

Significantly, Fleet Australia[®] exhibits excellent grain yield on sandy soils (Table 5). Sandy soils are typically associated with dune/swale environments and characterised by poor fertility, rapid drainage of soil water, water repellency, leaching, loss of nutrients, erosion, and a high incidence of root borne diseases. Fleet Australia[®] offers improved yield potential and yield stability on this challenging soil type, in addition to broad adaptation.

Table 5: Long term yield comparison of Fleet Australia[®] with current commercial feed varieties on deep sandy soils (SAFCEP data, REML analysis).

Grain yield expressed as t/ha.

	Yield (t/ha)	Observations (site years)
Fleet Australia[®]	1.474	8
Barque	1.468	18
Capstan [®]	1.388	6
Keel	1.391	18
Maritime [®]	1.437	11
Mundah	1.451	18

Plant Breeder's Rights and Royalties

Fleet Australia[®] is protected by Plant Breeder's Rights (PBR). Any unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagating material of this variety is an infringement under the Plant Breeder's Rights Act 1994. Growers are allowed to retain seed from production of this variety for their own use as seed only.

End Point Royalties (EPRs) are a type of levy on the total grain produced from seed and replaces the seed royalty. Breeders are now electing to apply EPRs on newly released varieties as a more equitable mechanism for generating a revenue stream back to the breeder.

Fleet Australia[®] is subject to an EPR of \$1.50/t (GST excl.), which includes a breeder's royalty return of \$1.00/t and a Management fee of \$0.50/t. Fleet Australia[®] seed is subject to ABB's seed terms and conditions, available on ABB's website.

Ordering seed

ABB has sub-licensed the seed production and distribution of Fleet Australia[®] to the Australian Field Crops Association (AFCA). Seed can be ordered through AFCA at www.afca-seeds.com.au or through your local seed reseller.

For more information please call ABB on 1800 018 205 (freecall) or visit www.abb.com.au.

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- Jason Eglinton, Barley Program Leader – University of Adelaide
- Hugh Wallwork, Leader – Cereal Pathology Group, SARDI

Disclaimer: Some information contained in this brochure is subject to change and summarises the knowledge of Fleet Australia[®] to April 2007. Continuing agronomic evaluation or changes in pathogenicity of pests and diseases make it necessary for farmers to regularly seek updated information. ABB does not accept any responsibility for the consequences which may arise from the acceptance of recommendations or suggestions made.

Fleet Australia[®]



A feed barley with improved yield potential across all regions and soil types

Variety Summary

- Fleet Australia[®] exhibits an outstanding disease resistance profile, with improvements in scald and net blotch, representing a significant improvement over Barque.
- Mid-season maturity and a 5% yield advantage over the current dominant feed variety, Barque.
- Broadly adapted and considered a replacement for Barque and Mundah, and an alternative to Keel.
- Improved adaptation and yield performance in deep sandy soils.

Breeding

Trialled and tested as W13804, Fleet Australia[®] was bred by Dr Jason Eglinton and Professor Andrew Barr from the University of Adelaide using a strategy to combine the best features of current Australian feed barley varieties. Fleet Australia[®] combines the plant architecture and phenology of Barque, the disease resistance and yield potential of Keel, and the adaptation to deep sandy soils of Mundah.

Fleet Australia[®] was registered under Plant Breeder's Rights (PBR) in 2006.



Agronomic Profile

The physical grain quality of Fleet Australia[®] is similar to Barque and Keel. Fleet Australia[®] exhibits early vigour, weed competitiveness, flowering time and plant height similar to Barque. It exhibits moderate to short basic vegetative phase and is photoperiod sensitive, with flowering time responding positively to later sowing dates. Fleet Australia[®] shares excellent grain size (second only to Maritime[®]) although demonstrates similar test weights than Barque.

Disease Resistance Profile

Fleet Australia[®] has a spectrum of disease resistance essentially equivalent to Keel, with the additional benefit of a significantly lower disease reaction to leaf rust. The breakdown of the scald and net form net blotch resistance in Barque are significant issues, and are likely to limit the longevity of this successful variety.

Table 1: Disease reaction of selected barley varieties.

	CCN resistance	CCN tolerance	Powdery mildew	Leaf scald	Leaf rust	Spot form net blotch	net form net blotch
Fleet Australia[®]	R	T	MS	MR/MS	MS	MR/MS	MR
Barque	R	T	MR	S/VS	MS	R/MR	MS
Mundah	S	T	MS/S	S	S	S	MR
Capstan [®]	R	T	MR	MR/S*	MS	MS	MR/MS
Keel	R	T	MR/MS	MR/MS	VS	R/MR	MR
Maritime [®]	R	T	S	MS/S	MS	MR/MS	R
Yarra [®]	R	T	S	S/VS	R	MS	MS

Disease rating codes: R = resistant; MR = moderately resistant; MS = moderately susceptible; S = susceptible; VS = very susceptible
* = previously resistant varieties now susceptible to new races (in some areas)
Information on disease reaction was supplied by the Field Crop Pathology Unit (SARDI). Contact Dr Hugh Wallwork (08) 8303 9382.

Target Growing Regions

Although broadly adaptable to all regions of Australia, Fleet Australia[®]'s yield advantage over current feed varieties in deep sandy soils makes it an ideal alternative for growers in a high risk environment and for managing sandy dune/swale environments, such as those found in the South Australian or Victorian mallee regions.

Fleet Australia[®] has shown strong potential in Western Australia, as a replacement for Mundah.

Grain Yield

Fleet Australia[®] has maintained a consistent 5% yield advantage over Barque in five years of field evaluation (Table 1). The relative yield advantage over current varieties is evident across the spectrum of regions and soil types.

Table 2: Yield of commercial feed varieties in South Australian agricultural districts as a percentage of Schooner's yield (SARDI 2000-2006 inclusive)

	Yorke Peninsula	Murray Mallee	Mid North	Lower EP	Upper EP	South East
Schooner's yield (t/ha)	2.84	1.64	3.24	3.68	1.77	3.30
Barque	112	111	105	106	109	103
Keel	113	106	114	107	111	102
Maritime [®]	113	108	107	110	109	106
Mundah [#]	106	107	105	104	103	99
Capstan [®]	114	114	112	108	111	106
Yarra [®]	119	108	109	109	111	104
Fleet Australia[®]	119	116	113	111	112	104

Please note: For Western Australia, please see 'Barley Variety Guide for WA 2006 DAFWA' # Based on 1999-2005

Table 3: Long Term Yield of Barley in Victoria, 2000-2005 (Yield as % of Schooner or Gairdner)

	Mallee Schooner (2.44)	Wimmera Gairdner (2.99)	North Central Gairdner (3.14)	North East Gairdner (4.37)	South West Gairdner (2.2)
Barque	109	97	98	98	95
Keel	109	102	97	96	91
Maritime [®]	102	93	95	94	*
Capstan [®]	107	101	97	97	94
Yarra [®]	108	98	97	98	97
Fleet Australia[®]	104	96	97	*	*

* Variety not sown at that site. Source: State of Victoria, Department of Primary Industries; AG1099

Table 4: Long Term Yield of Barley in New South Wales 1999-2005 (Yield as % of Binalong or Tantangara)

	Northern Binalong (3.59)	Central Tantangara (3.04)	Southern Tantangara (3.31)
Capstan [®]	99	102	102
Fleet Australia[®]	*	104	102
Grout	99	*	*
Mackay	99	102	*
Tantangara	96	100	100
Tilga	*	104	103
Urambie	95	99	99
Yarra [®]	*	*	106

* Variety not sown at that site. Source: NSW Department of Primary Industries; Winter Crop Variety Sowing Guide 2007

In Western Australia, Fleet Australia[®] has better resistance to scald, powdery mildew and leaf rust than Mundah, but is not as good against net blotch. In CVT trials in 2005 it yielded 9% higher than Mundah across 16 sites.

In 2006 across all sites and all times of sowing, the feed barley variety Fleet Australia[®] had the highest yield potential in time of sowing trials. Fleet Australia[®] particularly excelled in trials that were located in the southern region (Newdegate, Salmon Gums, Gibson and Scaddan) where its average yield was 117% of Stirling compared to sites located in the central region (Calingiri, Cadoux, Merredin, Brookton, Corrigin and Katanning) where it averaged 110% of Stirling.

Source Agribusiness Crop Updates 2007; Blakely Paynter and Andrea Hills, DAFWA.

