Catapult

AGT
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\(^\text{b}\) and Rockstar\(^\text{b}\)
- Excellent choice for wheat on wheat situations
- 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™ 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 overall 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™, LRPB Trojan™ and Cutlass™. The high yield potential relative to other varieties has been recorded across a large range of growing conditions and environments, highlighting Catapult’s™ 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™ 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 very good 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 Magenta, 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*

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Source  
AGT early & main season trials 2016-2019 (WA/SA/Vic/sNSW, 24 experiments)  
average sowing date
Grain yield

In NVT early sown trials, Catapult\textsuperscript{\textregistered} 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\textsuperscript{\textregistered} (Figure 2).

Figure 2. Early sown trials: Grain yield of Catapult\textsuperscript{\textregistered} across all WA

Source NVT long term MET analysis, early sown trial series 2015-2019 [15 trials across WA]

() Number of trials that each variety was present in across the dataset
Pre-harvest sprouting

Pre-harvest sprouting tolerance of wheat varieties is particularly important for those environments where rain is received at harvest. Catapult has shown excellent pre-harvest sprouting tolerance, with a falling number index rating slightly better than that of Scepter, and much better than Rockstar and Magenta (Figure 3).

Figure 3  Falling Number Index as an indication of pre-harvest sprouting tolerance

<table>
<thead>
<tr>
<th>Variety</th>
<th>Falling Number Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catapult</td>
<td>6</td>
</tr>
<tr>
<td>Scepter</td>
<td>5</td>
</tr>
<tr>
<td>LRPB Trojan</td>
<td>4</td>
</tr>
<tr>
<td>Cutlass</td>
<td>3</td>
</tr>
<tr>
<td>Magenta</td>
<td>2</td>
</tr>
<tr>
<td>Rockstar</td>
<td>1</td>
</tr>
</tbody>
</table>

Source  DPIRD falling number index ratings
* Provisional rating

Note  Falling number index is a rating on a scale of 1-9 that is designed to rate a variety’s ability to maintain falling number after a rainfall event. The higher the falling number index rating, the more likely a variety is to maintain falling number.
**Figure 4  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.

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*Provisional ratings

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**Table 1  Variety comparisons**

<table>
<thead>
<tr>
<th></th>
<th>Catapult®</th>
<th>Cutlass®</th>
<th>Magenta®</th>
<th>LRPB Trojan®</th>
<th>Rockstar®</th>
<th>Scepter®</th>
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<tbody>
<tr>
<td>Maturity</td>
<td>Mid-slow</td>
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<td>Mid-slow</td>
<td>Mid</td>
<td>Mid</td>
<td>Mid</td>
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<td>APW(N)</td>
<td>APW</td>
<td>APW(N)</td>
<td>AH</td>
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<td>Stem rust</td>
<td>MR</td>
<td>RMR</td>
<td>RMR</td>
<td>MRMS</td>
<td>MR</td>
<td>MRMS</td>
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<tr>
<td>Stripe rust</td>
<td>RMR</td>
<td>RMR</td>
<td>MSS</td>
<td>MR</td>
<td>RMR</td>
<td>MR</td>
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<tr>
<td>Leaf rust</td>
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<td>R</td>
<td>RMR</td>
<td>MR</td>
<td>S</td>
<td>MSS</td>
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<tr>
<td>Yellow spot</td>
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<td>MSS</td>
<td>MR</td>
<td>MSS</td>
<td>MRMS</td>
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<td>MRMS</td>
<td>S</td>
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<tr>
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<td>MSS</td>
<td>MRMS</td>
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<tr>
<td>Black point</td>
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R  Resistant  S  Susceptible  Source / 2020 Western Australian Crop Sowing Guide, NVT and AGT data.
MR  Moderately Resistant  VS  Very Susceptible
MS  Moderately Susceptible  *  Provisional ratings