



### Key Features

- ✓ Commander is a “Barley Australia” accredited malting variety
- ✓ Mid season flowering and maturity
- ✓ Broadly adapted highest yielding malting barley variety across many regions in SA, VIC, NSW & Sth QLD
- ✓ National Variety Trials highlight the excellent yield potential and physical grain quality of Commander
- ✓ Long term average yields comparative to leading feed varieties
- ✓ Low screenings and high retention
- ✓ Moderately resistant to powdery mildew
- ✓ CCN resistant
- ✓ Commander exhibits a 0.5-0.7% lower grain protein level
- ✓ The malting quality profile of Commander is suited to Australian brewing styles and some export markets serviced by Australian malting companies

### Yearly Rainfall:

	Low <380	Med 380-480	High >480
	Commander	Commander	Commander
Time of sowing	Early-Mid May	Mid-Late May	Mid May-Early June

### Plant Profile

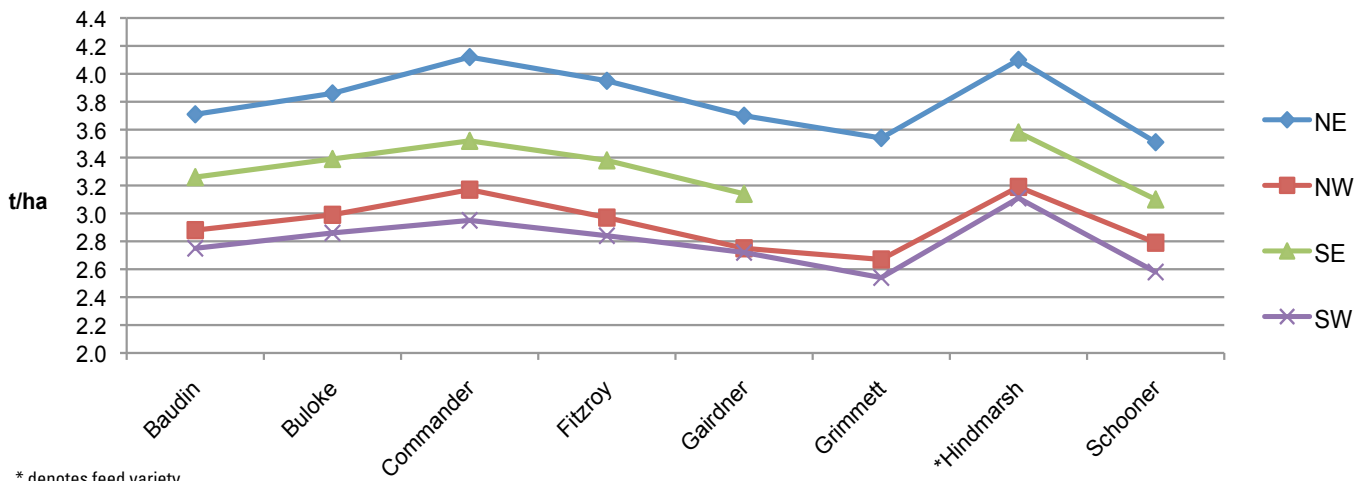
	Maturity	Coleoptile Length	Early Vigour	Early Growth Habit	Tillering Ability	Plant Height	Straw Strength	Head Retention	Boron Leaf Symptoms	Pre-Harvest Sprouting Risk
Commander	mid	medium	moderate	semi erect	mod-high	medium	moderate	mod-high	moderate	moderate
Schooner	early-mid	medium	moderate	erect	moderate	medium	moderate	moderate	moderate	moderate
Sloop SA	early-mid	medium	moderate	erect	moderate	medium	moderate	moderate	mod-high	moderate
Flagship	early-mid	medium	mod-high	erect	mod-high	medium	moderate	mod-high	mod-high	high
Buloke	early -mid	short	mod-high	erect	moderate	medium	moderate	moderate	mod-low	moderate
Baudin	mid-late	medium	moderate	prostrate	high	short	good	mod-high	moderate	moderate
Gairdner	late	medium	mod-low	prostrate	high	medium	moderate	moderate	moderate	mod-high

(Source: SARDI / UA Barley Breeding Program)

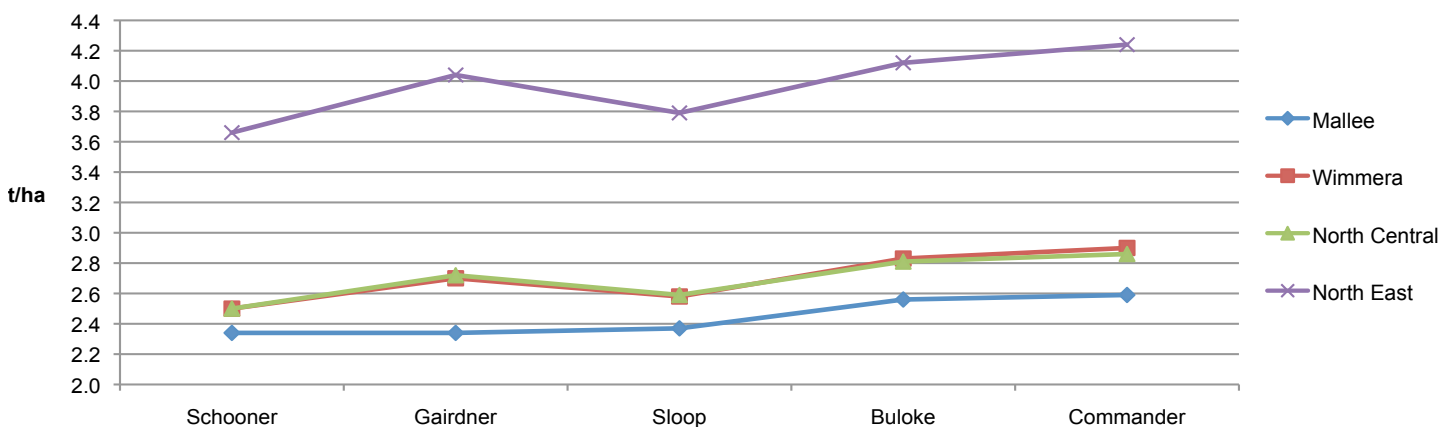
Commander exhibits a moderate basic vegetative phase and moderate photoperiod sensitivity.

# Variety Specific Agronomic Information

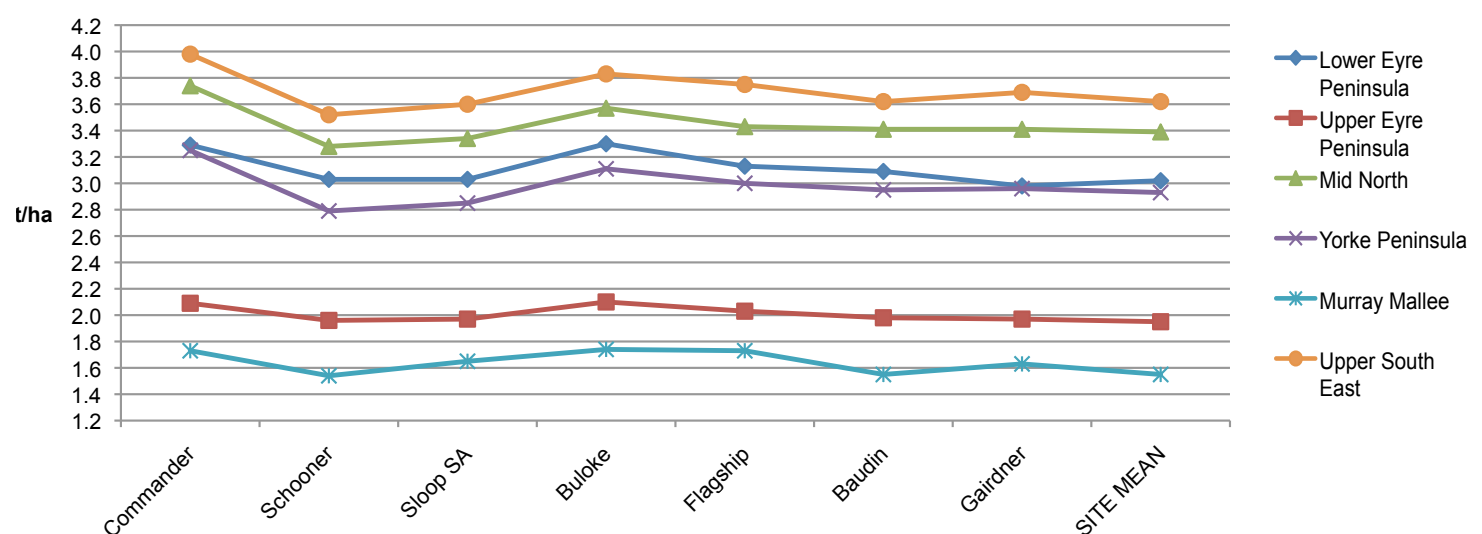
## NSW Long Term (2000-2009) NVT Mean Regional Grain Yield - t/ha



## Victoria Long Term (2000-2009) NVT Mean Regional Grain Yield - t/ha



## SA Long Term (2000-2009) Mean Regional Grain Yield - t/ha



NVT & SARDI Sites Across Years: Upper SE - Bordertown, Mundulla, Keith; Murray Mallee - Paruna, Lameroo, Cooke Plains; Mid North - Crystal Brook, Salters Springs, Turretfield; YP - Warooka, Pt. Clinton, Bute, Brentwood, Arthurton; Lower EP - Wharminda, Wanilla, Cummins; Upper EP - Minnipa, Darke Peak, Streaky Bay, Elliston. (Source: NVT/SARDI/GRDC)

The high yield potential & malting quality benefits of Commander can be maximised from earlier sowing opportunities, while the very good physical grain quality reduces the risks inherent to later sowing.

## Lower South East Regional Grain Yield (t/ha) & Quality

2009 season	Commander	Gairdner	Baudin	Schooner	SITE MEAN	April-Oct Rain (mm)
Frances	5.55	5.66	5.88	5.05	5.18	392
Conmurra	5.02	4.49	4.51	4.13	4.66	580
Millicent	8.17	6.01	6.93	6.09	6.55	690
1000 grain weight (g)	47.0	45.2	43.9	43.4		
test weight (kg/hl)	69.0	68.5	69.9	70.2		

2008 season	Commander	Gairdner	Baudin	Schooner	SITE MEAN	April-Oct Rain (mm)
Frances	6.25	5.68	5.99	5.99	5.78	283
Conmurra	6.64	6.68	7.01	5.89	6.22	404
Millicent	6.54	6.24	6.76	5.45	5.88	423
1000 grain weight (g)	48.0	46.7	45.2	46.2		
test weight (kg/hl)	69.7	70.5	70.3	71.9		

2007 season	Commander	Gairdner	Baudin	Schooner	SITE MEAN	April-Oct Rain (mm)
Frances	5.23	5.16	5.48	4.58	4.96	315
Conmurra	3.96	2.73	2.29	3.12	3.16	430
Millicent	7.70	5.99	5.02	6.72	6.81	556
1000 grain weight (g)	44.3	39.8	36.5	41.0		
test weight (kg/hl)	68.8	67.4	66.5	69.6		

Composite Mean value for screenings & grain weight. (Source: MacKillop Farm Management Group)

## SA Screenings Profile (% <2.2mm)

	2004	2005	2006	2007	2008	2009	Long Term Mean
Commander	16.1	1.7	7.9	4.3	13.2	4.2	7.9
Schooner	15.2	0.9	14.8	7.0	14.1	4.8	9.5
Sloop SA	14.0	1.4	11.6	7.9	13.3	4.9	8.9
Flagship	19.5	1.3	16.8	8.2	24.3	6.5	12.8
Buloke	20.1	1.9	12.6	6.7	16.4	8.1	11.0
Baudin	25.8	1.6	26.1	9.8	27.8	-	-
Gairdner	24.6	4.4	18.5	9.4	23.8	-	-

Composite Mean screenings performance of Commander compared with current malting varieties. 2009/10 GTA Malt1 maximum receival standard 7%. (Source: NVT/SARDI/GRDC)

Commander exhibits a very good physical grain quality profile.

## SA Test Weight Profile (kg/hl)

	2005	2006	2007	2008	2009	Long Term Mean
Commander	67.1	69.5	69.2	67.5	68.3	68.3
Schooner	69.6	71.8	70.5	70.9	69.7	70.5
Sloop SA	68.1	70.2	69.3	68.9	67.9	68.9
Flagship	69.5	71.2	70.4	69.3	68.8	69.8
Buloke	67.0	70.1	69.3	68.1	66.1	68.1
Baudin	68.4	68.5	68.9	66.0	-	-
Gairdner	-	69.8	69.5	67.5	-	-

Composite Mean test weight performance of Commander compared with current malting varieties. 2009/10 GTA Malt1 minimum receival standard 65 kg/hl (Source: NVT/SARDI/GRDC)

## Disease Profile

	Powdery Mildew	Scald	Spot Form Net Blotch	Net Form Net Blotch	Leaf Rust	CCN	BYDV	Common Root Rot	Black Point
Commander	MR	S	MS-S	MS	S	R	S	MS-S	S
Sloop SA	S	S	S-VS	MR	S-VS	R	S	S	MS
Flagship	MR-MS	MS	MS	MR-MS	S	R	S	S	S
Buloke	MR	MR-MS	MS-S	MR	S-VS	S	S	MS	S
Schooner	S	MS-S	MS-S	MR-MS	S-VS	S	S	S	S
Gairdner	MR	#R	S-VS	MR-MS	MS-S	S	MR	MS-S	MR
Baudin	S-VS	MS-S	S	MS	S-VS	S	MR	S	MS
Sloop Vic	MR	S	S	MR	MS-S	R	S	S	MS

R = Resistant; MR = Moderately Resistant; MS = Moderately Susceptible; S = Susceptible; VS = Very Susceptible. # = these varieties may be susceptible if alternative strain is present. (Source: SARDI Field Crop Pathology Unit)

Commander exhibits a modest but commercially acceptable disease resistance profile. Avoid where possible sowing barley on barley in order to help lower the risk of new foliar disease strains developing, such as Net Blotch and Scald. Be aware of increased risk to early foliar disease pressure from wind blown spores when deciding on paddocks to sow into barley which are next to last seasons barley stubble that is likely to have a moderate to high level of disease carryover.

## Variety Specific Agronomic Information

### Contact & Seed Purchasing

Commander is sold through your local rural seed retail agent. Check with your local store for seed availability and seek advice from your agronomist on optimum sowing time and crop management. Wholesale distribution by Viterra Seeds.

CONTACT - Viterra Seeds on Toll Free Number 1800 018 205 Website Seeds section - [www.viterra.com.au/agriproducts/seed](http://www.viterra.com.au/agriproducts/seed)

Craig John - Seeds Manager for SA/WA mobile 0437 011 907 [craig.john@viterra.com](mailto:craig.john@viterra.com)

Jason Scott - Seeds Manager for VIC/Sth NSW mobile 0458 009 804 [jason.scott@viterra.com](mailto:jason.scott@viterra.com)

Chris Farlow - Seeds Manager for Nth NSW/Sth QLD mobile 0439 277 122 [chris.farlow@viterra.com](mailto:chris.farlow@viterra.com)

### Plant Breeding Rights & Royalties

Commander is protected by Plant Breeders 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. (Grower to Grower seed sales are NOT permitted). Commander is subject to an EPR of \$3.80 per metric tonne (GST excl.), payable on all production excluding farm saved seed.

Viterra manages the collection of End Point Royalties (EPR) as part of the Plant Breeders Rights variety licencing agreement. The royalties are collected for investing back to the plant breeder for research and development of improved varieties for Australian farmers.

### Breeding

Commander (trialled as WI3416) was developed by the University of Adelaide Barley Breeding Program with the support of Australian malting and brewing companies through MBQIP, GRDC and Viterra Ltd.

