

# Compass<sup>®</sup>

## Malt Barley

Version : June 2018

The information in this document is current as at June 2018.  
For updated information after this date, please refer to NVT results

### VARIETY SUMMARY

- Exceptional grain yield
- Domestic and export malt quality profile
- Low screenings and high retention grain
- Good foliar disease resistance package
- CCN resistance
- Mid to early maturity
- Medium - tall plant height

### BREEDING

Compass was developed by the University of Adelaide with support from Viterra and GRDC. Its pedigree includes Commander and a European variety named County.

### DISEASE RESISTANCE

Compass offers a good disease resistance profile. Compass has superior net form net blotch resistance than Commander and Fleet, although the nature of this disease means all varieties should be monitored in high risk situations. Compass provides resistance to CCN and compared to Hindmarsh, it also offers improvements in spot form net blotch resistance. Note that new leaf rust pathotypes have seen the *Rph3* resistance gene in Compass being defeated so leaf rust should be monitored in high risk situations.

The ratings for Compass in the table below are based on NVT field reactions where natural and mixed field pathotype infections have occurred and observations from the Elite Barley Disease Nurseries (EBDSN) conducted by each of the state cereal pathologists.

### AREA OF ADAPTATION

Compass is a broadly adapted variety that is suited to all barley growing areas of Australia, including QLD, NSW, VIC, TAS, SA and WA.

### PLANT CHARACTERISTICS

Compass is similar in plant architecture to Commander, but in some seasons and locations Compass can lodge more than Commander. In situations where early sowing and high fertility result in high biomass Compass crops, growth regulators can be used to reduce lodging.

Compass has good coleoptile length which improves potential crop establishment particularly with variable or deliberate deep sowing. And combined with its good early vigour, this improves weed competitiveness. Compass typically exhibits slightly longer coleoptile length than Commander and is considerably longer than Hindmarsh and LaTrobe.

### VARIETY MATURITY

Compass is an early flowering spring barley. When sown in late April - early May, Compass typically flowers at a similar time to Hindmarsh and 5-10 days earlier than Commander. With delayed sowing Compass will flower more similar to Commander. Compass has different development controls, mostly explained by reduced responsiveness to photoperiod, making it well suited to May sowing. Growers need to consider their regional frost risk if sowing Compass early due to its early flowering behaviour.

### GRAIN QUALITY

Compass is the new standard for grain size, with lower screenings and superior grain plumpness. The 2015 National Variety Trials in the Upper Eyre Peninsula of SA experienced heat and moisture stress during grain filling, with Compass standing out as the only variety meeting the 70% retention limit for malting barley. Across the 139 NVT conducted in 2014 and 2015, Compass exceeded the 70% retention in 76% of the trials, whereas Spartacus CL exceeded the retention standard in 55% of the trials evaluated. Compass has significantly better retention and the advantage increases in more stressed conditions.

Table: Regional disease ratings for Compass

	WA 2018 Barley Sowing Guide		SARDI (SA) 2018 Cereal Variety Disease Guide	VIC 2018 Cereal Disease Guide	NSW 2018 Winter Crop Variety Sowing Guide	QLD DPI update 2018	TAS DPI update 2018
	Seedling ratings	Adult plant ratings					
CCN	R	R	R	R	R	-	-
Powdery Mildew	MS	MRMS	MRMS	MRMS	MRMS-S	S	VS
Leaf Scald	-	MS	MS-SVS	S	SVS	SVS	-
Leaf Rust	S	S	R-SVS	VS	VS	VS	-
Spot Form Net Blotch	MRMS	MSS	MR-MSS	MSS	MSS	MRMS	-
Net Form Net Blotch	MRMS-SVS	MRMS-MS	MR-MS	MRMS	MRMS	MS	-
BYDV	MSS	MSS	-	-	-	-	MR

\*Note that susceptibility to disease may increase if alternative strains present\*

 **YIELD DATA**

Multi-year (2015-17) analysis of grain yield from National Variety Trials, % Regional MET.

Variety	South Australia																	
	Lower Eyre Peninsula			Upper Eyre Peninsula			Yorke Peninsula			Mid North			Murray Mallee			South East		
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
<b>Compass</b>	116	101	118	131	102	132	120	98	105	118	94	108	123	101	103	139	93	99
Commander	98	105	104	100	104	99	103	99	101	101	96	101	96	100	102	96	98	98
Hindmarsh	114	99	113	122	97	127	113	97	101	114	96	105	117	101	103	132	96	103
LaTrobe	113	102	112	121	100	123	113	99	102	114	98	106	117	102	105	131	99	105
Spartacus CL	115	103	115	125	101	128	116	99	102	117	97	107	120	102	106	136	99	105
Regional MET	4.02	4.96	3.28	2.49	3.97	2.16	3.63	6.36	4.69	3.34	6.68	4.91	1.58	5.54	3.65	1.62	6.12	5.3

Variety	Victoria									New South Wales								
	Mallee			Wimmera			North Central			North East			South West			South East		
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
<b>Compass</b>	131	97	106	154	91	102	116	105	100	126	99	110	121	94	117	106	88	-
Commander	93	101	101	98	98	101	104	105	98	96	100	111	95	97	105	103	93	-
Hindmarsh	124	95	103	137	93	101	107	103	103	122	98	106	122	99	111	107	98	-
LaTrobe	121	96	104	133	96	103	107	105	105	120	100	96	-	-	-	81	-	-
Spartacus CL	124	95	105	140	95	103	108	107	105	123	99	107	125	98	114	108	95	-
Regional MET	2.01	4.73	3.96	1.7	6.87	5.13	2.47	6.07	4.64	2.43	7.28	4.96	2.98	5.77	3.13	3.43	5.45	-

Variety	New South Wales						Queensland								
	North West			North East			Central			South East			South West		
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
<b>Compass</b>	116	104	116	121	100	128	110	-	108	113	99	99	119	99	118
Commander	105	95	104	108	94	109	109	-	118	111	98	98	106	96	104
Hindmarsh	109	110	111	110	107	117	99	-	84	98	99	99	111	103	113
LaTrobe	109	109	109	110	108	116	99	-	84	99	100	98	111	103	110
Spartacus CL	110	106	104	110	110	112	96	-	68	97	98	89	112	102	99
Regional MET	3.5	3.89	1.98	3.52	4.5	3.14	3.9	-	1.43	3.8	6.66	2.57	4.26	4.34	1.59

Variety	Western Australia																	
	AgZone 1			AgZone 2			AgZone 3			AgZone 4			AgZone 5			AgZone 6		
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
<b>Compass</b>	109	108	112	112	107	105	103	103	104	113	-	130	111	94	106	98	96	75
Commander	86	102	99	87	104	100	95	97	98	89	-	87	93	97	100	96	99	97
Hindmarsh	111	103	-	113	99	-	108	103	-	114	-	-	114	97	-	103	99	-
Latrobe	109	103	104	110	99	104	108	103	100	110	-	123	111	97	103	102	100	92
Spartacus CL	112	101	102	113	95	103	110	102	99	115	-	131	117	95	104	104	98	91
Regional MET	1.78	4.22	2.07	2.38	3.97	4.15	3.79	3.59	4.4	2.82	-	1.45	3.41	2.61	3.59	3.86	4.14	2.96

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Growers are allowed to retain seed from production of this variety for their own use as seed only. An End Point Royalty of \$3.80 + GST per tonne which includes breeder royalties, applies to this variety.

**ACKNOWLEDGEMENTS**

Compass was bred by the University of Adelaide with support from Viterra and GRDC.



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