

## Wheat 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 wheat vary in tolerance to commonly used herbicides

<b>The sensitivity of the variety is summarised, using the following symbols based on the yield responses across all trials:</b>	
-	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.
N (w/z)	narrow safety margin observed in preliminary trial w of z years tested. Not tested at the recommended rate in this year. Where tested in 3 or more years, testing has also occurred in advanced trials and showed no yield loss at the recommended or higher rate.

*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®	Ally®	Ally®/MCPA	Axial®	Banvel M®	Boxer Gold®
		2,4-D Amine	Tralkoxydim	Carfentrazone - Ethyl	Metsulfuron-methyl	Metsulfuron-methyl / MCPA	Pinoxaden + Cloquintocet-Methyl	MCPA+ Dicamba	Prosulfocarb + S-Metolachlor	
		1993-2010	1993-2010	2006-2010	1993-2010	2010	2006-2010	1993-2009	2009-2010	
Variety										
AGT Katana*	2009-2010	✓(2)	✓(2)	✓(2)	N (1/2)	-	N (1/3)	-	✓(2)	
AGT Scythe	2004-2005	✓(2)	N (1/2)	-	✓(2)	-	-	N (1/2)	-	
Axe	2008-2009	6 (1/2)	N (1/2)	✓(2)	7 (1/2)	-	5 (1/2)	N (2/2)	✓(1)	
Barunga	1993-1994	✓(2)	✓(2)	-	✓(2)	-	-	✓(2)	-	
Caparoi*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	-	✓(2)	
Carinya	2006-2007	10 (1/2)	✓(2)	✓(2)	10 (1/2)	-	N (1/2)	N (1/2)	-	
Catalina	2007-2009	N (1/3)	N (1/3)	✓(3)	N (1/3)	✓(1)	✓(3)	N (1/3)	✓(1)	
Correll	2006-2009	14 (1/4)	10 (1/4)	✓(4)	8-15 (3/4)	✓(1)	✓(4)	6 (1/4)	✓(1)	
Derrimut	2006-2007	N (1/2)	✓(2)	✓(2)	N (1/2)	-	✓(2)	10 (1/2)	-	
EGA Gregory*	2009-2010	✓(2)	✓(2)	N (1/3)	N (1/3)	-	✓(2)	-	✓(2)	
Espada	2009-2010	N (1/2)	7 (1/2)	✓(2)	✓(2)	-	✓(2)	7 (1/2)	✓(2)	
Estoc*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	-	N (1/3)	-	✓(2)	
Excalibur	1993-1994	✓(2)	✓(2)	-	✓(2)	-	-	23 (1/2)	-	
Frame	1993-2010	5-18 (3/18)	3-12 (2/18)	✓(5)	4-21 (4/18)	✓(1)	✓(5)	5-21 (2/17)	✓(2)	
Gladius	2006-2009	6-11 (2/4)	5 (1/4)	✓(4)	9-18 (2/4)	✓(1)	✓(4)	N (2/4)	N (1/1)	
Guardian	2008-2009	9 (1/2)	✓(2)	✓(2)	N (1/2)	-	✓(2)	✓(2)	✓(1)	
Hyperno*	2009-2010	✓(2)	✓(2)	N (2/3)	✓(2)	-	✓(2)	-	✓(2)	
Janz	1993-00,08	3-5 (2/9)	✓(9)	✓(1)	N (3/9)	-	✓(1)	5-15 (2/9)	-	
Kalka	2001-2004	6 (1/3)	N (1/4)	-	N (1/4)	-	-	N (2/4)	-	
Krichauff	1994-2000	5-6 (2/7)	6 (1/7)	-	6 (1/7)	-	-	6-18 (2/7)	-	
Kukri	2000-2002	3 (1/3)	✓(3)	-	4-6 (2/3)	-	-	4 (1/3)	-	
Kunjin*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	-	6 (1/1)	
Mace*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	-	N (1/2)	
Orion*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	-	✓(2)	
Peake	2008-2009	11 (1/2)	✓(2)	✓(2)	N (1/2)	-	✓(2)	✓(2)	✓(1)	
Pugsley	2001-2004	5 (1/4)	12 (1/4)	-	12 (1/4)	-	-	N (2/4)	-	
Saintly*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	-	✓(2)	
Scout*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	✓(1)	✓(2)	-	✓(2)	
Silverstar	1998-2000	3-5 (2/3)	7 (1/3)	-	5 (1/3)	-	-	5-12 (2/3)	-	
Stylet	2001-2002	✓(2)	✓(2)	-	19 (1/2)	-	-	N (1/2)	-	
Tamaroi	1996-2003	3-4 (2/8)	5 (1/8)	-	11 (1/8)	-	-	✓(8)	-	
Tjilkuri*	2009-2010	✓(2)	✓(2)	✓(2)	✓(2)	-	✓(2)	-	✓(2)	
Trident	1993-1997	N (1/5)	✓(5)	-	✓(5)	-	-	13 (1/5)	-	
Worrakatta	1993-1997	2 (1/5)	✓(5)	-	✓(5)	-	-	✓(5)	-	
Wyalkatchem	2003-2005	9 (1/3)	N (1/3)	-	4-8 (2/3)	-	-	✓(3)	-	
Yallaroi	1993-1997	N (1/5)	✓(5)	-	✓(5)	-	-	26 (1/5)	-	
Yitpi	1998-2001	2-9 (3/4)	✓(4)	-	2-8 (2/4)	✓(1)	-	N (1/4)	-	
Young	2005-2006	✓(2)	✓(2)	✓(1)	9 (1/2)	-	✓(1)	4 (1/2)	-	
Rates (product/ha)		1.75/ 1.4L	380g	60g	7g	5g+1.4L	250ml	1.4L	2.5L	
Crop stage at spraying		2 node	3 leaf	3 leaf	3 leaf	5 leaf	3 leaf	5leaf	IBS	

\* Cultivars tested in preliminary trials for 2 years.

Herbicide	Years Tested	Broadstrike®	Bromoxynil MCPA	Cadence®	Conclude®	Diuron(500SC) /MCPA	Glean	Glean	Hoegrass®
		Flumetsulam	Bromoxynil + MCPA	Dicamba		Diuron + MCPA Amine	Chlorsulfuron	Chlorsulfuron	Diclofop-methyl
Variety		1993-2005	1994-2010	2006-2010	2010	1993-2010	1993-2007	2008-2010	1993-2004
AGT Katana*	2009-2010	-	✓(2)	✓(2)	-	✓(2)	-	✓(2)	-
AGT Scythe	2004-2005	✓(2)	✓(2)	-	-	N (1/2)	8 (1/2)	-	N (1/1)
Axe	2008-2009	-	✓(2)	10 (1/2)	-	6 (1/1)	-	9 (1/2)	-
Barunga	1993-1994	✓(2)	✓(1)	-	-	✓(2)	✓(2)	-	N (1/2)
Caparoi*	2009-2010	-	✓(2)	✓(2)	-	✓(2)	-	✓(2)	-
Carinya	2006-2007	-	✓(2)	N (2/2)	-	✓(2)	✓(2)	-	-
Catalina	2007-2009	-	✓(3)	6-10 (2/3)	✓(1)	✓(2)	-	✓(1)	-
Correll	2006-2009	-	✓(4)	N (1/4)	✓(1)	✓(3)	✓(2)	12 (1/2)	-
Derrimut	2006-2007	-	N (1/2)	✓(2)	-	✓(2)	✓(2)	-	-
EGA Gregory*	2009-2010	-	✓(2)	N (1/3)	-	✓(2)	-	✓(2)	-
Espada	2009-2010	-	✓(2)	✓(2)	-	-	-	6 (1/2)	-
Estoc*	2009-2010	-	✓(2)	✓(2)	-	✓(2)	-	N (1/2)	-
Excalibur	1993-1994	✓(2)	✓(1)	-	-	✓(2)	✓(2)	-	11 (1/2)
Frame	1993-2010	7 (1/13)	2-7 (5/17)	8 (1/5)	✓(1)	4-6 (3/17)	6 (1/15)	✓(3)	✓(12)
Gladius	2006-2009	-	✓(4)	9 (1/4)	✓(1)	✓(3)	✓(2)	7 (1/2)	-
Guardian	2008-2009	-	✓(2)	N (1/2)	-	-	-	N (1/1)	-
Hyperno*	2009-2010	-	5 (1/1)	9 (1/1)	-	✓(2)	-	N (1/2)	-
Janz	1993-00,08	✓(8)	6 (1/8)	✓(1)	-	2 (1/9)	7 (1/8)	21 (1/1)	✓(8)
Kalka	2001-2004	✓(4)	N (1/4)	-	-	6 (1/4)	7-14 (2/4)	-	✓(4)
Krichauff	1994-2000	N (2/7)	N (2/4)	-	-	✓(7)	N (1/7)	-	✓(7)
Kukri	2000-2002	N (1/3)	4 (1/3)	-	-	✓(3)	6-7 (2/3)	-	✓(3)
Kunjin*	2009-2010	-	N (2/3)	✓(2)	-	✓(2)	-	✓(2)	-
Mace*	2009-2010	-	N (1/2)	N (1/2)	-	✓(2)	-	N (1/2)	-
Orion*	2009-2010	-	✓(2)	✓(2)	-	✓(2)	-	✓(2)	-
Peake	2008-2009	-	5 (1/2)	✓(2)	-	✓(1)	-	✓(2)	-
Pugsley	2001-2004	N (1/4)	✓(4)	-	-	N (1/4)	N (2/4)	-	12 (1/4)
Saintly*	2009-2010	-	✓(2)	✓(2)	-	6 (1/1)	-	N (1/2)	-
Scout*	2009-2010	-	✓(2)	✓(2)	✓(1)	✓(2)	-	N (1/3)	-
Silverstar	1998-2000	4 (1/3)	3-4 (2/3)	-	-	N (2/3)	4 (1/3)	-	✓(3)
Stylet	2001-2002	✓(2)	5 (1/2)	-	-	✓(2)	5 (1/2)	-	N (1/2)
Tamaroi	1996-2003	✓(8)	N (3/8)	-	-	4 (1/8)	5-10 (2/8)	-	N (3/8)
Tjilkuri*	2009-2010	-	✓(2)	✓(2)	-	✓(2)	-	✓(2)	-
Trident	1993-1997	N (1/5)	6 (1/4)	-	-	✓(5)	✓(5)	-	✓(5)
Worrakatta	1993-1997	✓(5)	N (2/5)	-	-	3 (1/5)	✓(5)	-	8 (1/5)
Wyalkatchem	2003-2005	4 (1/3)	✓(3)	-	-	5 (1/3)	N (1/3)	-	✓(2)
Yallaroi	1993-1997	✓(5)	N (2/4)	-	-	✓(5)	✓(5)	-	✓(5)
Yitpi	1998-2001	6-10 (2/4)	N (3/4)	-	✓(1)	✓(4)	3-8 (2/4)	-	2 (1/4)
Young	2005-2006	✓(1)	✓(2)	N (1/1)	-	✓(2)	✓(2)	-	-
Rates (product/ha)		25g	1.4L	200g	700ml	500ml/ 350ml	20g	20g	200ml
Crop stage at spraying		5 leaf	3 leaf	5 leaf	5 leaf	3 leaf	PSPE	3 leaf	3 leaf

\* Cultivars tested in preliminary trials for 2 years.

Herbicide	Years Tested	Hussar®	Logran®	Lontrel®	LVE MCPA	Sakura*	Terbutryn	Tigrex®
		Iodosulfuron-Merthylsodium	Triasulfuron	Clopyralid	LVE MCPA	Prosulfocarb	Terbutryn	MCPA + Diflufenican
		2005-2010	1993-2009	1993-2005	1996-2008	2010	1993-2004	1996-2010
AGT Katana*	2009-2010	✓(2)	-	-	-	-	-	✓(2)
AGT Scythe	2004-2005	✓(1)	6 (1/2)	✓(2)	6 (1/2)	-	N (1/2)	✓(2)
Axe	2008-2009	10 (1/2)	N (1/2)	-	✓(1)	-	-	✓(2)
Barunga	1993-1994	-	✓(2)	✓(2)	-	-	✓(2)	-
Carinya	2009-2010	✓(2)	✓(2)	-	✓(2)	-	-	✓(2)
Catalina	2006-2007	9 (1/3)	✓(3)	-	✓(2)	✓(1)	-	8 (1/3)
Caparoi*	2007-2009	✓(2)	-	-	-	-	-	✓(2)
Correll	2006-2009	12 (1/4)	✓(4)	-	✓(3)	✓(1)	-	7 (1/4)
Derrimut	2006-2007	✓(2)	N (1/2)	-	✓(2)	-	-	N (1/2)
EGA Gregory*	2009-2010	✓(2)	-	-	-	-	-	✓(2)
Espada	2009-2010	✓(2)	N (1/2)	-	-	-	-	7 (1/2)
Estoc*	2009-2010	✓(2)	-	-	-	-	-	✓(2)
Excalibur	1993-1994	-	✓(2)	✓(2)	-	-	✓(2)	-
Frame	1993-2010	N (2/6)	2 (1/17)	✓(13)	4 (1/13)	✓(1)	5 (1/13)	N (4/15)
Gladius	2006-2009	17-19 (2/4)	5 (1/4)	-	N (1/3)	✓(1)	-	7 (1/4)
Guardian	2008-2009	✓(2)	✓(2)	-	✓(1)	-	-	6 (1/2)
Hyperno*	2009-2010	N (1/2)	-	-	-	-	-	✓(2)
Janz	1993-00,08	8 (1/1)	2 (1/9)	✓(8)	✓(6)	-	✓(8)	5 (1/6)
Kalka	2001-2004	-	✓(4)	✓(4)	✓(4)	-	✓(4)	5 (1/4)
Krichauff	1994-2000	-	4 (1/7)	N (2/7)	N (2/5)	-	N (2/7)	N (2/5)
Kukri	2000-2002	-	8 (1/3)	N (1/3)	5 (1/3)	-	4 (1/3)	9 (1/3)
Kunjin*	2009-2010	✓(2)	-	-	-	-	-	✓(2)
Mace*	2009-2010	✓(2)	-	-	-	-	-	✓(2)
Orion*	2009-2010	✓(2)	-	-	-	-	-	✓(2)
Peake	2008-2009	✓(2)	6 (1/2)	-	✓(1)	-	-	✓(2)
Pugsley	2001-2004	-	✓(4)	✓(4)	12 (1/4)	-	N (1/4)	✓(4)
Saintly*	2009-2010	N (1/3)	-	-	-	-	-	✓(2)
Scout*	2009-2010	✓(2)	-	-	-	✓(1)	-	✓(2)
Silverstar	1998-2000	-	5 (1/3)	✓(3)	✓(3)	-	5 (1/3)	3 (2/3)
Stylet	2001-2002	-	✓(2)	N (1/2)	✓(2)	-	✓(2)	22 (1/2)
Tamaroi	1996-2003	-	N (2/8)	N (2/8)	N (3/7)	-	6 (1/8)	✓(8)
Tjilkun*	2009-2010	✓(2)	-	-	-	-	-	✓(2)
Trident	1993-1997	-	✓(5)	✓(5)	✓(2)	-	✓(5)	✓(2)
Worrakatta	1993-1997	-	✓(5)	7 (1/5)	✓(4)	-	N (2/5)	3 (1/4)
Wyalkatchem	2003-2005	4 (1/1)	N (1/3)	✓(3)	✓(3)	-	N (1/3)	7 (1/3)
Yallaroi	1993-1997	-	✓(5)	✓(5)	✓(2)	-	✓(5)	✓(2)
Yitpi	1998-2001	-	6-8 (2/4)	✓(4)	N (2/4)	✓(1)	N (2/4)	N (3/4)
Young	2005-2006	3 (1/2)	✓(2)	✓(1)	4 (1/2)	-	✓(1)	✓(2)
Rates (product/ha)		200g	35g	150ml	1.2L	118g	850ml	1L
Crop stage at spraying		3 leaf	PSPE	2 leaf	5 leaf	IBS	3 leaf	5 leaf

\* Bayer currently seeking registration

\* Cultivars tested in preliminary trials for 2 years.

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Hart/ Kybunga, Mid North of South Australia

Friable light clay loam overlying carbonate at varying depths

Water 8.2, CaCl 7.5

400 mm



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ACAS seeks to avoid putting information regarding unregistered pesticides or unregistered use of pesticides on this website. However it is possible that occasionally ACAS may unintentionally include such information.

All pesticide applications must accord with the currently registered label for that particular pesticide, crop, pest and region.