Variety snapshot

- Mid-slow maturity, with a 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
- Good pre-harvest sprouting tolerance, better than LRPB Trojan\(^{(b)}\) and Rockstar\(^{(b)}\)
- Excellent choice for wheat on wheat situations
- Better CCN resistance than LRPB Trojan\(^{(b)}\) and Rockstar\(^{(b)}\)
- Very good physical grain characteristics with an AH quality classification
Breeder’s comments

Sometimes in breeding, you get some unexpected but very exciting results. Out of a standard Mace\textsuperscript{a} cross, Catapult\textsuperscript{b} (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\textsuperscript{b}, so that an increase in over-all farm yield is achieved. Catapult\textsuperscript{b} may be viewed as a ‘longer season’ Scepter\textsuperscript{b}, allowing growers to achieve Scepter\textsuperscript{b}-like yields when sown in late April. When sown around ANZAC day, Catapult\textsuperscript{b} has consistently out-yielded LRPB Trojan\textsuperscript{a}, Cutlass\textsuperscript{a} and Yitpi\textsuperscript{a}. The high yield potential relative to other varieties has been recorded across a large range of growing conditions and environments, highlighting Catapult’s\textsuperscript{b} very wide 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\textsuperscript{b} 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\textsuperscript{b}.

Catapult\textsuperscript{b} is also one of the best choices for use in wheat on wheat rotations. Apart from Catapult\textsuperscript{b}, there are no other wheat varieties that combine this maturity type with CCN resistance, yellow leaf spot resistance and AH quality. It’s this unique combination that supports Catapult’s\textsuperscript{b} use as a second wheat in a rotation, a practice very common in low rainfall or Mallee type environments.

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

Seed availability

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

PBR and EPR

Catapult\textsuperscript{b} 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\textsuperscript{b} 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 LRPB Trojan™, Cutlass™ and Scepter™, but has quickened up when sown into May. We believe that you should be able to 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™**

![Graph showing head emergence of Catapult™ relative to Scepter™](image-url)

- **Source**: AGT early & main season trials 2016-2019 (SA/Vic/sNSW, 21 experiments)
- ***average sowing date**
Grain yield
In NVT early sown trials, Catapult\(^b\) has shown a significant yield improvement over currently grown varieties in the mid-slow maturity range that are predominantly used at the front end of growers’ cropping programs, whilst also showing a yield advantage over Scepter\(^b\) (Figure 2). In the NVT main season trials, the yield advantage of Catapult\(^b\) was only a little lower than Scepter\(^b\) (Figure 3). Maintaining high and consistent yield across a range of germination dates makes Catapult\(^b\) a safer choice for dry sowing, when the likely germination date is unknown and therefore variable.

**Figure 2**  Early sown trials: Grain yield of Catapult\(^b\) across all SA/Vic/sNSW

![Graph showing grain yield of various varieties](image URL)
Pre-harvest sprouting

Pre-harvest sprouting tolerance of wheat varieties is particularly important for those environments where rain is received at harvest. Catapult\textsuperscript{®} has shown excellent pre-harvest sprouting tolerance, with a falling number index rating slightly better than that of Scepter\textsuperscript{®} and LRPB Trojan, and much better than Rockstar\textsuperscript{®} (Figure 4).

Figure 3  Main season trials: Grain yield of Catapult\textsuperscript{®} across all SA/Vic/sNSW

Figure 4  Falling number index as an indication of pre-harvest sprouting tolerance

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Figure 5  Disease resistance ratings for Catapult®

In most situations this level of resistance is enough to combat disease.

In-crop fungicide use may be required if conditions are conducive to disease.

This level of resistance makes Catapult® an excellent choice for use in a wheat on wheat situation.

Table 1  Variety comparisons

<table>
<thead>
<tr>
<th></th>
<th>Catapult®</th>
<th>Cutlass®</th>
<th>Yitpi®</th>
<th>LRPB Trojan®</th>
<th>Rockstar®</th>
<th>Scepter®</th>
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<td>R</td>
<td>S</td>
<td>MRMS</td>
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<tr>
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<td>MS</td>
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</table>

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


Resistance ratings to separate pathotypes
Dan Vater, Marketing Manager, SA 0427 188 919
Rob Harris, Marketing Manager, Vic 0428 576 044
James Whiteley, Marketing Manager, Southern NSW 0419 840 589
James Edwards, Wheat Breeder 0427 055 659
Adam Norman, Wheat Breeder 0400 656 012
End Point Royalty Office (08) 7111 0201 agtbreeding.com.au

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