

Fathom[®]

Feed Barley

VARIETY SUMMARY

- Early maturity
- Broad adaptation
- Strong disease resistance including CCN
- Very low screenings similar to Maritime
- Higher test weight than Fleet
- Consistently high grain yield



BREEDING

Fathom was tested as the breeding line WI4483 and produced from a cross between a 'wild barley' derivative and WI3806 which is a sister line to Fleet. The wild barley was used to improve stress tolerance and water use efficiency. Fathom has been bred as a dedicated feed variety with very reliable high grain yield and stable physical grain quality.



YIELD

Table 1. Grain yield from analysis of long term NVT results and 2012 NVT results for SA

Variety	Murray Mallee		Eyre Peninsula	
	Long Term Yield 2005-2011	Mean Yield 2012	Long Term Yield 2005-2011	Mean Yield 2012
Fathom	2.31	2.81	2.50	2.82
Fleet	2.28	2.80	2.49	2.67
Hindmarsh	2.28	2.53	2.46	2.70
Keel	2.10	2.43	2.36	2.53
Maritime	2.04	2.65	2.18	2.29
Schooner	1.87	2.23	2.03	2.13
Scope	2.10	2.62	-	-

Table 2. Grain yield from analysis of long term NVT results and 2012 NVT results for Western Australia

Variety	Agzone 1		Agzone 2		Agzone 3		Agzone 4		Agzone 5		Agzone 6	
	Long Term Yield 2005-2011	Mean Yield 2012	Long Term Yield 2005-2011	Mean Yield 2012	Long Term Yield 2005-2011	Mean Yield 2012	Long Term Yield 2005-2011	Mean Yield 2012	Long Term Yield 2005-2011	Mean Yield 2012	Long Term Yield 2005-2011	Mean Yield 2012
Fathom	3.34	1.93	2.69	2.50	3.32	4.12	2.35	2.79	2.77	3.28	3.56	
Fleet	3.30	1.92	2.62	2.48	3.23	4.18	2.28	2.70	2.55	3.23	3.31	
Hindmarsh	3.40	1.57	2.73	2.62	3.32	3.96	2.40	2.85	2.49	3.32	3.40	
Lockyer	3.32	1.38	2.66	2.43	3.27	3.72	2.31	2.74	2.70	3.27	3.86	
Mundah	2.84	1.21	2.32	2.43	2.83	4.11	1.99	2.37	2.43	2.80	2.88	
Oxford	3.37	1.43	2.62	2.21	3.28	3.90	2.28	2.67	2.52	3.29	3.99	
Scope	3.12	1.17	2.45	2.23	3.07	3.93	2.14	2.54	2.42	3.04	2.96	

Table 3. Grain yield from analysis of long term NVT results and 2012 NVT results for southern NSW

Variety	South East NSW		South West NSW	
	Long Term Yield 2005-2011	Mean Yield 2012	Long Term Yield 2005-2011	Mean Yield 2012
Fathom	3.84	4.18	3.39	3.60
Fleet	3.85	4.02	3.37	3.80
Hindmarsh	3.88	4.43	3.45	3.66
Keel	3.39	3.56	2.97	2.93
Maritime	3.55	4.21	3.15	3.39
Schooner	3.61	4.11	3.16	3.46
Scope	3.70	3.84	3.21	3.25



GRAIN QUALITY

Table 4. Mean screenings (%<2.2mm) performance of current feed varieties in 2010, 2011 & 2012 SA NVT.

Variety	2010	2011	2012	Mean
Fathom	1.9	2.9	2.5	2.4
Fleet	2.6	2.7	2.5	2.6
Hindmarsh	3.5	6.7	4.4	4.9
Keel	4.2	12.4	4.7	7.1
Maritime	2.3	2.5	1.7	2.2
Oxford	4.0	3.5	7.0	4.8
Scope	5.1	6.7	6.3	6.0

Data: from all NVT trials.

Table 5. Mean test weight (kg/hL) performance of current feed varieties in 2010, 2011 & 2012 SA NVT.

Variety	2010	2011	2012	Mean
Fathom	66.4	66.4	69.9	67.6
Fleet	65.7	66.4	69.4	67.2
Hindmarsh	67.8	67.2	71.3	68.8
Keel	66.3	65.3	70.8	67.5
Maritime	65.9	67.0	70.5	67.8
Oxford	66.8	68.3	70.6	68.6
Scope	66.5	66.3	70.2	67.7

Data: from all NVT trials.

 **DISEASE AND PEST RESISTANCE****Table 6.** Disease resistance profile of Fathom compared to other feed barley varieties.

Variety	Powdery Mildew	Leaf Rust	Scald	Spot Form Net Blotch	CCN	Net Form Net Blotch	Covered Smut
Fathom	MR	MR-S/VS	MR	MR	R	MS/S	R/MR
Keel	MR/MS	VS	MS	R/MR	R	MS	R
Fleet	MR/MS	MR/MS-S	MR/MS	R/MR	R	MR	MR
Hindmarsh	MS	MR/MS-S	R-S	S	R	MR	MS
Barque	MR	MR/MS-S	S/VS	R/MR	R	MS/S	MS/S

R - Resistant; MR - Moderately Resistant; MS - Moderately Susceptible; S- Susceptible; VS - Very Susceptible.

* Due to multiple strains of leaf rust and scald, the table provides a range of reactions that may be observed. Different ratings are separated by "/"
Data from SARDI Cereal Variety Disease Guide 2012.

 **PLANT PROFILE****Table 7.** Plant profile of Fathom compared to other feed barley varieties.

Variety	Maturity	Coleoptile Length	Early Vigour	Early Growth Habit	Tillering Ability	Plant Height	Standing ability	Head Retention	Boron Leaf Symptoms
Fathom	early	long	moderate high	semi prostrate	moderate high	medium tall	good	moderate	moderate low
Keel	early	medium	moderate high	erect	moderate	medium	moderate	moderate	moderate
Fleet	mid	long	moderate high	semi prostrate	moderate high	medium tall	moderate poor	moderate	moderate low
Hindmarsh	early	short	low	erect	moderate low	short medium	good	moderate high	high
Barque	mid	medium	moderate high	semi prostrate	moderate high	tall	moderate poor	moderate	moderate low

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Growers are allowed to retain seed from production of this variety for their own use as seed only.

An End Point Royalty of \$2.00 per tonne (plus GST), which includes breeder royalties, applies to this variety.

ACKNOWLEDGMENTS

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For more information call **Seednet** on **1300 799 246** or visit **www.seednet.com.au**

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