

Wheat

Variety fact sheet – Southern NSW, Victoria & South Australia

Brighton[®]



Variety snapshot

- Dual purpose winter wheat, suitable for grazing and grain production
- A higher yielding alternative to Illabo[Ⓟ], EGA Wedgetail[Ⓟ] and LRPB Kittyhawk[Ⓟ]
- Quick-mid winter maturity, slightly quicker than Illabo[Ⓟ]
- Improved test weight compared with Illabo[Ⓟ] and EGA Wedgetail[Ⓟ]
- Improved yellow leaf spot resistance over Illabo[Ⓟ] and EGA Wedgetail[Ⓟ]
- More susceptible to powdery mildew than Illabo[Ⓟ]
- APH quality classification in southern NSW
- AH quality classification in Vic/SA

Breeder's comments

Dual purpose, graze and grain wheat varieties have traditionally been very valuable to mixed farmers, providing more than one opportunity to generate income throughout the season. The use of dual purpose varieties has continued to gain in popularity, perhaps due to a shift in earlier sowing of grain-only crops.

We started a winter wheat breeding program at Wagga Wagga in 2014 in acknowledgement of the need for better performing long season and dual purpose varieties, with Illabo[®] being a popular release from this program. Illabo[®] has been a success story, offering mixed farmers a large step up in performance over the mainstay variety EGA Wedgetail[®].

Our newest variety in this space, Brighton[®], is poised to offer even more advancements in productivity, offering improvements in yield and physical grain quality over Illabo[®].

Brighton[®] also offers improved yellow leaf spot resistance over Illabo[®], however is more susceptible to powdery mildew and septoria tritici blotch.

Brighton[®] is a quick-mid maturing winter wheat, reaching head emergence slightly faster than Illabo[®] across a range of sowing dates.

Brighton[®] is derived from popular main season wheat variety Beckom[®], and has inherited Beckom's[®] shorter plant height and aluminium (acid soils) tolerance genes. Like Beckom[®] and many other varieties, Brighton[®] may express physiological leaf yellowing throughout winter; however will grow out of these symptoms in spring.

To maximise grain only yield, Brighton[®] appears ideally suited to mid-late April sowing in high yield environments, and mid April in lower yielding environments. To maximise the length of safe grazing time, Brighton[®] may be sown from mid March through to mid April.

Brighton[®]

Table 1. Specifications

Background

Tested as	V14051-172
Released	2024
EPR rate	\$4.10/tonne + GST

Disease

Stem Rust resistance*	MRMS
Stripe Rust resistance*	MRMS
Leaf Rust resistance*	S
Yellow Leaf Spot resistance*	MRMS
Powdery Mildew resistance*	S
Septoria Tritici Blotch resistance*	S
CCN resistance*	R (P)
Pratylenchus Neglectus resistance*	S
Pratylenchus Neglectus tolerance*	NA
Pratylenchus Thornei resistance*	MS
Pratylenchus Thornei tolerance*	MTMI
Crown Rot resistance*	SVS

Plant Characteristics

Maturity [^]	Quick-mid
Maturity habit [^]	Winter
Sowing window [^]	Early
Novel herbicide tolerance [^]	None (conventional tolerance)
Head type [^]	Awned

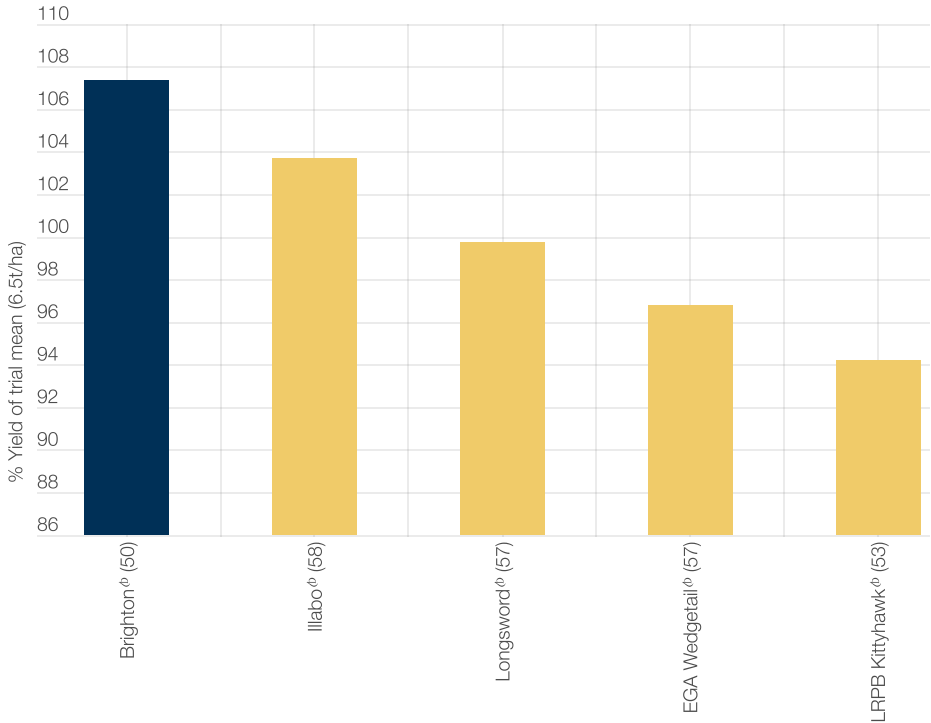
Grain Quality

Quality classification - southern NSW	APH
Quality classification - SA/VIC	AH
Grain colour [^]	White
Black Point resistance*	MRMS (P)

Grain yield

In long term AGT trials, Brighton[®] has produced higher levels of grain yield than Illabo[®] (Figure 1).

Figure 1. Predicted grain yield of Brighton[®] versus comparators - AGT data



Source: AGT long term MET analysis, winter/long season trial series 2019-2023 (58 trials)

[] : Total number of trials per region

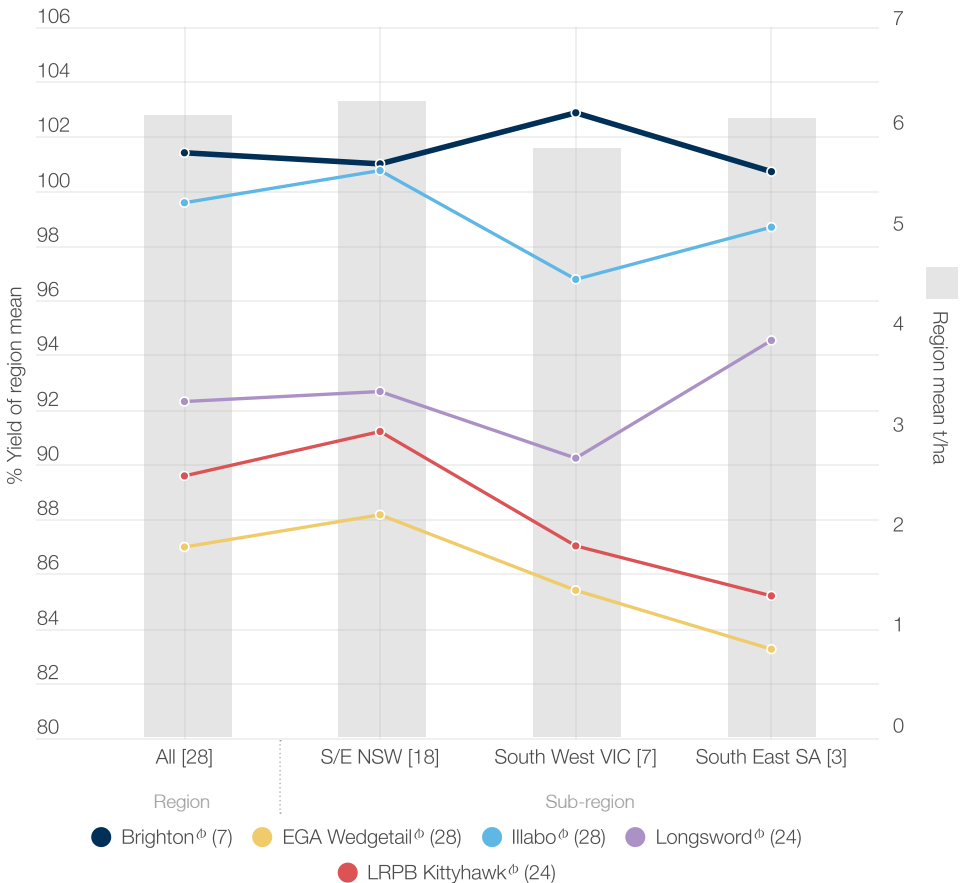
() : Number of trials that each variety was present in across the dataset

Grain yield

In long season NVT trials, Brighton^ϕ has produced higher levels of grain yield than Illabo^ϕ (Figure 2), while in early sown NVT trials across southern NSW, Victoria and SA, Brighton^ϕ and Illabo^ϕ have produced similar yields (Figure 3).

NVT long season trials are generally sown in April, in areas that experience softer, elongated springs. NVT early sown trials are generally sown in late April/early May.

Figure 2. Predicted grain yield of Brighton^ϕ versus comparators across long season trials - NVT data



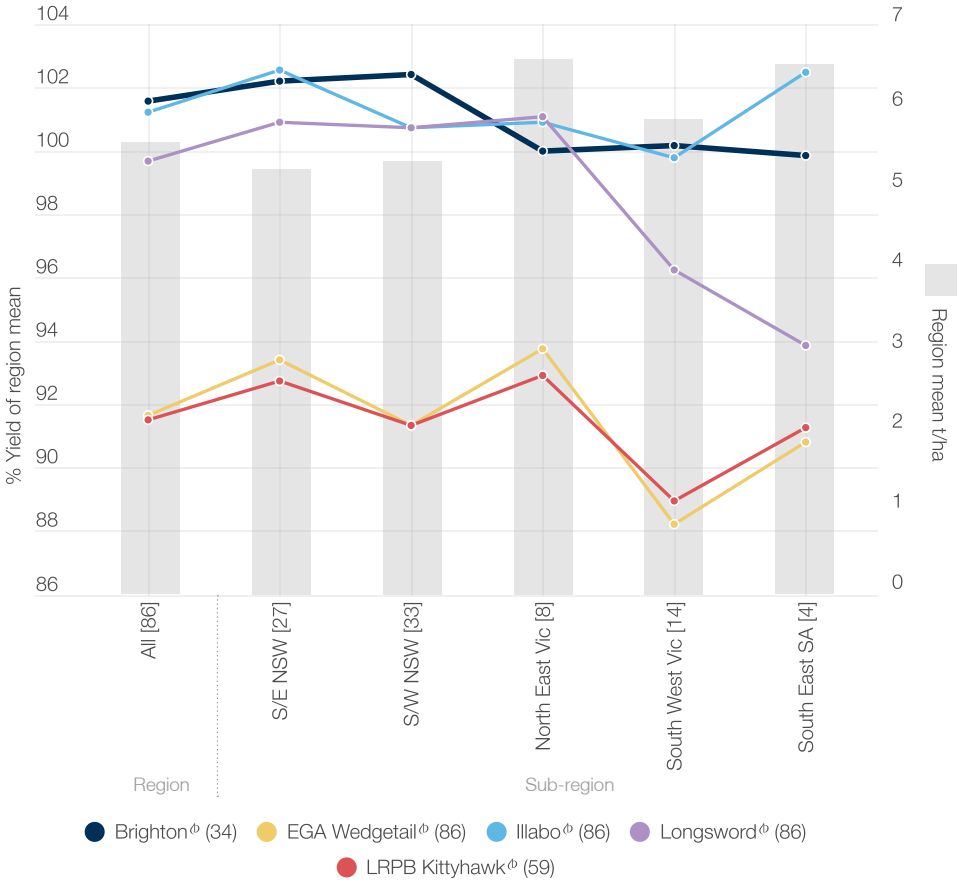
Source: NVT long term MET analysis, long season trial series 2019-2023

[] : Total number of trials per region

() : Number of trials that each variety was present in across the dataset

Grain yield

Figure 3. Predicted grain yield of Brighton^ϕ versus comparators across early sown trials - NVT data



Source: NVT long term MET analysis, early sown trial series 2019-2023

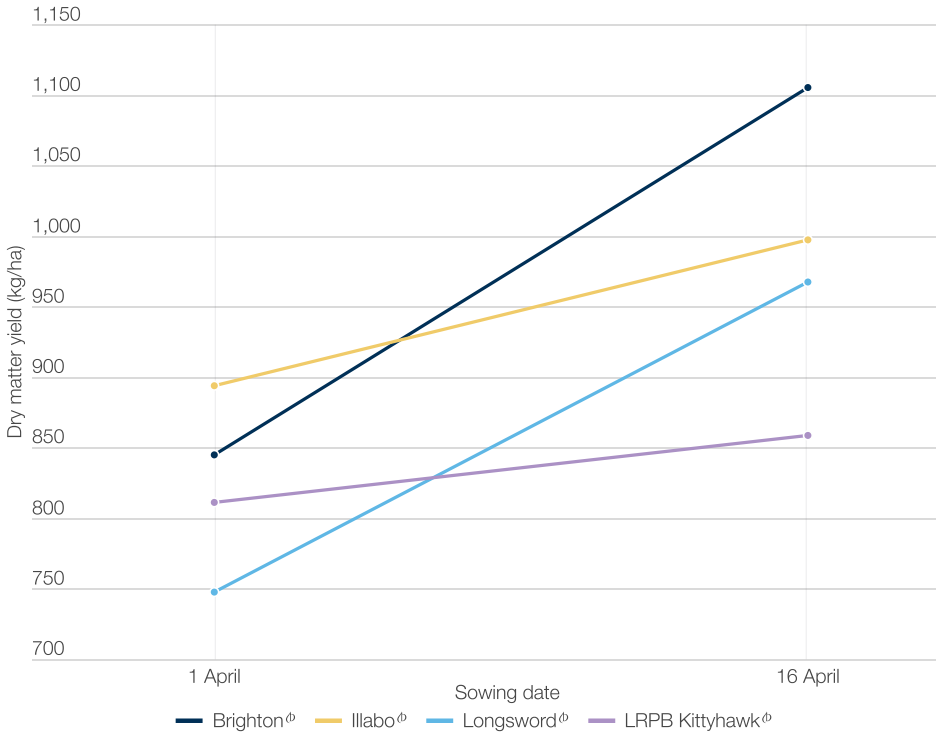
[]: Total number of trials per region

(): Number of trials that each variety was present in across the dataset

Early dry matter production

AGT grazing trial data has demonstrated that up to the appearance of first node, Brighton^ϕ produced similar amounts of dry matter as Illabo^ϕ, and more than LRPB Kittyhawk^ϕ and Longsword^ϕ (Figure 4).

Figure 4. Early dry matter production of Brighton^ϕ versus comparators in response to sowing date

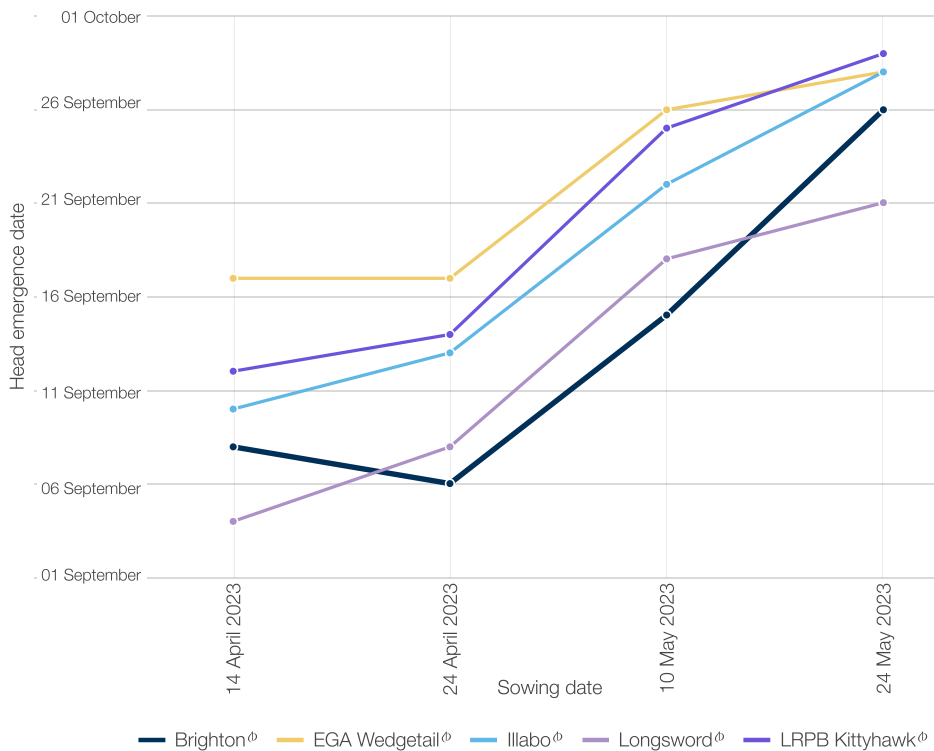


Source: AGT grazing trial 2022, Collingullie NSW

Maturity

Brighton^ϕ is a quick-mid maturing winter wheat. Data collected in 2023 shows that Brighton^ϕ reaches head emergence a little quicker than Illabo^ϕ (Figure 5).

Figure 5. Head emergence of Brighton^ϕ versus comparators in response to sowing date



Source: AGT time of sowing trial 2023, Collingullie NSW

Grain quality

Brighton[®] has an APH quality classification in southern NSW, and an AH quality classification in Vic/SA. Brighton[®] has an excellent physical grain quality package, offering low screenings levels and a test weight improvement over main comparator Illabo[®] (Figures 6 & 7).

Figure 6. Test weight of Brighton[®] versus comparators

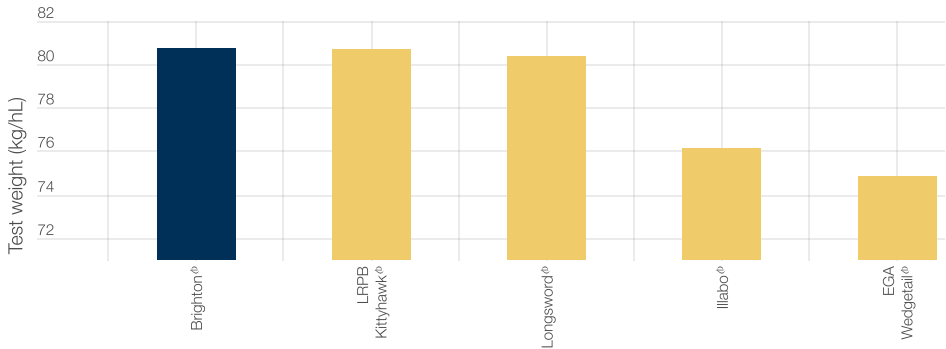
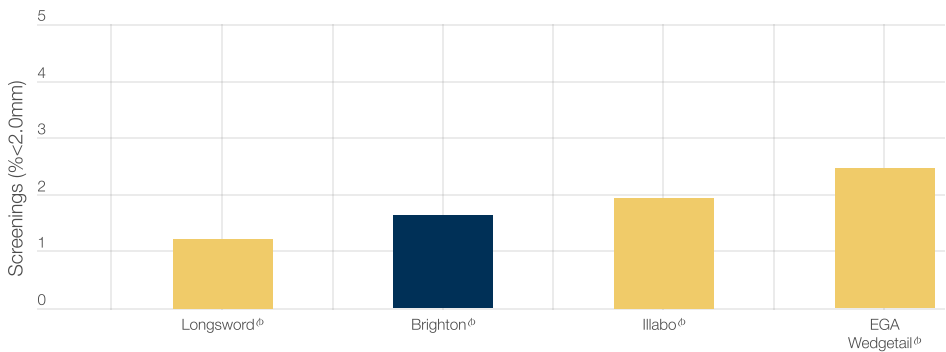


Figure 7. Screenings of Brighton[®] versus comparators



Source: NVT early sown trial series 2023 (13 trials across southern NSW/SA/VIC where all varieties were present)

Disease

Brighton^ϕ offers a good disease resistance package, including good stripe rust resistance and an improvement in yellow leaf spot resistance compared with Illabo^ϕ. Brighton's^ϕ powdery mildew and septoria tritici blotch resistance is lower than Illabo^ϕ (Table 2).

Table 2. Variety comparisons

	Brighton ^ϕ	EGA Wedgetail ^ϕ	Illabo ^ϕ	Longsword ^ϕ	LRPB Kittyhawk ^ϕ
Quality classification - southern NSW	APH	APH	APH	AWW	APH
Quality classification - SA/VIC	AH	APW	AH	AWW	AH
Maturity [^]	Quick-mid winter	Mid winter	Quick-mid winter	Quick winter	Mid winter
Stem Rust resistance*	MRMS	MRMS	MRMS	MR	MRMS (S)
Stripe Rust resistance*	MRMS	MS	MRMS	MRMS/MS	MR
Leaf Rust resistance*	S	MSS	S	MS	MR
Yellow Leaf Spot resistance*	MRMS	MSS	MS	MRMS	MRMS
Powdery Mildew resistance* (NSW rating)	S	MRMS	R	MSS	MS
Septoria Tritici Blotch resistance*	S	MSS	MSS	MS	MRMS
CCN resistance*	R (P)	S	MRMS	MRMS	S
Pratylenchus Neglectus resistance*	S	S	MSS	MRMS	S
Pratylenchus Neglectus tolerance*	NA	MII	VI	VI	MI
Pratylenchus Thornei resistance*	MS	VS	MSS	MRMS	S
Pratylenchus Thornei tolerance*	MTMI	MII	MII	MI	I
Crown Rot resistance*	SVS	S	S	MSS	SVS
Black Point resistance*	MRMS (P)	MS	MRMS	MS	MRMS

Legend

R	Resistant	MI	Moderately Intolerant	,	Mixed phenotype
MR	Moderately Resistant	I	Intolerant	#	May be more susceptible to alternate pathotypes
MS	Moderately Susceptible	VI	Very Intolerant	*	NVT consensus ratings 2024
S	Susceptible	(P)	Provisional rating	^	AGT ratings/data interpretation
VS	Very Susceptible	NA	Not Available		
T	Tolerant	/	Pathotype differences		
MT	Moderately Tolerant	-	Range		



Seed Availability

Please contact an AGT Affiliate or your local retailer for seed. Consult the AGT website for AGT Affiliate contact details (agtbreeding.com.au/sourcing-seed/agt-affiliates).

AGT varieties can be traded between growers upon the completion of a License Agreement as part of AGT's Seed Sharing™ initiative (agtbreeding.com.au/sourcing-seed/seed-sharing).

PRB and EPR

Varieties denoted by the ^ϕ symbol are protected by Plant Breeders Rights (PBR) and all production (except seed saved for planting) is liable to an End Point Royalty (EPR), which funds future plant breeding. Growers of PBR protected varieties will be subject to a Grower License Agreement that acknowledges that an EPR must be paid on all production other than seed saved for planting.

Contact

James Whiteley, Variety Support Manager southern NSW:	0419 840 589
Rob Harris, Variety Support Manager Vic:	0429 576 044
Brad Koster, Variety Support Manager SA:	0400 812 475
AGT End Point Royalty team:	(08) 7111 0201
agtbreeding.com.au	

The information contained in this brochure is based on knowledge and understanding at the time of writing. Growers should be aware of the need to regularly consult with their advisors on local conditions and currency of information. Wherever possible, independent NVT data has been used in this publication. In the absence of NVT data, AGT data has been provided.