

5.2 BARLEY

5.2.1 BARLEY VARIETY TRIAL (INVERLEIGH, VIC)

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Location: Inverleigh Vic

Growing Season Rainfall (April-Nov): 388mm.

Background/Objectives:

To evaluate a number of commercial and experimental barley varieties for yield and grain quality.

Methodology:

A randomized block design was used with 4 replicates of each variety. The trial was sown on 2 metre raised beds.

Sowing Date: 23rd June 2004

Sowing Rate: Sowing rate for each variety was adjusted according to 1,000 grain weights and germination % to establish 200 plants per square metre.

Fertilizer: Sown with 100 kg/ha Granulock CuZn. Top dressed with 100 kg/ha nitrogen on 3rd September

Fungicide: 145 ml/ha Folicur 21/9/04 plus 250 ml/ha Bumper + 400 ml/ha Amistar on 19/10/04

Harvest date: 22/12/04

Results and Discussion:

Table 1: Barley Variety Yield and Grain Quality Data

Variety	Yield kg/ha	Significant Difference				Grain Protein %	Screenings %	TGW grams	Test Weight kg/hl
GS04FB1	4,196	I				11.07	1.027	45.53	63.18
Baudin	3,828		I			10.40	0.953	48.69	63.75
Gairdner	3,810		I			10.38	0.950	50.02	64.52
GS04MB4	3,640		I	I		10.60	1.863	50.40	63.47
GS04FB2	3,630		I	I		9.475	1.018	50.18	64.47
GS04MB3	3,529			I		10.70	0.735	49.69	65.83
W13586	3,213				I	10.03	1.570	48.17	64.17
Franklin	3,130				I	10.10	1.902	48.29	64.28
Average	3,622					10.34	1.252	48.87	64.21
LSD 5%	220.46					1.1029	0.8282	3.6553	2.1324
CV	9.69					7.46	51.89	5.35	2.32

There were quite high levels of scald and spot form of net blotch observed in the trial. A fungicide management programme was used to reduce the impact of disease. In a smaller adjacent trial, Baudin yielded 3,676 kg/ha with fungicide and 3,597 kg/ha without fungicide. Gairdner yielded 4,070 kg/ha with fungicide and 3,728 kg/ha without. Hence the impact of leaf disease for susceptible varieties was in the order of 100 – 300 kg/ha.

The Grain Search feed barley line GS04FB1 significantly outyielded all other varieties in trial. It produced 386 kg/ha more yield than the check variety Gairdner. There was no significant difference in yield between Baudin, Gairdner, GS04MB4 and GS04FB2. The varieties W13586 and Franklin were the 2 worst yielding varieties.

Grain quality was generally good, although Baudin, GS04FB1 and GS04MB4 did fall below 64 kg/hl in test weight.

Conclusions:

Further testing is required before conclusions can be drawn, however there are some quite useful new barley lines (feed and malt types) that may come onto the market in the near future. Both Baudin and Gairdner continue to be lines worthy of growing, however a strict fungicide management programme is required for both varieties in order to achieve good yield results.

Varietal Information:

Gairdner

Well received by some export malting markets. Mid season semi dwarf variety with superior grain size to Franklin. Lodging can occur under favourable growing conditions. Susceptible to spot form of net blotch, leaf rust and scald. Resistant to net form of net blotch.

Franklin

Produces excellent quality malt for the export brewing markets. Late maturing semi dwarf variety with lower yield potential than Gairdner. Intolerant of waterlogging.

Baudin

Earlier maturing line than Gairdner and more susceptible to scald and leaf rust. Can yield well given a suitable fungicide management programme.

Other Varieties

- W13586 : MBQIP variety, targeted for export and domestic brewers. Yield has been poor by comparison to Gairdner
- GS04FB1 and GS04FB2 : Unclassified GrainSearch feed varieties. Origin New Zealand.
- GS04MB3 and GS04MB4 : Unclassified GrainSearch malt variety. Origin United Kingdom.

B & P Partnership

Chicken Manure



Removal and Sales

Bulk Quantities

Cartage Available

Neville	0419 358 093	03 5281 9323
Garry	0429 354 717	03 5281 7495