

Narrow leaved lupin varieties response to herbicides in Western Australia 1998-2006

This research has been conducted in WA wheatbelt to determine if new and existing varieties of narrow leaved lupins 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:

- not tested or insufficient data
- ✓ no significant yield reductions at recommended rates or higher than recommended rates in 2+ trials

N (narrow margin) significant yield reductions at higher than recommended rate in 1+ trials, but not at recommended rate

x% yield reduction (warning) significant yield reduction at recommended rate in 1 trial only

x-y% yield reductions (warning) significant yield reductions at recommended rate in 2+ trials

Always follow label recommendations. The organisations involved in this research do not endorse the use of herbicides above the registered rate or off label use of herbicides or tank mixes. It must be emphasised that crop tolerance and yield responses to herbicides are strongly influenced by seasonal conditions.

Herbicides			Simazine 500	Diuron 500 SC	Simazine 500 + Atrazine 500 SC	Simazine 500 SC + Atrazine 500 SC	Diuron 500 SC
			Simazine	Diuron	Simazine + Atrazine	Simazine + Atrazine	Diuron
Variety	Years tested	Site	1998-2003, 2005-2006	2004	2005-2006	1998-2002, 2004	1998-1999
			ABCDEF	AF	AF	ACDEF	CDEF
Belara	1998-2003	BCDEF	N	-	-	✓	✓
Coromup	2004-2006	AF	✓	✓	✓	9	✓
Kalya	1998-2004	ABCDEF	N	21	-	12	✓
Mandelup	2002-2006	ABEF	✓	✓	✓	✓	-
Quilinoch	1999-2001	CDEF	N	-	-	✓	✓
Tanjil	1999-2006	ABCDEF	N	✓	10	15	17
Rates (product/ha)			4.0L	2.0L	2.0L + 1.0L	2.5L + 1.0L	1.0L
Crop stage at spraying			Before seeding (BS)	Before seeding	Before seeding	Before seeding	Immediately post plant (IPP)

Treatment comparisons were made with Simazine 2 - 2.5L/ha applied before seeding.

Herbicides			Diuron 500 SC	Simazine 500 + Simazine 500	Brodal®	Sniper®	Lexone® DF
			Diuron	Simazine + Simazine	Diflufenican	Picolinafen	Metribuzin
Variety	Years tested	Site	2003	2004	1998-2006	2001-2006	1998-2006
			BEF	AF	ABCDEF	ABEF	ABCDEF
Belara	1998-2003	BCDEF	42	–	√	√	18
Coromup	2004-2006	AF	–	22	√	√	√
Kalya	1998-2004	ABCDEF	14	14	√	√	√
Mandelup	2002-2006	ABEF	30	12	√	√	√
Quilnock	1999-2001	CDEF	32	–	√	√	10
Tanjil	1999-2006	ABCDEF	32	22	√	√	8-35.
Rates (product/ha)			2.0L	2.5L +1.5L	200 ml	50g	150g
Crop stage at spraying			Immediately post plant	BS +IPP	2-4 Leaves +	2-4 Leaves +	2-4 Leaves +

Treatment comparisons were made with Simazine 2 - 2.5L/ha applied before seeding.

Herbicides			Brodal® + Sniper®	Brodal® + Lexone® DF	Sniper® + Lexone® DF	Brodal® + Simazine	Brodal® + Sniper® + Simazine
			Diflufenican + Picolinfen	Diflufenican + Metribuzin	Picolinafen + Metribuzin	Diflufenican + Simazine	Diflufenican + Picolinfen + Simazine
Variety	Years tested	Site	2003-2006	1998-2006	2001-2006	2003-2006	2003-2006
			ABEF	ABCDEF	ABEF	ABEF	ABEF
Belara	1998-2003	BCDEF	√	√	16	11	√
Coromup	2004-2006	AF	√	√	√	√	√
Kalya	1998-2004	ABCDEF	√	√	16	26	22
Mandelup	2002-2006	ABEF	22	√	11	√	√
Quilnock	1999-2001	CDEF	–	16	7	–	–
Tanjil	1999-2006	ABCDEF	19	11-30.	12-44.	11	9-29.
Rates (product/ha)			100ml/30g	100ml/100g	30g/100g	100/500ml	50ml/15g/500ml
Crop stage at spraying			4 Leaves +	4 Leaves +	4 Leaves +	4 Leaves +	4 Leaves +

Treatment comparisons were made with Simazine 2 - 2.5L/ha applied before seeding.

Herbicides			Eclipse® Metosulam
Variety	Years tested	Site	1998-2006
			ABCDEF
Belara	1998-2003	BCDEF	16-43
Coromup	2004-2006	AF	20
Kalya	1998-2004	ABCDEF	9-14.
Mandelup	2002-2006	ABEF	12-13.
Quilinock	1999-2001	CDEF	16
Tanjil	1999-2006	ABCDEF	9-11.
Rates (product/ha)			10g
Crop stage at spraying			8-10 Leaves+

Treatment comparisons were made with Simazine 2 - 2.5L/ha applied before seeding.

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

Site	A	B	C	D	E	F
site location	Eradu	Esperance	Kalannie	Katanning	Mullewa	Wongan
soil type	Eradu Sandplain	Loamy sand	Acid wadjil	Gravelly loam	Loamy sand	Loamy sand
Site pH (CaCl ₂)	5.5	4.8	4	5.2	5.1	4.3-4.9
Site annual average rainfall (mm)	374	475	313	422	337	360



DISCLAIMER: While every care has been taken in preparing this publication, the organisations involved accept no responsibility for decisions or actions taken as a result of any data or interpretation contained in this report