2.2.5 Barley variety trial - Bairnsdale, Vic

Location: Bairnsdale Research Site

Funding:
This was a SFS funded trial

Researchers:
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Author: Southern Farming Systems

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Background/Aim:
New barley varieties need to be tested across a number of years before they will be considered in the domestic market. This trial evaluates a number of varieties that are either commercially available or close to commercial release that may be suitable for growing conditions in the south east of Victoria.

Summary of findings:
- The variety with the highest yield was Westminster at 6.85 t/ha
- The site mean was 5.39 t/ha

Rainfall:

Avg. Annual:	641.9 mm
Avg. G.S.R.:	442.4 mm
2010 Total:	652.2 mm
2010 G.S.R.:	364.2 mm

Yield Potentials for SE Victoria: Calculated using WUE values of 15kg/mm/ha Barley, 110mm evaporation and GSR of 30% Dec (15.06) Jan (9.96) & Feb (27.3) + 50% Mar (22.3) (only if >20mm) + April-November (364.2) – 110mm) X 15kg/mm/ha.
Therefore the Barley Crop Variety Trial at Bairnsdale the limited yield should be 4.56/ha or 303.8mm x 15kg/mm/ha. The site mean was 5.39 t/ha.

Variety: Various

Sowing rate:
215 seeds/m^2 rate with a desire to establish 160 plants/m^2

Sowing date: 25th May 2010

Fertiliser:
At sowing MAP 100kg/Ha

Knockdowns:
- 8th May 2010 Round Up Powermax 1.2L/ha
- 8th May 2010 Striker 0.1L/ha

Plot size: 18.0m x 1.10m x 4 reps.

Measurements:
Yield and grain quality components, including protein, test weight, screenings and retentions.

Soil Type: Grey Brown

Soil test:
pH=5.1
EC (dS/m)=0.18
Cation Exchange (meq/100g)=8.94
P (Colwell) mg/kg=38.0
K (Colwell) mg/kg=118.0
Ammonium N mg/kg=9.0
OC%=1.89

Results:

Table 1: Yield and quality parameter data for Barley crop variety trial at Bairnsdale

Variety	Yield t/ha	Significance	Protein %	Test Weight kg/hl	Retentions %	Screenings %
Westminster	6.85	a	17.10	55.40	6.30	2.00
Hindmarsh	5.84	b	17.00	54.90	4.00	2.30
Gairdner	5.43	b	17.40	51.20	2.30	1.00
Oxford	4.70	c	16.63	55.60	2.80	1.00
Urambie	4.15	c	16.45	55.05	6.00	2.00
LSD (P=.05)	**0.67**					
CV	**7.72**					
Site Mean	**5.39**					