

# Longsword<sup>®</sup>



- A unique 'quick' maturing dual purpose winter wheat
- Wide sowing window, most suited to April sowings
- Widely adapted but mainly suits low-medium rainfall environments
- Good physical grain quality package with low screenings and high test weights
- Excellent stem and stripe rust resistance
- Good yellow leaf spot resistance
- FEED quality classification

## Breeder's comments

Longsword<sup>®</sup> (tested as RAC2341) is a variety that really stands out on its own. Early in AGT testing it was clear that Longsword was different to the rest: later to flower, but quick to mature; Longsword<sup>®</sup> represented a style of wheat that the Roseworthy programme had not previously bred.

The first of its kind, Longsword<sup>®</sup> is a 'quick finishing' winter wheat, quicker than EGA Wedgetail<sup>®</sup> and Illabo<sup>®</sup>. Unlike other long season varieties, Longsword<sup>®</sup> has Mace<sup>®</sup> as its major parent, a variety that is specifically suited to low and medium rainfall areas. But unlike Mace<sup>®</sup> (a traditional spring wheat), Longsword<sup>®</sup> has three winter genes, meaning that it is a true winter variety with a stronger vernalisation (cold) requirement before flowering can occur. However, once this requirement is met, Longsword<sup>®</sup> progresses through grain-fill quite quickly, similar to its parent Mace<sup>®</sup>.

This unique maturity offers many advantages to growers: it allows a flexible and wide sowing window, while helping to avoid stresses of drought and heat through grain fill that slower maturing winter wheat varieties experience. It also allows a longer safe period for grazing, helping to alleviate the feed-gap often faced by mixed farmers.

Grain of Longsword<sup>®</sup> is only deliverable as FEED into the bulk handling system. Although we are committed to releasing high performing milling grade wheat varieties, we believe Longswords<sup>®</sup> uniqueness still offers value to growers who are looking to sow earlier than what spring wheats allow, for those requiring grazing value out of their variety, or those that have access to a grain market outside of the traditional bulk handling system.

## Seed Availability

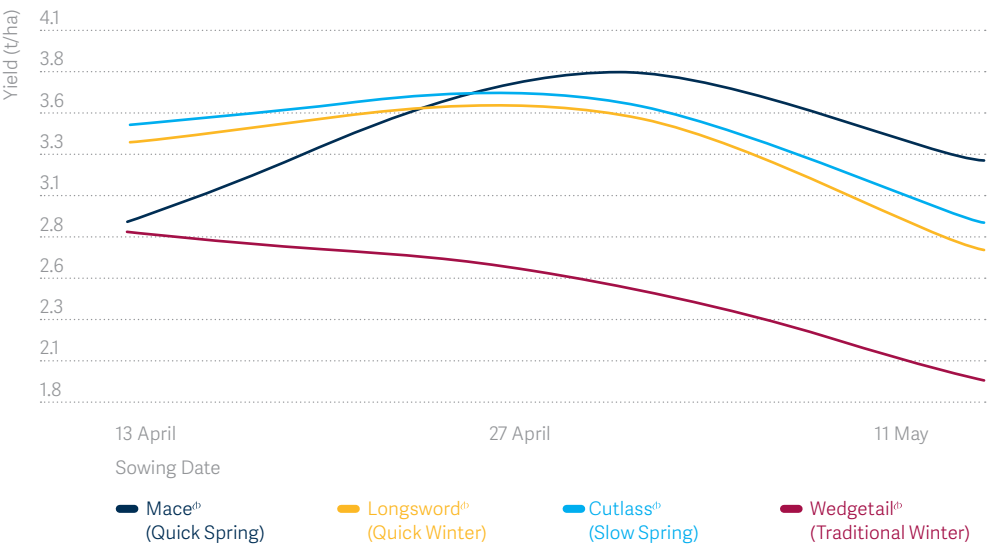
Commercial quantities of Longsword may be available through AGT Affiliates, or your local retailer. Please consult the AGT website for AGT Affiliate contact details. Longsword<sup>®</sup> is able to be traded between growers upon the completion of a License Agreement as part of AGT's Seed Sharing™ initiative.

## PBR and EPR

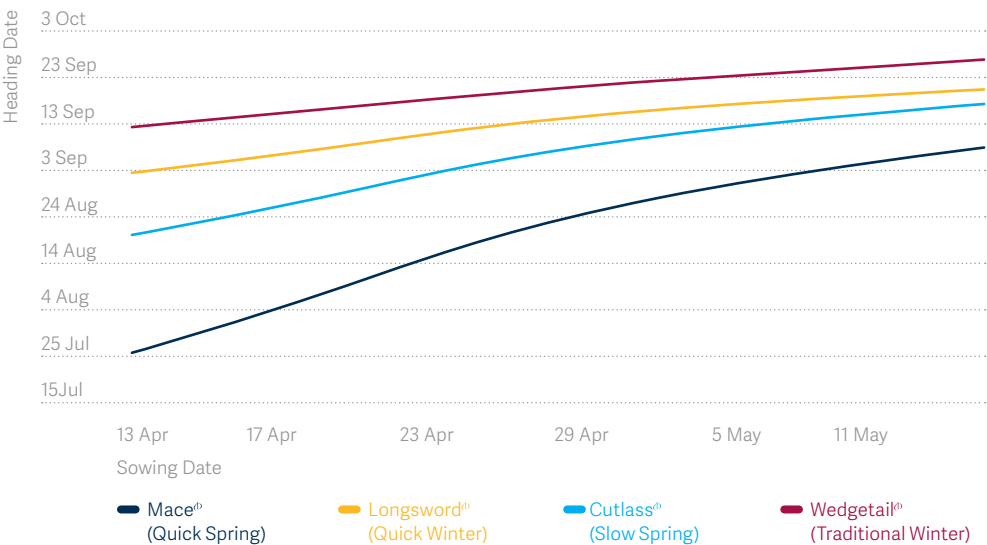
Longsword is protected by Plant Breeders Rights (PBR) and all production (except seed saved for planting) is liable to an End Point Royalty (EPR), which funds future plant breeding. Longsword<sup>®</sup> growers will be subject to a Growers License Agreement that acknowledges that an EPR of \$2.75/tonne+ GST has to be paid on all production other than seed saved for planting.



Grain yield of Longsword<sup>®</sup> and comparator varieties, Minnipa 2015  
(LSD = 0.3)



Flowering dates x time of sowing, Longsword<sup>®</sup>  
and comparator varieties, Minnipa 2015



Disease, agronomic and grain quality ratings for Sunmax<sup>®</sup> and control varieties

	Longsword <sup>®</sup>	Cutlass <sup>®</sup>	EGA Wedgetail <sup>®</sup>	Kittyhawk <sup>®</sup>	Mace <sup>®</sup>
Stem Rust	MR	R	MRMS	MRMS	MRMS (MR)
Stripe Rust	RMR	MS (RMR)	MS	RMR	SVS (RMR)
Leaf Rust	MSS (MR)	R (RMR)	MSS (MS)	MS (MR)	MSS (MS*)
Yellow Leaf Spot	MRMS	MSS	MSS	MRMS	MRMS
CCN Resistance	MRMS	MR	S	S	MRMS
Septoria <i>Tritici</i> Blotch	MSS	MSS	MSS	MS	S
Acid Soil Tolerance	MT	MT	TMT	MTMI	MT
Black Point Resistance	MS	MS	MS	MRMS	MRMS
Type	Winter	Spring	Winter	Winter	Spring
Maturity Trigger	Vernalisation	Strong Photoperiod	Strong Vernalisation	Strong Vernalisation	Weak Vernalisation

R Resistant  
MR Moderately Resistant  
MS Moderately Susceptible  
S Susceptible  
VS Very Susceptible  
T Tolerant  
MT Moderately Tolerant  
MI Moderately Intolerant  
I Intolerant

VI Very Intolerant  
\* Rating may change due to the detection of a new leaf rust pathotype  
( ) Western Australian rating

Source / NSW DPI Winter Crop Variety Sowing Guide 2017, NVT and AGT data.  
  
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