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Wheat variety fact sheets for Western Australia



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Tel: +61 (0)8 9368 3333

Email: enquiries@agric.wa.gov.au

Website: agric.wa.gov.au



2017

Wheat variety fact sheets for Western Australia

Christine Zaicou-Kunesch¹, Georgia Trainor², Brenda Shackley³, Jeremy Curry⁴,
Dr Dion Nicol⁵, Dr Manisha Shankar⁶, Dr Daniel Huberli⁶ and Dr Harmohinder
Dhammu², Department of Agriculture and Food, Western Australia.

¹Geraldton, ²Northam, ³Katanning, ⁴Esperance, ⁵Merredin and ⁶South Perth Offices.

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Introduction

Introduction

Welcome to the first edition of the Wheat variety fact sheets for Western Australia (WA). To support decisions on variety selection and management, the fact sheets contain easy to read information on disease, yield, herbicide tolerance, agronomic traits, breeding information and marketing information for 21 commonly grown and recently released varieties in WA. This bulletin has been published to supplement the 2017 Wheat variety sowing guide which will be released in the second half of 2017 and contain more comprehensive information on varieties.

What's new?

Over the past five years there have been many new wheat varieties released in Western Australia. Before adopting a variety it is important to consider why you want to replace existing varieties and if new varieties meet your needs. Choosing which variety to grow should depend on the yield potential and suitability of the variety to your environment. Knowledge on traits such as disease resistance is important to assess risk and develop suitable management strategies for the variety.

Australian Hard wheat (AH)

Three wheat varieties with AH classification, Bremer, Scepter and Tungsten have been released over the last two years.

Bremer is a mid-maturity AH variety which was released in 2015 by AGT. The strength of this variety is its triple rust resistance. Bremer maintains falling number after pre-harvest rain to a similar extent to Yitpi, and has a useful blackpoint rating. Yields in each agzone have not consistently exceeded Mace in the four years tested.

Scepter was released in 2015 by AGT. It was the highest yielding AH variety in the NVT in 2015 and 2016. Scepter has a triple rust resistance package and a similar falling number index to Mace. However, its powdery mildew and blackpoint ratings are poorer than Mace. Scepter is bred from a cross with Mace (75%) and Wyalkatchem (25%).

Tungsten was released by Edstar Genetics in 2016. It is an AH variety with a mid-long maturity with useful blackpoint rating. Tungsten has generally yielded lower than Mace but similar to Yitpi in the 2015 and 2016 NVT which are predominantly sown in May. Further testing with early sowing is needed to better evaluate this variety's performance.

Australian Premium White (APW)

There was one new APW wheat variety released in 2015.

Cutlass was released by AGT in 2015. It has a later maturity, is similar to Yitpi but with an APW classification. It had superior yields to Yitpi in the 2015 and 2016 NVT. Further testing with early sowing is needed to better evaluate this variety's performance. Cutlass has a very useful triple rust resistance rating and is MSS to yellow spot (compared to Yitpi's SVS). Early research points to slightly less tolerance to sprouting than Yitpi.

Australian Premium White- imidazolinone tolerant (APW-imi)

InterGrain released two new imi-tolerant wheats in 2015 and 2016.

Chief CL Plus is an APW-imi variety which was released in 2016. This variety is the highest yielding APW-imi variety in the NVT and had yields which were competitive with Mace in last year's trials. This variety offers a potential imidazolinone wheat option on wheat stubble as the variety has good yellow spot resistance.

Impress CL Plus is an APW-imi Wyalkatchem type released in 2015. This variety has not out-yielded Justica CL Plus or Chief CL Plus in the majority of NVT trials. It has a large grain size. Impress is susceptible to powdery mildew and has a low falling number rating after pre-harvest rainfall.

Introduction

Australian Noodle wheat (ANW)

A new high yielding noodle wheat was released by InterGrain in 2016.

Ninja is the newest noodle wheat variety, released in 2016, with a Calingiri and Wyalkatchem background. It is the highest yielding ANW variety and out-yielded Mace in most of the NVT trials in 2015 and 2016. This variety is very susceptible to stem rust and powdery mildew but has MR rating for blackpoint. InterGrain also released Supreme and Zen noodle wheats in 2015 (see fact sheets for more details).

Yield performance in the NVT

The yield potential of each variety is an important criterion when selecting whether to sow them in your program. The GRDC's National Variety Trials provide an indication of how much more

a variety can be expected to yield compared to others in environments across the state. The appeal of these trials is the insight they offer into the stability of each variety's yield over a number of years, locations and agzones (Figure 1). The fact sheets in this bulletin include the predicted yields of wheat varieties as a percentage of Mace because it is the current benchmark variety for yield.

Consider the growing conditions of each season when assessing the yield performance of varieties in the NVT. A large number of the recently released wheat varieties have only been tested in NVT since 2015. Each of these years had very different growing conditions. There was stored moisture at seeding in 2015 but temperatures were above average and growing season rainfall below average.

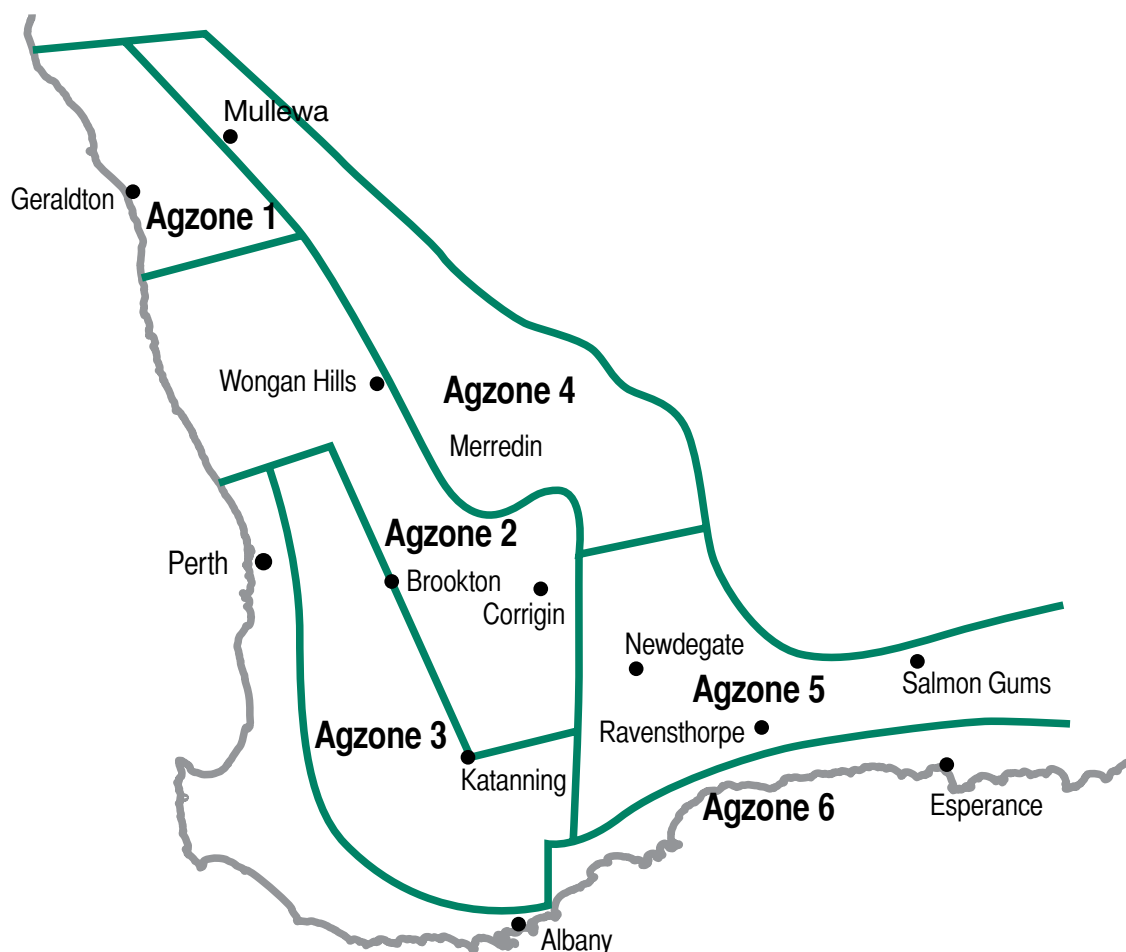


Figure 1. Agzones in Western Australia

Introduction

In contrast in 2016, there was some stored moisture in locations but it was a very cold growing season and there were significant areas which experienced frost across the state. In 2016, nineteen NVT were not included in the meta-analysis for predicted yield due to frost damage at these sites. The results of these trials can be viewed separately on the NVT website. Visit nvtonline.com.au for a comprehensive report on the performance of a larger range of varieties between 2008 and 2016.

Area sown to popular wheat varieties in WA

Mace wheat has dominated plantings in WA since 2012 and approximately 66% of the state was sown to this variety in each of the 2015 and 2016 seasons (Figure 2). Calingiri, Magenta and Yitpi are mid-long maturing varieties, with a combined area sown of approximately 15% in 2016. A number of recently released varieties have been adopted by growers these include Corack, Cobra, Zen, Trojan and Justica CL Plus.

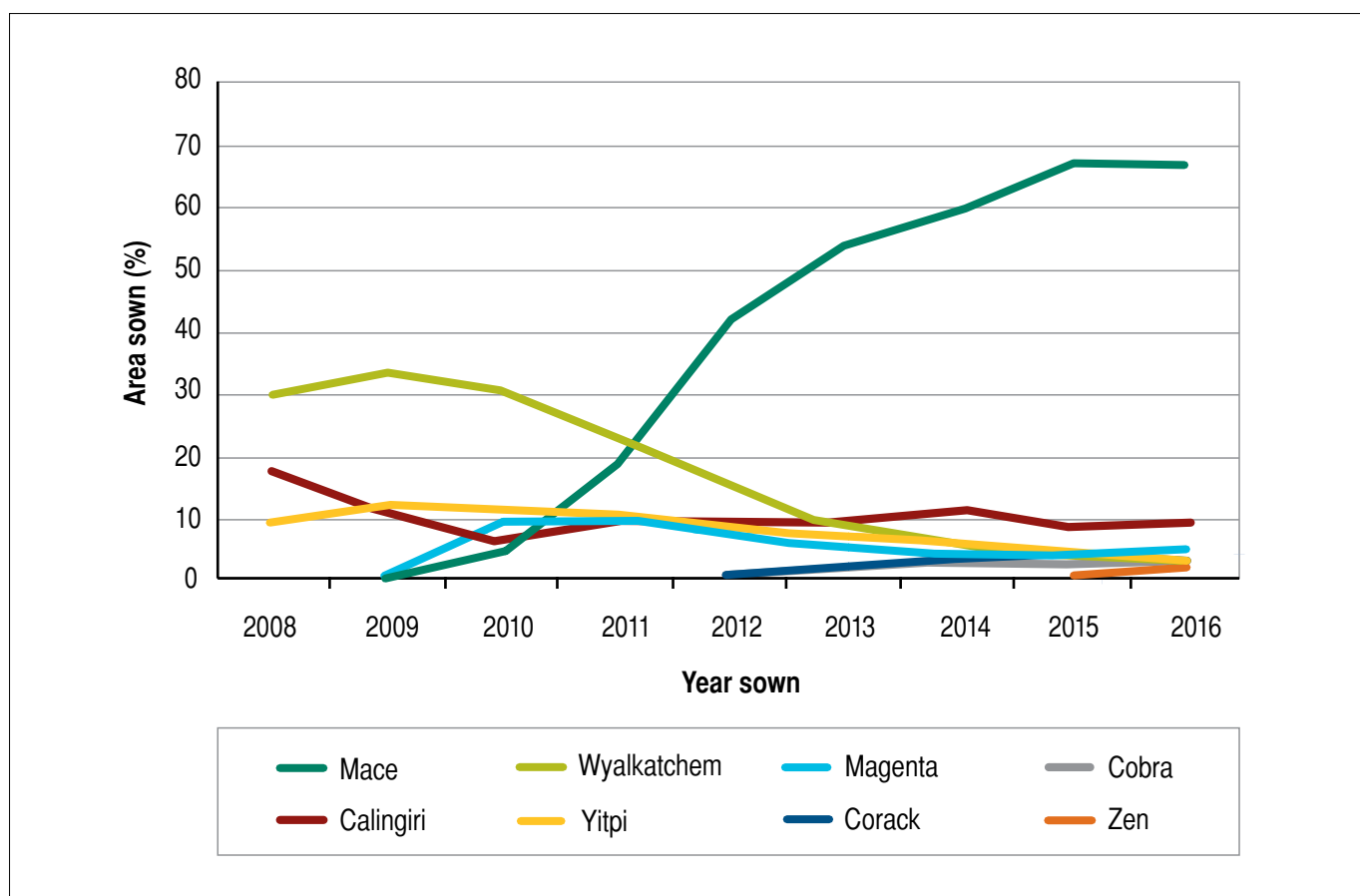


Figure 2 Estimated area sown (% of state plantings) of wheat varieties in Western Australia between 2008 and 2016. Source CBH Group. Note: Top eight varieties based on area sown are listed.

Fact sheets – AH

Bremer [Ⓛ]					
AH					
Comments					
A mid maturing AH variety which was released in 2015. The strength of this variety is its triple rust resistance. Bremer has useful blackpoint rating. It maintains falling number after pre-harvest rain, similar to Yitpi. Yields in each agzone have not consistently exceeded Mace.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	100	90	108	96
Agzone 2	—	97	96	101	93
Agzone 3	—	95	99	92	90
Agzone 4	—	99	83	101	91
Agzone 5	—	92	93	90	90
Agzone 6	—	101	98	98	96
Disease resistance		Adult rating			
S. nodorum blotch		MS			
S. tritici blotch		S			
Yellow spot		MSS			
Stem rust		RMR			
Stripe rust		MR*			
Leaf rust		MR			
Powdery mildew		SVS			
Flag smut		S			
Common bunt		RMR			
RLN (<i>P. quasitereoides</i>)		—			
RLN (<i>P.neglectus</i>)		S			
CCN		MRMS			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.9 (5.9 - 7.5)			
Crown rot yield loss		—			
Blackpoint		MRMS			
Maturity		Mid			
Herbicide tolerance information					
Herbicide tolerance information is not available for this variety. As information becomes available, it will be added.					
Variety information					
Pedigree		DM02-25-SB02-167/Correll//Mace			
Breeder / Seed licensee		AGT			
Access to seed		AGT - Contact territory manager			
EPR (\$/t, excl GST)		\$3.25			

Cobra ⁽¹⁾					
AH					
Comments					
Cobra is an AH variety with a Westonia background which has yielded well in most NVT grown on acid soils. Performs well in high yielding environments. Cobra is susceptible to low falling number after pre-harvest rain.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	98	94	104	101
Agzone 2	—	98	99	100	106
Agzone 3	100	103	100	93	103
Agzone 4	—	101	95	104	99
Agzone 5	96	98	100	95	109
Agzone 6	—	100	95	101	108
Disease resistance		Adult rating			
S. nodorum blotch		MRMS			
S. tritici blotch		MSS			
Yellow spot		MRMS			
Stem rust		RMR			
Stripe rust		MSS			
Leaf rust		MR			
Powdery mildew		MSS			
Flag smut		MS			
Common bunt		SVS			
RLN (<i>P. quasitereoides</i>)		MS			
RLN (<i>P.neglectus</i>)		MSS			
CCN		MS			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.6 (5.6 - 7.3)			
Crown rot yield loss		Moderate (10-20%)			
Blackpoint		MSS			
Maturity		Short-Mid			
Herbicide tolerance information					
Low crop safety margin for diuron + MCPA amine and Aptitude® (carfentrazone + metribuzin) + MCPA amine at label rates applied at the 3 to 4 leaf stage.					
Variety information					
Pedigree		Westonia/W29			
Breeder / Seed licensee		Pacific Seeds/LPB			
Access to seed		Free to trade			
EPR (\$/t. excl GST)		\$3.50			

Fact sheets – AH

Emu Rock ^{db}					
AH					
Comments					
Short maturing AH wheat best suited mid to late sowings in low rainfall environments. Useful tolerance to crown rot. Large grain size. Amongst most susceptible varieties to septoria nodorum and leaf rust. Susceptible to low falling numbers after pre harvest rain, hence not suited to the south coast.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	94	88	97	89	98
Agzone 2	95	92	96	92	95
Agzone 3	91	92	94	96	94
Agzone 4	101	95	106	96	97
Agzone 5	95	93	95	95	98
Agzone 6	90	88	87	91	101
Disease resistance		Adult rating			
S. nodorum blotch		SVS			
S. tritici blotch		S			
Yellow spot		MRMS			
Stem rust		MRMS			
Stripe rust		MRMS			
Leaf rust		S			
Powdery mildew		S			
Flag smut		R			
Common bunt		S			
RLN (<i>P. quasitereoides</i>)		MRMS			
RLN (<i>P.neglectus</i>)		MSS			
CCN		S			
Crown rot		MS			
Agronomic traits					
Coleoptile length (cm)		6.4 (5.5 - 7.4)			
Crown rot yield loss		Low (<10%)			
Blackpoint		MS			
Maturity		Short			
Herbicide tolerance information					
Low crop safety margin for diuron + MCPA amine at label rate applied at the 3 to 4 leaf stage.					
Variety information					
Pedigree		96W657-37/Kukri			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to trade			
EPR (\$/t, excl GST)		\$3.50			

Mace ^{db}					
AH					
Comments					
Mace is a high yielding AH variety with a Wyalkatchem background. The benchmark variety for yield in WA, it has been very popular and is widely planted. In the coming years Mace may be superseded by Scepter due to its superior yield potential. Mace has been popular due to its ability to adapt to a range of regional conditions and soil types. Superior to Wyalkatchem for falling number after pre-harvest rain.					
Yield (% of Wyalkatchem)	2012	2013	2014	2015	2016
Agzone 1	106	101	105	100	103
Agzone 2	106	104	102	101	104
Agzone 3	100	101	99	105	103
Agzone 4	111	102	110	103	106
Agzone 5	106	102	101	105	103
Agzone 6	102	101	100	103	102
Disease resistance	Adult rating				
S. nodorum blotch	MS				
S. tritici blotch	S				
Yellow spot	MRMS				
Stem rust	MR				
Stripe rust	RMR*				
Leaf rust	MS				
Powdery mildew	MSS				
Flag smut	S				
Common bunt	MR				
RLN (<i>P. quasitereoides</i>)	MRMS				
RLN (<i>P.neglectus</i>)	MS				
CCN	MRMS				
Crown rot	S				
Agronomic traits					
Coleoptile length (cm)	6.8 (5.8 - 7.7)				
Crown rot yield loss	High (>20%)				
Blackpoint	MRMS				
Maturity	Short-Mid				
Herbicide tolerance information					
May be sensitive to pre-emergent Boxer Gold [®] (s-metolachlor + prosulfocarb) [®] , Sakura [®] (pyroxasulfone), trifluralin, and post-emergent Achieve [®] (tralkoxydim), Ally [®] (metsulfuron) and Jaguar [®] (bromoxynil + diflufenican) at label rates and timing of application. May also have low crop safety margin for Terbyne [®] Xtreme [®] (terbuthylazine), Aptitude [®] (carfentrazone + metribuzin) + MCPA, diuron + MCPA, Flight [®] EC (picolinafen + bromoxynil + MCPA) and 2,4-D amine at label rates and timings.					
Variety information					
Pedigree	Wyalkatchem/Stylet/Wyalkatchem				
Breeder / Seed licensee	AGT				
Access to seed	AGT affiliates				
EPR (\$/t, excl GST)	\$3.00				

Fact sheets – AH

Scepter ^(b)					
AH					
Comments					
Scepter, released in 2015, was the highest yielding AH variety in the NVT in 2015 and 2016. The strength of this variety is its triple rust resistance package. Scepter appears to have a similar pre-harvest sprouting tolerance to Mace, but its powdery mildew and blackpoint ratings are poorer than Mace. It has Mace in its parentage.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	—	—	112	108
Agzone 2	—	—	—	110	111
Agzone 3	—	—	—	101	107
Agzone 4	—	—	—	109	108
Agzone 5	—	—	—	105	113
Agzone 6	—	—	—	113	109
Disease resistance		Adult rating			
S. nodorum blotch		MRMS _p			
S. tritici blotch		Sp			
Yellow spot		MRMS			
Stem rust		MR			
Stripe rust		MR*			
Leaf rust		MR			
Powdery mildew		SVSp			
Flag smut		MS _p			
Common bunt		MRMS _p			
RLN (<i>P. quasitereoides</i>)		—			
RLN (<i>P.neglectus</i>)		S			
CCN		MRMS			
Crown rot		—			
Agronomic traits					
Coleoptile length (cm)		—			
Crown rot yield loss		Moderate (10-20%)			
Blackpoint		MS			
Maturity		Short-Mid			
Herbicide tolerance information					
Herbicide tolerance information is not available for this variety. As information becomes available, it will be added.					
Variety information					
Pedigree		RAC1480/2*Mace			
Breeder / Seed licensee		AGT			
Access to seed		AGT - Contact territory manager			
EPR (\$/t, excl GST)		\$3.25			

Tungsten ^(b)					
AH					
Comments					
Tungsten is an AH variety which was released in 2016. This mid-long maturity variety has generally yielded less than Mace in the 2015 and 2016 NVT. It has a useful blackpoint rating.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	—	—	102	96
Agzone 2	—	—	—	96	99
Agzone 3	—	—	—	90	96
Agzone 4	—	—	—	99	93
Agzone 5	—	—	—	89	99
Agzone 6	—	—	—	93	102
Disease resistance		Adult rating			
S. nodorum blotch		MRMS _p			
S. tritici blotch		Sp			
Yellow spot		MSS			
Stem rust		SVS			
Stripe rust		RMR			
Leaf rust		MS			
Powdery mildew		MS			
Flag smut		RMR _p			
Common bunt		Sp			
RLN (<i>P. quasitereoides</i>)		—			
RLN (<i>P.neglectus</i>)		MSS			
CCN		—			
Crown rot		—			
Agronomic traits					
Coleoptile length (cm)		—			
Crown rot yield loss		—			
Blackpoint		MRMS			
Maturity		Mid-Long			
Herbicide tolerance information					
Herbicide tolerance information is not available for this variety. As information becomes available, it will be added.					
Variety information					
Pedigree		-			
Breeder / Seed licensee		Elders			
Access to seed		Elders			
EPR (\$/t, excl GST)		\$3.00			

Fact sheets – AH and APW

Yitpi [Ⓛ]					
AH					
Comments					
Yitpi is the Western Australian industry standard for early sowing because of its longer maturity and maintenance of falling number after pre-harvest rain. Yitpi has a long coleoptile but is very susceptible to yellow spot.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	84	89	85	99	95
Agzone 2	85	88	94	92	101
Agzone 3	96	97	96	83	99
Agzone 4	85	95	87	97	90
Agzone 5	88	93	96	84	105
Agzone 6	92	91	86	90	107
Disease resistance		Adult rating			
S. nodorum blotch		MS			
S. tritici blotch		MRMS			
Yellow spot		SVS			
Stem rust		S			
Stripe rust		MRMS			
Leaf rust		MSS			
Powdery mildew		MRMS			
Flag smut		MR			
Common bunt		S			
RLN (<i>P. quasitereoides</i>)		MS			
RLN (<i>P.neglectus</i>)		MSS			
CCN		MR			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		7.8 (6.4 - 8.8)			
Crown rot yield loss		Moderate (10-20%)			
Blackpoint		MS			
Maturity		Mid-Long			
Herbicide tolerance					
May be sensitive to Flight [®] EC (picolinafen + bromoxynil + MCPA) at label rate applied at the 3 to 4 leaf stage. May also have low crop safety margin for pre-emergent Boxer Gold [®] (s-metolachlor + prosulfocarb) [®] , Sakura [®] (pyroxasulfone) and Terbyne [®] Xtreme [®] (terbutylazine), and post-emergent Aptitude [®] (carfentrazone + metribuzin) + MCPA amine and 2,4-D amine at label rates and timing of application.					
Variety information					
Pedigree		C8MMC8HMM/Frame			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to trade			
EPR (\$/t, excl GST)		\$1.00			

Corack ^(b)					
APW					
Comments					
Corack is an APW variety with a Wyalkatchem background which is suitable for sowings from mid-May. Corack is useful for planting where resistance to CCN and yellow spot is required. Corack is less suitable to higher rainfall zones because of its susceptibility to blackpoint.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	98	97	101	96	101
Agzone 2	99	99	101	100	97
Agzone 3	97	98	100	102	94
Agzone 4	100	99	104	98	100
Agzone 5	99	100	100	102	99
Agzone 6	98	98	98	100	99
Disease resistance		Adult rating			
S. nodorum blotch		MSS			
S. tritici blotch		S			
Yellow spot		(MR)			
Stem rust		MR			
Stripe rust		MS			
Leaf rust		S			
Powdery mildew		SVS			
Flag smut		MRMS			
Common bunt		MSS			
RLN (<i>P. quasitereoides</i>)		MSS			
RLN (<i>P.neglectus</i>)		MSS			
CCN		RMR			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.8 (5.8 - 7.8)			
Crown rot yield loss		Moderate (10-20%)			
Blackpoint		S			
Maturity		Short-Mid			
Herbicide tolerance					
May be sensitive to label rates of Triathlon® (bromoxynil + diflufenican + MCPA) applied at the 3 to 4 leaf stage and Jaguar (bromoxynil + diflufenican) applied at the 6 to 7 leaf stage. Registered low crop safety margin for diuron + MCPA amine at label rates and timing of application.					
Variety information					
Pedigree		Wyalkatchem/Silverstar A// Wyalkatchem			
Breeder / Seed licensee		AGT			
Access to seed		AGT Affiliates or seed retailer			
EPR (\$/t. excl GST)		\$3.00			

Fact sheets – APW

Cutlass [Ⓓ]					
APW					
Comments					
Cutlass is a recently released variety with a later maturity, similar to Yitpi but with an APW classification. It had superior yields to Yitpi in the 2015 and 2016 NVT. Cutlass has a very useful triple rust resistance rating and MSS to yellow spot (compared to Yitpi's SVS). Early research points to slightly less tolerance to sprouting than Yitpi.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	—	—	110	99
Agzone 2	—	—	—	99	109
Agzone 3	—	—	—	85	105
Agzone 4	—	—	—	105	96
Agzone 5	—	—	—	86	110
Agzone 6	—	—	—	97	111
Disease resistance		Adult rating			
S. nodorum blotch		MRMS _{Sp}			
S. tritici blotch		MSS _{Sp}			
Yellow spot		MSS			
Stem rust		R			
Stripe rust		RMR*			
Leaf rust		RMR			
Powdery mildew		Sp			
Flag smut		MS _{Sp}			
Common bunt		Sp			
RLN (<i>P. quasitereoides</i>)		—			
RLN (<i>P.neglectus</i>)		MS			
CCN		MR			
Crown rot		—			
Agronomic traits					
Coleoptile length (cm)		—			
Crown rot yield loss		—			
Blackpoint		MS			
Maturity		Mid-Long			
Herbicide tolerance information					
Herbicide tolerance information is not available for this variety. As information becomes available, it will be added.					
Variety information					
Pedigree		RAC1316/2*Fang			
Breeder / Seed licensee		AGT			
Access to seed		AGT Affiliates or seed retailer			
EPR (\$/t, excl GST)		\$3.00			

Hydra ^(b)					
APW					
Comments					
Hydra is an APW variety with a Bonnie Rock and Strzelecki background. Performs well in a broad range of environments. However, there are early indications of screenings risk and susceptibility to low falling number after harvest rainfall. Hydra has a useful blackpoint rating.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	103	97	109	103
Agzone 2	—	103	101	104	106
Agzone 3	—	104	101	96	103
Agzone 4	—	103	94	106	102
Agzone 5	—	100	100	97	107
Agzone 6	—	105	100	104	106
Disease resistance		Adult rating			
S. nodorum blotch		MSS			
S. tritici blotch		MRMS			
Yellow spot		MRMS			
Stem rust		MRMS*			
Stripe rust		MS			
Leaf rust		MRMS			
Powdery mildew		S			
Flag smut		SVS			
Common bunt		SVS			
RLN (<i>P. quasitereoides</i>)		—			
RLN (<i>P.neglectus</i>)		MSS			
CCN		S			
Crown rot		Sp			
Agronomic traits					
Coleoptile length (cm)		6.9 (5.9 - 7.8)			
Crown rot yield loss		—			
Blackpoint		MRMS			
Maturity		Short-Mid			
Herbicide tolerance information					
May be sensitive to or have low crop safety margin for Affinity [®] (carfentrazone) + MCPA amine and Ally [®] at label rates and timing of application.					
Variety information					
Pedigree		Strzelecki/2* Bonnie Rock			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to trade WA only			
EPR (\$/t, excl GST)		\$3.85			

Fact sheets – APW

Magenta ^{db}					
APW					
Comments					
Magenta is a high yielding wheat suited to early to mid sowing opportunities. This variety has a good disease package so it's suitable for wheat on wheat situations and has a long coleoptile. Magenta is amongst the better varieties for powdery mildew resistance. Similar falling number risk to Wyalkatchem and is susceptible to blackpoint, so is not suited to south coast.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	91	101	90	112	99
Agzone 2	90	99	95	100	107
Agzone 3	100	102	97	87	103
Agzone 4	88	102	86	106	96
Agzone 5	91	93	95	87	106
Agzone 6	100	101	94	98	108
Disease resistance		Adult rating			
S. nodorum blotch		MRMS			
S. tritici blotch		MRMS			
Yellow spot		(MR)			
Stem rust		RMR			
Stripe rust		MS			
Leaf rust		R*			
Powdery mildew		MRMS			
Flag smut		MSS			
Common bunt		S			
RLN (<i>P. quasitereoides</i>)		MSS			
RLN (<i>P. neglectus</i>)		MSS			
CCN		S			
Crown rot		MSS			
Agronomic traits					
Coleoptile length (cm)		7.5 (6.4 - 8.4)			
Crown rot yield loss		High (>20%)			
Blackpoint		S			
Maturity		Mid-Long			
Herbicide tolerance information					
May be sensitive to Sakura [®] (pyroxasulfone), Cheetah [®] Gold (diclofop + sethoxydim + fenoxaprop), Velocity [®] (bromoxynil + pyrosulfotole), Velocity [®] (bromoxynil + pyrosulfotole) [®] + Ecopar [®] (pyraflufen-ethyl) and Jaguar [®] (bromoxynil + diflufenican) at label rates and timing of application. May also have low crop safety margin for Boxer Gold [®] (s-metolachlor + prosulfocarb) 2.5L/ha applied pre-emergent.					
Variety information					
Pedigree		Carnamah/Tammin-18			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to trade			
EPR (\$/t, excl GST)		\$3.00			

Trojan ^{db}					
APW					
Comments					
Trojan is an APW variety with a maturity between Yitpi and Mace. Trojan has a longer coleoptile and has been reasonably popular in higher rainfall areas. Trojan has a falling number rating with pre-harvest rain of 5 which is similar to Mace. Its powdery mildew rating is similar to Wyalkatchem (SVS). Trojan has a useful blackpoint rating.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	83	—	86	105	100
Agzone 2	84	—	98	100	103
Agzone 3	94	99	101	86	103
Agzone 4	78	—	85	103	94
Agzone 5	85	94	98	88	108
Agzone 6	94	98	91	100	109
Disease resistance		Adult rating			
S. nodorum blotch		MS			
S. tritici blotch		S			
Yellow spot		MSS			
Stem rust		MRMS			
Stripe rust		MR			
Leaf rust		MR			
Powdery mildew		SVS			
Flag smut		SVS			
Common bunt		S			
RLN (<i>P. quasitereoides</i>)		MRMS			
RLN (<i>P.neglectus</i>)		MSS			
CCN		MS			
Crown rot		MS			
Agronomic traits					
Coleoptile length (cm)		6.9 (5.9 - 7.8)			
Crown rot yield loss		Moderate (10-20%)			
Blackpoint		MRMS			
Maturity		Mid-Long			
Herbicide tolerance information					
May be sensitive to post-emergent 2,4-D LVE 680 and have low crop safety margin for Aptitude [®] (carfentrazone + metribuzin) + MCPA and diuron + MCPA at label rates and timing.					
Variety information					
Pedigree		LPB 00LR000041/Sentinel3R			
Breeder / Seed licensee		LPB			
Access to seed		Associate (PacSeeds)			
EPR (\$/t, excl GST)		\$4.00			

Fact sheets – APW and APW-imi

Wyalkatchem [Ⓛ]					
APW					
Comments					
Wyalkatchem is an APW variety with a Machete background. This variety is suitable for wheat on wheat plantings due to resistances to yellow spot and ease of stubble management. Wyalkatchem has tolerance to acidic soils and low screenings. However, the variety has a short coleoptile length and is less competitive with weeds due to poor early vigour. It's one of the lowest ranked varieties for powdery mildew resistance and has a low falling number rating with pre-harvest rain.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	95	99	95	100	97
Agzone 2	95	96	98	99	96
Agzone 3	100	99	101	95	93
Agzone 4	90	98	91	97	94
Agzone 5	95	98	99	95	97
Agzone 6	98	99	100	97	98
Disease resistance		Adult rating			
S. nodorum blotch		MSS			
S. tritici blotch		S			
Yellow spot		(MR)			
Stem rust		MS			
Stripe rust		S			
Leaf rust		MSS			
Powdery mildew		SVS			
Flag smut		SVS			
Common bunt		RMR			
RLN (<i>P. quasitereoides</i>)		MSS			
RLN (<i>P.neglectus</i>)		MRMS			
CCN		S			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.4 (5.4 - 7.3)			
Crown rot yield loss		High (>20%)			
Blackpoint		MS			
Maturity		Short-Mid			
Herbicide tolerance information					
Has shown sensitivity to post-emergent Hoegrass [®] 375 (diclofop-methyl) 200 mL + Achieve [®] (tralkoxydim) 200 g/ ha, Velocity [®] (bromoxynil + pyrosulfotole) [®] 670 mL/ha and 2,4-D amine 700 1.5 L/ha at label recommend timings. May be sensitive to pre-emergent diuron + Dual Gold [®] (s-metolachlor), and post-emergent Glean [®] (chlorsulfuron), Hoegrass [®] (diclofop methyl), Affinity [®] (carfentrazone) + MCPA, Ally [®] (metsulfuron), Buctril [®] MA (bromoxynil + MCPA), Flight [®] EC (picolinafen + bromoxynil + MCPA), Jaguar [®] (bromoxynil + diflufenican), 2,4-D ester 800 and dicamba at label rates and timing of application. May also have low crop safety margin for Boxer Gold [®] (s-metolachlor + prosulfocarb), Sakura [®] (pyroxasulfone), Crusader [®] (pyroxysulam) + Lontrel [®] (clopyralid) and Tigrex [®] (diflufenican + MCPA) at label rates and timing.					
Variety information					
Pedigree		Machete/W84-129*504			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to trade			
EPR (\$/t. excl GST)		\$1.92			

Chief CL Plus ^(b)					
APW-imi					
Comments					
Chief CL Plus is an APW-imi variety which was released in 2016. This variety was the highest yielding APW-imi variety in its two years of NVT (2014 and 2016) with yields which were competitive with Mace in last year's trials. Potential for IMI wheat on wheat option as the variety has good yellow spot resistance. Registered for label rate applications of Intervix [®] herbicide.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	—	100	—	100
Agzone 2	—	—	100	—	98
Agzone 3	—	—	102	—	93
Agzone 4	—	—	94	—	99
Agzone 5	—	—	99	—	96
Agzone 6	—	—	107	—	96
Disease resistance		Adult rating			
S. nodorum blotch		—			
S. tritici blotch		—			
Yellow spot		MRMS			
Stem rust		RMR			
Stripe rust		S			
Leaf rust		R			
Powdery mildew		—			
Flag smut		—			
Common bunt		—			
RLN (<i>P. quasitereoides</i>)		—			
RLN (<i>P. neglectus</i>)		—			
CCN		—			
Crown rot		—			
Agronomic traits					
Coleoptile length (cm)		—			
Crown rot yield loss		—			
Blackpoint		MS			
Maturity		Mid			
Herbicide tolerance information					
Herbicide tolerance information is not available for this variety. As information becomes available, it will be added.					
Variety information					
Pedigree		Wyalkatchem derivative			
Breeder / Seed licensee		InterGrain			
Access to seed		InterGrain			
EPR (\$/t, excl GST)		\$4.25			

Fact sheets – APW-imi

Grenade CL Plus [Ⓛ]					
APW-imi					
Comments					
Grenade CL Plus is an APW-imi released in 2014. This variety has not out-yielded Justica CL Plus or Chief CL Plus in the majority of NVT. An advantage of this variety is its resistance to CCN. Registered for Intervix [®] use.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	86	86	88	91	90
Agzone 2	88	85	89	86	92
Agzone 3	92	90	90	85	89
Agzone 4	91	92	92	91	86
Agzone 5	88	88	91	82	93
Agzone 6	88	84	82	81	98
Disease resistance		Adult rating			
S. nodorum blotch		MSS			
S. tritici blotch		MSS			
Yellow spot		S			
Stem rust		MR			
Stripe rust		RMR			
Leaf rust		MS			
Powdery mildew		MS			
Flag smut		MR			
Common bunt		SVS			
RLN (<i>P. quasitereoides</i>)		–			
RLN (<i>P.neglectus</i>)		MSS			
CCN		R			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.6 (5.6 - 7.4)			
Crown rot yield loss		–			
Blackpoint		MSS			
Maturity		Mid			
Herbicide tolerance information					
May be sensitive or have low crop safety margin for Hoegrass [®] 375 (diclofop-methyl) 200 mL + Achieve [®] (tralkoxydim) 200 g/ha applied at Z12-Z13.					
Variety information					
Pedigree		Gladius/4/RAC1268*2/3/Janz*2//Wilg4/11A			
Breeder / Seed licensee		AGT			
Access to seed		AGT Affiliates or seed retailer			
EPR (\$/t, excl GST)		\$3.80			

Impress CL Plus [Ⓛ]					
APW-imi					
Comments					
An APW-imi Wyalkatchem type. This variety has not out-yielded Justica CL Plus or Chief CL Plus in the majority of NVT trials. Large grain size. Impress is susceptible to powdery mildew, blackpoint and has a low falling number rating after pre-harvest rainfall.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	91	96	94	95	87
Agzone 2	90	91	88	91	75
Agzone 3	86	83	90	–	71
Agzone 4	81	93	87	89	84
Agzone 5	84	83	85		66
Agzone 6	85	90	95	–	78
Disease resistance		Adult rating			
S. nodorum blotch		MSS			
S. tritici blotch		S			
Yellow spot		MRMS			
Stem rust		MR			
Stripe rust		MSS			
Leaf rust		R			
Powdery mildew		SVS			
Flag smut		MSS			
Common bunt		RMR			
RLN (<i>P. quasitereoides</i>)		–			
RLN (<i>P.neglectus</i>)		MR			
CCN		MS			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.7 (5.7 - 7.5)			
Crown rot yield loss		–			
Blackpoint		S			
Maturity		Short-Mid			
Herbicide tolerance information					
May be sensitive to or have low crop safety margin for Affinity [®] (carfentrazone) + MCPA amine and Ally [®] at label rates and timing of application.					
Variety information					
Pedigree		Wyalkatchem derivative			
Breeder / Seed licensee		InterGrain			
Access to seed		InterGrain Seedclub member or seed retailer			
EPR (\$/t, excl GST)		\$4.10			

Fact sheets – APW-imi and ANW

Justica CL Plus ^(b)					
APW-imi					
Comments					
A mid-long maturing APW-imi with Spear background. This variety generally has a higher yield than Impress CL Plus and Grenade CL Plus in NVT across the state. Contact AGT to find out about seed availability.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	87	90	89	97	93
Agzone 2	88	88	92	91	96
Agzone 3	95	94	94	86	93
Agzone 4	88	95	90	95	90
Agzone 5	89	91	93	85	97
Agzone 6	91	90	87	88	101
Disease resistance		Adult rating			
S. nodorum blotch		MS			
S. tritici blotch		SVS			
Yellow spot		S			
Stem rust		MR			
Stripe rust		RMR*			
Leaf rust		MS			
Powdery mildew		MSS			
Flag smut		RMR			
Common bunt		SVS			
RLN (<i>P. quasitereoides</i>)		SVS			
RLN (<i>P.neglectus</i>)		S			
CCN		MS			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		–			
Crown rot yield loss		–			
Blackpoint		–			
Maturity		Mid-Long			
Herbicide tolerance information					
Low crop safety margin for diuron + MCPA amine at label rate applied at Z13-Z14 (3-4 leaves on the main stem) and 2,4-D LVE 680 applied at Z15-Z16. Do not apply phenoxy herbicides like MCPA and 2,4-D between flag leaf emergence and the soft dough stage.					
Variety information					
Pedigree		Gladius/4/RAC1268*2/3/Janz*2//Wilg4/11A			
Breeder / Seed licensee		AGT			
Access to seed		AGT Affiliates or seed retailer			
EPR (\$/t, excl GST)		\$3.55			

Calingiri					
ANW					
Comments					
Calingiri has remained a popular mid to long maturing ANW. Yields potentially superseded by Zen and some growers are replacing Calingiri with this variety. Calingiri has poor disease tolerance.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	85	96	86	106	92
Agzone 2	85	91	91	94	99
Agzone 3	97	97	95	83	94
Agzone 4	82	98	81	99	88
Agzone 5	86	89	92	81	97
Agzone 6	—	95	91	89	102
Disease resistance		Adult rating			
S. nodorum blotch		MSS			
S. tritici blotch		S			
Yellow spot		MSS			
Stem rust		S			
Stripe rust		S			
Leaf rust		MS			
Powdery mildew		S			
Flag smut		RMR			
Common bunt		MRMS			
RLN (<i>P. quasitereoides</i>)		S			
RLN (<i>P.neglectus</i>)		SVS			
CCN		—			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.3 (5.4 - 7.1)			
Crown rot yield loss		Moderate (10-20%)			
Blackpoint		MS			
Maturity		Mid-Long			
Herbicide tolerance information					
Has shown sensitivity to pre-emergent Glean® (chlorsulfuron) at 12.5g/ha and Sakura® (pyroxasulfone) at 118g/ha, and post-emergent Jaguar® (bromoxynil + diflufenican) at sp1L/ha, Affinity® (carfentrazone) 100 g + MCPA amine 500 0.5L/ha and Diuron 500 0.35L + MCPA amine 500 0.4L/ha applied at the label recommended timing. May be sensitive to pre-emergent Boxer Gold® (s-metolachlor + prosulfocarb) and post-emergent Eclipse® (metosulam), Velocity® (bromoxynil + pyrosulfotole), Ally® (metsulfuron), Buctril® MA (bromoxynil + MCPA), Tigrex® (diflufenican + MCPA), MCPA amine and 2,4-D amine 700 at label recommended rates and timings.					
Variety information					
Pedigree		Chino/Kulin//Reeves			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to trade			
EPR (\$/t, excl GST)		No EPR			

Fact sheets – ANW

Ninja ^(b)					
ANW					
Comments					
Ninja is the newest noodle wheat variety, released in 2016 with a Calingiri and Wyalkatchem background. Ninja is the highest yielding ANW variety and out-yielded Mace in most of the NVT trials in 2015 and 2016. This variety is very susceptible to stem rust and powdery mildew. However it has a very useful blackpoint rating					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	–	–	–	114	105
Agzone 2	–	–	–	107	111
Agzone 3	–	–	–	97	106
Agzone 4	–	–	–	110	105
Agzone 5	–	–	–	99	111
Agzone 6	–	–	–	–	109
Disease resistance		Adult rating			
S. nodorum blotch		MSSp			
S. tritici blotch		MSSp			
Yellow spot		MRMS			
Stem rust		SVS			
Stripe rust		MS			
Leaf rust		MS			
Powdery mildew		VS			
Flag smut		RMRp			
Common bunt		–			
RLN (<i>P. quasitereoides</i>)		–			
RLN (<i>P.neglectus</i>)		S			
CCN		MS			
Crown rot		–			
Agronomic traits					
Coleoptile length (cm)		–			
Crown rot yield loss		–			
Blackpoint		MR			
Maturity		Mid			
Herbicide tolerance information					
Herbicide tolerance information is not available for this variety. As information becomes available, it will be added.					
Variety information					
Pedigree		Calingiri/Wyalkatchem derivative			
Breeder / Seed licensee		InterGrain			
Access to seed		InterGrain Seedclub member or seed retailer			
EPR (\$/t, excl GST)		\$4.00			

Supreme ^{db}					
ANW					
Comments					
Supreme is an Arrino derivative with improved yield and disease resistance. Supreme is a premium noodle quality wheat with a very short plant height. A strength of this variety is its triple rust resistance package and the best powdery mildew rating of the noodle wheats.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	—	95	94	99	98
Agzone 2	—	95	97	97	100
Agzone 3	—	98	97	93	97
Agzone 4	—	98	95	99	96
Agzone 5	—	95	97	93	101
Agzone 6	—	95	0	0	103
Disease resistance		Adult rating			
S. nodorum blotch		S			
S. tritici blotch		MS			
Yellow spot		MS			
Stem rust		RMR			
Stripe rust		MR*			
Leaf rust		RMR			
Powdery mildew		MSS			
Flag smut		MS			
Common bunt		SVS			
RLN (<i>P. quasitereoides</i>)		—			
RLN (<i>P.neglectus</i>)		MSS			
CCN		S			
Crown rot		MSS			
Agronomic traits					
Coleoptile length (cm)		5.7 (4.9 - 6.6)			
Crown rot yield loss		—			
Blackpoint		MSS			
Maturity		Short-Mid			
Herbicide tolerance information					
May be sensitive to Glean® (chlorsulfuron) and recorded low crop safety margin for Affinity® (carfentrazone) + MCPA amine at label rates and timing of application. Do not apply phenoxy herbicides like MCPA and 2,4-D between flag leaf emergence and the soft dough stage.					
Variety information					
Pedigree		LoPh-Nyabing.3*Calingiri/4*VPM			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to trade - WA only			
EPR (\$/t, excl GST)		\$3.85			

Fact sheets – ANW

Zen ^{db}					
ANW					
Comments					
A noodle variety with a Calingiri and Wyalkatchem background. Zen offers yield and disease improvements on Calingiri including a better rust resistance package and yellow leaf spot and S. nodorum resistance (MRMS). Zen is very susceptible to powdery mildew. Useful blackpoint rating.					
Yield (% of Mace)	2012	2013	2014	2015	2016
Agzone 1	–	103	94	108	100
Agzone 2	–	100	100	103	102
Agzone 3	–	103	103	94	98
Agzone 4	–	102	88	102	96
Agzone 5	–	100	100	96	102
Agzone 6	–	105		102	102
Disease resistance		Adult rating			
S. nodorum blotch		MRMS			
S. tritici blotch		S			
Yellow spot		MRMS			
Stem rust		MSS			
Stripe rust		MRMS			
Leaf rust		MR			
Powdery mildew		SVS			
Flag smut		MS			
Common bunt		MRMS			
RLN (<i>P. quasitereoides</i>)		–			
RLN (<i>P.neglectus</i>)		MR			
CCN		S			
Crown rot		S			
Agronomic traits					
Coleoptile length (cm)		6.6 (5.6 - 7.4)			
Crown rot yield loss		–			
Blackpoint		MRMS			
Maturity		Mid-Long			
Herbicide tolerance information					
Has shown no sensitivity to a range of pre and post-emergent herbicides / herbicide mixtures at higher than label rates applied at label recommended timings, in small plot screening herbicide tolerance trials conducted at Katanning during 2014 and 2015. Do not apply phenoxy herbicides like MCPA and 2,4-D between flag leaf emergence and the soft dough stage.					
Variety information					
Pedigree		Calingiri/Wyalkatchem derivative			
Breeder / Seed licensee		InterGrain			
Access to seed		Free to Trade			
EPR (\$/t, excl GST)		\$3.85			

Disease resistance ratings

Variety	Grade	Septoria nnodorum blotch	Septoria tritici blotch	Yellow spot	Stem rust	Stripe rust	Leaf rust
Arrino	ANW	MSS	MS	MSS	SVS	S	SVS
Bonnie Rock [Ⓛ]	AH	MSS	S	MRMS	MSS	VS	SVS
Bremer [Ⓛ]	AH	MS	S	MSS	RMR	MR*	MR
Calingiri	ANW	MSS	S	MSS	S	S	MS
Carnamah	AH	MSS	S	MS	MRMS	S	MS
Chief CL Plus	APW-imi	–	–	MRMS	RMR	S	R
Clearfield Stl [Ⓛ]	APW-imi	MRMS	MSS	MSS	RMR	S	SVS
Cobra [Ⓛ]	AH	MRMS	MSS	MRMS	RMR	MSS	MR
Corack [Ⓛ]	APW	MSS	S	(MR)	MR	MS	S
Cutlass	APW	MRMS _p	MSS _p	MSS	R	RMR*	RMR
Eagle Rock [Ⓛ]	AH	MS	S	S	MR	MS	RMR
Emu Rock [Ⓛ]	AH	SVS	S	MRMS	MRMS	MRMS	S
Eradu [Ⓛ]	ANW	S	S	MSS	MR	SVS	S
Espada [Ⓛ]	APW	MS	S	MS	MR	R*	R
Fortune [Ⓛ]	ANW	MSS	MRMS	MS	MS	MS	MR
Frame	APW	MS	MSS	S	MRMS	MS	MS
Grenade CL Plus [Ⓛ]	APW-imi	MSS	MSS	S	MR	RMR	MS
Halberd	APW	S	S	S	S	MRMS	MS
Harper [Ⓛ]	APW	MS	S	S	MRMS	RMR	MRMS
Hydra [Ⓛ]	APW	MSS	MRMS	MRMS	MRMS*	MS	MRMS
Impress CL Plus [Ⓛ]	APW-imi	MSS	S	MRMS	MR	MSS	R
Justica CL Plus [Ⓛ]	APW-imi	MS	SVS	S	MR	RMR*	MS
King Rock [Ⓛ]	AH	MSS	S	MRMS	MRMS	RMR*	MS
LPB Arrow [Ⓛ]	APW	MSS _p	MSS _p	MRMS	S	S	S
Mace [Ⓛ]	AH	MS	S	MRMS	MR	RMR*	MS
Magenta [Ⓛ]	APW	MRMS	MRMS	(MR)	RMR	MS	R*
Ninja [Ⓛ]	ANW	MSS _p	MSS _p	MRMS	SVS	MS	MS
Sapphire [Ⓛ]	AH	MSS	MRMS	MSS	MR	MSS	RMR*
Scepter	AH	MRMS _p	Sp	MRMS	MR	MR*	MR
Scout [Ⓛ]	APW	SVS	MSS	SVS	MR	RMR*	R
Stiletto [Ⓛ]	APW	MS	MSS	S	MR	MSS	SVS
Supreme [Ⓛ]	ANW	S	MS	MS	RMR	MR*	RMR
Tammarin Rock [Ⓛ]	AH	MSS	S	SVS	MSS	MSS	MSS
Trojan [Ⓛ]	APW	MS	S	MSS	MRMS	MR	MR
Tungsten [Ⓛ]	AH	MRMS _p	Sp	MSS	SVS	RMR	MS
Wedin [Ⓛ]	ASFT	MSS	MR	MSS	RMR	MS	R*
Westonia	APW	MSS	SVS	MSS	SVS	VS	MS
Wyalkatchem [Ⓛ]	APW	MSS	S	(MR)	MS	S	MSS
Yitpi [Ⓛ]	AH	MS	MRMS	SVS	S	MRMS	MSS
Zen [Ⓛ]	ANW	MRMS	S	MRMS	MSS	MRMS	MR

Disease resistance ratings

Variety	Grade	Powdery mildew	Flag smut	Common bunt	RLN (<i>p.teres</i>)	RLN (<i>p.neglectus</i>)	CCN	Crown Rot
Arrino	ANW	MR	MSS	MS	S	S	–	–
Bonnie Rock [Ⓛ]	AH	S	S	MS	S	S	S	–
Bremer [Ⓛ]	AH	SVS	S	RMR	–	S	MRMS	S
Calingiri	ANW	S	RMR	MRMS	S	SVS	–	S
Carnamah	AH	S	MSS	MS	SVS	SVS	S	–
Chief CL Plus	APW-imi	–	–	–	–	–	–	–
Clearfield Stl [Ⓛ]	APW-imi	SVS	MS	MS	–	S	–	–
Cobra [Ⓛ]	AH	MSS	MS	SVS	MS	MSS	MS	S
Corack [Ⓛ]	APW	SVS	MRMS	MSS	MSS	MSS	RMR	S
Cutlass	APW	Sp	MSp	Sp	–	MS	MR	–
Eagle Rock [Ⓛ]	AH	MSS	S	MRMS	S	MSS	S	–
Emu Rock [Ⓛ]	AH	S	R	S	MRMS	MSS	S	MS
Eradu [Ⓛ]	ANW	MRMS	MSS	S	–	MS	–	–
Espada [Ⓛ]	APW	S	MR	S	–	S	MS	S
Fortune [Ⓛ]	ANW	MRMS	R	MR	Sp	MS	–	S
Frame	APW	MRMS	RMR	MS	–	MSS	MR	–
Grenade CL Plus [Ⓛ]	APW-imi	MS	MR	SVS	–	MSS	R	S
Halberd	APW	SVS	MRMS	S	–	S	S	–
Harper [Ⓛ]	APW	S	RMR	MSS	–	S	MRMS	S
Hydra [Ⓛ]	APW	S	SVS	SVS	–	MSS	S	Sp
Impress CL Plus [Ⓛ]	APW-imi	SVS	MSS	RMR	–	MR	MS	S
Justica CL Plus [Ⓛ]	APW-imi	MSS	RMR	SVS	SVS	S	MS	S
King Rock [Ⓛ]	AH	S	SVS	MSS	–	MSS	MS	S
LPB Arrow [Ⓛ]	APW	VS	MSp	Rp	–	MRMS	MS	–
Mace [Ⓛ]	AH	MSS	S	MR	MRMS	MS	MRMS	S
Magenta [Ⓛ]	APW	MRMS	MSS	S	MSS	MSS	S	MSS
Ninja [Ⓛ]	ANW	VS	RMRp	–	–	S	MS	–
Sapphire [Ⓛ]	AH	S	MRMS	MS	S	MSS	S	–
Scepter	AH	SVSp	MSp	MRMSp	–	S	MRMS	–
Scout [Ⓛ]	APW	MS	MR	MSS	S	S	R	S
Stiletto [Ⓛ]	APW	MSS	MS	MS	MRMS	MS	S	–
Supreme [Ⓛ]	ANW	MSS	MS	SVS	–	–	S	MSS
Tammarin Rock [Ⓛ]	AH	S	RMR	MR	SVSp	MS	–	–
Trojan [Ⓛ]	APW	SVS	SVS	S	MRMS	MSS	MS	MS
Tungsten [Ⓛ]	AH	MS	RMRp	Sp	–	MSS	–	–
Wedin [Ⓛ]	ASFT	S	MRMS	MSS	MRMSp	MSS	–	–
Westonia	APW	S	SVS	S	S	SVS	S	S
Wyalkatchem [Ⓛ]	APW	SVS	SVS	RMR	MSS	MRMS	S	S
Yitpi [Ⓛ]	AH	MRMS	MR	S	MS	MSS	MR	S
Zen [Ⓛ]	ANW	SVS	MS	MRMS	–	MR	–	S

More information, herbicide and disease ratings key

Disease information key

VS = Very susceptible, **SVS** = Susceptible to very susceptible, **S** = Susceptible, **MSS** = Moderately susceptible to susceptible, **MS** = Moderately susceptible, **MRMS** = Moderately resistant to moderately susceptible, **MR** = Moderately resistant, **RMR** = Resistant to moderately resistant, **R** = Resistant. No score '-' = no rating is currently available. **p** = Provisional assessment. / = Scores separated by '/' indicate the response to the 'currently predominant' and 'alternate' strains of stem rust existing in WA. * = Some races in eastern Australia can attack these varieties. () = Higher disease at some sites.

Combined RLN ratings from DAFWA, SARDI, AgVic and DAFQ data. CCN ratings from SARDI data Wallwork and Zwer (2016) Cereal Variety Disease Guide 2016, Factsheet Feb 2016. **R**=resistant - nematode numbers will decrease when this variety is grown.

MR=moderately resistant - nematode numbers will slightly decrease when this variety is grown.

MS=moderately susceptible - nematode numbers will slightly increase when this variety is grown.

S=susceptible - nematode numbers will increase greatly when this variety is grown.

Crown rot ratings from SARDI data 2009-2014 (Butt, Edmondson, and Wallwork), Qld data 2009-2014 (Bottomley, Herde, Neate, Percy, and Walters) and DPI NSW data 2013-2014 (Simpfendorfer).

Crown rot yield loss information was provided by Daniel Huberli along with Miriam Connor and Kris Gajda from DAFWA with funding from the GRDC. Ratings were collected and provided as weighted average yield loss to Fusarium crown rot in inoculated trials at Merredin and Wongan Hills between 2014 and 2016.

Other traits

Coleoptile lengths (cm) are based on predicted mean length of main season sown wheats at 29 sites in Australia during 2007 and 2014. Screening of varieties is undertaken as part of the National Variety Trials project.

Blackpoint causes a darkening at the embryo end of the seed. It is not a disease but a physiological response to certain humid conditions. Blackpoint ratings are provided through the NVT project and based on the research of Dr H Wallwork at the Field Crop Pathology Unit (SARDI).

Herbicide tolerance information for wheat

Each variety of wheat has a different tolerance to each herbicide. Some varieties may be more susceptible than others. The variation in tolerance can be due to the physiological characteristics and/or the development stage of the plant. The level of tolerance amongst varieties varies with the rate of herbicide, the environmental conditions when the herbicide is applied, and the stage of the crop growth. As seasonal variability can change the tolerance of each variety, Department of Agriculture and Food, Western Australia researchers have tested each herbicide and variety listed in the attached documents over several seasons and locations.

The risk of crop damage from a herbicide should be balanced against the potential yield loss from both the weed competition and the number of weed seeds returning to the soil seed bank. The fact sheets have provided a summary of research which investigated the varieties sensitivity to label rates of herbicide. For more details on the herbicide tolerance studies refer to DAFWA website.

Sensitive: A variety x herbicide combination registered significant yield loss (compared to untreated control) at label rate and timing of application in at least 2 or more trials out of X number of trials conducted in WA.

May be sensitive: A variety x herbicide combination registered significant yield loss (compared to untreated control) at label rate and timing of application only in one trial out of X number of trials conducted in WA.

Low crop safety margin: A variety tolerated a herbicide mixture at the label rate well (no significant yield loss) but at a higher than label rate there was significant yield loss (compared to untreated control) in one or more trials (low crop safety margin).

Seed distributor's information

Australian Seed and Grain

Moora, +61 (0)8 9651 1069

austseedgrain.com.au

- AGT seed affiliate
- InterGrain seed group member
- Pacific Seed associate
- Seednet partner

Coorow Seeds

Coorow, +61 (0)8 9952 1088

coorowseeds.com.au

- AGT seed affiliate
- InterGrain seed group member
- Pacific Seed associate

Eastern Districts Seed Cleaning Co

Kellerberrin, +61 (0)8 9045 4036

easterndistrictsseedcleaningco.webs.com

- AGT seed affiliate
- InterGrain seed group member
- Pacific Seed associate
- Seednet partner

Melchiorre Seeds

Narrogin, +61 (0)8 9881 1155

melchiorreeds.com.au

- AGT seed affiliate
- InterGrain seed group member
- Pacific Seed associate

MultiSEED Production

Esperance, +61 (0)8 9071 1053

- AGT seed affiliate
- InterGrain seed group member
- Pacific Seed associate
- Seednet partner

Marketers

AGT

+61 (0)8 9622 8935

ausgraintech.com

COGGO Seeds

+61 (0)8 9310 2636

coggo.net.au

Elders

Contact your local Agronomist

eldersrural.com.au/locations

InterGrain

+61 (0)8 9419 8000

InterGrain.com

Pacific Seeds

+61 (0)7 4690 2666

pacificseeds.com.au

Seednet

+61 (0)8 8752 1777

seednet.com.au