

Calibre[®]



- Elite grain yield
- Derived from popular variety Scepter[Ⓛ]
- Very widely adapted, suited to most growing regions of SA/VIC
- Longer coleoptile than most commonly grown varieties
- Good sprouting tolerance, similar to Scepter[Ⓛ], better than Vixen[Ⓛ]
- Improved powdery mildew resistance over Scepter[Ⓛ]
- Quick-mid maturity, similar to Mace[Ⓛ]
- AH quality classification

Breeder's comments

Calibre^ϕ (tested as RAC2721) is the first variety derived from Scepter^ϕ to hit the market and is the next step for growers looking to achieve the gains they made by switching from Mace^ϕ to Scepter^ϕ.

Not only is Calibre^ϕ the next step in grain yield, it also offers growers the opportunity to access longer coleoptile genetics in an elite yielding background. The coleoptile length of a wheat variety is a factor that limits how deep you can plant. So, it's not surprising that there are many instances where a longer coleoptile is needed: when there is a chance of furrow fill by wind or rain; when chasing receding moisture profiles; or when trying to achieve adequate pre-emergent herbicide separation. Yitpi^ϕ is a good example of a variety with a longer coleoptile that has been used in the past by growers to manage such situations but is now outclassed. Calibre^ϕ has a similar coleoptile length to Yitpi^ϕ but with market leading yield performance.

With elite grain yield, improved coleoptile length, AH quality, very wide adaptation, and a disease package similar to its parent Scepter^ϕ, Calibre^ϕ makes an excellent replacement for Scepter^ϕ. The yellow leaf spot resistance of Calibre^ϕ is good, achieving a very similar level of resistance to Scepter^ϕ. Calibre^ϕ also offers a valuable improvement in stripe rust and powdery mildew resistance over Scepter^ϕ. In comparison to Vixen^ϕ, Calibre^ϕ offers higher grain yields in low-medium yielding environments, a longer coleoptile, much better sprouting tolerance, a slower maturity and higher levels of CCN resistance. Calibre^ϕ will also be compared to AGT's 2020 release Ballista^ϕ. Both varieties are similar in many respects but with Calibre^ϕ showing a little higher yield overall; longer coleoptile; and better yellow leaf spot, septoria *tritici* and powdery mildew resistance.

Seed availability

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

PBR and EPR

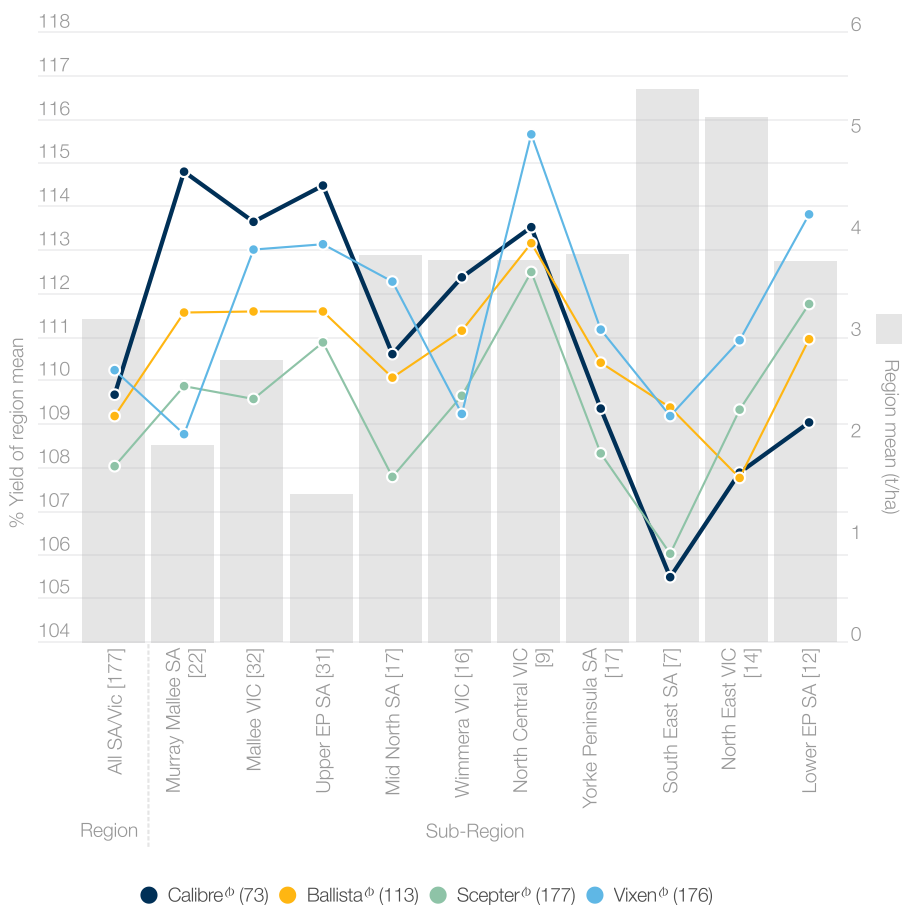
Calibre^ϕ is protected by Plant Breeders Rights (PBR) (denoted by the ^ϕ symbol) and all production (except seed saved for planting) is liable to an End Point Royalty (EPR), which funds future plant breeding. Calibre^ϕ growers will be subject to a Growers License Agreement that acknowledges that an EPR of \$3.50/tonne + GST must be paid on all production other than seed saved for planting.

Grain yield

NVT long term data shows that Calibre[®] has yielded exceptionally well relative to comparator varieties in most regions of SA and Victoria, but has particularly excelled in Mallee type environments (Figure 1).

Viewing data by yield potential band, we see that Calibre[®] has enjoyed a clear yield advantage over Scepter[®] in trials that have yielded less than 5t/ha, with Scepter[®] gaining an advantage over Calibre[®] in higher yielding environments (Figure 2).

Figure 1. Grain yield of Calibre[®] versus comparators

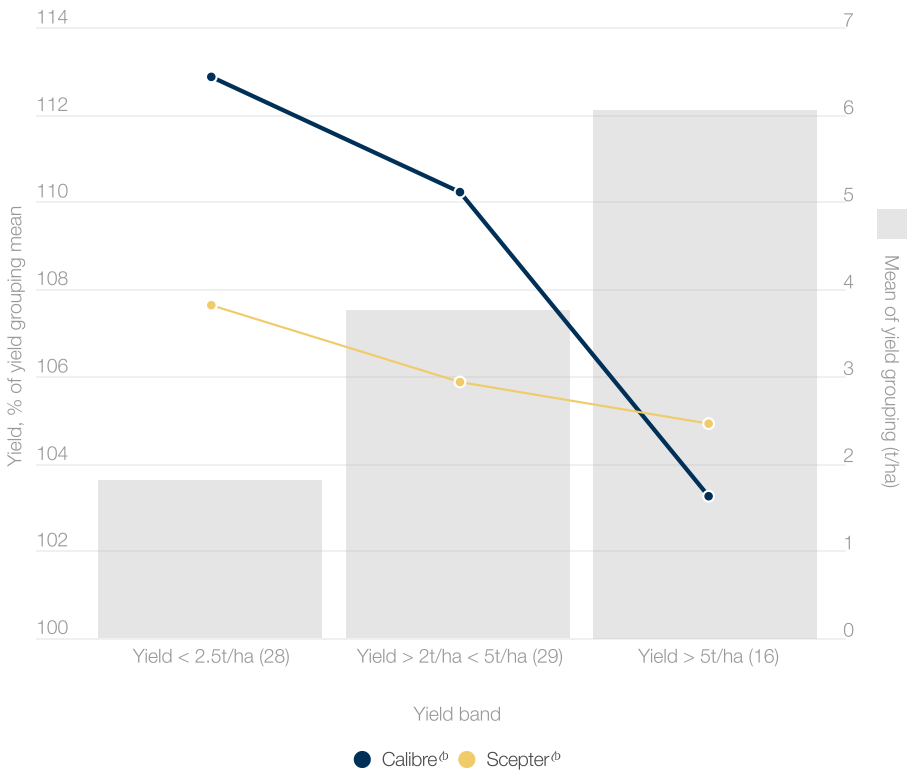


Source: NVT main season series long term MET analysis 2017-2021. Regions sorted by the % that Calibre's[®] yield has deviated from Scepter[®].

[] Total number of trials per region

() Number of trials that each variety was present in across the SA/Vic dataset [177 trials]

Figure 2. Grain yield of Calibre[®] versus Scepter[®] - yield bands



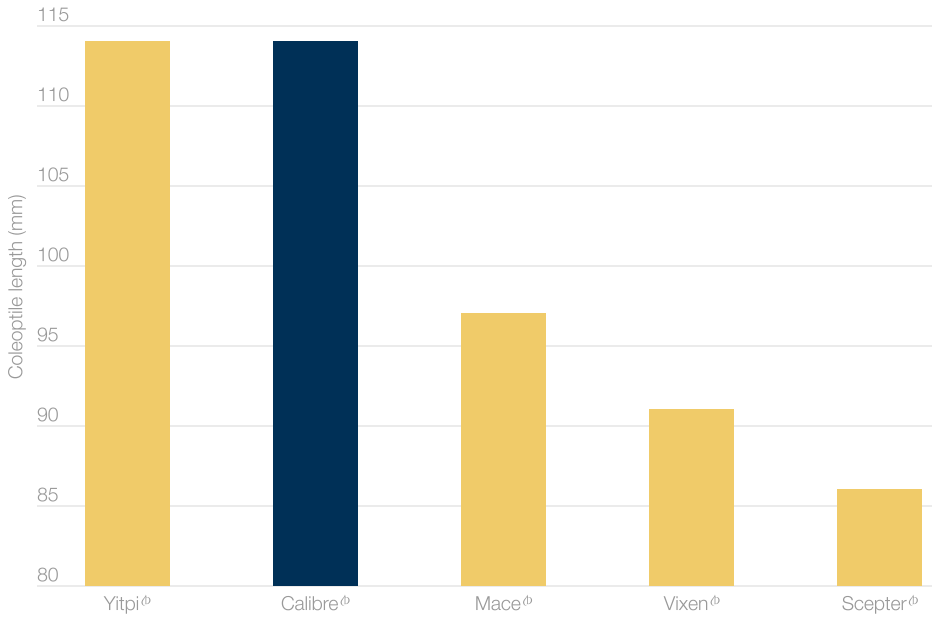
Source: NVT main season series 2020-2021 (73 trials across SA/Vic)

() Number of trials

Coleoptile length

Calibre[®] has a much longer coleoptile than many currently grown varieties, which may prove beneficial in some situations (Figure 3).

Figure 3. Coleoptile length of Calibre[®] versus comparators

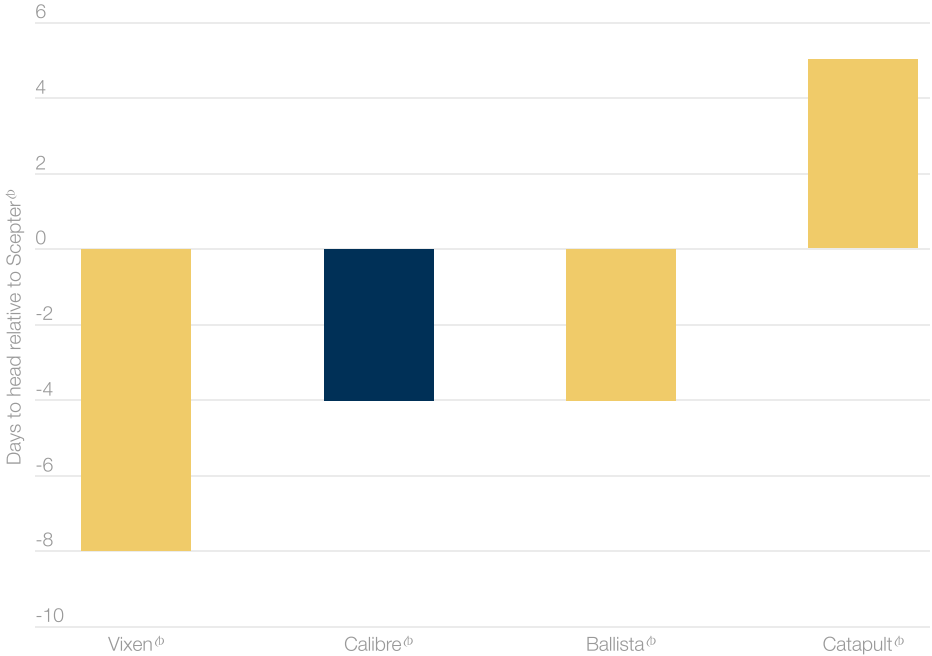


Source: AGT coleoptile experiment 2020

Maturity

Calibre[®] is a quick-mid maturing variety, a few days slower than Vixen[®] and a little quicker than Scepter[®]. Those that are familiar with the maturity of Mace[®] and Scepter[®] should feel comfortable in planting Calibre[®] in a similar sowing window (Figure 4).

Figure 4. Head emergence of Calibre[®] and comparators relative to Scepter[®]

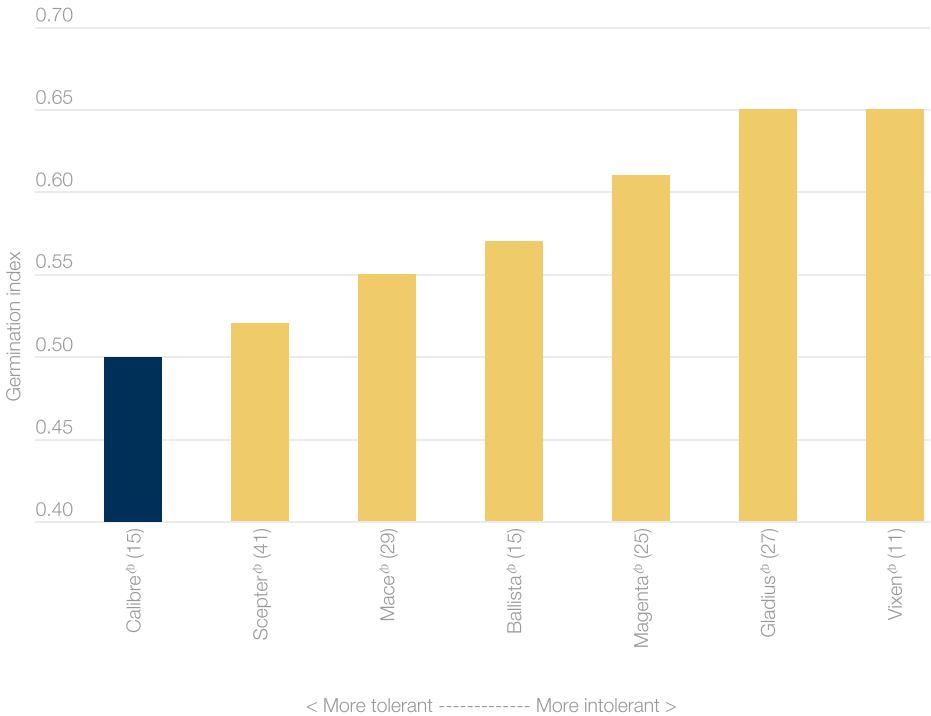


Source: AGT Roseworthy main season trial 2019-2021

Disease resistance & agronomics

Calibre[®] has slightly better resistance to powdery mildew than Ballista[®], Scepter[®] and Vixen[®] and holds CCN resistance comparable to Scepter[®] (Table 1). The sprouting tolerance of Calibre[®] is very similar to Scepter[®], offering an advantage over Vixen[®] which is similar to Gladius[®] (Figure 5).

Figure 5. Sprouting tolerance of Calibre[®] versus comparators



Source: AGT Germination Index testing 2016-2020

() reps tested

Table 1. Variety comparisons

	Calibre ^o	Ballista ^o	Scepter ^o	Vixen ^o
Quality Classification	AH	AH	AH	AH
Maturity	Quick-Mid	Quick-Mid	Mid	Quick
Stem Rust	MR	MR	MRMS	MRMS
Stripe Rust	MS	MSS	MSS	S
Leaf Rust	S	S	MSS	SVS
CCN	MRMS*	MRMS	MRMS	MSS
Yellow Leaf Spot	MRMS	MSS	MRMS	MRMS
Black Point	MS*	MRMS*	MS	MSS
Septoria <i>tritici</i> Blotch	S	SVS	S	S
Powdery Mildew	S	SVS	SVS	SVS
Sprouting tolerance#	MII	MII	MII	IVI

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

* Provisional rating

Rating from AGT Germination Index trials

Source: NVT consensus ratings 2021 and AGT



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