

Oat varieties response to herbicides in Western Australia 1997-2010

This research has been conducted in WA wheatbelt to determine if new and existing varieties of oat vary in tolerance to commonly used herbicides.

The sensitivity of the variety compared to unsprayed controls of the same variety is summarised, using the following symbols based on the yield responses across all trials:

-	not tested or insufficient data
✓	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 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 registered label for that particular pesticide, crop, pest and region. Any research regarding pesticides or their use reported in this website does not constitute a recommendation for that particular use by the authors, the author's organisations or ACAS. It must be emphasised that crop tolerance and yield responses to herbicides are strongly influenced by seasonal conditions.

Herbicides			Dual ^a Gold	Dual ^a 720	Diuron 500	Diuron 500 + Dual ^a □	Diuron + Dual ^a Gold □	Diuron + Dual ^a □	Broadside ^a + Eclipse ^a
			s-Metolachlor	Metolachlor	Diuron	Diuron + Metolachlor	Diuron + s-Metolachlor	Diuron + Metolachlor	Bromoxynil + MCPA + Dicamba + Metosulam
Variety	Years Tested	Site	2007	2006	2006-07	2006	2007	1998-2000	1997
			A	A	A	A	A	D	B
Carrolup	1997, 00, 10	ABD	-	-	-	✓(1)	-	✓(1)	✓(1)
Coomallo	2000	D	-	-	-	-	-	✓(1)	-
Dalyup	2000	D	-	-	-	-	-	✓(1)	-
Hotham	1997- 00	BCD	-	-	-	-	-	✓(4)	-
Kojanup	2006-07	A	✓(1)	✓(1)	✓(2)	✓(1)	✓(1)	-	-
Mitika	2006-07	A	✓(1)	✓(1)	✓(2)	✓(1)	✓(1)	-	-
Mortlock	2000	D	-	-	-	-	-	✓(1)	-
Mulgara	2010	A	-	-	-	✓(1)	-	-	-
Needilup	1997	C	-	-	-	-	-	-	-
Pallinup	2000	D	-	-	-	-	-	✓(1)	-
Possum	2006	A	-	✓(1)	✓(1)	✓(1)	-	-	-
Toodyay	1999	D	-	-	-	-	-	✓(1)	-
Wandering	2000, 06-07	AD	✓(1)	✓(1)	✓(2)	✓(1)	✓(1)	✓(1)	-
Yallara	2010	A	-	-	-	✓(1)	-	-	-
Rates (product/ha)			0.5 L	0.5 L	1 L	1 L + 0.5 L	1 L + 0.5 L	1 L + 0.5 L	1 L + 5 g
Crop stage at spraying			IBS	IBS	IBS	IBS	IBS	PSPE	Z12-Z13

During 1997 trials were conducted at Merredin and Mullewa, 1998 at Newdegate and Mullewa, 1999-2000 at Newdedate and 2006-2010 at Katanning

Herbicides			Logran [®] + Uptake ^â oil 1%
Variety	Years Tested	Site	Triasulfuron
			2006-2007 A
Carrolup	1997, 00, 10	ABD	-
Coomallo	2000	D	-
Dalyup	2000	D	-
Hotham	1997- 00	BCD	-
Kojanup	2006-07	A	✓(2)
Mitika	2006-07	A	✓(2)
Mortlock	2000	D	-
Mulgara	2010	A	-
Needilup	1997	C	-
Pallinup	2000	D	-
Possum	2006	A	✓(1)
Toodyay	1999	D	-
Wandering	2000, 06-07	AD	✓(2)
Yallara	2010	A	-
Rates (product/ha)			10 g
Crop stage at spraying			Z69+

*Research site manager: Dr Harmohinder Dhammu, Research Officer, DAFWA, Northam
Phone: (08) 9690 2217, e-mail: harmohinder.dhammu@agric.wa.gov.au*

Research site location	Katanning (A)	Merredin (B)	Mullewa (C)	Newdegate (D)
Site soil type	Gravelly sandy loam and laom	Red loam over clay	Red sandy loam	Gray sandy loam and duplex sand over clay
Site pH (CaCl ₂)	5.1-5.2	5.1-5.3	4.6-6.4	4.8
Site annual average	422	327	337	375



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A= Katanning (Gravelly sandy loam and loam, pH-5.1-5.2),
B=Merredin (Red loam over clay),
C= Mullewa (Red sandy loam) &
D= Newdegate (Gray sandy loam and duplex sand over clay, pH-4.8).

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