

New South Wales

Hot weather continued in November with maximum temperatures reaching 45.7°C at Walgett. Rainfall was scarce in the north of the state with the highest recorded in Moree of 20 mm. Hot temperatures were also experienced in the south of the state with Wagga Wagga reaching 40.6°C. Rainfall in the south of the state was much higher in comparison to the north, with Wagga Wagga recording 44.2 mm.

The combination of a mild start to the season and hot finish has produced a very short season. Across the state harvest was early for most and is all but finished in the north. In the central west and central east, crops continue to yield well. Albus lupins have been reaching 2 t/ha and field peas have yielded very well ranging from 1 to 4 t/ha. It has certainly been a good year for the central west. If spring rains had arrived in time, this region could have produced significantly more. In the south of the state faba beans have yielded well west of Wagga Wagga reaching 2 to 3 t/ha.

Western Australia

Harvest in WA has a been a start-stop affair with frequent rain halting operations. Harvest is complete in the Geraldton zone and mostly complete into the Kwinana zone. In the Albany zone, canola and field pea has been harvested, while the Esperance zone is 75% complete.

Lupin yields have been disppointing in the north and about average elsewhere. Re-greening of drought affected lupin crops has delayed harvest of some crops. Field pea yields have been average, chickpea yields were poor, while faba bean yields were above average with good quality.

South Australia and Victoria

The 2014/15 pulse harvest across southern Australia could go down as one of the earliest, guickest and most disappointing seasonal finishes for most regions for over twenty years.

Harvest was unseasonally two to three weeks earlier than

expected in a 'normal' year. South Australia's' Eyre Peninsula commenced field pea harvest the first week of October, while the Mallee regions of both states commenced in the second week of October. The lentil harvest is mostly complete, a record early finish. Faba and broad bean harvesting across the south east and south west should be complete by the end of December.

The quality of grain overall is good, but yields have been disappointing as a consequence of the El Nino spring conditions and blinding October frosts.

Some pulse crops grown on irrigation, predominately faba beans, required an extra watering due to the dry spring.Leaf diseases have been at low levels.

For many pulse growers that have finished harvest unusually early, end of November, one small benefit will be a few long pub lunches in the build-up of the festive season!

Queensland

The pulse harvest in Queensland was completed by late October, with generally poor yields after below average rainfall, apart from central Qld which received above average rainfall during September. There was no useful rainfall recorded in Qld during October to disrupt harvest.

The recent consistent pattern of the SOI indicates average to below average chances (<40%) of receiving above average rainfall for most of the wheat growing regions over the next 3 months.

The area planted to spring crops (mungbean & sorghum) is very much below the expected grower intention due to the lack of planting rains. Very little rain has moved west to agricultural regions in the recent storms. Growers are now focusing on possible summer (Dec/Jan) plant options if suitable rainfall is received.

The area planted to spring crops (mungbean & sorghum) is very much below the expected grower intention due to the lack of planting rains. Many growers are know focusing on possible summer (Dec/Jan) plant options if suitable rainfall is received.

	Chick	pea	Bea	ns	Field Pea	Lentil	Luj	pin		
State	Desi	Kabuli	Faba	Broad	Dun	Red & Green	Sweet Lupin	Albus Lupin	Total 2014 (t)	% of 2013 (t)
New South Wales	171,900	20,700	76,800	-	66,200	500	31,700	31,600	399,400	93%
Victoria	8,600	6,000	73,700	8,900	42,600	87,900	40,300	200	268,200	67%
Queensland	186,000	-	4,700	-	-	-	-	-	190,700	64%
South Australia	1,300	9,300	80,000	31,100	127,200	161,600	69,500	-	480,000	82%
Western Australia	3,700	700	8,600	-	32,200	-	370,000	4,000	419,200	82%
Total 2014 (t)	371,500	36,700	243,800	40,000	268,200	250,000	511,500	35,800	1,757,500	79%
% of 2013 (t)	69%	39%	74%	81%	78%	99%	86%	105%	79%	

Estimated Pulse Production in Australia for 2014 (tonnes)

Major projects funded by

Pulse Australia gratefully acknowledges the valuable financial support from our industry members.



GRDC Grains Research & Development Con **Development Corporation** Your GRDC working with you

These are listed on our website under the index heading "Members".



Chickpea

Queensland

While the chickpea area was substantially down due to the lack of suitable planting rain, yields were significantly reduced due to the dry season. However, the likely return (\$/ha) from chickpea compared to wheat, shows once again that chickpea has stacked up very well in most situations.

Once again, desi chickpea has demonstrated its ability to grow and yield in drier seasons. Final yields have been heavily determined by the starting point soil moisture levels at planting. However, feedback from most growers and advisors has been that the yield achieved by crops under th seasonal conditions, ie available soil moisture, have been surprisingly good.

Yields in central Queensland averaged 1.5 t/ha, showing the benefit that many crops gained from the rainfall in September.

The Darling Downs yields averaged 1.3 t/ha, often reflecting that crops were planted into fields with good soil moisture. Some double cropped situations performed very poorly with 0.6 t/ha being common.

Western Queensland where the biggest area of chickpea was planted, including the Maranoa district, suffered the greatest from high winter temperatures and soils that have a lower water holding capacity. This saw many crops finishing prematurely due to terminal drought, and yields averaged 0.9 to 1.0 t/ha, with a hand full of crop failures.

South Australia and Victoria

Chickpeas were thought to be the saving grace pulse crop for Victoria until the deal breaking October 17th frosts on top of the dry and hot conditions. After this it was difficult to find a chickpea crop across the Wimmera and Mallee region that had not aborted its flowers, let alone set any pods.

Expect to see minimal kabuli tonnage out of Victoria while South Australia could produce anywhere from 1,000 to 3,000 tonnes greater than Victoria.

The Desi chickpea area still remains relatively minor compared with the small kabuli in South Australia and Victoria due to the price premiums for the kabuli type.

While the market price and demand remains low (depressed) so too will the area planted to chickpeas across southern Australia.

There will be a small chickpea tonnage out Victoria and near average size out of South Australia, particularly the Yorke Peninsula area, and all grain will be free from disease and insect damage. Yields are well below average.

New South Wales

The harvest of chickpeas has finished in the north due to the prolonged hot dry conditions. Yields have varied due to many factors. Late sown chickpeas on a good profile of moisture hit very cold conditions in winter and sat still for weeks. Once they established and grew there was very little rain and a very hot finish. This has produced very poor yields in some districts, ranging from 0.8 to 2 t/ha. Overall it has been a disappointing season.

Western Australia

Chickpeas were a disappointing crop in WA with low yields in most paddocks after a very warm and dry winter.

Yields ranged from 1.5 t/ha to 0.2 t/ha, for an average of just over 1 t/ha.

Grain quality is average despite the tight finish for inland crops.

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)	3,700	1,230	8,600	33,900	43,730	186,000	138,000	324,000	371,430
Dec 2014 Sown area (ha)	2,800	1,250	7,750	26,000	35,000	155,000	102,000	257,000	294,800
Variation from Nov 2014 (t)	-100	0	-160	0	-160	0	0	0	-260
Crop condition score	2.8	2.4	2.0	2.8		2.1	2.6		2.4

Desi Chickpea

Kabuli Chickpea

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)	700	9,300	6,000	2,000	17,300	0	18,700	18,700	36,700
Dec 2014 Sown area (ha)	500	11,900	18,650	1,800	32,350	0	15,500	15,500	48,350
Variation from Nov 2014 (t)	0	-3,000	-20,800	0	-23,800	0	0	0	-23,800
Crop condition score	2.9	1.9	1.2	2.7		0.0	2.7		1.5

Faba/Broad bean

South Australia and Victoria

The price for faba beans might be gold across southern Australia however yields plummeted after a disastrous hot dry spring and despite one of the best starts to the season.

Many faba bean crops across the central, northern and eastern Wimmera regions have variable yields from 0.0 t/ ha to 1.2 t/ha. Yields in the south west region of Victoria are predicted to be below average, varying from 0.5 t/ha to 1.8 t/ha. Regions of consistent high yields in Victoria, where the word drought is considered a fallacy, include the north east and on irrigation in central Victoria where harvested yields range from 2.8 t/ha to 3.6 t/ha.

South Australian faba beans yields were affected by a season of early waterlogging, followed by frost and hot, dry windy conditions. Eyre Peninsula yields vary from 0.6 t/ha to 1.6 t/ha. Similarly below average yields have been recorded across the Yorke Peninsula, Upper Yorke Peninsula and the Adelaide plains. Beans across the lower south east have suffered up to a 50% yield penalty from the dry spring, with average yields down by 35% due to lack of moisture and insect damage. Native budworm has been in high number in bean crops and caused some crop damage.

However, overall faba bean quality produced across southern Australia is high.

Expect the area of faba beans to increase by 30% in 2015 across Victoria's south west, north east and on irrigation in the states central region. Receival site access and high prices are driving the decision to increase the faba bean production on the Eyre Peninsula by 30% for 2015.

Western Australia

Faba beans in Western Australia have been mostly free of disease this season in the Esperance zone. Rainfall has been adequate for the most part and average to slightly above average yields are expected.

November rainfall have produced little damage as the harvest was substantially finished in October.

New South Wales

Faba bean crops were harvested in October in the north. The prolonged hot and dry weather and little rain shortened the season. Dryland faba beans have yielded from 0.8 t/ha in the western regions to 2 t/ha in eastern regions of northern NSW. Irrigated faba beans have varied from 2 to 4.1 t/ha. It has been an almost ideal season for irrigated faba beans. While the dry conditions reduced disease incidence, the presence of aphids early in the season produced significant virus symptoms later in the crop if they were not controlled.

In the south of the state faba beans have yielded from 1 to 2 t/ha with frost havinge some impact on yields.

Queensland

This has been the first year that there has been a significant area planted to Faba bean in southern Qld.

Harvest iwas finished in October with mixed results;

Yields have averaged 1.5 t/ha, compared to an expected yield of 1.8 to 2.0 t/ha at the start of the season. This primarily reflects the dry growing season.

The greatest disappointment has been grain quality at delivery, with the vast majority of growers only achieving #2 grade and quite a few only achieving #3.

There appears to have been a high incidence of seed marking for which we currently cannot definitively identify the causal agent.

Collaborative investigations are ongoing with Qld DAFF, entomology, pathology and virology teams and our current working theory is that it is a result of insect (Mirid) damage.

Mirid is more typically a summer insect pest in the northern region of mungbean and soybean, so we have another new challenge ahead of us.

With the current high faba bean price, most growers are still pleased with their results. If in the coming seasons the industry can continue to improve management practices, and there are early planting opportunities (i.e. March/April), then we could see the establishment of a consistent faba bean industry in southern Queensland.

Faba bean

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)	8,600	80,000	73,700	20,900	174,600	4,700	55,900	60,600	243,800
Dec 2014 Sown area (ha)	5,000	65,600	59,900	8,000	133,500	3,000	24,700	27,700	166,200
Variation from Nov 2014 (t)	0	0	-6,000	0	-6,000	0	0	0	-6,000
Crop condition score	2.9	2.8	2.5	2.6		2.5	2.7		2.6

Broad bean

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)		31,100	8,900		40,000				40,000
Dec 2014 Sown area (ha)		19,000	5,300		24,300				24,300
Variation from Nov 2014 (t)		0	0		0				0
Crop condition score		2.9	2.8						2.9

Field pea

South Australia and Victoria

The season for field peas only went backwards with the decile 1 spring rainfall and dreadful frosts during October and November.

Field pea harvest for the southern region commenced during the first week of October (early) with yields on the Eyre Peninsula ranging from 0.6-1.1 t/ha.

The yields of pea crops hit by the 17th October frost on the heavier and shallow soils of Victoria's Wimmera and south west along with South Australia's Eyre Peninsula, Yorke Peninsula, and southern Mallee regions have been yielding average to well below average, ranging from 0.8 t/ha to 1.4 t/ha.

Southern SA Mallee growers have recorded field pea yields at 30-50% below average.

In Victoria's south west region many field pea crops were damaged by cold overnight temperatures during the first week of November. Yields of these crops have ranged from 0.0 t/ha and at best 1.2 t/ha in Victoria.

Disease pressure was very low, as expected for the season. Insect damage could be higher than normal in a

few isolated regions as heliothus moth flights were high when temperatures soared above 27°C in early September and October.

Field pea grain samples delivered in South Australia contain less snails than in recent years as a result of extensive baiting in spring.

Varieties grown across the states include Kaspa, PBA Oura, PBA Twilight, PBA Gunya and PBA Wharton while interest continues to increases in the white field pea PBA Pearl. Expect to see an increase in PBA Wharton and PBA Pearl for 2015.

Western Australia

Yields in WA have been about average in the Esperance zone, well above average in the Albany zone but below average in the Geraldton and Kwinana zones. Generally, grain quality is good and mostly unaffected by the wet October.

New South Wales

Field peas in the central west have yield from 1.5 to 4 t/ha. It has been an excellent season for Field Pea growers in the Central Western and Eastern regions. In the south frost has affected Field Peas with yields varying from 1 to 2 t/ha.

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)	32,200	127,200	42,600	55,000	224,800		11,200	11,200	268,200
Dec 2014 Sown area (ha)	24,500	110,300	45,200	45,000	200,500		6,000	6,000	231,000
Variation from Nov 2014 (t)	9,000	-1,400	-400	0	-1,800		500	500	7,700
Crop condition score	3.2	2.9	2.7	2.6			2.8		2.8

Lentil

South Australia and Victoria

There will be some lentil crops not harvested across traditional lentil growing regions of Victoria and isolated patches of South Australia.

The early start to the cropping season has come back to haunt many lentil growers throughout South Australia and more specifically Victoria's southern Mallee and northern Wimmera regions as crops did not recover from the dry spring, frosts and constant hot northerly winds. Consequently, lentil yields are poor.

Lentil harvest in the traditional lentil growing regions commenced as early as the third week of October (very early), which truly depicted the year. The Australian lentil harvest will set an unwelcomed record by being near completion by the end of November. Key lentil production areas of Victoria's Wimmera and southern Mallee region recorded yields anywhere from zero (0.0 t/ha), to well below average (0.4 t/ha), to below average (1.1 t/ha) to average yields (1.4-1.9 t/ha) for the 2014/15 harvest. There are crops in the eastern Wimmera that will not be harvested due to drought.

South Australia's Yorke Peninsula has recorded yields averaging from 1.5 t/ha to 2.5 t/ha all with good quality. Those lentil crops harvested on the Yorke Peninsula post the significant mid-November hailstorm are yielding below average. Lentil yields across SA's mid-north are close to the long term average with some high yielding crops.

Overall lentil yields have been extremely variable. Many later-maturing crops have required cleaning before delivery due to small grain size.

It is forecast that the area sown to lentils across SA and VIC in 2015 will be similar if not slightly greater than the areas sown in 2014. Lentils planting across southern NSW is expected to increase in 2015, especially if prices remain strong.

Neu a green ienu

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)		161,600	87,900	500	250,000				250,000
Dec 2014 Sown area (ha)		89,700	81,700	600	172,000				172,000
Variation from Nov 2014 (t)		0	-17,200	0	-17,200				-17,200
Crop condition score		2.9	2.3	2.9	2.6				2.6

Lupin

Western Australia

Lupin crops that were affected by the hot and dry August weather and then by Charcoal rot, have yielded poorly. To make matters more difficult many of these crops |re-greened after September rain, causing significant delays to harvest as the regrowth matured.

Along the west coast, inland to Moora and Mingenew, lupin have yielded above average to about 2.3 t/ha.

In southern districts of the Albany zone, the variety Jenabillup has shown good resistance to Bean Yellow Mosaic Virus, and Heliothus has needed widespread control. Charcoal rot finished some droughted lupin crops in low rainfall districts, with some being un-harvestable.

Albus lupins have been affected by the lack of late spring rainfall around Geraldton and have returned yields ranging from 1.8 t/ha to just 0.4 t/ha.

Despite this, grain quality overall is good with grain size at least average.

New South Wales

Albus lupins have yielded from 800 kg/ha in the North West to 2 t/ha in the central west region of NSW. Lupins continue to be harvested in the south of the state with some narrow leaf yields varying from 1 to 2.5 t/ha. It has certainly been a good year for the central west. If spring rains had arrived in time, this region could have produced significantly more. The recent rainfall in the south of NSW has slowed harvest. However, it should all be over by the first week in December if no further rainfall is received.

South Australia and Victoria

While the area of lupins increased in 2014 across the Eyre Peninsula, Kangaroo Island and Mallee regions of SA along with Victoria's acreage in the south west, western Wimmera and Mallee regions, yields remained below average due to the dire spring.

Calamitous spring conditions punished late flowering lupin crops and the hot dry conditions apparently made it very difficult for lupin crops to be threshed easily during harvest. Frost also hit lupins hard and yields are expected to be below average.

Early sown and early flowering lupin crops that are not necessarily grown on the better soils are the higher yielding crops with yields varying from 0.8 t/ha to 1.5 t/ha.

The Eyre Peninsula, a traditional lupin growing region, experienced a decile 9-10 winter and a decile 0 spring, with yields varying from 0.6 t/ha to 1.0 t/ha. Better crops yielded from 1.1 t/ha to 1.5 t/ha. Lupin grown across SA's mid north did not recover from early frost damage and yields will be well below average.

Lupin harvest is yet to finish across the southern Wimmera, south west region of Victoria along with South Australia's south east.

Expect to see little disease and insect damaged lupin seed.

Stock feed prices and Australians northern summer crop will dictated the areas to be planted of lupins in 2015 across southern Australia.

The area sown to PBA Barlock should increase significantly in South Australia and Victoria next year.

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)	370,000	69,500	40,300	17,900	127,700		13,800	13,800	511,500
Dec 2014 Sown area (ha)	292,000	54,800	31,300	17,000	103,100		11,200	11,200	406,300
Variation from Nov 2014 (t)	-17,000	0	0	0	0		0	0	-17,000
Crop condition score	2.5	2.8	2.8	2.7	2.8		2.8	2.8	2.6

Australian Sweet Lupin (Angustifolius)

Australian Albus Lupin (Albus)

Region	Western		Sou	Ithern			Northern		Australia
State	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	Total
Dec 2014 Production (t)	4,000		200	14,500	14,700		17,100	17,100	35,800
Dec 2014 Sown area (ha)	2,500		200	12,600	12,800		15,100	15,100	30,400
Variation from Nov 2014 (t)	0		0	0	0		1,000	1,000	1,000
Crop condition score	3.0		2.9	2.8	2.8		2.7	2.7	2.8

Australian weather



Australian Government Bureau of Meteorology **Bainfall Decile Banges** Highest on Record Very Much 10 Above Average 8-9 Above Average 4-7 Average 2-3 Below Average Very Much 1 Below Average Lowest on Record Australian Rainfall Deciles November 2014 Distribution Based on Gridded Data Australian Bureau of Meteorology www.hom

Rainfall Outlook– Dec 2014 to Feb 2015

A drier than normal summer is more likely over northern, eastern and central Australia.

For December, a drier than normal month is more likely over the northern half of Australia, with the chances of a wetter or drier December roughly equal over most of the south.

The summer temperature outlooks indicate a warmer than normal season for both days and nights across most of the Australian mainland, except parts of the west and southeast.

Climate influences include El Niño-like conditions in the tropical Pacific Ocean, and average to cooler than average waters surrounding northern Australia.

Rainfall deciles November 2014

Spring rainfall was below average across much of South Australia, Victoria, New South Wales and Queensland with a common decile recording of 1 to 3. Parts of South Australia and Victoria recorded average rainfall with a decile of 4 to7.

Western Australia recorded average to above average rainfall in November. The west coast recorded a decile of 4 to 7, while the central and south coast regions recorded a 6 to 10 decile reading.



Rainfall Deciles for April to November 2014

The rainfall deciles for the period from April to November 2014 show a mostly dry Australia. With the exception of northern NSW and Queensland, all regions experienced a very wet start to the season in April and May.

In WA, rainfall failed to arrive for the Geraldton and Kwinana zones in winter.

In SA, Victoria and southern NSW, the rain stopped in August and was followed by unseasonally hot and windy weather.

For Queensland and northern NSW, the dry winter followed a dry summer, leading to low soil moisture levels for winter crops.

5 year area and production averages

Australian Pulse Production	Average 2008	/09-2012/13	2013/14 estimates			
Australian Fuise Froduction	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)		
Lupin	482,190	618,599	385,850	624,000		
Field Pea	276,850	335,133	244,500	342,100		
Chickpea	414,520	513,786	507,200	629,100		
Lentil	140,740	192,390	168,400	252,800		
Bean	163,820	278,892	178,100	377,200		
Total	1,478,120	1,938,801	1,484,050	2,225,200		

Pulse	Average 2008	/09-2012/13	2013/14 estimates			
Production by State	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)		
New South Wales	390,827	510,277	356,300	431,400		
Victoria	215,940	288,180	271,650	399,600		
Queensland	132,500	175,204	215,500	296,300		
South Australia	346,500	497,970	355,100	585,900		
Western Australia	551,470	467,450	285,500	512,000		
Total	1,637,237	1,939,081	1,484,050	2,225,200		

	Average 2008/09-2012/13		2013/14 estimates	
Field Pea	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	47,130	56,773	50,000	52,600
Victoria	48,200	63,720	51,000	68,000
Queensland	-	-	-	-
South Australia	120,500	163,360	111,500	184,400
Western Australia	61,020	51,280	32,000	37,100
Total	276,850	335,133	244,500	342,100

	Average 2008/09-2012/13 2013/14 estimation		estimates	
Lupin	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	67,370	96,059	57,200	56,900
Victoria	26,580	30,760	28,150	29,300
South Australia	64,900	84,800	55,500	77,800
Western Australia	323,340	406,980	245,000	460,000
Total	482,190	618,599	385,850	624,000

	Average 2008/09-2012/13		/13 2013/14 estimates	
Chickpea	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	234,100	280,832	219,800	250,600
Victoria	31,100	39,740	48,000	49,500
Queensland	130,900	172,754	215,500	296,300
South Australia	12,760	15,100	19,400	27,000
Western Australia	5,660	5,360	4,500	5,700
Total	414,520	513,786	507,200	629,100

Eaba/Broad	Average 2008/09-2012/13		2013/14 estimates	
Bean	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	41,560	75,912	28,600	70,600
Victoria	44,260	74,700	65,500	141,300
Queensland	1,600	2,450	-	-
South Australia	73,800	122,000	80,000	156,100
Western Australia	2,600	3,830	4,000	9,200
Total	163,820	278,892	178,100	377,200

Lentil	Average 2008/09-2012/13 2013/14 estima		stimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	667	700	700	700
Victoria	65,800	79,260	79,000	111,500
South Australia	74,540	112,710	140,600	140,600
Total	140,740	192,390	252,800	183,500

Contact details	Industry Development Managers		Disclaimer The information herein has been obtained	
CEO Tim Edgecombe	Queensland Gordon Cumming	0408 923 474 gordon@pulseaus.com.au	from sources considered reliable but its accuracy and completeness cannot be guaranteed. No liability or responsibility is	
Pulse Australia Ltd Level 10 24-28 Collins St Melbourne Vic 3000 Phone: 03 9004 0520 0425 717 133 <u>tim@pulseaus.com.au</u>	South Australia and Victor Mary Raynes	ia 0408 591 193 mary@pulseaus.com.au	accepted for any errors or for any negligence, omissions in the contents, default or lack of care for any loss or damage whatsoever that may arise from actions based on any material contained i this publication. Readers who act on this information do so at their own risk. Consu	
	Western Australia Alan Meldrum	0427 384 760 <u>alan@pulseaus.com.au</u>		
	New South Wales Tim Weaver	0427 255 086 timw@pulseaus.com.au	your adviser before making crop, marketing or investment decisions.	

Acknowledgments: Pulse Australia would like to acknowledge the assistance of Domestic and Export Marketers, consultants and commercial agronomists, Rural Solutions SA, NSW DPI, DPI Victoria, Department of Agriculture & Food WA and Queensland Government– DAFF in providing information for this publication.

Copyright[©] 2014 Pulse Australia. All rights reserved.

This information is provided for the private use of subscribers and may not be republished in part or in full, in any form whatsoever, without the prior written consent of Pulse Australia Limited.