

Advanced lupin variety evaluation

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The aim of this trial was to evaluate improved lupin varieties for the Victorian Mallee.

Summary

The new Western Australian release Tanjil (Walan0497) yielded well in the Mallee averaging 103% of Merrit. The Victorian release Moonah (84S017.26), produced similar yields to Merrit in 1998 and on average has yielded 12% greater than Merrit in the Victorian Mallee. Seed of Moonah is available from AWB Seeds, Dimboola. Walan2005 yielded 5% greater than Merrit and has been one of the highest yielding lines in eastern Australia over a number of seasons. Walan2005 will be released by Agriculture Western Australia in 1999, but will only be targeted at growers in the eastern states, as it is susceptible to anthracnose. The early maturing variety Belara yielded 115% of Merrit at Walpeup but yielded poorly at Hopetoun. Tallerack, which performed well in 1997, averaged 77 % of Merrit in 1998.

Results

The advanced lupin variety comparison located at the northern satellite site at Sea Lake was one of three similar comparisons located throughout the Mallee in 1998. Grain yields from the Sea Lake site were extremely poor, due to well below average rainfall and the heavy soil type with high pH and free lime. The Hopetoun and Walpeup sites yielded very well despite the dry season averaging 1.75t/ha. Commercial lupin crops were extremely variable with yields ranging from 0.5 t/ha in the eastern Mallee to 1.5 t/ha in the southern Mallee. Lupins generally yielded better than other pulse crops as a consequence of being grown on lighter sandy soil and making better use of the limited rainfall. Lupin crops sown in April yielded significantly better than later sown crops.

Table 1.18 Lupin variety grain yield, Sea Lake and Mallee averages 1998.

Variety	Sea Lake Yield (t/ha)	Mallee average (% Merrit)	Variety	Sea Lake Yield (t/ha)	Mallee average (% Merrit)
Merrit	0.21	100	Walan2012	0.30	94
Gungurru	0.26	101	Walan2026	0.40	102
Myallie	0.27	90	Walan2028	0.31	86
Danja	0.35	106	Walan2048	0.21	97
Kalya	0.45	91	Walan2051	0.37	102
Wonga	0.32	101	Walan2053	0.31	103
Belara	0.22	95	Walan2054	0.39	75
Tallerack	0.27	77	Walan2057	0.19	104
Moonah	0.28	101	Walan2059	0.25	91
Tanjil	0.25	103	Walan2062	0.25	93
284AA38	0.38	99	Walan2067	0.27	102
WL318	0.10	68	Walan2068	0.30	105
WL601	0.23	96	Walan2072	0.20	103
Walan2005	0.41	105			
LSD (p=0.05)	0.34			0.34	
CV (%)	61			61	

- **Note:** Mallee average does not include Sea Lake results.

Interpretation

Results from the Sea Lake comparison cannot be discussed with confidence due to low yields and unacceptable site variation with a CV% of 61. These results should therefore only be used as a guide. Kalya, Walan2005 and Walan2026 were the best yielding lines.