QUEENSLAND

National Variety Trials

A GRDC INITIATIVE

2014 wheat varieties

www.nvtonline.com.au

Key points

- LongReach Lancer$^{\phi}$ has been released as an early season APH variety for the northern region.
- Wheat quality classification boundaries have changed resulting in changed classifications for some varieties.

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Introduction

Grains industry productivity is dependent upon the continued adoption and deployment of new technologies, including the adoption of new varieties with superior yield and useful disease resistance characteristics.

National Variety Trials seek to collect the most relevant varieties for each region and test them alongside the elite lines from breeding programs. For complete information on the released varieties in the NVT trials in Queensland visit the NVT website (www.nvtonline.com.au).

The 2013 season

Full soil moisture profiles at the end of February 2013 created optimism for widespread planting and above-average yields. However, patchy rainfall in April, May and June spread wheat plantings across the range of the planting window. In southern Queensland most of the delayed plantings were caused by late rainfall. In many areas of the Western Downs early planting was conducted with moisture-seeking operations. In central Queensland some regions experienced persistent rainfall, which delayed planting operations. In the end a full set of NVT trials were able to be planted throughout Queensland.

Above average early season rainfall in central Queensland, primarily April and May, resulted in above average crops for the regions that were able to plant early. From June onwards little or no rain fell and crops progressed on stored moisture alone. Much of the central Queensland crop was close to 10 percent protein again. After many years of low protein farmers need to take more notice of soil nutrient levels and adjust nitrogen inputs to suit. Southern Queensland received little or no in-crop rainfall and as a result yields were low and protein was generally high.

Disease characteristics

LEAF AND STEM DISEASES: These diseases are more likely to cause problems in wetter seasons, particularly when there has been a wet season the year before and large amounts of inoculum exist in stubbles or volunteer hosts. Losses from rusts are potentially great so growers need to utilise varieties with good resistance or be prepared to spray with fungicides one or more times as required.

YELLOW SPOT: Carryover of infected yellow spot stubble from 2012 meant that, with the early rains in some areas, seedlings were affected in 2013. However, with the abrupt stop in the rains early in the season, yellow spot development also stopped in most regions. By the time plants reached flag leaf emergence, a stage of development at which the yellow spot could affect yield, there was little yellow spot infection on the upper leaves to impact on yield. It is unclear how much fungicide was used for yellow spot control in 2013, but with little infection later in the season there would have been scarce financial return on use of a fungicide. Parts of the Darling Downs had severe frost but because of the severity of the frost, there was little confusion of the symptoms of frost with those of leaf disease. Environmental conditions in 2013 did not result in widespread physiological blotches, so unlike in 2012 they were not confused with yellow spot.

If 2014 is a wet year the seedling disease from 2013 could result in enough infected stubble to create an epidemic of yellow spot from stem elongation to maturity if growers sow wheat-on-wheat. To reduce yield loss and minimise unnecessary sprays growers should monitor disease levels, but avoid making spray decisions until close to flag leaf emergence and they are sure the disease is yellow spot.

STRIPE RUST: There were no reports of stripe rust in central Queensland in 2013. In southern Queensland, stripe rust arrived late and like 2012 was again generally not a significant disease. This may have been due to the lack of rain and less favourable temperatures. As the pathogen can blow tens of kilometres or more, jumping from one crop to another. There will always be enough inoculum if conditions are conducive. Always select a cultivar with good resistance, or be prepared to invest in multiple fungicide sprays and take some yield losses if a serious epidemic develops or weather prevents spraying at optimum times.

LEAF RUST: While not severe, leaf rust was more widespread than in recent years. Leaf rust is often rare in Queensland, but growers in the region should watch for its development in crops that should have good resistance which may develop severe disease. In either case contact your local agronomist or DAFF pathologist for advice.

CROWN ROT: As the source of disease development and resultant yield loss in winter cereals, crown rot inoculum in the soil continues to present a threat. Crown rot inoculum survives for several seasons, so the wet seasons in 2010 and 2011, and the wet start to 2012, built up inoculum that has been maintained through 2013. The problem for growers is that a wet season builds up inoculum but crops show few symptoms and yields are good, so the temptation is to grow another wheat crop. A dry season, particularly a dry finish, does not necessarily build up inoculum, but symptoms are severe and losses are high.

In 2013 widespread crown rot was observed, but not severe symptoms, which means there is still enough inoculum across the region to put crops at risk in 2014.

ROOT LESION NEMATODES (RLN): Widespread in the northern grains region, RLN can significantly reduce wheat yields. RLN are also hosted by many non-cereal crops, so the absence of a winter-cereal crop in recent seasons does not mean that there are low levels of nematodes in the soil. A soil testing service for RLN is available through the PreDictaB service (contact your local agronomist for details). A test should be considered prior to planting if you do not know the species of nematode or levels in your soils. If wheat is to be sown in nematode-infested soil, the tolerant varieties (listed as T-MT or MT and highlighted in green) should be considered. The reaction of a wheat variety may differ to the two species of RLN, *Pratylenchus thornei* and *P. neglectus*. This should be checked in Tables 2A and 2B (pages 6 and 7).

BUNT: To avoid bunt, wheat seed should be treated with a fungicidal dressing if it has been saved from a crop grown from untreated seed.

VARIETIES IN THIS GUIDE: Only varieties deemed suitable for conditions in the northern region (Queensland and northern New South Wales) have been included in this guide. If a variety is not mentioned, there is either no commercial seed available or there is concern that it may not carry robust rust resistances and may compromise the Queensland wheat industry. If seed of varieties not mentioned in this guide is obtained, please ensure that you are provided with current and reliable rust information by the vendor.

Table 1 Planting time suggestions

District	Varieties in order of maturity (slow to quick) within each broad maturity group	Planting times by weeks															
		April				May				June				July			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Central Highlands Dawson Callide – low frost risk (higher slopes or more northern areas)	Strzelecki(Ф), EGA Gregory(Ф), LongReach Lancer(Ф), EGA Bellaroi(Ф), Petrie(Ф)	E	E	C	C	C	C	C	L								
	EGA Bounty(Ф), EGA Burke(Ф), EGA Wylie(Ф)	E	E	E	C	C	C	C	C	L	L						
	Sunguard(Ф), Baxter(Ф), Sunvale,(Ф) Caparoi(Ф)	E	E	E	E	C	C	C	C	L	L						
	LongReach Gauntlet(Ф), Lang(Ф), Kennedy(Ф), EGA Kidman(Ф), Sunco, Elmore CL Plus(Ф), Hyperno(Ф), GBA Hunter(Ф)	E	E	E	E	C	C	C	C	C	C	L	L				
	Hartog, Leichhardt, LongReach Crusader(Ф), Suntop(Ф), LongReach Spitfire(Ф), Wallup(Ф), Livingston(Ф), EGA Stampede(Ф), Jandaroi(Ф), LongReach Dart(Ф)		E	E	E	E	C	C	C	C	C	L	L				
Central Highlands Dawson Callide – high frost risk (river flats or areas known to be more frost-prone)	Strzelecki(Ф), EGA Gregory(Ф), LongReach Lancer(Ф), EGA Bellaroi(Ф), Petrie(Ф)			E	E	C	C	C	C	L							
	EGA Bounty(Ф), EGA Burke(Ф), EGA Wylie(Ф)				E	E	C	C	C	C	C	L					
	Sunguard(Ф), Baxter(Ф), Sunvale(Ф), Caparoi(Ф)					E	E	C	C	C	C	L	L				
	LongReach Gauntlet(Ф), Lang(Ф), Kennedy(Ф), EGA Kidman(Ф), Sunco, Elmore CL Plus(Ф), Hyperno(Ф), GBA Hunter(Ф)					E	E	C	C	C	C	C	L	L			
	Hartog, Leichhardt, LongReach Crusader(Ф), Suntop(Ф), LongReach Spitfire(Ф), Wallup(Ф), Livingston(Ф), EGA Stampede(Ф), Jandaroi(Ф), LongReach Dart(Ф)					E	E	C	C	C	C	C	C	L			
Maranoa, Balonne Western Downs – South West	Sunzell(Ф), EGA Eaglehawk(Ф)		E	C	C	L											
	Strzelecki(Ф), LongReach Lancer(Ф), Petrie(Ф)			E	C	C	C	C	L								
	EGA Gregory(Ф), Sunvale(Ф), EGA Bounty(Ф), LongReach Gauntlet(Ф), EGA Burke(Ф), EGA Wylie(Ф), Baxter(Ф)				E	E	C	C	C	C	C	C	L				
	EGA Kidman(Ф), Sunguard(Ф), Elmore CL Plus(Ф), Sunco, Lang(Ф), EGA Bellaroi(Ф), Hyperno(Ф), GBA Hunter(Ф)					E	C	C	C	C	C	C	C	L	L		
	Kennedy(Ф), Suntop(Ф), Leichhardt, Jandaroi(Ф), Hartog, Wallup(Ф), Caparoi(Ф), EGA Stampede(Ф), LongReach Spitfire(Ф), LongReach Crusader(Ф), Livingston(Ф), LongReach Dart(Ф)						E	C	C	C	C	C	C	L	L		
Darling Downs (Northern, Uplands)	Sunzell(Ф), EGA Eaglehawk(Ф)				E	C	C	C	L								
	Strzelecki(Ф), LongReach Lancer(Ф), EGA Gregory(Ф), Sunvale(Ф)						E	C	C	L							
	EGA Bellaroi(Ф), Hyperno(Ф), LongReach Gazelle(Ф), EGA Bounty(Ф), LongReach Gauntlet(Ф), EGA Burke(Ф), EGA Wylie(Ф), Baxter(Ф)						E	E	C	C	C	C	C	L			
	Sunco, Lang(Ф), Sunguard(Ф), Elmore CL Plus(Ф), EGA Kidman(Ф), GBA Hunter(Ф)							E	E	C	C	C	C	C	C	L	L
	Kennedy(Ф), Suntop(Ф), Leichhardt, LongReach Impala(Ф), Jandaroi(Ф), Hartog, Wallup(Ф), Caparoi(Ф), EGA Stampede(Ф), LongReach Spitfire(Ф), LongReach Crusader(Ф), Livingston(Ф), LongReach Dart(Ф)								E	E	C	C	C	C	C	L	L
Darling Downs high frost risk (Central, Southern)	Sunzell(Ф), EGA Eaglehawk(Ф)						E	C	C	L							
	Strzelecki(Ф), LongReach Lancer(Ф), EGA Gregory(Ф), Sunvale(Ф)								E	C	C	C	L				
	EGA Bellaroi(Ф), Hyperno(Ф), LongReach Gazelle(Ф), EGA Bounty(Ф), LongReach Gauntlet(Ф), EGA Burke(Ф), EGA Wylie(Ф), Baxter(Ф)									E	C	C	C	C	L		
	Sunco, Lang(Ф), Sunguard(Ф), Elmore CL Plus(Ф), EGA Kidman(Ф), GBA Hunter(Ф)									E	E	C	C	C	C	C	L
	Kennedy(Ф), Suntop(Ф), Leichhardt, LongReach Impala(Ф), Jandaroi(Ф), Hartog, Wallup(Ф), Caparoi(Ф), EGA Stampede(Ф), LongReach Spitfire(Ф), LongReach Crusader(Ф), Livingston(Ф), LongReach Dart(Ф)										E	C	C	C	C	C	L
Central Burnett South Burnett & West Moreton†	Sunzell(Ф), EGA Eaglehawk(Ф), Strzelecki(Ф), LongReach Lancer(Ф), Petrie(Ф), EGA Gregory(Ф)					E	E	C	C	C	L						
	Sunvale(Ф), LongReach Gazelle(Ф), EGA Bounty(Ф), LongReach Gauntlet(Ф), EGA Burke(Ф), EGA Wylie(Ф), Baxter(Ф), EGA Kidman(Ф), Sunguard(Ф), Elmore CL Plus(Ф), Sunco, Lang(Ф), EGA Bellaroi(Ф), Hyperno(Ф), GBA Hunter(Ф)							E	E	C	C	C	C	L	L		
	Kennedy(Ф), Suntop(Ф), Leichhardt, LongReach Impala(Ф), Jandaroi(Ф), Hartog, Wallup(Ф), Caparoi(Ф), EGA Stampede(Ф), LongReach Spitfire(Ф), LongReach Crusader(Ф), Livingston(Ф), LongReach Dart(Ф)								E	C	C	C	C	L	L		

Frost damage may be minimised by planting varieties within the range of dates recommended. This table was compiled from presently available data.

Planting categories

E = Early

Early planted crops face the risk of frost damage from pre-flowering to grain fill. Therefore, plant early in areas of low frost risk, such as higher slopes, and reduce the risk of frost damage by planting more than one variety and by varying planting times.

In central Queensland, warm weather encourages rapid early plant development. Where possible, plant shallow into moisture and use press-wheels to aid establishment. Increase the plant population for all varieties to compensate for reduced tillering in warm growing conditions. Maturity groupings may differ from district to district, particularly from central to southern Queensland.

C = Conventional

Varieties sown at their most appropriate planting times flower after the main frost period, although late frosts may still cause damage.

L = Late

The reliability of yield can be low following a very late planting due to high temperatures during flowering and grain filling.

† Plant wheat varieties two weeks earlier in the West Moreton area.

Detailed wheat planting information for each region is available on the Queensland Department of Agriculture, Fisheries and Forestry (DAFF) website (www.daff.qld.gov.au).

General notes

Wheat Quality Australia classification changes

Alterations have been made to the classification zones. Queensland is no longer a stand-alone region. Queensland is now incorporated within the northern and central regions of NSW, known as the Northern Classification Zone. Wheat varieties that had varying classifications in the different zones have now been given a common classification for the entire Northern Classification Zone. Wallup$^{(\phi)}$ has changed from AH to APH and LongReach Dart$^{(\phi)}$ and LongReach Gauntlet$^{(\phi)}$ have changed from APW to APH.

Bread and noodle wheats (*Triticum aestivum*)

Bread and noodle wheats are the dominant types of wheats planted throughout Queensland and Australia. They fall into a number of classifications that have different receival standards, from APH with high quality requirements, through to feed wheat, which has limited quality requirements. Queensland conditions are conducive to the production of high quality grain. The breeding and development of new varieties reflects this. Flour milled from Australian Prime Hard (APH) wheat is used to produce high-protein Chinese-style yellow alkaline noodles and Japanese ramen noodles with superior brightness, colour and eating quality. Australian Prime Hard flour is also suitable for the production of high-protein, high volume breads and wanton dumpling skins. Australian Prime Hard can be blended with lower-protein wheats to produce flours suitable for a wide range of baked products.

Durum wheats (*Triticum durum*)

Durum wheats are used in the production of pasta products, where the main requirement is grain of high protein, preferably above 13% and a minimum of 11.5%. Grain appearance is also important, downgrading can occur due to black point, weather damage and mottling. Acceptable levels of black point are: ADR1 – 3%; ADR2 – 5% and ADR3 – 20%.

Soft wheats

Soft wheats represent two distinct types. The **Soft Biscuit** type (9 – 10% protein), suitable for use in the biscuit industry; and the **Soft Noodle** type (9 – 11.5% protein), suitable for the manufacture of cakes, pastry and white salted noodles.

Soft Biscuit types are best grown using irrigation and with appropriate crop management practices in place to achieve target protein levels. Capped domestic market volumes exist and growers are therefore urged to seek pre-plant contracts.

Feed wheats

Feed wheats are generally high-yielding varieties that have quality limitations for use in flour and noodle production.

Forage wheats

Forage wheats are commonly of the winter type and have the major advantage of adaptability to a wide range of sowing times. The winter habit delays maturity in early sowings, thereby extending the period of vegetative growth. Maturity varies once vernalisation requirements have been met. Winter wheats are commonly sown in late March or early April.

Table 2A Bread and noodle wheats – disease and agronomy ratings

Variety (In maturity order, slow to quick)	Wheat Quality Australia (WQA) maximum quality classification♦	Disease ratings (www.nvtonline.com.au)											Agronomy			
					Root lesion nematodes						Stripe rust					
		Yellow spot	Crown rot	Common root rot	*P. thornei* tolerance	*P. thornei* resistance	*P. neglectus* tolerance	*P. neglectus* resistance	Stem rust	Leaf rust	Yr17-27 pathotype	WA pathotype	Black point#	Lodging$	Shattering	Sprouting resistance
BREAD AND NOODLE WHEATS																
Sunzell◊	AH	MS-S	S	MS-S (p)	MT-MI	MS-S	MI	S	MR	R	MS	R-MR	S	MR-MS	-	-
EGA Eaglehawk◊	AH	MS-S	MS-S	MS-S	MT	MS	MI-I	S	R-MR	R	MR-MS	R	MR-MS(p)	-	-	MS-S (p)
Strzelecki◊	APH	MS	S	MR	I-VI	VS	MI	VS	MR-MS	R	MR	MR	MS	MS	R-MR	MS-S
LongReach Lancer◊	APH	MS	MS-S	S(p)	T-MT	MS	MI(p)	S	R	R-MR	MR	MR	R-MR(p)	R-MR	-	-
Petrie◊	APH	S	S	MR-MS	I-VI	VS	MI	VS	R-MR	MR	MS	MS	MS-S	MR-MS	R-MR	MS-S
EGA Gregory◊	APH	MS-S	S	MR-MS	MT	MS-S	MI	VS	MR	R-MR	MR	MR	MS	MS-S	R-MR	S
Sunvale◊	APH	MS-S	MS-S	MS	MT-MI	MS-S	MI-I	S-VS	R	MR-MS	MR	R	R-MR	S	R-MR	S
EGA Bounty◊	AH	MS	S	S	MT-MI	MS-S	MI	S-VS	MR	R	MR	MR	MS-S	MS-S	-	S
LongReach Gauntlet◊	APH	MS-S	MS	MS-S	MT	MR-MS	MI	VS	R-MR	MR-MS	MR-MS	R-MR	MR-MS	MR-MS	MR	MS(p)
EGA Burke◊	APH	MS-S	S	MS-S	MT	MS	MI	VS	MR	MR	MS	MS	R-MR	S	MR-MS	S
EGA Wylie◊	AH	MS-S	MR-MS	MS	T-MT	S	MI-I	S-VS	R	R	MS	MS	MR	MS-S	MR	S
EGA Kidman◊	APH	S-VS	MS-S	MR-MS	MI	MS	I	VS	MR	R-MR	MR-MS	MR-MS	MS-S	MR-MS	-	S
Sunguard◊	AH	MS-S	MS	MR-MS	MT	VS	MI	VS	R	R-MR	MR	MR	MR	MR-MS	MR	S
Elmore CL Plus◊	AH	S	MS-S (p)	VS (p)	I	VS	MI(p)	S-VS	MR	R-MR	MR-MS	MR-MS	MS	MR-MS	R-MR	MS-S
Baxter◊	APH	S	MS	MS	MT-MI	S	MI-I	S	R,MS @	MR	MS-S	MS-S	MS	MS-S	MR	S
Sunco	APH	MS-S	MS	MR-MS	I-VI	S	MI-I	VS	R	MR	MR-MS	MR-MS	R-MR	S	MR-MS	MS-S
Lang◊	APH	MS-S	MS-S	MR-MS	I	S-VS	MI-I	VS	R	MR-MS	MS	MS	R-MR	MR-MS	R-MR	MS-S
Kennedy◊	APH	MS	MS-S	MS	MI	S-VS	MI-I	VS	MR	MR-MS	MS	MS	R	MR-MS	R-MR	S
Suntop◊	APH	MS-S	MS-S	MS	MT	MR-MS (p)	MT-MI	VS	MR	R	MR	MR	MR	MS	R-MR	S
Leichhardt	AH	MR	MS-S	MR	MI	MS-S	MI	S-VS	MR	R	MS	MS	MS-S	MR-MS	R-MR	S
Hartog	APH	MS	S	MS	MI	MS-S	MI-I	VS	MR	MR	MS	MS	MR-MS	MS	R-MR	S
Wallup◊	APH	MS-S	MS	MS	MT-MI	MR-MS	MI	MS-S	R-MR	MR-MS	MR-MS	MR-MS	MR-MS	R-MR	R-MR	MS-S
LongReach Spitfire◊	APH	MS-S	MS	MS	MT-MI	VS	MI	VS	MR	MS	MR	MR	S	MR-MS	MR	S
LongReach Crusader◊	APH	MS	S	MS	I	S	MI-I	VS	R-MR	R	MS	R-MR	R-MR	R-MR	MR (p)	S
Livingston◊	AH	MS	S-VS	S	MT-MI	MR-MS	MI	VS	MR-MS	R	MR-MS	R	MR-MS (p)	MR	-	S
LongReach Dart◊	APH	MS	MS-S	MS	MI	S-VS	MI-I	S	MR	R-MR	MR	MR	MR-MS (p)	R-MR	MR (p)	S

Table 2B Specialty wheats – disease and agronomy ratings

Variety (In maturity order, slow to quick)	Wheat Quality Australia (WQA) maximum quality classification ♠	Disease ratings (www.nvtonline.com.au/)											Agronomy			
					Root lesion nematodes						Stripe rust					
		Yellow spot	Crown rot	Common root rot	*P. thornei* tolerance	*P. thornei* resistance	*P. neglectus* tolerance	*P. neglectus* resistance	Stem rust	Leaf rust	Yr17-27 pathotype	WA pathotype	Black point#	Lodging$	Shattering	Sprouting resistance
Durum wheats																
EGA Bellaroi(ф)	ADR	MR	VS	MR	MI	MR-MS	MI-I	MS-S	MR	MR-MS	MR	MR	R-MR	MR	R	MS
Hyperno(ф)	ADR	MS	VS	R-MR	MT-MI	MR	MI	MS	R	R-MR	MR	MR	MR-MS (p)	S	-	MR-MS
Caparoi(ф)	ADR	MR	VS	MR	MI	MS	MI-I	S	MR	MR-MS	MR	MR	-	MR-MS	-	-
Jandaroi(ф)	ADR	MR-MS	VS	MR	MI-I	MS-S	MI	MS-S	R-MR	MR	MR	MR	R-MR	MS-S	MR	R-MR
Soft wheats																
LongReach Gazelle(ф)	ASF1	MS-S	S-VS	S-VS (p)	I	VS	MI	VS	MR	R-MR	MR	MR	MS (p)	MR-MS	MR(p)	S(p)
LongReach Impala(ф)	ASF1	MS	MS	MS	I-VI	VS	MI	VS	R-MR	S	MR	MR	MR-MS	MS	MR(p)	MS(p)
Feed wheats																
GBA Hunter(ф)	FEED	MR	MS-S (p)	MS	MT-MI	S-VS	MT-MI	VS	R-MR	MS	MR-MS	R-MR	MS (p)	R-MR	R-MR	S (p)
EGA Stampede(ф)	FEED	MR-MS	S	MS	VI	VS	MT-MI	VS	R-MR	R	MR	MR	MR-MS	MR-MS	-	MS-S
Forage wheats																
Brennan(ф)	FEED	MR-MS	-	-	MT-MI (v)	VS	-	VS	MS	R	R-MR	R-MR	MR	-	-	-
SQP Revenue(ф)	FEED	MS	-	-	MT-MI (v)	S-VS	VI	VS	R-MR	R	R	R	S	-	-	-
Petrel	ASW	S	MS-S (p)	MR-MS	MT (v)	VS	-	S-VS	R-MR	MR-MS	MR-MS	MR-MS	-	-	-	-

Legend: Disease and agronomy tables (refers to tables 2A & 2B)
An alpha scale is used to indicate levels of resistance to diseases and other conditions.

R (Resistant) = 9
R-MR (Resistant – Moderately Resistant) = 8
MR (Moderately Resistant) = 7
MR-MS (Moderately Resistant – Moderately Susceptible) = 6
MS (Moderately Susceptible) = 5
MS-S (Moderately Susceptible – Susceptible) = 4
S (Susceptible) = 3
S-VS (Susceptible – Very Susceptible) = 2
VS (Very Susceptible) = 1
T (Tolerant) = 9
T-MT (Tolerant – Moderately Tolerant) = 8
MT (Moderately Tolerant) = 7
MT-MI (Moderately Tolerant – Moderately Intolerant) = 6
MI (Moderately Intolerant) = 5
MI-I (Moderately Intolerant – Intolerant) = 4
I (Intolerant) = 3
I-VI (Intolerant – Very Intolerant) = 2
VI (Very Intolerant) = 1
- indicates that a rating is not available.

Low risk Medium risk High risk

♠ WQA maximum classifications describe suitability for export markets and do not always reflect the varietal preference of domestic millers. (Note: APH = Australian Prime Hard, AH = Australian Hard). Please refer to Grain Trade Australia – Wheat Standards 2013/2014 for more information.
Black point will not cause a reduction in yield but may result in the grain receiving a different classification.
$ Lodging ratings are primarily based on data from the GRDC-funded 'Better Irrigated Wheat Agronomy' research project. These ratings may not accurately reflect performance in dryland environments as lodging is unlikely to occur when yields are below 5t/ha.
(p) Data relating to these varieties is based on only one trial and is to be considered provisional information.
@ Reaction for stem rust is split: predominantly R reaction but some plants will show a MS reaction.
(v) Indicates assessment based on visual symptoms not grain yield, for RLN tolerance.

Table 3A Bread and noodle wheats – varietal details

Variety	Varietal information						Comments
	Pedigree	Plant Breeders Rights	End Point Royalties	Licensee	Released by ¥	Year of release	
BREAD AND NOODLE WHEATS							
Sunzell(ф)	Sunbrook*3/Sunstate	(ф)	✓	AGT	AGT	2007	Slow variety similar in maturity to Sunbri. Best suited to Darling Downs and Goondiwindi regions.
EGA Eaglehawk(ф)	Sunbrook*4/VPM	(ф)	✓	Seedmark	EGA	2007	Sunbrook replacement for early planting with good subsoil moisture. Moderately tolerant to *P. thornei*.
Strzelecki(ф)	Vicam/4*Batavia	(ф)	✓	Seedmark	DPI&F	2000	Moderately resistant to common root rot but not suitable for *P. thornei* infested soil.
LongReach Lancer(ф)	VII84/Chara//Chara/3/Lang	(ф)	✓	Pacific Seeds	LPB	2013	Slow maturing APH spring wheat with a compact canopy, solid grain quality and rust resistance packages. Similar maturity to Sunzell and Strzelecki.
Petrie(ф)	Vasco/Batavia	(ф)	✓	Seednet	DPI&F	2000	Petrie has similar agronomic characteristics to Batavia 2.
EGA Gregory(ф)	Pelsart/2*Batavia DH	(ф)	✓	Pacific Seeds	DPI&F	2004	A good early season variety for paddocks with a history of root lesion nematodes.
Sunvale(ф)	Cook*2/VPM1//3*Cook	(ф)		AGT	SU	1993	A variety suitable for early planting with good resistance to black point and RLN.
EGA Bounty(ф)	Batavia/2*Leichhardt	(ф)	✓	Nuseed	DPI&F	2008	A high-yielding wheat adapted to Queensland and NSW with a good rust resistance package. Susceptible to common root rot.
LongReach Gauntlet(ф)	Kukri/Sunvale	(ф)	✓	Seednet	LPB	2012	Main season APH variety similar in maturity to Sunvale. Has good yellow spot and RLN (*P. thornei*) resistance and a solid grain receivals package.
EGA Burke(ф)	Sunco/2*Hartog	(ф)	✓	Pacific Seeds	DPI&F	2006	A slow variety with excellent yield potential. Disease resistance is provided via a different genetic background to other slow varieties thereby reducing genetic risks.
EGA Wylie(ф)	QT2327/Cook//QT2804	(ф)	✓	Pacific Seeds	DPI&F	2004	A selection from Baxter with improved disease and agronomic characteristics. Particular improvements in crown rot resistance and *P. thornei* tolerance.
EGA Kidman(ф)	Pelsart/2*Batavia DH	(ф)	✓	Austgrains	DPI&F	2008	APH variety that has quality attributes suited to the sponge and dough markets in Asia.
Sunguard(ф)	SUN289E/Sr2Janz	(ф)	✓	AGT	AGT	2011	An AH variety with an excellent disease resistance package. Sunguard is R or MR to all current pathotypes of the three rusts and has a level of tolerance to CR & RLN similar to EGA Wylie.
Elmore CL Plus(ф)	Janz*2//Wilg4/11A///Annuello	(ф)	✓	AGT	AGT	2012	Tolerant to Clearfield® herbicides, Janz type with improved disease resistance and yield.
Baxter(ф)	QT2327/Cook//QT2804	(ф)	✓	Seedmark	DPI&F	1998	A well-adapted variety as its maturity can vary according to location and environmental conditions. Baxter is similar to Sunvale in terms of tolerance to root lesion nematodes.
Sunco	Cook*3/WW15/4SUN9E-27/3Ag14				SU	1986	Older established variety.
Lang(ф)	QT3765/Sunco	(ф)	✓	Seednet	DPI&F	2000	Similar to Sunco but generally achieves higher yields and has stronger straw. Lang is considered to have superior quality attributes for APH YAN market.
Kennedy(ф)	Hartog/Veery#5	(ф)	✓	Seedmark	DPI&F	1998	Widely grown quick-maturing variety. The short coleoptile length, compared to other varieties, does not adversely affect establishment in average conditions.
Suntop(ф)	Sunco/2*Pastor//SUN436E	(ф)	✓	AGT	AGT	2012	A high-yielding main season APH variety with a very good disease-resistance package.
Leichhardt	CNT2/4*Hartog			Austgrains	DPI&F	1995	One of the best available resistances to yellow spot.
Hartog	Pavon 'S'			Seedmark	DPI&F	1982	Older established variety.
Wallup(ф)	Chara/Wyalkatchem	(ф)	✓	AGT	AGT	2011	High and stable yield, quick maturing variety with good physical grain quality and solid disease resistance.
LongReach Spitfire(ф)	Drysdale/Kukri	(ф)	✓	Pacific Seeds	LPB	2011	APH variety well suited to Queensland which is slightly quicker than Baxter. Provides a good grain package and solid disease resistance.
LongReach Crusader(ф)	Sunbrook/H45	(ф)	✓	Pacific Seeds	LPB	2008	Quick APH variety with similar maturity to Kennedy.
Livingston(ф)	SUN129A/Sunvale	(ф)	✓	AGT	AGT	2008	Quick variety with similar maturity to Ventura. Has a good stripe rust resistance package.
LongReach Dart(ф)	Sunbrook/Janz//Kukri	(ф)	✓	Pacific Seeds	LPB	2012	Very-quick-maturing variety with low tiller numbers suited to both later plantings and drier seasons with good adult protection from diseases such as YLS and stripe rust.

Table 3B Specialty wheats – varietal details

Variety	Varietal information						Comments
	Pedigree	Plant Breeders Rights	End Point Royalties	Licensee	Released by[¥]	Year of release	
DURUM WHEATS							
EGA Bellaroi(Ⓟ)	920405/920274	Ⓟ	✓	Seedmark	EGA	2002	Preferred durum wheat variety by domestic millers as it has excellent semolina colour and good dough strength. Performs well under irrigation.
Hyperno(Ⓟ)	Kalka sister line/Tamaroi	Ⓟ	✓	AGT	AGT	2009	Similar maturity to EGA Bellaroi. Good semolina colour and colour stability.
Caparoi(Ⓟ)	LY2.6.3/930054	Ⓟ	✓	Seednet	NSW DPI	2009	Main season variety, around 1-2 weeks slower in growth than Jandaroi. Well suited to drier areas and performs well under irrigation.
Jandaroi(Ⓟ)	920777/111566	Ⓟ	✓	Seednet	NSW DPI	2006	Quick variety with good semolina colour and yield over Wollaroi variety. Performs well in drier areas.
SOFT WHEATS							
LongReach Gazelle(Ⓟ)	24K1056/VPM/3*Vasco	Ⓟ	✓	Pacific Seeds	LPB	2012	Longer season Soft (Biscuit) wheat with low protein accumulation and good standability. Well suited to high production systems and early planting.
LongReach Impala(Ⓟ)	TEAL/C93.8//9908	Ⓟ	✓	Pacific Seeds	LPB	2012	A high-yielding, quick-maturing, awned, Soft (biscuit) wheat. Has improved disease resistance compared to other soft varieties.
FEED WHEATS							
GBA Hunter(Ⓟ)	Attila//Altar84/Aos/3/Attila	Ⓟ	✓	Viterra	GBA	2005	Prolific tillering awned variety. High yield potential.
EGA Stampede(Ⓟ)	-	Ⓟ	✓	Nuseed	DPI&F	2008	Very high yielding stockfeed wheat with good rust-resistance package.
FORAGE WHEATS							
Brennan(Ⓟ)	Hartog/2*Mercia	Ⓟ		Seednet	CSIRO	1998	A white grained awnless winter wheat suitable for grazing and grain production. May not come to head in central Queensland conditions.
SQP Revenue(Ⓟ)	-	Ⓟ	✓	GrainSearch	CSIRO	2010	A red grained awnless winter wheat suitable for grazing and grain production in the high rainfall and irrigation zones of eastern Australia. Can produce high quality fodder.
Petrel	-				NSW DPI	1996	An awnless hay wheat with dry matter yields similar to Ford but has stronger straw and is later maturing.

[¥] SU - University Sydney Plant Breeding Institute, DPI&F - Department of Primary Industries & Fisheries, Queensland, EGA - Enterprise Grains Australia, GBA – Grain Biotech Australia, NSW DPI - New South Wales Department of Primary Industries, AGT – Australian Grain Technologies, CSIRO – Commonwealth Scientific & Industrial Research Organisation, LPB – LongReach Plant Breeders.

Ⓟ Varieties displaying this symbol are protected under the *Plant Breeders Rights Act 1994*. Unauthorised sale of seed of these varieties is an infringement under this Act.

Effects of grain defects on end-product quality

Black point: Excessive levels may result in specky semolina or discoloured bran and wheat germ, and divide flours (pastry flour). End products are often visually unattractive; this is particularly the case with durum products such as pasta.

Sprouting (low falling number): Finished product is affected by high levels of alpha amylase present in the flour, which causes key-holing in bread, fragile noodles, and dark, discoloured biscuits and cakes. Minimal impact on pasta except at falling numbers (FN) < 200 seconds.

Frost damage: Can cause low falling number, reduced flour yield, increased grain hardness and very poor baking performance in bread, biscuits and breakfast cereals.

Excess screenings: Reduce grain and flour yield (loss of profitability) but have little effect on end product quality (excluding excess screenings due to frost and heat stress damage). During the 2002 harvest it was observed that a number of samples tested with high screenings had poor baking quality. This was attributed to heat stress damage during grain filling, which was also believed to be responsible for the high screenings.

Low density (test weight, kg/hl): Reduced grain and flour yield (loss of profitability), has little effect on end product quality (excluding low density due to frost and heat stress damage).

Heat damage (due to drying at temperatures above 60°C): Flour produced from this grain is of poor baking quality and baked products are often unsaleable.

Sensitivity of wheat varieties to herbicides (Table 4, page 11)

Research in southern Queensland in the 14 years from 1999 to 2013 has shown that herbicide tolerance differs among the wheat varieties grown in the northern region.

The research was undertaken at weed-free sites and yields were compared between untreated crops and crops sprayed at recommended and double rates for each variety. Herbicide rates and crop stages at spraying are presented in Table 4.

The sensitivity of the varieties is summarised in the table using the following symbols based on the yield responses across all trials:

✓	no significant yield reductions at a recommended and double rate
N (narrow margin)	significant yield reductions at double rate in 1+ trials, but not at recommended rate
x% yield reduction	(warning) significant yield reduction at recommended rate in 1 trial only
x-y% yield reductions	(warning) significant yield reductions at recommended rate in 2+ trials
( )	years of screening, e.g. (2) is 2 years screening, (1/3) indicates there was yield loss in 1 year of 3 years screening.

NB Always follow label recommendations. All pesticide applications must accord with the currently registered label for that particular pesticide, crop, pest and region. Any research regarding pesticides and their use reported here does not constitute a recommendation for that particular use by the authors or DAFF. It must be emphasised that crop tolerances and yield responses to herbicides are strongly influenced by seasonal conditions.

Table 4 Response of wheat varieties to herbicides

Variety	Achieve® tralkoxydim	Ally® metsulfuron	Ally® + MCPA LVE®/ Agritone® metsulfuron + MCPA	Ally® + Tordon 242® metsulfuron + (picloram + MCPA)	Amicide 500/625/700® 2,4-D amine	Atlantis OD® mesosulfuron	Axial 100EC® pinoxaden	Bromicide 200® bromoxynil	Bromicide MA® bromoxynil + MCPA	Cadence® dicamba	Glean® chlorsulfuron
BREAD & NOODLE WHEATS											
Sunzell◊		N (1/4)	N (1/1)		✓(2)	N (1/1)					✓(3)
EGA Eaglehawk◊		13 (1/1)			✓(1)	10 (1/1)	✓(1)				✓(1)
Strzelecki◊	✓(2)	N (1/5)	✓(2)		✓(5)		✓(4)	N (1/4)	N (1/2)	38 (1/5)	✓(2)
LongReach Lancer◊		N (2/3)	N (3/3)		N (2/3)	✓(3)	✓(3)				✓(3)
Petrie◊	✓(2)	7-11 (2/5)	✓(2)		✓(5)	N (1/2)	✓(4)	✓(4)	✓(2)	N (1/5)	19 (1/3)
EGA Gregory◊	✓(3)	N (2/8)	N (1/4)		✓(3)	✓(2)	✓(2)			N (1/3)	✓(6)
Sunvale◊	✓(1)	N (2/4)	✓(1)		✓(4)	8 (1/2)	N (1/4)	✓(4)	✓(2)	✓(3)	✓(1)
EGA Bounty◊	✓(1)	12 (1/4)			✓(2)	✓(2)	✓(1)			N (1/1)	N (1/3)
LongReach Gauntlet◊		N 13 (1/2)	13 (1/1)		13 (1/1)						
EGA Burke◊	✓(1)	N (1/6)	✓(3)	✓(2)	24 (1/3)	✓(2)					✓(4)
EGA Wylie◊	✓(3)	N (3/4)	✓(2)		N (1/2)	✓(1)				✓(2)	✓(3)
EGA Kidman◊	✓(1)	✓(2)			✓(2)						✓(2)
Sunguard◊		6 (1/2)			✓(1)	✓(2)	✓(1)				✓(2)
Elmore CL Plus◊		✓(2)	N (1/1)		✓(1)	N (1/1)	✓(1)				✓(1)
Baxter◊	✓(1)	N (1/4)	✓(1)		N (1/4)	N (1/2)	✓(4)	28 (1/4)	N (1/2)	N (1/3)	✓(1)
Sunco	✓(1)	17 (1/5)	✓(1)		✓(4)	N (1/2)	✓(4)	✓(4)	✓(2)	✓(3)	✓(1)
Lang◊	✓(2)	8 (1/7)	N (2/5)	N (1/3)	✓(5)	✓(2)	✓(4)	✓(4)	✓(2)	✓(5)	✓(3)
Kennedy◊	✓(1)	N (1/10)	✓(2)		✓(8)	N (1/3)	✓(4)	N (1/4)	N (1/2)	N (2/4)	N (1/6)
Suntop◊		N 16 (1/2)	✓(1)		✓(1)						
Leichhardt	✓(1)	✓(4)	✓(1)		N (1/4)		N (1/3)	N (1/4)	✓(2)	36 (1/3)	
Hartog	✓(1)	N (1/6)	✓(1)		9 (1/5)		✓(4)	✓(4)	N (1/2)	37 (1/4)	✓(1)
Wallup◊		N (1/1)									
LongReach Spitfire◊		16 (1/1)			✓(1)	N (1/1)	✓(1)				N (1/1)
LongReach Crusader◊	✓(1)	✓(3)	3-7 (2/2)	N (2/2)	17 (1/2)	✓(1)	✓(2)			28 (1/1)	✓(2)
Livingston◊		9 (1/4)			✓(2)	✓(1)	✓(1)			✓(1)	N (1/3)
LongReach Dart◊		17 (1/2)	✓(1)		✓(1)						

Table 4 Response of wheat varieties to herbicides (continued)

Variety	Achieve® tralkoxydim	Ally® metsulfuron	Ally® + MCPA LVE®/ Agritone® metsulfuron + MCPA	Ally® + Tordon 242® metsulfuron + (picloram + MCPA)	Amicide 500/625/700® 2,4-D amine	Atlantis OD® mesosulfuron	Axial 100EC® pinoxaden	Bromicide 200® bromoxynil	Bromicide MA® bromoxynil + MCPA	Cadence® dicamba	Glean® chlorsulfuron
FEED WHEATS											
GBA Hunter(◊)	✓(2)	✓(4)				N (1/2)	✓(1)			16 (1/3)	✓(3)
EGA Stampede(◊)		✓(5)			N (1/3)	✓(1)	✓(1)			N (1/1)	✓(4)
DURUM WHEATS											
EGA Bellaroi(◊)	✓(3)	N (1/5)	9 (1/3)	✓(1)	✓(3)	9 (1/2)	✓(1)		✓(1)	✓(4)	✓(5)
Hyperno(◊)		12 (1/2)	4 (1/2)	N (1/2)		✓(1)					✓(2)
Caparoi(◊)	✓(1)	N (2/5)	N (2/3)	N (2/3)	✓(3)						N (1/3)
Jandaroi(◊)		8-24 (3/9)	5-8 (2/4)	N (2/3)	✓(3)	N (1/4)	✓(2)			N (1/1)	N (1/5)
SOFT WHEATS											
LongReach Gazelle(◊)		15 (1/1)									
LongReach Impala(◊)		15 (1/1)			✓(1)	9 (1/1)	✓(1)				7 (1/1)
Rates (product/ha)	380-430 g	7g	7g & 0.75L	7g & 1.0L	0.85L/ 0.65L	330mL	150-200mL	1.4L	1.4L	200g	20g
Crop stage at spraying	3-5 leaf + 1-2 tiller	3-7 leaf + 1-6 tiller	4-7 leaf + 2-6 tiller	4-7 leaf + 2-6 tiller	3-9 leaf + 2-5 tiller	2-4 leaf + 1-2 tiller	3-5 leaf + 1 tiller	4-7 leaf + 3-7 tiller	6-7 leaf 3-7 tiller	3-6 leaf + 1-5 tiller	3-7 leaf + 1-6 tiller

Table 4 Response of wheat varieties to herbicides (continued)

Variety	Hotshot® aminopyralid + fluroxypyr	Hussar OD® iodosulfuron	Logran® triasulfuron	MCPA amine® MCPA	MCPA LVE®/Agritone® MCPA	Starane 200®/Advanced® fluroxypyr	Topik 240EC® clodinafop	Tordon 75D® + 2, 4-D picloram + 2,4-D	Tordon 242® picloram + MCPA	Wildcat® fenoxaprop
BREAD & NOODLE WHEATS										
Sunzell(D)	✓(1)	13 (1/1)			✓(2)	✓(2)			✓(2)	
EGA Eaglehawk(D)	✓(1)	✓(1)			✓(1)		✓(1)		✓(1)	
Strzelecki(D)	✓(4)	✓(1)	✓(2)	✓(2)	N (1/4)	N (1/8)	✓(4)	✓(2)	✓(8)	✓(4)
LongReach Lancer(D)	✓(2)	✓(3)			✓(2)	N (1/3)	✓(2)		✓(2)	
Petrie(D)	✓(4)	N (1/4)	✓(2)	✓(2)	✓(4)	✓(8)	✓(4)	✓(2)	16 (1/7)	✓(4)
EGA Gregory(D)	✓(4)	N (1/5)		✓(1)	N (1/4)	✓(4)	✓(3)		✓(5)	✓(2)
Sunvale(D)	N (1/5)	✓(4)	✓(3)		✓(3)	✓(6)	13 (1/4)	✓(3)	✓(7)	✓(4)
EGA Bounty(D)		✓(2)			N (1/3)	✓(2)	✓(1)		✓(3)	✓(1)
LongReach Gauntlet(D)		✓(1)			✓(1)		✓(1)			
EGA Burke(D)	✓(1)	N (1/2)			✓(4)	✓(2)			N (1/4)	
EGA Wylie(D)	✓(2)	✓(2)		N (1/1)	22 (1/2)	✓(2)	✓(1)		✓(1)	✓(1)
EGA Kidman(D)					✓(2)	✓(1)			✓(2)	
Sunguard(D)	✓(1)	N (1/2)			✓(1)		✓(1)		✓(1)	
Elmore CL Plus(D)	✓(1)	✓(1)			✓(1)	✓(1)	N (1/2)		✓(1)	
Baxter(D)	✓(5)	N (1/4)	✓(3)		N (1/3)	N (1/6)	✓(4)	✓(3)	N (1/7)	N (1/4)
Sunco	N (1/5)	N (1/4)	N (1/3)		✓(3)	✓(6)	✓(4)	✓(3)	✓(7)	✓(4)
Lang(D)	✓(5)	✓(4)	✓(2)	✓(2)	✓(4)	N (1/8)	✓(4)	✓(2)	N (1/8)	✓(4)
Kennedy(D)	✓(7)	14 (1/6)	N (1/3)		N (1/8)	✓(10)	N (1/4)	✓(3)	N (2/11)	✓(4)
Suntop(D)		✓(1)			✓(1)		✓(1)			
Leichhardt	N (1/2)		✓(3)		✓(3)	N (1/5)	✓(4)	✓(3)	N (2/6)	✓(4)
Hartog	✓(3)	✓(1)	✓(3)	✓(1)	✓(4)	N (1/7)	✓(5)	✓(3)	N (1/7)	N (1/5)
Wallup(D)		✓(1)			✓(1)		N (1/1)			
LongReach Spitfire(D)	✓(1)	✓(1)			✓(1)		✓(1)		✓(1)	
LongReach Crusader(D)	✓(1)	✓(1)			N (2/2)	✓(2)	✓(2)		N (1/2)	✓(1)
Livingston(D)		✓(1)			✓(4)	✓(3)	✓(1)		✓(4)	✓(1)
LongReach Dart(D)		✓(1)			✓(1)		N (1/1)			

Table 4 Response of wheat varieties to herbicides (continued)

Variety	Hotshot® aminopyralid + fluroxypyr	Hussar OD® iodosulfuron	Logran® triasulfuron	MCPA amine® MCPA	MCPA LVE®/Agritone® MCPA	Starane 200®/Advanced® fluroxypyr	Topik 240EC® clodinafop	Tordon 75D®+ 2, 4-D picloram + 2,4-D	Tordon 242® picloram + MCPA	Wildcat® fenoxaprop
FEED WHEATS										
GBA Hunter	✓(2)	12 (1/3)		✓(1)	17 (1/5)	12 (1/2)	✓(1)		✓(4)	✓(1)
EGA Stampede		✓(1)			✓(5)	✓(4)	✓(1)		N (1/5)	✓(1)
DURUM WHEATS										
EGA Bellaroi	✓(3)	11 (1/5)		✓(3)	✓(4)	✓(5)	✓(3)		✓(4)	✓(3)
Hyperno		✓(1)			✓(2)				✓(2)	
Caparoi					✓(3)	✓(2)			✓(3)	
Jandaroi	✓(1)	14 (1/3)			✓(4)	✓(3)	✓(1)		✓(4)	✓(1)
SOFT WHEATS										
LongReach Gazelle		✓(1)			✓(1)		N (1/1)			
LongReach Impala	✓(1)	N (1/1)			✓(1)		✓(1)		✓(1)	
Rates (product/ha)	0.75L	200g	35g	0.75L	0.75L	1.0L/ 0.6L	85mL	300 & 600mL	1.0L	0.5L
Crop stage at spraying	5-7 leaf + 3-5 tiller	2-5 leaf + 1-2 tiller	Pre-plant	3-6 leaf + 1-5 tiller	3-6 leaf + 1-5 tiller	5-6 leaf + 3-6 tiller	3-5 leaf + 1-2 tiller	3-9 leaf + 2-5 tiller	4-6 leaf + 1-6 tiller	3-5 leaf + 1-2 tiller

These ratings are a guide only, based on results from trials held in 1999 to 2013. Further information is available on the DAFF and NVT websites.
For more information, contact Douglas Lush at douglas.lush@daff.qld.gov.au or 07 4639 8812. The research is funded by the GRDC.

Comparative yields in Queensland NVT Wheat trials 2009 - 2013

Table 5.1 Central Queensland long-term yield (early season 2009–13)

Variety	Predicted yield (kg/ha)	% of regional mean yield	Total number trials
Baxter	3058	96	19
EGA Bounty	3235	101	19
EGA Burke	3196	100	19
EGA Gregory	3377	106	19
EGA Wylie	3123	98	16
Lang	3011	94	14
LongReach Gauntlet	2992	93	10
LongReach Lancer	3069	96	9
Strzelecki	3131	98	19
Sunguard	3121	98	12
Sunvale	2988	93	19
Sunzell	3189	100	4

Table 5.2 Central Queensland long-term yield (main season 2009–13)

Variety	Predicted yield (kg/ha)	% of regional mean yield	Total number trials
Baxter	3338	100	20
EGA Burke	3633	108	16
EGA Gregory	3721	111	20
EGA Stampede	3436	103	7
EGA Wylie	3325	99	10
Elmore CL Plus	3544	106	13
GBA Hunter	3392	101	7
Hartog	3509	105	20
Kennedy	3294	98	20
Lang	3310	99	20
Livingston	3280	98	19
LongReach Crusader	3268	98	20
LongReach Dart	3121	93	13
LongReach Gauntlet	3448	103	10
LongReach Spitfire	3408	102	20
Sunco	3290	98	13
Sunguard	3398	101	15
Suntop	3547	106	18
Wallup	3421	102	18

Table 5.3 South East Queensland long-term wheat yield (early season 2009–13)

Variety	Predicted yield (kg/ha)	% of regional mean yield	Total number trials
Baxter[Ⓟ]	3843	102	11
EGA Bounty[Ⓟ]	3865	103	11
EGA Burke[Ⓟ]	3819	102	11
EGA Gregory[Ⓟ]	3936	105	11
EGA Wylie[Ⓟ]	3860	103	8
Lang[Ⓟ]	3740	99	7
LongReach Gauntlet[Ⓟ]	3824	102	6
LongReach Gazelle[Ⓟ]	3669	98	8
LongReach Lancer[Ⓟ]	3811	101	7
Strzelecki[Ⓟ]	3695	98	11
Sunco	3714	99	4
Sunguard[Ⓟ]	3860	103	6
Sunvale[Ⓟ]	3724	99	11
Sunzell[Ⓟ]	3796	101	11

Table 5.4 South East Queensland long-term wheat yield (main season 2009–13)

Variety	Predicted yield (kg/ha)	% of regional mean yield	Total number trials
Baxter[Ⓟ]	3763	100	11
EGA Bounty[Ⓟ]	3723	98	5
EGA Burke[Ⓟ]	3741	99	9
EGA Gregory[Ⓟ]	3968	105	11
EGA Kidman[Ⓟ]	3735	99	6
EGA Stampede[Ⓟ]	3847	102	5
EGA Wylie[Ⓟ]	3800	101	11
Elmore CL Plus[Ⓟ]	3856	102	7
GBA Hunter[Ⓟ]	3933	104	4
Hartog	3761	100	11
Kennedy[Ⓟ]	3622	96	11
Lang[Ⓟ]	3704	98	10
Livingston[Ⓟ]	3896	103	11
LongReach Crusader[Ⓟ]	3742	99	11
LongReach Dart[Ⓟ]	3759	99	7
LongReach Gauntlet[Ⓟ]	3845	102	8
LongReach Impala[Ⓟ]	3969	105	8
LongReach Spitfire[Ⓟ]	3885	103	11
Sunco	3707	98	6
Sunguard[Ⓟ]	3887	103	8
Suntop[Ⓟ]	4084	108	9
Wallup[Ⓟ]	3939	104	9

Table 5.5 South West Queensland long-term wheat yield (early season 2009–13)

Variety	Predicted yield (kg/ha)	% of regional mean yield	Total number trials
Baxter[Ⓟ]	2778	97	21
EGA Bounty[Ⓟ]	2898	101	25
EGA Burke[Ⓟ]	2918	102	25
EGA Gregory[Ⓟ]	3064	107	25
EGA Wylie[Ⓟ]	2804	98	19
Lang[Ⓟ]	2765	97	25
LongReach Gauntlet[Ⓟ]	2825	99	13
LongReach Lancer[Ⓟ]	2812	98	19
Strzelecki[Ⓟ]	2764	97	25
Sunco	2691	94	13
Sunguard[Ⓟ]	2891	101	14
Sunvale[Ⓟ]	2731	96	25
Sunzell[Ⓟ]	2751	96	25

Table 5.6 South West Queensland long-term wheat yield (main season 2009–13)

Variety	Predicted yield (kg/ha)	% of regional mean yield	Total number trials
Baxter[Ⓟ]	2899	97	25
EGA Bounty[Ⓟ]	2993	100	6
EGA Burke[Ⓟ]	3018	101	19
EGA Gregory[Ⓟ]	3266	109	25
EGA Kidman[Ⓟ]	2947	98	17
EGA Stampede[Ⓟ]	3114	104	6
EGA Wylie[Ⓟ]	2956	99	25
Elmore CL Plus[Ⓟ]	3124	104	19
GBA Hunter[Ⓟ]	3201	107	6
Hartog	2983	99	25
Kennedy[Ⓟ]	2823	94	25
Lang[Ⓟ]	2914	97	25
Livingston[Ⓟ]	3102	103	25
LongReach Crusader[Ⓟ]	2928	98	25
LongReach Dart[Ⓟ]	2949	98	19
LongReach Gauntlet[Ⓟ]	3076	103	15
LongReach Spitfire[Ⓟ]	3105	103	25
Sunco	2907	97	19
Sunguard[Ⓟ]	3120	104	18
Suntop[Ⓟ]	3335	111	21
Sunvale[Ⓟ]	2956	99	12
Wallup[Ⓟ]	3159	105	21

NVT provides Estimated Genetic Values (EGVs) for grain yield for commercial varieties. Estimates of genetic value (yield) of individual varieties (on a state or region basis) are obtained from a statistical analysis of long-term multi-environment trial (MET) data collected between the years of 2009 and 2013. These values represent the best available predictions for the specified region and are provided to facilitate reliable variety selection decisions.

the RUST BUST

www.rustbust.com.au

Plan to manage rust this season

1. Grow varieties with adequate resistance to stem, stripe and leaf rust.
2. Phase out very susceptible (VS) or susceptible (S) varieties.
3. Remove volunteer plants, called the green bridge, at least four weeks before sowing.
4. Know the seedling and adult rust resistance or susceptibility of varieties sown.
5. Monitor crops – early disease detection and management is best.
6. Identify chemical options, taking into account maximum residue limits and withholding periods.
7. Play your part in national rust management and report infections to Stephen Neate on 07 4639 8888 and send samples to DAFF QLD, PO Box 2282, Toowoomba Qld 4350.

If you find rust, be proactive and tell other growers.

The Rust Bust is an initiative of the Australian Cereal Rust Control Program Consultative Committee, with support from the Grains Research and Development Corporation.

GRDC Grains Research & Development Corporation

Australian Cereal Rust Control Program