

Nyngan Barley Variety Trial

Introduction

This variety trial was sown on 5 June 2008 which was later than desirable. The presence of both fast and slow maturing varieties meant however that no matter when the trial was sown some varieties would be favoured more than others. Seed was sown at 50kg/ha and fertiliser was applied (6.6kg/ha N & 14.5kg/ha P) with the seed. Weed control was sufficient involving the application of diclofop-methyl and MCPA LVE. A well managed long fallow period provided good subsoil moisture. Treatments were applied to plots (12m*1.5m) and replicated three times.

Results

Variety	Yield (t/ha)	No	Protein (%)	No	Screening (%)	No	Retention (%)	No	Test Wgt (kg/hL)	No
HINDMARSH	3.55	1	14.0	10	8.2	9	64.6	6	57.3	5
BAUDIN	2.79	2	13.5	14	5.6	11	68.0	5	56.1	9
FLAGSHIP	2.75	3	15.4	3	14.6	1	40.2	12	56.1	7
WI3416	2.72	4	14.0	11	6.0	10	72.0	3	58.5	3
TILGA	2.61	5	15.6	2	13.7	2	38.0	13	58.5	4
GROUT	2.57	6	14.1	9	10.5	6	54.8	10	56.1	8
FLEET	2.44	7	14.4	8	5.5	12	80.0	1	52.0	14
SCHOONER	2.42	8	15.2	4	4.3	13	68.0	4	59.8	1
BULOKE	2.40	9	13.9	12	11.0	5	56.5	8	54.0	11
VLAMINGH	2.34	10	15.0	5	3.7	14	76.3	2	58.6	2
FITZROY	2.26	11	13.7	13	10.2	7	59.4	7	53.9	12
TANTANGARA	2.21	12	16.1	1	12.6	3	28.2	14	52.8	13
OXFORD	2.19	13	14.4	7	11.2	4	54.8	11	55.9	10
GAIRDNER	1.77	14	14.6	6	9.2	8	55.3	9	56.7	6
	LSD = 0.79		LSD = 1.4		LSD = 4.4		LSD = 11.0			
	P = 0.041		P = 0.031		P <0.001		P <0.001		P = 0.19	
	Significant		Significant		Significant		Significant		NSS	

NSS = Not statistically significant **Significant** = statistically significant

*Varieties that vary by less than the LSD are not statistically different.

*Many factors affect the relative performance of varieties in a trial. Varietal decisions should therefore not be based solely on a varieties performance in a limited number of trials.

Comments

The main issue that needs to be kept in mind when interpreting the results is the relative maturity of varieties. The 5 June sowing date means that faster maturing varieties like Grout, Hindmarsh, Tilga and Schooner have an advantage over slower varieties like Gairdner and Tantangara and the results need to be interpreted in this context.

The relatively high protein range (14.0% -16.1%) means that this trial has fallen outside the range suitable for delivery as "malt" quality barley. The most likely reason for high protein in this trial was dry conditions during grain filling and comparatively late sowing. Although the long fallow may have been positive in terms of increased water storage it may have also increased mineralisation of nitrogen.