


Compass<sup>®</sup>

Version : Aug 2014

## Barley

## VARIETY SUMMARY

- Exceptional grain yield
- Domestic and export malt quality profile (malt accreditation decision expected March 2016)
- Low screenings and high retention package
- CCN resistance
- Mid to early maturity
- Medium plant height with strong straw and good head retention

 AREA OF ADAPTATION & GRAIN YIELD

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

**Yield tables:** Long term (2005-2013) analysis of grain yield from NVT trials % Site mean.

## Northern New South Wales &amp; Southern Queensland

Variety	New South Wales		Queensland	
	North West	North East	Central	South East
<b>Compass</b>	<b>118</b>	<b>116</b>	<b>117</b>	<b>118</b>
Commander	110	111	109	110
Hindmarsh	105	107	-	-
LaTrobe	106	108	109	104
Shepherd	-	-	107	108
Regional MET	3.38	3.66	3.19	3.01

## Victoria and Southern New South Wales

Variety	Victoria				New South Wales	
	Mallee	Wimmera	North Central	South West	South West	South East
<b>Compass</b>	<b>119</b>	<b>121</b>	<b>118</b>	<b>111</b>	<b>114</b>	<b>115</b>
Commander	109	109	108	107	106	106
Hindmarsh	114	115	110	-	111	110
LaTrobe	115	116	112	-	113	112
Regional MET	2.46	3.29	2.61	4.37	3.19	3.69

## South Australia

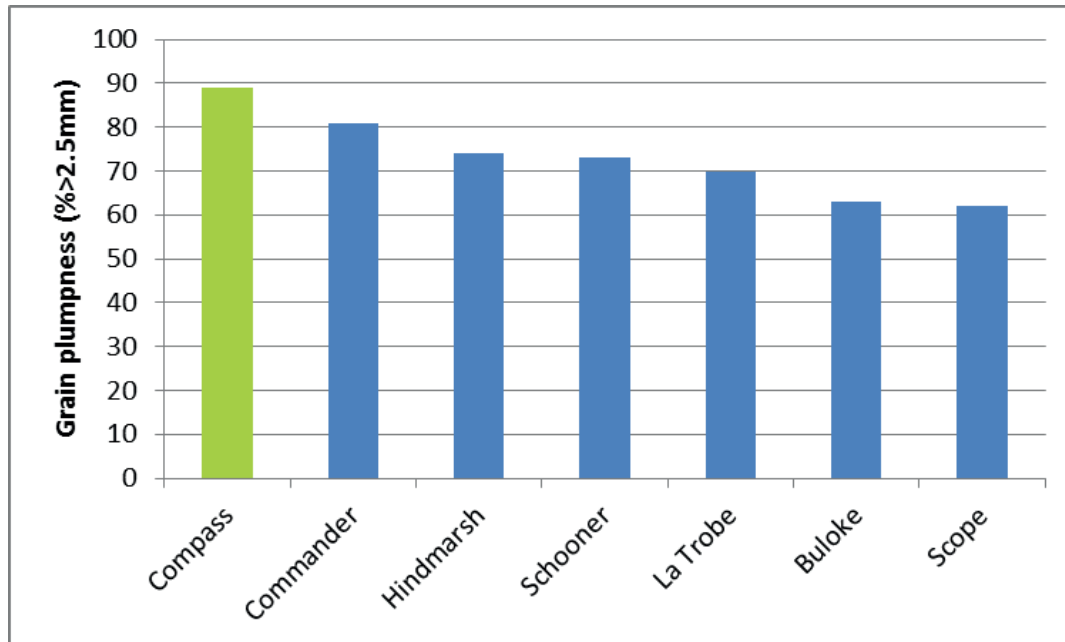
Variety	Lower Eyre Peninsula	Upper Eyre Peninsula	Yorke Peninsula	Mid North	Murray Mallee	South East
<b>Compass</b>	<b>116</b>	<b>124</b>	<b>124</b>	<b>122</b>	<b>116</b>	<b>117</b>
Commander	106	109	109	108	112	109
Hindmarsh	110	115	115	116	105	108
LaTrobe	111	114	114	116	108	110
Regional MET	3.57	2.34	2.34	3.64	2.16	4.01

## Western Australia

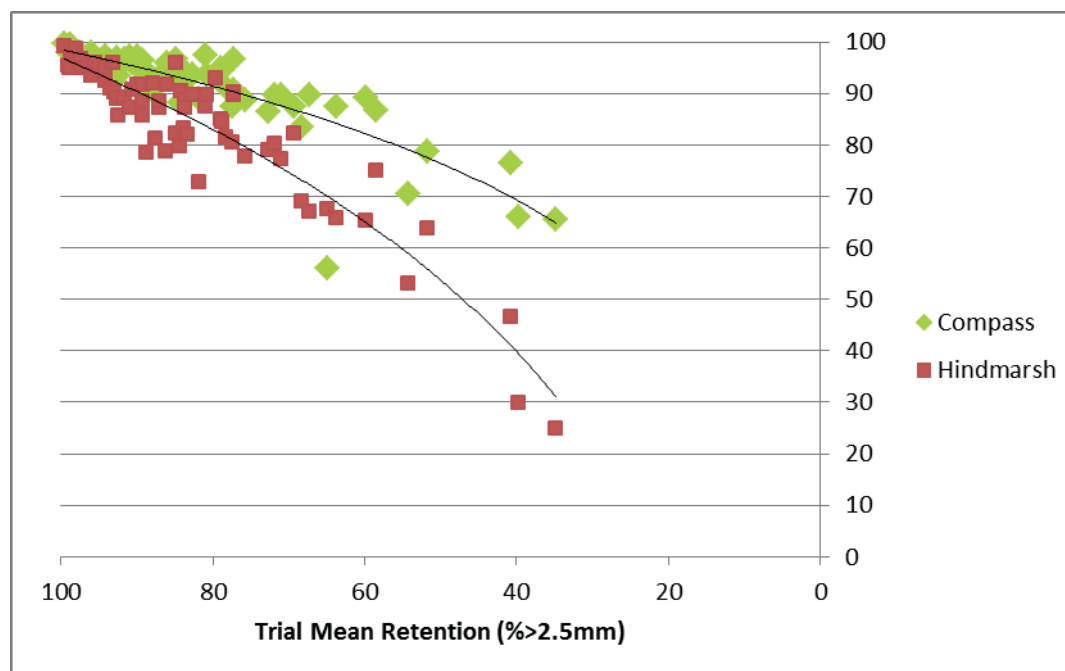
Variety	AgZone 2	Agzone 3	AgZone 5	AgZone 6
<b>Compass</b>	<b>116</b>	<b>112</b>	<b>111</b>	<b>108</b>
Bass	96	102	98	103
Hindmarsh	114	112	116	109
LaTrobe	113	112	115	111
Regional MET	2.57	3.59	2.62	3.09

 **GRAIN QUALITY**

Compass is the new standard for grain size, with lower screenings and superior grain plumpness. The graph below shows mean grain plumpness (% > 2.5mm) from 2013 National Variety Trials in the Mid North of South Australia. This group of trials experienced significant moisture stress during grain filling with Schooner just meeting the 70% retention limit for malting barley.



The grain plumpness (%>2.5mm) of Compass compared to Hindmarsh is shown in the graph below. Grain plumpness is plotted as a function of the trial site mean for each of 69 NVT trials conducted in 2013. Compass has significantly better grainsize and the advantage increases in more stressed conditions. In 2013 Compass exceeded the 70% retention standard for malting grade in all but three trials, whereas Hindmarsh failed at 10 locations (14% of trials).



 **DISEASE RESISTANCE**

Compass offers a strong 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 resistance to powdery mildew, black point and spot form net blotch.

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.

**Table: Regional disease ratings for Compass**

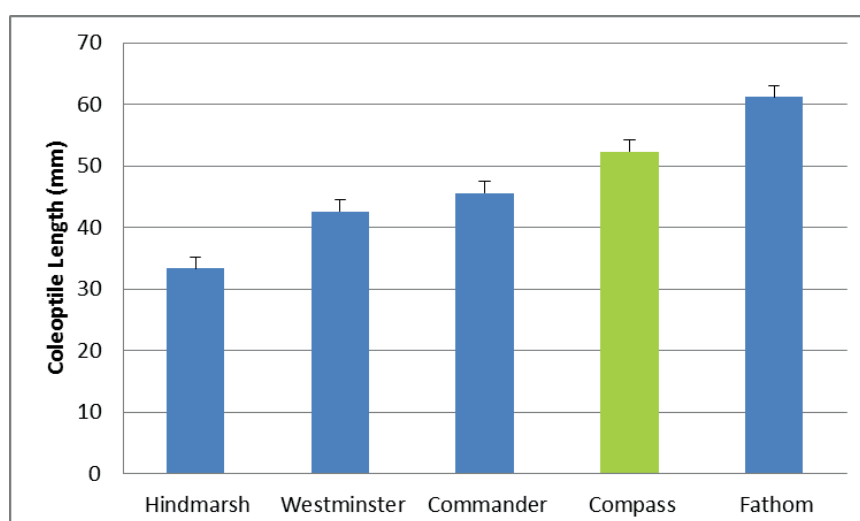
	Queensland	New South Wales	Victoria	South Australia	Western Australia
CCN	-	-	-	R	-
Powdery Mildew	MS	MR	-	MR	MR
Leaf Scald	-	SVS	MS#	MRMR-S	-
Leaf Rust	S	MRMS	MR#	MR	MR
Spot Form Net Blotch	MRMS	MSS#	MSS	MRMS-MSS	MSS
Net Form Net Blotch	MRMS	MS	MR#	MR-MRMS	MRMS-S
BYDV	-	-	-	-	MRMS*
Black Point	-	-	-	MSS	-

# Indicates that regional differences in pathotypes are likely and therefore the Compass may perform better than the rating allocated. \*These ratings are provisional – treat with caution.

 **PLANT CHARACTERISTICS**

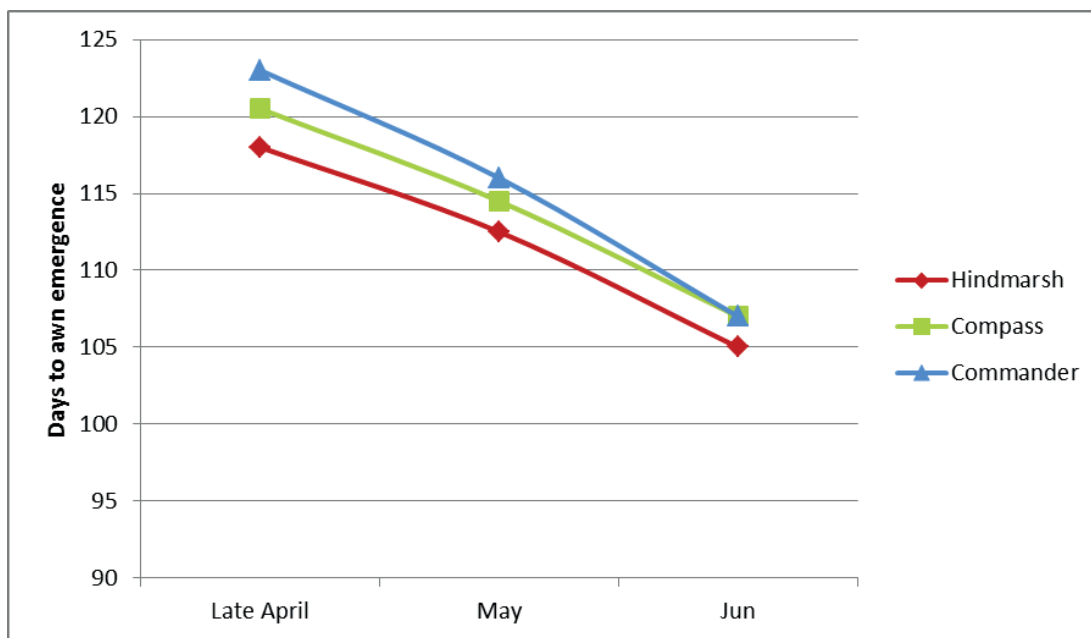
Compass is most similar in plant architecture to Commander, but with notably improved straw strength and lodging resistance. The higher yield potential of Compass means crop nutrition must be appropriately considered. In trials where a single nitrogen regime is applied Compass is typically 0.4% lower in grain protein than Commander. The improved lodging resistance makes Compass better suited to early sowing, higher fertility paddocks and higher nitrogen rates than Commander.

Compass has good coleoptile length which improves potential crop establishment particularly with variable or deliberate deep sowing. Compass typically exhibits slightly longer coleoptile length than Commander and is considerably longer than Hindmarsh, LaTrobe and Buloke.



 **VARIETY MATURITY**

Compass is a medium maturing variety reaching heading approximately 1-2 days earlier than Commander and 2-3 days later than Hindmarsh with mid-May sowing. Compass is less sensitive to photoperiod than Commander with very similar flowering times with later sowing such as mid-June.

 **PLANT BREEDER RIGHTS AND ROYALTIES**

Compass is protected by Plant Breeder Rights, any unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagating material of this variety is an infringement under the Plant Breeder's Rights Act, 1994.

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.

 **BREEDING**

Compass' pedigree includes Commander and a European variety named County.

**ACKNOWLEDGEMENTS**

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



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