Narbon bean variety evaluation

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SUMMARY

Narbon beans were evaluated at three sites in the Mallee in 1999, Birchip, Walpeup and Ultima. The new variety Tanami did not yield as well as expected. However, its lower GEC content is an important feature. Some other new accessions demonstrated that there is ample scope for further yield improvement.

Tanami (formerly 9035*002) was recently released as the first narbon bean variety in Australia. It was developed at the Mallee Research Station. In general, the yields of Tanami are 80% of those of Dundale pea in most regions. Tanami was selected for its low GEC content and will be available through Paramount Seeds in 2001.

METHOD/RESULTS

Twenty varieties were compared at three sites in 1999 (8 row x 20m x 3 replications). The Birchip, Walpeup and Ultima trials were sown on June 10, 1 and 3 and harvested on December 2, November 3 and 11, respectively. Average yield results for each site are presented in Table 1.21.

Table 1.21 Average grain yield at Birchip, Walpeup and Ultima 1999.

Variety	Yield (t/ha)		
	Birchip	Walpeup	Ultima
Tanami	1.52	0.75	0.76
9027*003	1.70	1.39	0.79
ATC60195	1.76	1.59	0.73
ATC60142	2.03	1.47	0.87
ATC60124	1.79	1.27	0.83
ATC60123	1.94	1.47	0.94
ATC60122	2.08	1.63	0.84
ATC60114	1.71	1.35	0.92
ATC60107	1.87	1.31	0.79
ATC60105	1.95	1.03	0.83
ATC60099	1.93	1.35	0.78
SA26554	2.06	1.23	1.00
N9662	1.62	1.39	0.9
N9650	1.70	1.47	0.71
N9636	1.79	1.51	0.83
N9628	2.05	1.67	0.94
N9626	1.98	1.51	0.84
N9619	1.19	1.51	0.73
N9608	1.68	1.43	0.68
N9604	1.59	1.43	0.65
MEAN	1.8	1.4	0.8
LSD (p=0.05)	0.398	0.43	0.13
CV(%)	13.4	18.8	9.3

INTERPRETATION

Of the three sites, Birchip produced the highest yields with an average of 1.8 t/ha in 1999. In comparison, the Ultima site averaged only 0.8 t/ha, which was due to low rainfall. The Walpeup site also had reduced yield due to spray damage with a yield average of 1.4 t/ha. Pre-emergent application of a simazine/metribuzin herbicide mix reduced yields, especially that of Tanami. Narbon beans generally yielded well in the

Mallee despite the lower than average rainfall for the months of September and October.

COMMERCIAL PRACTICE

These results confirm that new varieties with increased yield potential may be available for release in the future. The GEC level however, is critical for the palatability of the grain for animal consumption and the lower GEC content of Tanami will be a bench mark for this trait in the future. The yields produced by narbon beans as a whole were comparable to other pulses in 1999.