Variety snapshot

- Very unique ‘slow-very slow’ spring maturity
- Best suited to mid and late April sowings
- Highly competitive yield when sown early
- Wide adaptation, suits most regions of WA
- Suitable for wheat on wheat situations
- APW quality classification
Breeder’s comments

We have had great success working with a germplasm pool that heavily features the famous WA-bred variety Wyalkatchem\(^x\), delivering Mace\(^x\), and then Scepter\(^x\) to growers. Through the success of these landmark varieties we have been able to increase our investment into breeding, with the intention to round out our portfolio of varieties to provide an offering for all unique wheat growing regions and use patterns in Australia.

Denison\(^x\) (tested as WAGT734) has emerged out of a Mace\(^x\)/Corack\(^x\) cross made by our team based in Northam, and caught our attention with its very unique maturity relative to other commonly grown varieties. Up until now, there has been a gap in suitable wheat varieties for the sowing opportunity between early April (winter wheats) and late April (mid-slow spring wheats).

Denison\(^x\) is a slow-very slow spring wheat, a maturity that is very uncommon, but fits the sowing window of mid April that traditionally has been un-catered for. Although the mid April planting opportunity may only account for a small percentage of the total sowing programme, we are very proud to offer a well adapted and suitable variety for this purpose.

Denison\(^x\) also offers good physical grain quality, and has an APW quality classification in WA.

Seed availability

Commercial quantities of Denison\(^x\) may be available through AGT Affiliates, or your local retailer. Please consult the AGT website for AGT Affiliate contact details. Denison\(^x\) 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

Denison\(^x\) 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. Denison\(^x\) growers will be subject to a Growers License Agreement that acknowledges that an EPR of $3.40/tonne + GST has to be paid on all production other than seed saved for planting.
Maturity & sowing window
Denison is a slow-very slow variety, a maturity that is very uncommon amongst varieties adapted to WA. While Denison has a wide and flexible sowing window, it may be best suited to mid April sowing, filling the gap between the use of winter wheats (early April) and mid-slow maturing spring varieties (late April/early May).

Figure 1  Head emergence of Denison and comparator varieties relative to Scepter, when sown in AGT early trials

Disease resistance
Like its parents Mace and Corack, Denison offers a good level of resistance to yellow spot, and therefore should suit wheat on wheat situations. Resistance ratings for diseases including powdery mildew and septoria tritici blotch will be sought during the 2020 season.

Figure 2  Disease resistance ratings for Denison*

Source  AGT early sown trials in 2019 (average of 3 trials in southern Australia. Average sowing date 4th May)

Source  NVT and AGT data.

* Provisional ratings
Grain yield

Denison\textsuperscript{a} has excelled in early sown AGT trials, yielding just as well as quicker maturing varieties planted at the same time. Sown mid-late April, Denison\textsuperscript{a} has convincingly out-yielded winter wheat comparators in these trials. Denison\textsuperscript{a} was tested in a limited amount of NVT early sown trials across Australia in 2019, with wider testing being carried out in 2020.

Figure 3  AGT early sown trials: Grain yield of Denison\textsuperscript{a} across all western/southern sites

Source  AGT long term MET analysis, early sown trial series 2015-2019 [23 trials across WA/SA/Vic]
( ) Number of trials that each variety was present in across the dataset
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.