Catapult®

- The highest yielding choice for late April sowing
- Very flexible sowing window
- Safer option for sowing dry when germination date is unknown
- Wide adaptation, will fit the front end of most growers' cropping programs
- Excellent choice for wheat on wheat situations
- Very good physical grain characteristics with an AH quality classification
- A great alternative to Magenta[Φ], Trojan[Φ] and Cutlass[Φ]

Breeder's comments

Sometimes in breeding, you get unexpected but very exciting results. Out of a standard Mace® cross, Catapult® (tested as RAC2484) has emerged as an exceptionally unique combination of features that we believe will help growers increase productivity, while providing flexibility that has not been available previously.

Growers are continually looking for earlier sowing options that don't compromise on yield, to compliment high yielding main season varieties like Scepter® so that an increase in over-all farm yield is achieved. Catapult® may be viewed as a 'longer season' Scepter®, allowing growers to achieve Scepter®-like yields when sown in late April. When sown around ANZAC day, Catapult® has consistently out-yielded Magenta®, Trojan® and Cutlass® (and other varieties used in this sowing window). This very high yield potential relative to other varieties has been recorded across a large range of growing conditions and environments, highlighting Catapult's® suitability for most cropping programs.

These days, much of the wheat crop is planted dry. In many instances germination of dry sown crops may be delayed considerably if the arrival of the break in the season is unknown, and therefore variety choice for these situations is very important. A variety like Catapult® is a great choice for dry sowing because it maintains its high yield over a wide range of germination dates, including well into May where it remains competitive with the benchmark variety Scepter®.

Catapult® is also one of the best choices for use in wheat on wheat rotations, with excellent yellow spot resistance.

Catapult® is very closely related to Scepter® and shares its physical grain quality characteristics of high test weight, low screenings and AH quality classification.

Seed Availability

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

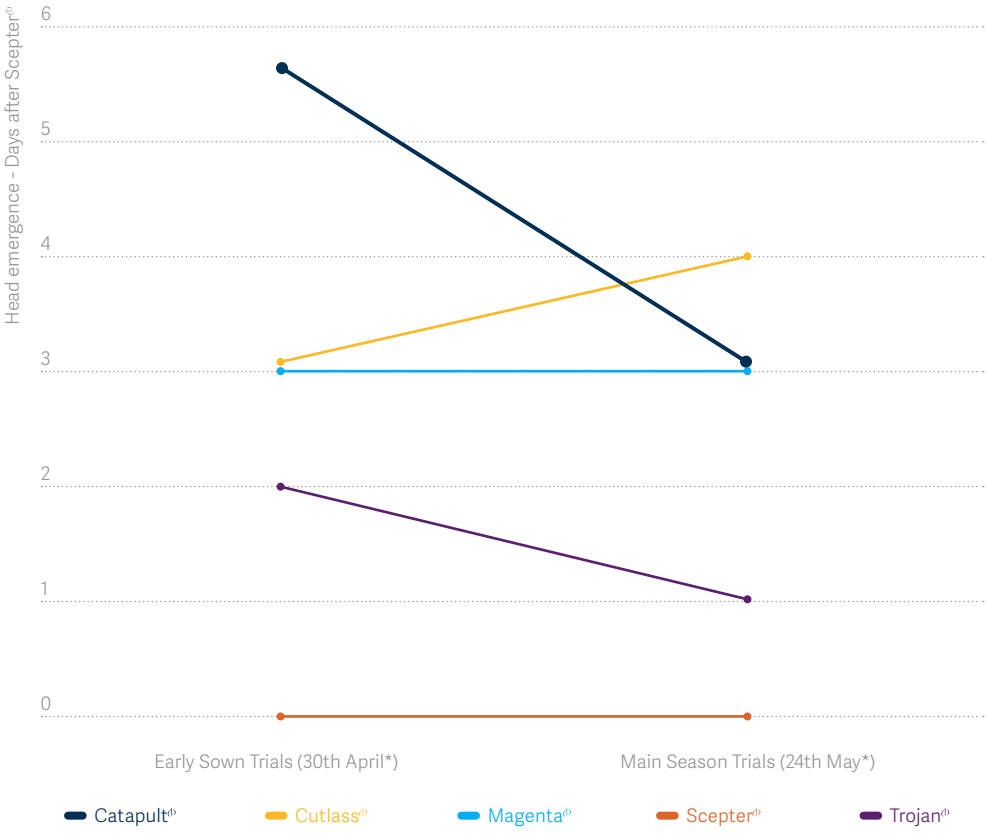
PBR and EPR

Catapult® 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. Catapult® growers will be subject to a Growers License Agreement that acknowledges that an EPR of $3.25/tonne + GST has to be paid on all production other than seed saved for planting.

Maturity & Sowing Window

Catapult® offers a uniquely wide sowing window, highlighted in Figure 1. When sown towards the end of April, Catapult® has taken longer for heads to emerge relative to Trojan® and Scepter®, but has quickened up when sown into May. In most environments we expect that you should be able to safely plant Catapult® a week earlier than you would plant Scepter®, with this planting window extending well into the back end of May, offering great flexibility to growers.

Figure 1 Head emergence of Catapult® relative to Scepter®

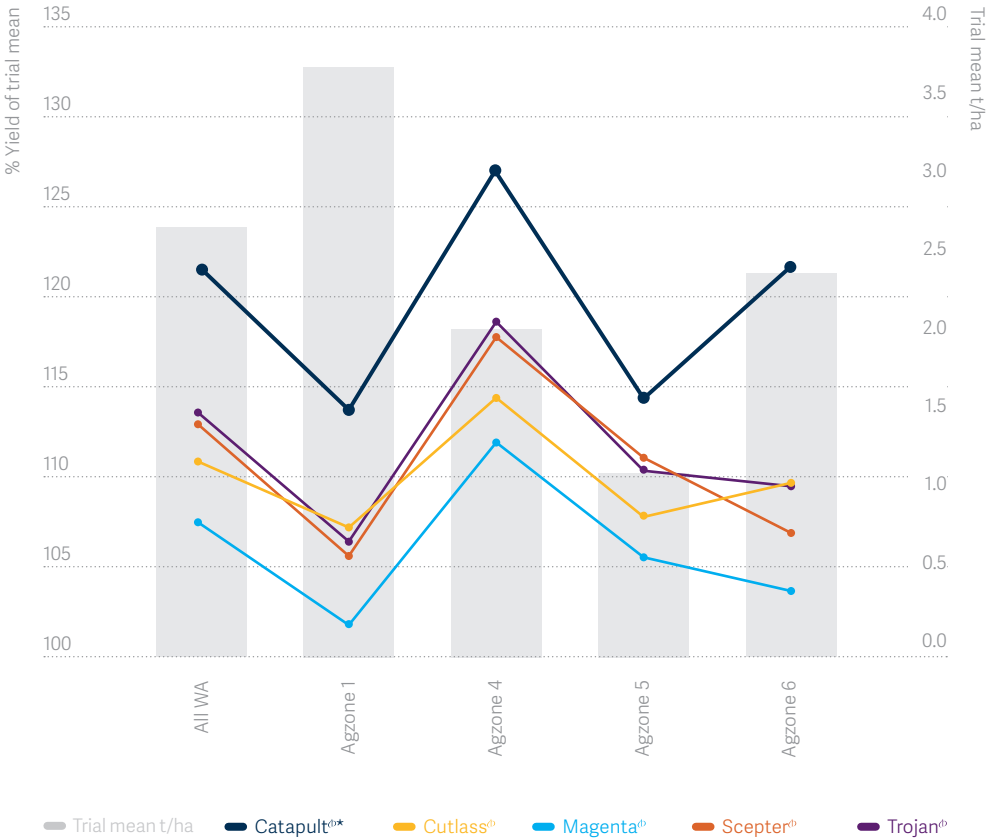


Source / AGT early & main season trials 2016-2018 (WA/SA/Vic/sNSW, 17 experiments) *average sowing date

Yield

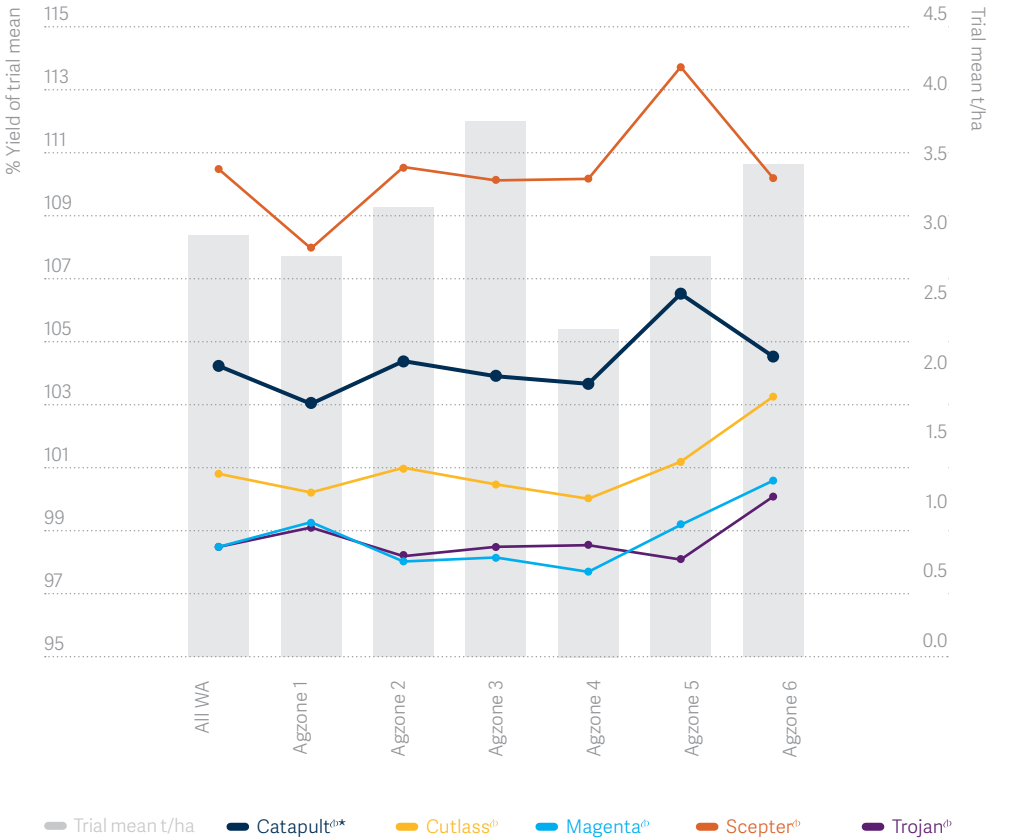
Catapult® has shown a significant yield improvement over currently grown varieties that are used at the front end of growers' cropping programs. It is particularly suited to plantings towards the end of April (Figure 2). When sowing was delayed until May and June (Figure 3), the yield advantage of Catapult® was maintained over other early sowing choices like Magenta®, Trojan® and Cutlass®, however was lower than Scepter®. Maintaining high and consistent yield across a range of germination dates makes Catapult® a safer choice for dry sowing, when the likely germination date is unknown and therefore variable.

Figure 2 EARLY SOWN TRIALS: Predicted yield of Catapult® across WA environments



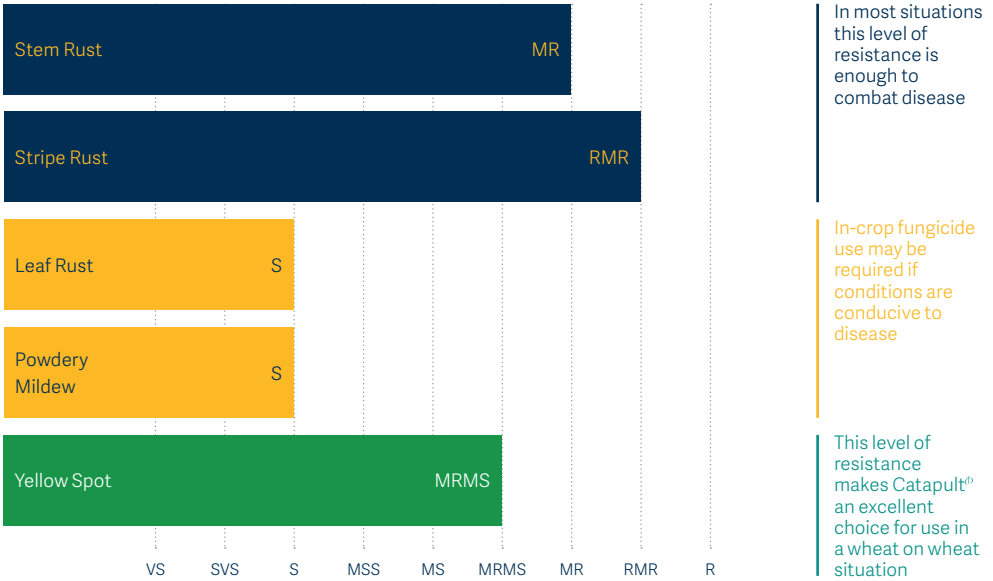
Source / NVT long term MET analysis, EARLY SOWN TRIAL SERIES 2014-2018
*Yield prediction based on one year of data.

Figure 3 MAIN SEASON TRIALS: Predicted yield of Catapult® across WA environments



Source / NVT long term MET analysis, MAIN SEASON TRIAL SERIES 2014-2018
*Yield prediction based on one year of data.

*Figure 4 Disease resistance ratings for Catapult®**



*Provisional ratings

Table 1 Variety comparisons

	Catapult®*	Cutlass®	Trojan®	Magenta®	Scepter®
Quality Classification	AH	APWN	APW	APW	AH
Stem Rust	MR	R	MRMS	RMR	MRMS
Stripe Rust	RMR	RMR	MR	MS	MR
Leaf Rust	S	R	MR	RMR	MSS
Yellow Spot	MRMS	MSS	MS	MR	MRMS
Powdery Mildew	S	S	S	MRMS	S
Nodorum Blotch	MRMS	MRMS	MS	MRMS	MRMS
Black Point	MSS	MS	MS	MSS	MS

R Resistant
MR Moderately Resistant
MS Moderately Susceptible
S Susceptible
VS Very Susceptible
TBA Quality classification expected late 2019
* Provisional ratings

Source / NVT and AGT data.

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