Trial 15a

Developing Narbon beans (*Vicia narbonensis*) as a commercial crop.

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Aim: to identify Narbon Bean varieties suited to the Mallee and Wimmera

Results:

ATC#	Yield - Birchip t/ha 1994	Yield - Birchip t/ha 1995	Yield - Walpeup t/ha 1995	Yield - Dooen t/ha 1995
60099	1.223	3.082	1.574	4.066
60105	0.983	3.701	1.358	4.107
60107	1.500	2.856	1.034	3.667
60111	0.870	4.201	1.034	4.142
60112	0.973	3.499	1.034	4.048
60114	1.000	3.915	1.482	4.001
60116	1.227	3.070	1.466	4.189
60119	0.980	3.963	1.975	4.083
60121	1.510	3.118	1.451	4.148
60122	0.840	3.606	0.803	4.013
60131	0.767	3.760	1.590	4.001
60142	1.293	3.760	1.435	3.731
60165	1.440	3.510	1.497	4.171
60174	1.170	3.392	1.204	3.937
60178	1.023	3.391	1.358	4.858
60182	0.783	3.915	1.389	3.919
60196	1.070	3.451	1.636	3.332
N9027	0.800	3.308	1.590	3.854
Dundale	1.387	3.701	1.176	2.693
Mean	1.109	3.537	1.426	3.821

There are three lines of narbon bean under consideration for release in 1999. Of these the most favoured line is atc# 60114. This line has performed well at many sites over the years, producing consistently high yields. Narbon bean has experienced very few disease problems and is resistant to Chocolate spot and Ascochyta blight, two diseases known to attack it's close relative the faba bean. The main quality parameter for narbon bean is a sulphur compound called GEC, it is not a toxin but a palatability problem. The general opinion is that "stock get used to it". We have had some success in breeding low GEC varieties, but these are still some years off release as a variety.

The trial above is the same as those conducted at 13 sites around Australia. Sites are located at Walpeup, Dooen and Birchip in Victoria. New South Wales sites are at Warrialda, Narrabri, Croppa Creek, Tamworth, Moree, and Coonamble. Tasmania has one site at Cressy. Western Australia has one site located at Merredin. South Australia has sites located at Turretfield and Minnipa. In QLD there is one demonstration site at Roma.

Other agronomy trials currently being conducted with narbon bean are herbicide tolerance, fertiliser type by rate, optimum seeding rate, and rates of phosphorous application. The main advantages of this crop are it's disease and pest resistance and it's adaptation to highly calcareous soils. The main disadvantage at present is a lack of adequate broad leaf weed control. We have to date only identified a small number of pre and post emergent broad leaf herbicides suitable for use on narbon bean. In a bulk crop situation, narbon bean is able to out compete the majority of winter weeds, if weed control is adequate in the early stages of growth. Any further queries: Anna-Lise Smith, Mallee Research Station, Walpeup. (050) 941203