

Barley National Variety Trial – Wongan Hills

Australian Crop Accreditation System Limited

GRDC Grains Research & Development Corporation
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National Variety Trials

Aim/Background

The barley National Variety Testing (NVT) is part of a multi crop evaluation program funded by the GRDC and is designed to evaluate barley varieties entering the market that have gone through selection and evaluation within the various national breeding programs. The NVT barley trials are just one source of information on which growers can base management decisions on retention release or adoption of new varieties. Growers must use more than one information source when making significant management decisions in relation to barley varieties.

Trial Details

Property	Wongan Hills Research Station
Plot size & replication	12m x 1.76m x 3 replications
Soil type	Sandy loam
Soil pH (CaCl₂)	0-10cm: 5.6 10-30cm: 4.2
EC (dS/m)	0-10cm: 0.054 10-30cm: 0.142
Paddock rotation	2011: lupin, 2012: wheat, 2013: canola
Variety	As per protocol
Seeding date	07/05/2014
Seeding rate	65 kg/ha
Fertiliser	07/05/2014: 50 kg/ha Urea, 100 kg/ha Gusto Gold
Herbicides & pesticides	06/05/2014: 4 L/ha Paraquat & Diquat, 2.5 L/ha Prosulfocarb & S-Metolachlor, 1 L/ha Trifluralin, 1 L/ha Chlorpyrifos 10/07/2014: 1 L/ha Bromoxynil & Pyrasulfotole, 120 g/ha Clopyralid, 0.5 L/ha LVE MCPA, 150 mL/ha Prothioconazole & Tebuconazole, 300 mL/ha Cloquintocet-Mexyl, 1% Hasten
Growing Season Rainfall	243mm

Results

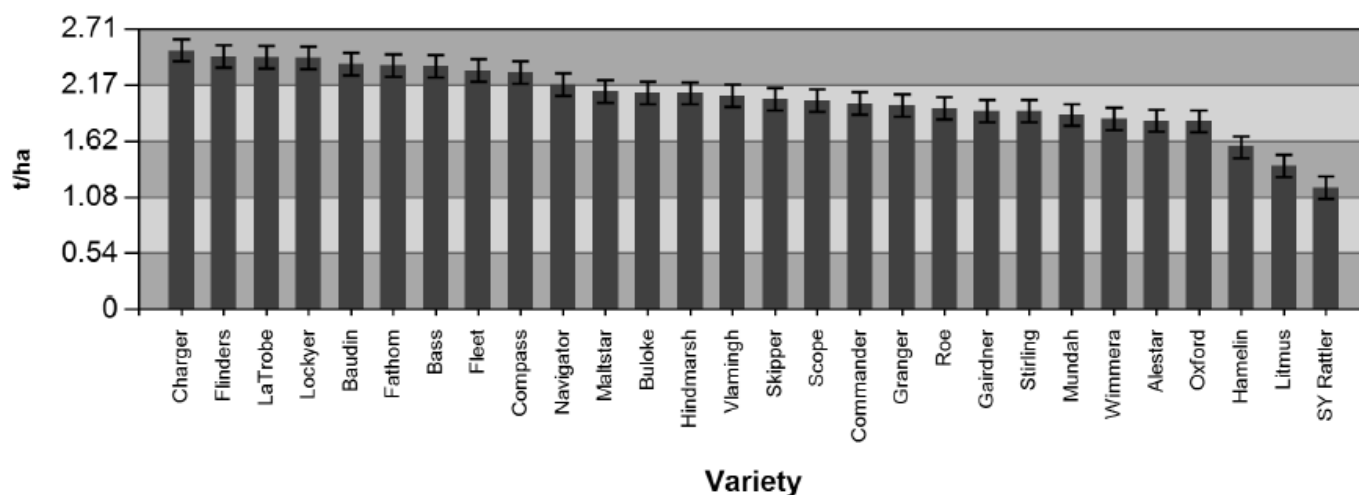


Figure 1: Yield comparison for barley varieties sown at Wongan Hills.

Table 1: Barley NVT yield results from the Main Trial Site grown in 2014, at Wongan Hills.

Variety	Yield (t/ha)	Percentage of site mean	Hectolitre weight (kg/hL)	Protein (%)	Screenings (%)
Charger	2.50	123	67.00	9.6	2.4
Flinders	2.44	120	71.80	9.7	1.0
LaTrobe	2.44	120	70.20	9.5	1.7
Lockyer	2.43	119	69.80	9.7	1.6
Baudin	2.37	116	72.40	10.	1.2
Bass	2.35	115	72.80	10.5	0.6
Fathom	2.35	115	67.40	10.3	1.7
Fleet	2.31	113	67.60	11.0	1.3
Compass	2.29	112	68.40	9.5	1.5
Navigator	2.17	106	70.80	10.6	0.3
Maltstar	2.10	103	71.60	10.1	1.6
Buloke	2.09	102	69.20	10.1	0.6
Hindmarsh	2.09	102	68.80	10.0	3.1
Vlamingh	2.06	101	72.20	10.9	0.8
Skipper	2.03	99	69.40	9.6	1.6
Scope	2.02	99	68.80	9.9	0.8
Commander	1.99	98	70.20	10.5	1.1
Granger	1.97	97	71.40	9.7	1.0
Roe	1.94	95	70.80	11.0	0.8
Gairdner	1.92	94	71.20	11.4	1.7
Stirling	1.91	94	71.20	11.0	0.9
Mundah	1.88	92	68.20	10.9	1.1
Wimmera	1.84	90	70.40	11.5	1.1
Alestar	1.82	89	71.00	10.6	0.7
Oxford	1.82	89	71.00	12.0	0.5
Hamelin	1.56	76	69.00	11.7	1.9
Litmus	1.39	68	68.40	9.9	1.8
SY Rattler	1.17	57	67.60	9.8	3.9
Site Mean (t/ha)	2.04				
LSD (t/ha)	0.22	11			
CV (%)	6.3				
Probability	<0.001				

Comment

For more information please refer to www.nvtonline.com.au