



Faba Bean variety development

Mary Raynes, Michael Materne, Trevor Bretag
DPI - Horsham, (Victorian Institute for Dryland Agriculture)

Summary

Fiesta VF is a reliable faba bean variety suitable for most areas of Victoria. Fiord, Barkool and Ascot are also good varieties for short season environments of Victoria. Ascot produces high quality grain but yields less than Fiesta VF. The later flowering variety Manafest, which is moderately resistant to chocolate spot but is susceptible to ascochyta blight, yields best in the high rainfall areas of south west Victoria.

The National Faba Bean Improvement Program (NFBIP)

A major objective of NFBIP is to develop and release faba bean varieties that are resistant to both ascochyta blight and chocolate spot, flower early and produce high yields in the drier areas of southern Australia such as the Mallee. Improved disease resistance will reduce the cost of fungicide applications and increase both productivity and grain quality.

Summary of Variety Features and Performance

In longterm experimental yield comparisons, Fiesta VF has been high yielding across all regions. However, Aquadulce and Manafest have performed well in the higher rainfall south west region (Table 2).

The potential new release ACC 483/3 is a selection from Fiesta VF with equivalent yield and better resistance to ascochyta blight. ACC 483/3 will probably be available for growers in 2004. The Icarus*Ascot (IC*AS) breeding lines have better resistance to both ascochyta blight and chocolate spot than the current commercial varieties. IC*AS 7/6/B, IC*AS 56/1/B and IC*AS 7/3 have yielded well in Victoria in comparative field trials from 1999 - 2001.

Table 1. Characteristics of commercial Faba bean varieties.

Variety	Seed colour	Seed Size	Maturity	Ascochyta blight	Chocolate Spot	PBR	Marketing company
Aquadulce	Buff	Large	Mid/Late	MS	MS	No	
Ascot	Buff	Small	Early	R	VS	Yes	Seed Co
Barkool	Buff	Small	Early	S	VS	Yes	SGB
Fiesta VF	Buff	Medium	Mid	MS	S	Yes	SGB
Fiord	Buff	Small	Mid	S	VS	No	
Icarus	Green	Medium	Late	VS	MR	Yes	Seed Co
Manafest	Buff	Medium	Mid	MS	MR	No	AWB

MR = Moderately Resistant; MS = Moderately Susceptible; S = Susceptible; VS = Very Susceptible
PBR = Plant Breeding Rights.

Crop Production Issues

- Early maturing varieties Fiord, Fiesta VF and Barkool are the best varieties for short season environments such as the southern Mallee.
- Fiesta VF is a reliable variety for most regions.
- Manafest has yielded well in the south west and is moderately resistant to chocolate spot.
- Manafest is susceptible to ascochyta blight especially very early in the growing season.
- Ascot is lower yielding than other varieties but has good resistance to ascochyta blight and therefore produces good quality disease free seed.
- Delayed harvest can increase seed discolouration and therefore reduce the market value of grain.

Table 2. Longterm Wimmera, South West and North Central (NC) and Mallee faba bean yield results (expressed as a percentage of Fiesta VF).

Line	Wimmera 1995-2001	South West 1993-2001	NC Irrigation 1993-2001	Mallee 1999-2001
Fiesta VF (t/ha)	3.59	3.00	3.26	1.93
Aquadulce	90	124	94	90
Ascot	86	67	81	92
Barkool	83	71	99	99
Fiesta VF	100	100	100	100
Fiord	97	75	90	104
Icarus	68	81	91	81
Manafest	88	111	81	89
ACC 483/3	94	100	76	104
IC*AS 56/1/B	100	141	106	105
IC*AS 7/3	99	122	107	105
IC*AS 7/6/B	102	154	127	106

Acknowledgements

Grains Research and Development Corporation (GRDC),
Alan Bedgood and VIDA crop evaluation unit staff.