

# “Wheat Variety Trials”

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## Key Outcomes:

- Importance of a sound fungicide strategy is highlighted at sites where there are unsprayed plots. The variation in yield between sprayed and unsprayed plots depends on the disease rating of the variety, and this should always be taken into account when selecting new varieties.
- Long term site results should also be utilised to reduce the effect of seasonal variability in the decision making process.

**Trial Objectives:** To assess the yield of a range of wheat varieties at several sites across the South-East

**Trial Duration:** 2011-12

**Location:** Various

**Soil Type:** Various

**Paddock History:** Various

**Monthly Rainfall:**

**Farmer Co-operators:** Lachie Seears,  
Chris & Tim Fry, Ross Lutt,  
James and Chris Gilbertson, Jack Kay,  
Kim Makin, Jim & Peter McLellan

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	April-Oct	Total	Jan - Mar
Keith (Post Office)	57	82	66	17	30	42	62	54	29	22	43	19	256	522	205
Wirrega NRM	76	80	43	17	19	41	77	60	10	4	39	19	228	485	199
Wolseley (BoM)	116	38	38	18	24	39	66	47	31	44	31	26	269	519	192
Millicent (BoM)	69	60	52	38	76	92	68	99	61	50	62	23	484	751	181
Frances (NRM)	115	38	61	24	35	54	41	82	50	18	22	28	304	568	214
Conmurra (NRM)	47	71	62	42	53	83	97	70	64	30	55	10	438	682	180

**Type of Trial:** Replicated Plot Trial

**Trial Design:** 8m Plots x 8 Rows at 15cm spacings (1.2m);  
3 or 5 replicates (depending on site)

## Treatments:

All trials were sown with small plot equipment and managed as per usual agronomic treatment. All sites were sprayed with fungicides to control any stripe rust (unless otherwise stated). Grain yield was determined by machine harvest.

Sowing dates for all sites are available in the Trial Site Management Data tables at the end of the book.

## Results:

**Table 1: 2011 Conmurra Wheat Variety Trial – Yield**

Entry	Sprayed Yield		Unsprayed Yield		Stripe rust
	kg/ha	% site mean	kg/ha	% site mean	
AGT-Katana	7796	101	6119	101	2
Axe	4422	57	4614	76	1
Beaufort	8620	112	7295	120	1
Bogong	9172	119	5308	88	4
Bolac	8794	114	7505	124	1
Brennan	7272	94	6658	110	1
Catalina	7103	92	5153	85	6
Chara	8772	114	5535	91	6
CL-Janz	7868	102	4790	79	7
Correll	7419	96	5699	94	3
Derrimut	7815	102	4924	81	7
Einstein	7853	102	5933	98	1
Espada	7283	95	6678	110	4
Estoc	7598	99	7034	116	3
Forrest	8222	107	7253	120	1
Frame	6750	88	4396	73	4
Gladius	7265	94	5810	96	3
Wakelin	7141	93	5533	91	1
HRZ0065	9104	118	8546	141	2
HRZ040120	5851	76	5891	97	1
HRZ0420	7837	102	7551	125	3
IGW3119	7337	95	6235	103	1
Janz	7904	103	5378	89	6
JusticaCL	8056	105	6117	101	6
Krichauff	6986	91	1967	32	9
Lincoln	7372	96	8793	145	1
Mace	6706	87	3165	52	8
Mackeller	7141	93	7164	118	1
Magenta	8464	110	6914	114	4
Peake	7120	93	5339	88	1
Preston	9342	121	7371	122	1
Pugsley	6743	88	4611	76	8
Scout	8418	109	7016	116	3
Sentinel	8092	105	7262	120	1
SQP-Revenue	8637	112	6856	113	1
VW0151R	9245	120	6982	115	3
VW0703	8805	114	8523	141	1
Wallup	7657	99	6388	105	2
Wyalkatchem	7298	95	3177	52	8
Yitpi	7329	95	5999	99	3
Young	7083	92	5234	86	7
	Sprayed		Unsprayed		
Site mean (kg/ha)	7700		6066		
CV%	4.35		9.718		
Isd(0.05)	590.7		1300		

### Disease Scale:

1=R,  
 3=MR  
 5=MS  
 7=S  
 9=VS



**Table 2: 2011 Conmurra Wheat Variety Trial – Grain Quality**

Variety	Sprayed				Unsprayed			
	Protein	1000 grain wt	test weight	screenings	Protein	1000 grain wt	test weight	screenings
AGT-Katana	12.5	48.96	83.13	1.1	12.3	43.42	78.46	0.7
Axe	13.7	50.08	77.94	0.24	13.8	45.42	76.69	0.4
Beaufort	11.1	47.38	78.29	0.96	9.8	41.46	74.90	1.05
Bogong	10.1	57.70	77.66	0.39	10.9	47.64	73.06	0.93
Bolac	11.5	38.10	80.82	0.91	10.9	39.08	79.55	1.66
Brennan	11.7	48.88	80.63	0.94	11.6	46.90	80.68	0.79
Catalina	12.5	48.92	82.08	0.19	12.3	40.04	74.09	1.29
Chara	11.7	43.62	80.78	0.43	11.3	35.98	75.96	2.41
CL-Janzen	11.4	48.08	81.15	0.35	11.9	36.76	73.05	1.96
Correll	12.2	48.46	79.84	0.92	11.9	48.00	76.58	1.34
Derrimut	11.4	42.60	82.20	0.85	11.3	27.14	72.28	4.62
Einstein	9.8	38.72	75.11	1.71	11.9	28.26	69.92	4.96
Espada	11.6	49.00	80.44	0.65	12	44.36	75.12	1.09
Estoc	12	43.96	83.13	0.59	12	41.76	80.04	1.32
Forrest	11.9	49.72	80.89	1.14	10.4	44.84	81.02	1.19
Frame	11.4	46.50	81.81	1.41	11.2	42.58	78.23	2.28
Gladius	11.8	51.34	79.87	0.41	11.5	45.80	75.43	0.52
HRZ0058	12.2	43.74	82.22	0.35	11.2	42.24	80.86	1
HRZ0065	10.2	41.12	81.35	1.13	10.5	36.26	79.78	2.52
HRZ040120	11.7	49.68	79.85	0.62	11.6	46.24	78.31	0.86
HRZ0420	11.6	46.08	82.05	0.6	11.4	42.84	80.40	0.71
IGW3119	11.8	53.62	81.15	0.23	12.2	48.10	76.97	0.86
Janzen	11.4	45.60	81.34	0.49	11.4	37.06	74.49	2.55
JusticaCL	11.8	45.48	79.76	0.48	11.3	38.72	76.31	0.57
Krichauff	12.1	41.94	79.79	0.65	13.3	26.38	65.74	4.88
Lincoln	11.5	49.72	82.12	0.62	11.4	48.22	81.10	1.14
Mace	11.9	47.60	81.67	0.28	12.9	30.40	69.51	2.87
Mackellar	10.3	40.42	78.56	1.77	10.3	36.72	75.85	2.61
Magenta	12.1	49.08	81.35	1.53	11.9	41.16	78.91	2.33
Peake	11.5	40.80	80.54	0.58	11.7	35.46	76.10	1.49
Preston	10.8	46.46	79.06	0.53	9.9	34.22	73.08	2.04
Pugsley	10.9	46.62	81.02	0.85	9.9	35.76	75.79	2.48
Scout	11.2	46.02	81.65	0.76	11	44.30	81.09	0.69
Sentinel	11.2	50.52	81.03	0.4	11.6	50.20	80.10	0.82
SQP-Revenue	10.8	48.86	79.36	0.95	10.6	41.94	77.06	1.67
VW0151R	10.8	42.98	81.00	0.69	10.5	35.30	75.43	2.05
VW0703	10.8	42.16	81.12	0.63	10.9	39.60	80.35	0.82
VW4978-IR	12.6	43.92	81.50	0.33	12.7	40.64	77.86	1.15
Wyalkatchem	12.8	50.54	81.49	0.36	13.5	34.92	66.47	2.17
Yitpi	10.8	49.98	81.67	0.65	10.5	42.34	78.41	1.31
Young	11.5	40.26	81.12	0.6	12	29.48	74.97	3.58

**Table 3: 2011 Frances Wheat Variety Trial - Yield**

Variety	Sprayed Yield		Unsprayed Yield	
	kg/ha	% site mean	kg/ha	% site mean
AGT-Katana	4409	98	4058	95
Axe	4150	92	4014	94
Barham	4545	101	3984	93
Beaufort	4787	106	3850	90
Bogong	5042	112	5658	133
Bolac	4782	106	4415	104
Bowie	4297	95	3720	87
Brennan	4991	111	4700	110
Catalina	4348	96	4160	98
Chara	4795	106	4252	100
CL-Janz	4531	100	4252	100
Correll	4657	103	4614	108
Derrimut	4624	102	3866	91
Espada	4908	109	4778	112
Estoc	4689	104	4192	98
Forrest	4440	98	4432	104
Frame	4315	96	4354	102
Gladius	3921	87	3921	92
GS08.0222	3686	82	4038	95
GS08.0228	3075	68	3556	83
GS080203	3934	87	3463	81
GS080231	3831	85	3877	91
HRZ0058	4643	103	4564	107
HRZ0065	4542	101	5039	118
HRZ040120	4483	99	4489	105
HRZ0420	4806	107	4140	97
IGW3119	5105	113	4990	117
Janz	4644	103	4098	96
JusticaCL	4470	99	3982	93
Krichauff	4162	92	2615	61
Lincoln	4910	109	4715	111
Mace	5030	111	3558	83
Mackeller	4068	90	4354	102
Magenta	4410	98	4660	109
Peake	3962	88	3965	93
Preston	4974	110	4143	97
Pugsley	4274	95	3959	93
Scout	4867	108	4734	111
Sentinel	4874	108	5469	128
SQP-Revenue	4994	111	4714	111
VW0151R	4343	96	4657	109
VW0703	4452	99	4281	100
VW4978-IR	4760	105	4906	115
Wyalkatchem	4432	98	4107	96
Yenda	5106	113	3440	81
Yitpi	4914	109	4552	107
Young	4229	94	4234	99

	Sprayed	Unsprayed
Site mean	4515	4266
CV%	7.57	6.35
lsd(0.05)	597.1	649.5



**Table 4: 2011 Frances Wheat Variety Trial - Grain Quality**

Variety	Sprayed				Unsprayed			
	Protein	1000 grain wt	test weight	screenings	Protein	1000 grain wt	test weight	screenings
AGT-Katana	10.2	45.80	83.01	0.78	10.3		82.60	0.96
Axe	11.6	46.86	80.37	0.13	11.6	44.30	79.37	0.41
Barham	9.4	42.06	80.23	0.87	8.5	39.52	76.73	1.42
Beaufort	8.6	38.56	78.22	2.33	8.7	34.90	75.60	2.46
Bogong	8.3	44.50	77.11	0.64	8.5	47.18	77.97	0.07
Bolac	8.9	35.40	81.52	1.27	8.6	33.10	81.35	2.29
Bowie	9.4	45.28	80.74	0.81	8.9	38.58	74.39	1.72
Brennan	9	41.98	81.74	1.38	8.7	40.50	82.13	0.99
Catalina	10	46.08	84.14	0.46	9.9	42.12	82.93	0.93
Chara	9.2	41.50	82.40	0.67	9	40.14	84.89	0.57
CL-Janz	9.7	43.76	82.33	0.76	9.6	38.24	79.58	0.94
Correll	9.3	48.16	80.58	1.13	9.2	48.58	80.22	1
Derrimut	10.2	38.90	83.34	0.76	9.2	36.66	79.49	0.61
Espada	9.9	46.36	81.06	0.47	9.7	46.88	80.76	0.98
Estoc	9.8	46.88	84.73	1.52	9.1	43.76	83.98	0.92
Forrest	8.3	47.56	83.12	0.73	8.6	38.00	82.79	0.88
Frame	9.4	49.98	83.16	1.27	8.9	46.64	82.56	0.19
Gladius	10.1	47.42	81.78	0.7	9.9	44.26	81.46	0.88
GS08.0222	8.8	40.66	80.69	0.99	8.9	40.34	81.16	0.35
GS08.0228	10	40.74	81.65	1.94	9.6	42.52	82.73	0.93
GS080203	8.9	44.46	82.09	0.23	9.3	42.66	83.22	0.15
GS080231	9.6	50.40	81.75	0.33	9.6	49.20	80.90	0.75
HRZ0058	9.5	39.58	84.09	0.72	9.5	39.62	84.03	0.26
HRZ0065	9.1	35.48	81.53	1.5	8.3	36.72	81.31	1.99
HRZ040120	9.2	41.80	79.28	0.77	9	40.80	80.13	1.05
HRZ0420	8.9	42.22	82.61	1.58	8.8	38.80	82.27	1.55
IGW3119	9.2	49.08	81.96	0.7	8.8	49.02	80.77	0.5
Janz	9.5	41.22	82.43	0.86	9.6	37.64	81.20	1.41
JusticaCL	10.4	41.66	80.78	0.62	10	39.88	79.97	0.8
Krichauff	8.7	37.68	81.37	0.59	10.7	31.76	74.87	1.04
Lincoln	9	46.46	82.32	0.73	8.8	42.70	82.07	1.65
Mace	9.3	43.04	81.67	0.53	9.8	35.44	75.61	1.72
Mackeller	8.5	36.70	79.81	3.55	8.6	33.18	79.69	3.35
Magenta	9.7	46.64	82.35	1.08	9.5	46.84	82.55	0.95
Peake	10.7	39.12	81.66	1.39	9.9	36.80	79.37	1.34
Preston	8.6	41.62	79.54	1.01	8.1	35.16	75.48	1.73
Pugsley	8.8	44.68	82.61	1.13	8.6	34.72	80.96	0.84
Scout	9.2	44.78	83.86	1.02	9.5	43.98	82.86	0.78
Sentinel	9.5	95.62	83.00	0.63	9.3	47.84	82.85	0.49
SQP-Revenue	8.5	42.18	79.85	1.09	8.6	40.34	79.59	1.79
VW0151R	8.7	39.92	82.70	1.22	9.1	38.22	81.10	0.9
VW0703	9	40.14	84.32	0.57	8.8	38.30	84.39	0.46
VW4978-IR	10.1	41.12	82.24	0.32	10.2	39.58	81.65	0.1
Wyalkatchem	9.6	45.34	81.94	0.38	9.7	41.52	79.82	0.57
Yenda	9.1	38.84	80.71	1	8.9	33.78	75.21	1.98
Yitpi	9.1	47.64	82.75	1.2	8.3	43.42	82.08	1.54
Young	9.7	37.82	82.45	0.68	9.6	35.64	80.95	1

**Table 5: 2011 Millicent Wheat Variety Yield**

Variety	Yield		Quality			
	kg/ha	% site mean	Protein	1000 grain wt	test weight	screenings
AGT-Katana	6586	89	12.1	46.58	82.61	0.88
Axe	6664	90	12.6	49.52	79.69	0.6
Barham	7343	100	10.8	45.00	79.04	0.85
Beaufort	8043	109	10.2	45.46	78.62	1
Bogong	9084	123	9.4	56.98	79.52	0.33
Bolac	7775	106	11.8	37.72	81.15	0.85
Bowie	6578	89	10.8	45.70	79.34	2.25
Brennan	6357	86	11.7	47.44	81.71	0.96
Catalina	6940	94	12	46.04	82.00	0.1
Chara	8688	118	11.2	43.64	80.61	0.47
CL-Janz	7396	100	11	44.34	81.22	2.06
Correll	5637	77	12.1	48.78	79.18	0.47
Derrimut	8169	111	11	50.34	81.84	1.06
Einstein	8904	121	10.1	44.20	77.70	1.57
Espada	6330	86	12	50.34	80.08	5.05
Estoc	7052	96	11.6	44.90	82.84	5.72
Forrest	9233	125	10.1	48.16	82.78	1.81
Frame	5747	78	10.6	47.44	81.14	0.72
Gladius	7311	99	11.3	51.00	80.86	0.58
HRZ0065	8660	118	10	41.26	81.98	1.02
HRZ040120	3953	54	11.3	48.28	81.03	0.2
HRZ0420	7229	98	10.8	45.00	82.37	1.56
IGW3119	7858	107	11.2	51.20	81.31	0.22
Janz	7857	107	11.2	42.14	81.56	0.73
JusticaCL	8483	115	11.7	45.06	80.73	0.29
Krichauff	5904	80	11.7	42.00	80.89	0.53
Lincoln	6001	81	10.6	50.64	82.42	0.77
Mace	7587	103	11	44.58	81.29	1.08
Mackeller	8143	111	10.15	41.50	80.21	1.03
Magenta	7110	97	11.2	49.16	82.02	1.19
Peake	6482	88	11.6	40.92	80.51	0.1
Preston	9264	126	10.1	44.06	78.63	NA
Pugsley	6500	88	10.9	44.44	81.94	1.76
Scout	7308	99	10.6	47.42	83.08	1.51
Sentinel	6274	85	11.8	50.98	81.56	1.25
SQP-Revenue	8863	120	10.9	46.00	80.02	1.63
VW0151R	8687	118	10.7	41.38	81.79	0.72
VW0703	9003	122	10.5	41.48	82.14	0.63
VW4978-IR	8326	113	11.6	42.66	81.58	0.81
Wakelin (HRZ0058)	6784	92	11	41.00	82.64	0.65
Wyalkatchem	8399	114	11.4	48.28	81.74	0.36
Yenda	7592	103	10.2	41.70	79.45	0.78
Yitpi	6194	84	11.2	46.56	81.15	1.12
Young	5938	81	11.3	40.34	81.38	1.11

Site mean	
(kg/ha)	7369
CV%	5.02
lsd(0.05)	768.8



**Table 6: 2011 Upper South East Wheat Trials and Long Term Results**

	South East					
	2011 (% site average)			Long Term average across sites(05-11)		
Variety	Keith	Sherwood	Wolseley	t/ha	as %site av.	# trials
AGT Katana	99	94	101	3.93	102	13
Axe	104	93	96	3.83	100	16
Catalina	95	96	95	3.79	99	14
Clearfield Jnz	93	96	91	3.70	96	8
Cobra	-	-	-			
Corack	110	98	93	3.99	104	5
Correll	103	104	104	3.91	102	16
Derrimut	102	103	100	3.95	103	16
Elmore CL PLus	97	103	101			
Emu Rock	104	90	106	3.89	101	5
Espada	109	98	102	3.97	103	14
Estoc	94	101	92	3.88	101	11
Frame	92	100	88			
Gladius	105	103	102	3.96	103	16
Justica CL Plus	91	99	100	3.82	100	5
Kord CL Plus	102	99	102	3.73	97	5
Lincoln	97	95	98	3.88	101	13
Mace	106	101	101	4.10	107	8
Magenta	101	102	100	3.88	101	14
Peake	99	98	99	3.90	102	16
Scout	111	110	105	4.10	107	8
Wallup	101	99	102	3.97	103	5
Wyalkatchem	103	91	93	3.99	104	16
Yitpi	101	107	97	3.88	101	16

Site av. yield (t/ha)	3.9	3.47	4.88	3.84	100
LSD (%)	6	7	7		
Date sown	26 May	3 Jun	8 Jun		
Soil Type	CL	S/C	C		
J-M/A-O rain (mm)	205/256	205/274	192/269		
pHwater	8	8.1	8.4		
previous crop	lentils	canola	beans		
Site stresses	dl	rh,dl	dl		

Soil type:  
S=sand, L=loam, C=clay, Li=light,  
M=medium, H=heavy, F=fine,

Site stress factors:  
de= dry pre-anthesis, dl=dry post anthesis,  
bo=boron toxicity,e=emergence(eg. mice)  
lr=leaf rust, r=rhizoctonia,  
yls=yellow leaf spot,

*Data source: NVT & SARDI/GRDC (long term data based on weighted analysis of sites, 2005-2011)*

*\*Durum varieties trialed separately and not completely valid to compare against bread wheats*

*Data analysis by GRDC funded National Statistics Group*



**Table 7: 2011 Conmurra Soft Wheat Variety Yield Trial**

Variety	Yield		Quality			
	kg/ha	% site mean	Protein	1000 grain wt	test weight	screenings
Barham	7515	101	11.1	40.04	77.53	0.83
Bowie	7706	104	10.5	44.10	78.46	0.36
C51021	7116	96	11.6	41.88	80.79	0.17
C51115	7585	102	10.3	40.68	76.40	0.46
Orion	6645	90	10.3	49.36	74.71	0.53
Yenda	7931	107	10.4	41.62	78.70	0.81

Site mean	7416
CV%	6.378
lsd(0.05)	873.9
	NS

***General Comments on Wheat Varieties from performance in NVT Trials across the state****Provided by Rob Wheeler (Leader, New Variety Agronomy, SARDI)*

Above average grain yields and excellent grain quality were a feature of many wheat variety trials in SA during 2011.

A prolonged statewide dry period in August and September followed by mild and wet weather conditions during spring led to results where both mid and later maturing varieties performed well depending on the impact of the dry conditions. Across all NVTs in SA, the mid-flowering variety Mace produced the highest average yield of 3.89 t/ha across sites, 2% above Scout and Corack, 5% above Espada and 7% above Gladius, Wyalkatchem and Kord CL Plus respectively. Mace performed well across all regions (particularly the Eyre Peninsula), while Scout was more dominant in central and south-east region trials and Corack yielded well in many regions and particularly the mallee.

When averaged across trials, varietal market receival quality in terms of test weight, grain protein and grain plumpness were generally very good, with moderate protein averaging 11.3% across sites, low screenings averaging 1.6% and high test weights averaging 80.8 kg/hl. These compared with 10.3% protein, 1.9% screenings and 77.4 kg/hl test weight averages recorded in 2010. White grain was found in samples from Kimba and Booleroo Centre NVT, but sprouting and low test weight issues seen in 2010 were not repeated within 2011 NVT. Black Point was also at a low frequency in 2011 samples.



## **Comments on Newer Wheat Varieties**

*(Note: quality classification based on max. eligibility for SA grades)*



### **AGT Katana<sup>A</sup>**

Katana (RAC1423) is an early flowering, premium quality variety released for specific export markets. Derived from Kukri, Katana has good physical grain quality, similar to Yitpi, and yields similar to Wyalkatchem on average. Katana has modest rust resistance and is susceptible to CCN but rated MR/MS to yellow leaf spot and powdery mildew. CBH Grain may contract Katana for export with possible premiums above AH1 passed to growers. Seed is available through AGT (Seed Sharing between farmers is allowed with conditions).

### **Axe<sup>A</sup>**

Axe (RAC1192) is a vigorous growing, very early flowering, AH quality variety released by AGT in Aug 2007. With large grain and low screenings losses, it has shown high yield potential in SA under very dry and sharp finishing conditions albeit with more moderate yields under favourable spring conditions and is susceptible to sprouting. Axe has good resistance to all rusts but is susceptible to CCN and yellow leaf spot and S-VS to septoria tritici blotch. Seed is available through AGT (Seed sharing between farmers is allowed with conditions).

### **Bolac<sup>A</sup>**

Bolac (VQ2621) is a long season, milling wheat, eligible for AH and released by AGT. It is suitable for mildly acidic to alkaline soils and could be an alternative to feed wheats and later varieties such as Chara, in the SE of South Australia. Bolac has good rust resistance, and is later flowering than Chara, but earlier than Kellalac. Seed is available through Viterra.

### **Corack<sup>A</sup>**

Corack (VW2316) is an early maturing APW (Vic, with SA pending) quality wheat derived from Wyalkatchem. It has CCN resistance and good yellow leaf spot resistance but is moderately susceptible to leaf and stripe rust. Tests in SA NVT during 2010 and 2011 indicates a high yield potential, particularly in low to medium rainfall situations. Corack has only recently been released in Western Australia, with seed available through AGT (Seed sharing between farmers is allowed with conditions).

### **Correll<sup>A</sup>**

Correll (WI23322), has an AH classification, is derived from Yitpi, and was released by AGT in 2006. Correll has similar disease resistance to Yitpi but improved stem rust resistance. Correll is generally higher in grain yield than Yitpi, but averages around 3 kg/hl lower test weight and is susceptible to sprouting. Correll is 2 to 5 days earlier flowering than Yitpi, and considerably more when sown very early. Seed is available through AGT (Seed sharing between farmers is allowed with conditions)

### **Emu Rock<sup>A</sup>**

Released by Intergrain, Emu Rock (IGW3167) is a high yielding, AH (WA/SA/Vic) variety for mid to late sowings in a broad range of environments across WA. This early maturing wheat, is susceptible to CCN but has moderate resistance to stem and stripe rust and is MS/S to leaf rust and MS to yellow spot. Across two seasons NVT in SA, Emu Rock has shown yields aligning with Wyalkatchem.

### **Espada <sup>A</sup>**

Espada (RAC1263) was released in early 2008 by AGT and is a sister line to Gladius with high yield potential. It is agronomically similar to Gladius and moderately susceptible to CCN, but features improved leaf rust resistance. Espada has APW quality and is susceptible to sprouting like Gladius. Seed is available through AGT (Seed Sharing between farmers is allowed with conditions).

### **Estoc <sup>A</sup>**

Estoc (RAC1412) was released in late 2010 by AGT and is related to Yitpi. It is a mid to late maturing variety like Yitpi, moderately resistant to CCN, S/VS to *P. neglectus*, with good levels of resistance to all rusts (MR/MS to Yr), slightly better yellow leaf spot (S) resistance and significantly higher grain yields. Estoc is eligible for APW classification, has good physical grain quality like Yitpi and has shown good sprouting and black point tolerance. Seed is available through AGT (Seed Sharing is allowed between farmers with conditions).

### **Forrest <sup>A</sup>**

Forrest was released by HRZ wheats in 2011, targeting high rainfall zones as an APW (SA) quality wheat. Forrest has late maturity and plump grain coupled with triple rust resistance, MR/MS to yellow leaf spot, MR to black point and resistance/tolerance to WSMV. Forrest is commercialised by Seednet with seed available for 2012.

### **Gladius <sup>A</sup>**

Gladius (RAC1262) has an AH classification and was released by AGT. It is broadly adapted, very high yielding, and is well adapted to low rainfall environments. It has boron tolerance, and has good resistance to stem rust, MR-MS to stripe rust and MS to leaf rust, CCN and yellow leaf spot. Gladius has midseason maturity and good grain size like Yitpi albeit with slightly lower test weight, and is susceptible to pre harvest sprouting. Trials indicate Gladius to have a lower tolerance to Ally® and Hussar®. Seed is available through AGT (Seed Sharing is allowed between farmers with conditions).

### **Justica <sup>CL Plus A</sup>**

Released in early 2011 by AGT, Justica <sup>CL Plus</sup> (RAC1683) carries two genes for Clearfield resistance and therefore has improved levels of tolerance to imidazolinone herbicides over Clearfield JNZ and Clearfield STL. It is derived from Gladius and Spear, is slightly later maturing than Gladius and has similar levels of disease resistance although it is now rated MS/S to leaf rust. Justica <sup>CL Plus</sup> has an APW classification and has pre-harvest sprouting tolerance similar to Yitpi. Evaluated within NVT for the first time in 2010, across two seasons in SA NVT, Justica <sup>CL Plus</sup> has yielded similarly to Yitpi. Seed is available through AGT.

### **Kord <sup>CL Plus A</sup>**

Released in early 2011 by AGT, Kord <sup>CL Plus</sup> (RAC1669R) carries two genes for Clearfield resistance and therefore has improved levels of tolerance to imidazolinone herbicides over Clearfield JNZ and Clearfield STL. It is derived from Gladius with similar maturity and susceptibility to pre harvest sprouting but improved resistance to CCN being MR. Kord <sup>CL Plus</sup> has an APW classification. Evaluated within NVT for the first time in 2010, across two seasons in SA NVT, Kord <sup>CL Plus</sup> has yielded similarly to Gladius. Seed is available through AGT.



### **Longreach Catalina<sup>A</sup>**

Catalina (LPB0268) was released by Longreach Plant Breeders in 2006 and has an AH quality classification. It is a CCN resistant wheat suited to medium to higher rainfall districts across SE Australia. Catalina is several days earlier flowering than Yitpi and has acceptable physical grain quality. Catalina is moderately resistant to stem and leaf rust, moderately susceptible to stripe rust and is MS-S to yellow leaf spot and septoria tritici blotch. Widespread SA NVT yield data since 2006, show yield results slightly below Yitpi and it has shown sensitivity to Cadence® at recommended label rate and timing. Catalina is available through SeedNet.

### **Longreach Cobra<sup>A</sup>**

Cobra (LPB07-0956) was recently released in Western Australia as an early maturing Westonia derivative with AH (WA, with SA pending) quality and high yield potential. While susceptible to CCN, Cobra has moderate susceptibility to stripe (MS/S) and leaf rust and is MR/MS to yellow leaf spot. Cobra has good grain size and black point resistance but is moderately susceptible to pre-harvest sprouting. Further evaluation in SA is required. Seed is licensed to Pacific Seeds

### **Longreach Lincoln<sup>A</sup>**

Lincoln (LPB03-0545) was released from Longreach Plant Breeders and is eligible for AH grade in SA and is a moderate yielding (similar or lower than Yitpi), rust resistant variety with mid season maturity. It has excellent resistance to all rusts including both WA and WA+Yr17 stripe rust pathotypes and MS to yellow leaf spot but does not have CCN resistance. Lincoln is considered more susceptible to crown rot than most varieties, has grain size similar to Janz and is susceptible to pre-harvest sprouting. Seed is licensed to Pacific Seeds

### **Mace<sup>A</sup>**

Mace (RAC 1372), released by AGT, is derived from Wyalkatchem, but has an AH classification taller plant height, is MR/MS to stem rust, MR to leaf rust and is rated MR/MS to CCN and *Pratylenchus neglectus*. Although Mace has good resistance to the older WA stripe rust race, it is rated as S-VS to the WA+ Yr17 stripe rust strain and if grown, must be carefully monitored and best avoided in districts prone to stripe rust unless a fungicide regime is in place. Mace has been widely tested since 2009 in NVT in SA and is showing wide adaptation coupled with high yield potential with wheat on wheat application. Seed is available through AGT (Seed Sharing between farmers is allowed with conditions).

### **Peake<sup>A</sup>**

Peake (NGSP006) was released in 2007 by Nugrain and Sunprime. Peake is medium-short strawed, mid maturing (5-6 days earlier than Yitpi) and shows most potential in medium to high rainfall zones. Peake is MR/MS to stem and stripe rust and R to leaf rust. Peake is CCN resistant, boron tolerant and is S to yellow leaf spot. Peake has AH quality and can produce small grain under dry spring conditions. Peake is available through Seedcell.

### **Longreach Scout <sup>A</sup>**

Scout (LPB05-1164) was developed and released from Longreach Plant Breeders as an APW quality variety with mid season maturity, derived from Yitpi. It has good resistance to stem and leaf rust and the WA stripe rust pathotypes but carries VPM and is rated MS to the WA+Yr17 pathotype in eastern Australia. Scout is R to CCN and MR/MS to powdery mildew but rated S-VS to yellow leaf spot, like Yitpi. Scout has good physical grain quality and similar sprouting tolerance to Yitpi but slight more susceptibility to black point. Seed is licensed to Pacific Seeds and farmer to farmer trading is now permitted subject to conditions.

### **Wallup <sup>A</sup>**

Wallup (VV4978-1) was recently released from AGT for the Victorian Wimmera and other medium to higher rainfall regions. Wallup has AH quality combined with early to mid season maturity, CCN resistance, moderate stem, stripe and leaf rust resistance, and moderate (MS) levels of yellow leaf spot resistance. It has useful resistance to root lesion nematodes, excellent straw strength and limited evaluation in NVT shows a moderate yield potential. Seed is available through AGT (Seed Sharing between farmers is allowed with conditions).

## **SOFT WHEATS**

### **Longreach Impala <sup>A</sup>**

Impala is an early to midseason soft biscuit (ASFT) wheat targeted to eastern Australia. Impala has mid season maturity, is susceptible to CCN but has good stem and stripe rust resistance but is susceptible to leaf rust. Impala produces large grain with improved test weight over Bowie and low screenings losses and is MS to black point. Seed is licensed to Pacific Seeds.

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