

# Minotaur<sup>®</sup>



- A lower risk alternative to RGT Planet<sup>Ⓟ</sup> with similar top-end yield potential
- Best suited to medium-high rainfall environments
- Mid-slow maturity, slightly slower than RGT Planet<sup>Ⓟ</sup>
- Broader adaptation than RGT Planet<sup>Ⓟ</sup>, delivering more stable yields across a wider range of environmental conditions
- Improved test weight compared with RGT Planet<sup>Ⓟ</sup>
- Has entered the Barley Australia malt accreditation program but is currently deliverable as Barley/Feed

## Breeder's comments

Minotaur<sup>ϕ</sup> (tested as AGTB0213) enters the market as a clear step-up from the landmark European variety RGT Planet<sup>ϕ</sup>. While RGT Planet<sup>ϕ</sup> is a direct introduction from Europe, Minotaur<sup>ϕ</sup> is the result of an Australian by European cross, bringing together European yield potential with Australian adaptation to our tough growing conditions. Minotaur<sup>ϕ</sup> has demonstrated adaptation across a broader range of seasonal conditions and regions than RGT Planet<sup>ϕ</sup>, which can be penalised under drier, stressed conditions.

In addition to competitive yields, Minotaur<sup>ϕ</sup> offers some improvements in physical grain quality, delivering higher test weight compared with RGT Planet<sup>ϕ</sup>. The yield stability combined with improved test weight means that Minotaur<sup>ϕ</sup> is a safer variety to use than RGT Planet<sup>ϕ</sup> for growers looking to mitigate the risk of highly variable seasons.

Minotaur<sup>ϕ</sup> has a mid-slow maturity, reaching awn peep a couple of days later than RGT Planet<sup>ϕ</sup> and is ideally suited to medium-high yield potential environments. Minotaur<sup>ϕ</sup> has a relatively compact plant type with moderate resistance to lodging.

Minotaur<sup>ϕ</sup> has been accepted into the Barley Australia malt accreditation program, with stage 2 malt evaluation planned for 2023. Minotaur<sup>ϕ</sup> is deliverable into the Barley/Feed grade.

## Seed availability

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

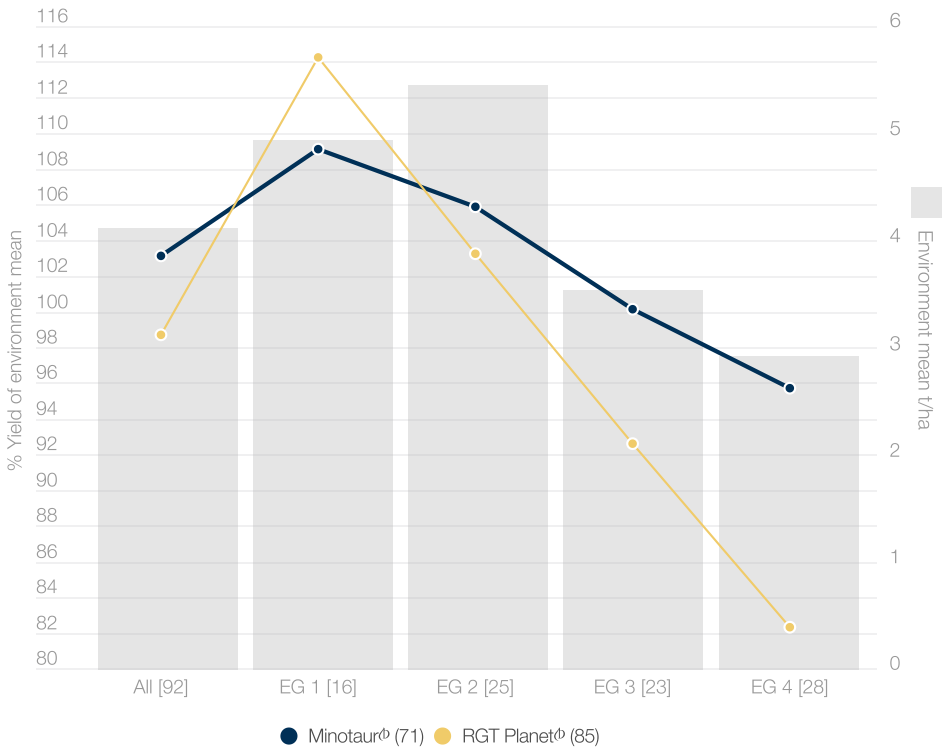
## PBR and EPR

Minotaur<sup>ϕ</sup> is protected by Plant Breeders Rights (PBR) (denoted by the <sup>ϕ</sup> symbol) and all production (except seed saved for planting) is liable to an End Point Royalty (EPR), which funds future plant breeding. Minotaur<sup>ϕ</sup> growers will be subject to a Growers License Agreement that acknowledges that an EPR of \$4/tonne + GST must be paid on all production other than seed saved for planting.

## Grain yield

Minotaur<sup>®</sup> has delivered yields that are more stable across a wider range of seasonal conditions and regions compared to RGT Planet<sup>®</sup> (Figures 1 & 2). Minotaur<sup>®</sup> out-yields RGT Planet<sup>®</sup> in most environments, except in very high yielding, softer conditions (Figure 3).

Figure 1. Grain yield of Minotaur<sup>®</sup> versus RGT Planet<sup>®</sup> across a range of growing conditions - AGT long term data



Source: AGT long term MET analysis, all Australian trial sites 2017-2021

[ ] Total number of trials per environmental grouping

( ) Number of trials that each variety was present in across the dataset [92]

EG Environmental Group, a statistical correlation of performance across 92 trial sites and seasons (2017-2021) where single experiments are grouped based on relative performance of varieties within those trials

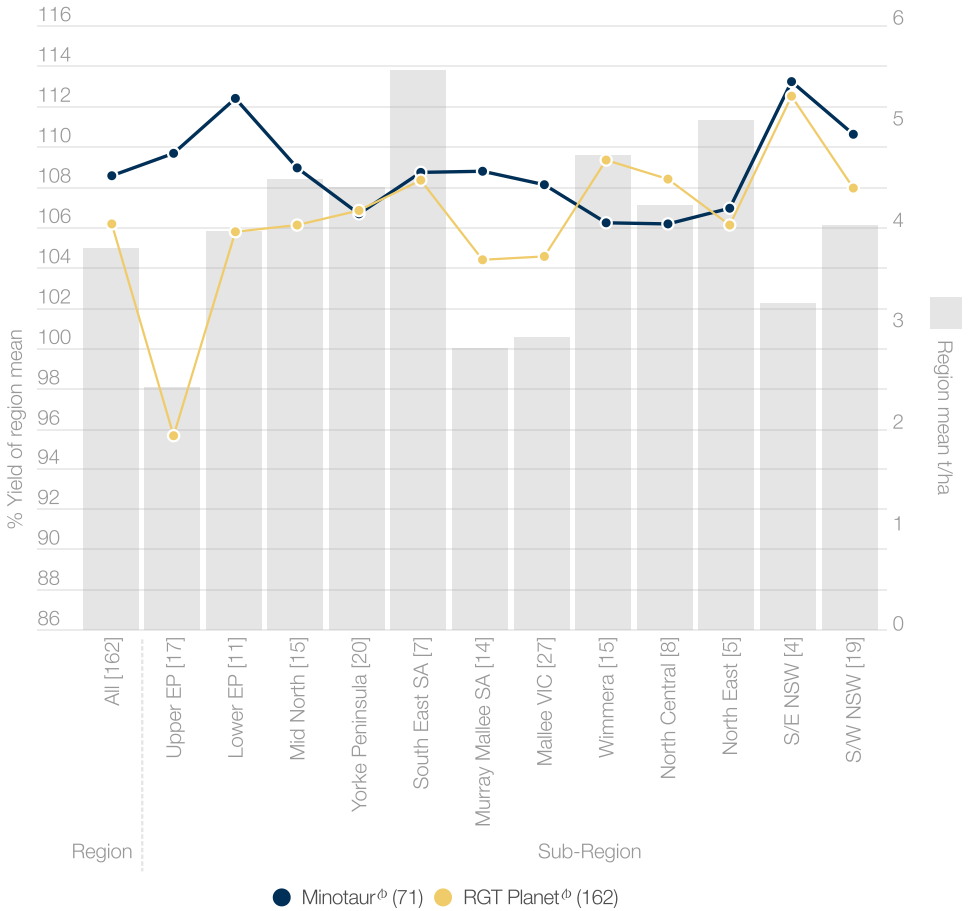
EG1 High yielding sites with minimal stress throughout growing season

EG2 High yielding sites with a slow, soft finish to the season

EG3 Moderate yielding sites, experiencing moderate stress

EG4 Drought stressed, low/moderate yielding environments

Figure 2. Grain yield of Minotaur<sup>ϕ</sup> versus RGT Planet<sup>ϕ</sup> - NVT long term data

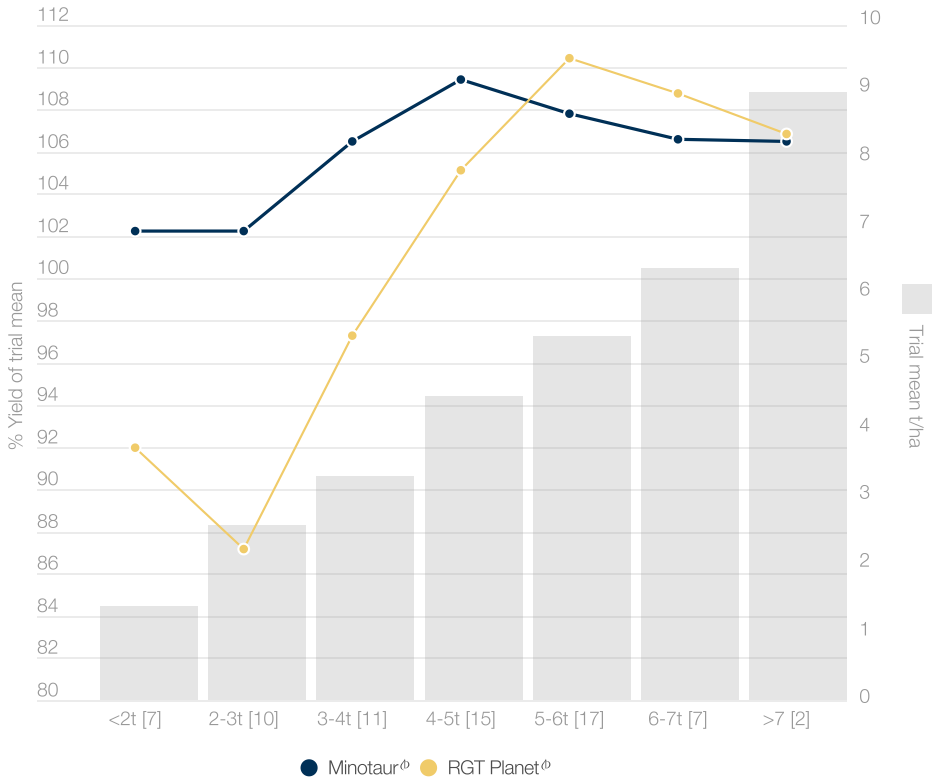


Source: NVT main season series long term MET analysis 2017-2021

[ ] Total number of trials per region

( ) Number of trials that each variety was present in across the SA, Vic and southern NSW dataset [162]

Figure 3. Grain yield of Minotaur<sup>ϕ</sup> versus RGT Planet<sup>ϕ</sup> across yield potential ranges



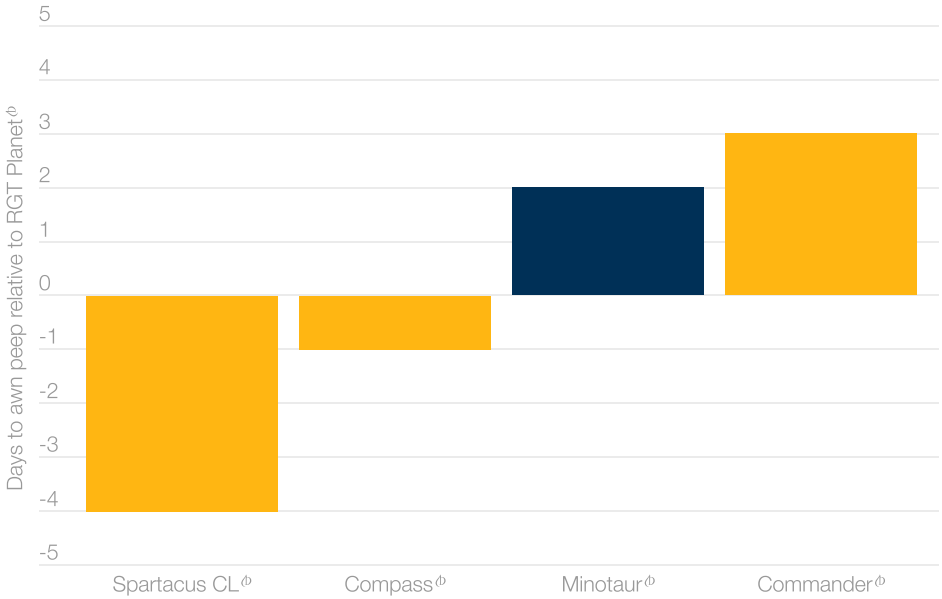
Source: NVT main season series 2020 & 2021 (SA/VIC/sNSW)

[ ] Total number of trials per yield band

## Maturity

Minotaur<sup>ϕ</sup> has a mid-slow maturity, slightly slower to reach awn peep than RGT Planet<sup>ϕ</sup> (Figure 4).

Figure 4. Awn peep of Minotaur<sup>ϕ</sup> and comparator varieties relative to RGT Planet<sup>ϕ</sup>



Source: AGT main season barley trials, 2018-2021 (WA/SA, average of 10 trials)

## Grain quality

Minotaur<sup>®</sup> has shown improved test weight and grain size compared to RGT Planet<sup>®</sup> (Figures 5, 6 & 7).

Figure 5. Test weight of Minotaur<sup>®</sup> versus comparators

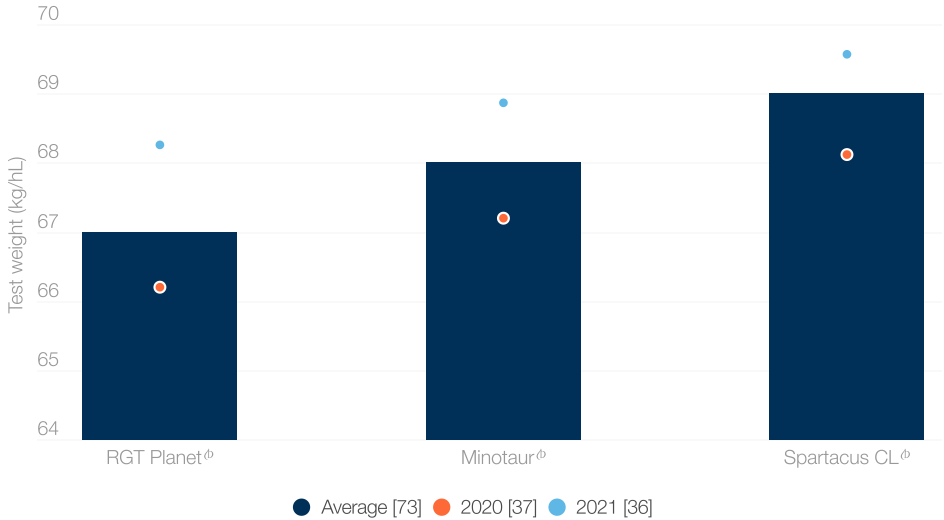


Figure 6. Screenings of Minotaur<sup>®</sup> versus comparators

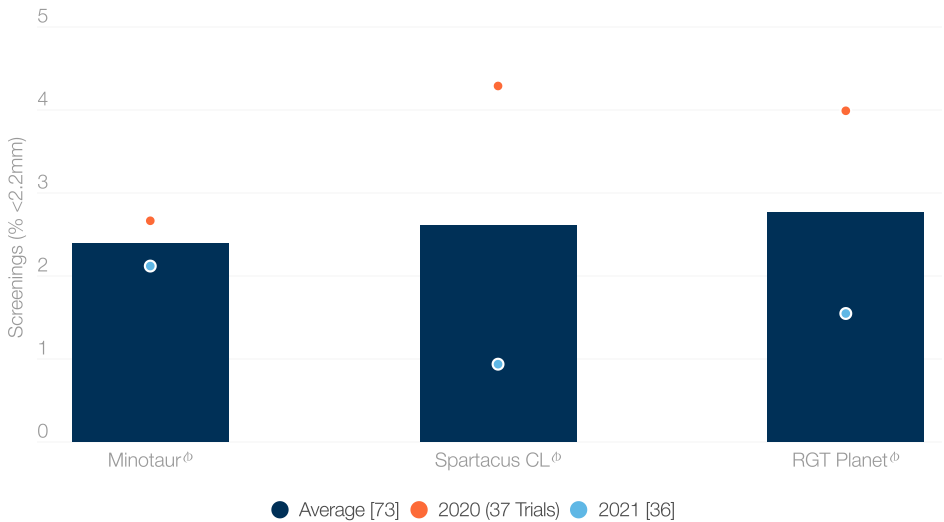
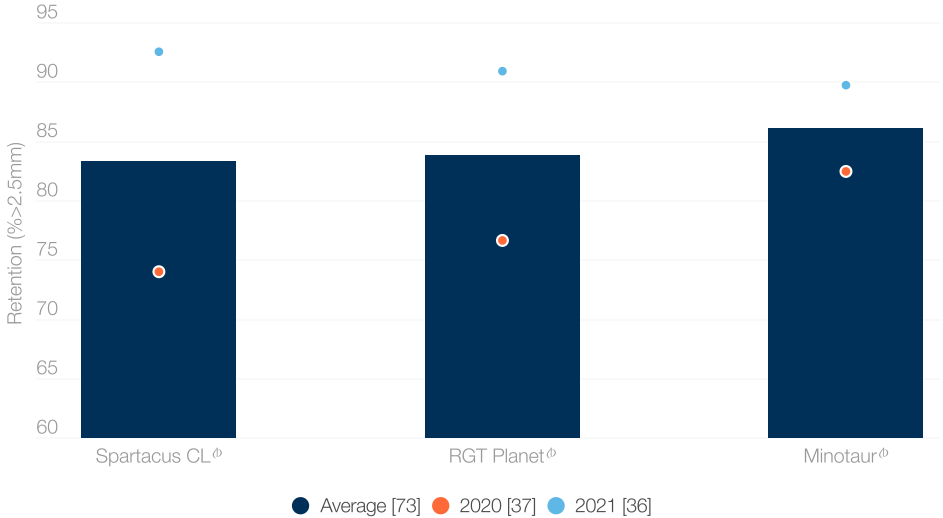




Figure 7. Retention of Minotaur<sup>®</sup> versus comparators



Source: NVT main season trial series 2020 & 2021 (73 trials in South Australia, Victoria and southern New South Wales).  
 [ ] Total number of trials per region

### Disease resistance

Minotaur<sup>®</sup> has improved levels of resistance to net form and spot form net blotch in some environments when compared with RGT Planet<sup>®</sup> but has lower levels of resistance to scald (Table 1).

Table 1. Variety comparisons

	Variety	Scald	Leaf Rust	Spot Form Net Blotch	Net Form Net Blotch	CCN
South Australia	Minotaur <sup>®</sup>	VS	S-SVS	S	R-MS	R*
	RGT Planet <sup>®</sup>	R-S	MRMS-MS	SVS	MR-SVS	R*
	Spartacus CL <sup>®</sup>	R-SVS	MR-S	S	S-VS	R
Victoria	Minotaur <sup>®</sup>	VS	VS	S	R#	R*
	RGT Planet <sup>®</sup>	S	MRMS	SVS	SVS	R*
	Spartacus CL <sup>®</sup>	SVS	S	SVS	S	R
New South Wales	Minotaur <sup>®</sup>	SVS	SVS	S	MR-MS	R*
	RGT Planet <sup>®</sup>	MSS	MR	SVS	MSS-S	R*
	Spartacus CL <sup>®</sup>	SVS	MRMS	SVS	MR-S	R

R Resistant,  
 MR Moderately Resistant  
 MS Moderately Susceptible  
 S Susceptible  
 VS Very Susceptible

\* Provisional rating  
 A range of reactions is provided (separated with -) where different strains of the pathogen exist and where the variety may respond differently to them

# Varieties marked may be more susceptible if alternative strains are present  
 Source: NVT consensus ratings 2021



Brad Koster, Variety Support Manager, SA:

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James Whiteley, Variety Support Manager, Southern NSW:

0419 840 589

Rob Harris, Variety Support Manager, Victoria:

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Disclaimer: 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.