(1/2)	
Navigator	2010-2011	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	-	✓(2)	
Oxford	2009-2010	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(1)	-	✓(2)	
Roe	2009	✓(1)	✓(1)	✓(1)	-	✓(1)	✓(1)	✓(1)	-	✓(1)	
Scope	2010-2011	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	-	✓(2)	
Shepherd	2011	✓(1)	✓(1)	✓(1)	-	✓(1)	✓(1)	-	-	✓(1)	
Skipper	2010-2011	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	-	-	✓(2)	
Sloop SA	2009-2010	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(1)	-	✓(2)	
Spartacus	2015	✓(1)	✓(1)	-	✓(1)	-	✓(1)	-	✓(1)	✓(1)	
SY Rattler	2012-2013	✓(2)	✓(2)	✓(2)	-	✓(1)	✓(2)	-	-	✓(2)	
Vlamingh	2009-2010	✓(2)	✓(2)	✓(2)	-	✓(2)	✓(2)	✓(1)	-	✓(2)	
Westminster	2011-2012	✓(2)	✓(2)	✓(2)	-	✓(2)	N(1/2)	-	-	✓(2)	
Wimmera	2010-2011	✓(2)	N(2/2)	✓(2)	-	✓(2)	✓(2)	-	-	✓(2)	
Rates (product/ha)		>25 g	>1.4 L	>200 g	>200 g + 330 mL	>1.0 L	>500 mL + 350 mL	>20 g	>1 L	>1 L	
Crop stage at spraying		6 leaf	4 leaf	6 leaf	5 leaf	4 leaf	4 leaf	4 leaf	5 leaf	6 leaf	

Research site manager:

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Research site location:

Mallala Lower Mid-North (Bocconoc Park, Mid North 2014)

Site soil type :

Grey mallee loam / Friable light clay loam overlying carbonate at varying depths

Site annual average rainfall:

403 mm



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