

## Western Australia

The Western Australian winter crop was sown into the best conditions seen for many a long while. The dry summer had some nervous about the seasonal prospects, but strong opening rains in late April in the Geraldton region and mid May for southern parts, provided confidence of a good season. The Esperance region was the one region to receive below average rainfall in April to June.

For the Geraldton and Kwinana east regions, the rain stopped in June. Winter was very dry with abnormally high temperatures in August compounding the stress on droughted crops. Lupins suffered widely where any soil constraint was restricting root growth. Spring caused many of these lupin crops to re-green, causing harvesting delays without boosting yields to any great degree. Along the west coast and throughout the remainder of the state, lupins yielded very well to finish above average

## South Australia and Victoria

Coming off the previous good season, 2014/15 crops yielded average to below average and in areas, well below average.

It was an unusually early start to the 2014/15 pulse harvest across southern Australia, commencing early October and it was also an unseasonally very early finish to the total Australian lentil harvest concluding the last week of November. These early harvest starts and finishes are a reflection of the unseasonally dry winter and spring conditions. Even though harvest was early and quick, it was a 'pressure free' harvest. Growers did not have the environmental elements to try and beat or rush against.

Overall quality of grain that was harvested (as there were some pulse crops across both states that were not harvested due lack of rainfall and frost) was high. There was no disease pressure or summer rains to cause seed staining, and very few samples where pinched, shrivelled or cracked. There were isolated crops that had insect damaged grain as a result of a lack of hygiene monitoring.

## Queensland

The 2014 winter cropping season had an early start with good rainfall during the last couple of weeks of March. However, there was little to no follow-up rain recorded during the main planting windows of May and June.

Grower attitudes to crop selection was very cautious after a dry 2013 winter and a very dry and disappointing 2013/14 summer. This resulted in a very significant area of barley and early wheat being planted, in April and early May, to utilise the available soil moisture as well as the high demand for stock feed. Growers then moved to planting chickpea towards mid May onwards with many deep planting their chickpea chasing the declining soil moisture profile.

Whilst most of Qld recorded below average rainfall, parts of central Qld received above average rainfall during September. There was no useful rainfall recorded in Qld during October or November. There were little to no issues around harvest and desi chickpea grain quality was high.

## New South Wales

Across NSW the 2014 winter season started with good rainfall in March providing ideal planting moisture for Faba beans in April. In the north of the state approximately 100 to 200 mm fell in close proximity to the Newell Highway. Western regions only received 30 mm, not enough for a winter crop as soil profiles were significantly depleted due to summer drought. May arrived and the cropping regions across NSW received very dry and warm conditions. Crops were generally two weeks advanced due to the mild start. The advanced physiological state of crops lead to significant frost damage in southern NSW with some lupin, cereal and canola crops completely wiped out.

The season finished very early for some due to the mild start and hot and dry finish. Rainfall in late December has given some hope of replenishing soil profiles for the start of the 2015 winter crop.

## Final Estimated Pulse Production in Australia for 2014 (tonnes)

State	Chickpea		Beans		Field Pea	Lentil	Lupin		Total 2014 (t)	% of 2013 (t)
	Desi	Kabuli	Faba	Broad	Dun	Red & Green	Sweet Lupin	Albus Lupin		
New South Wales	261,100	21,100	76,800	-	79,100	500	31,700	33,800	<b>504,100</b>	<b>117%</b>
Queensland	201,100	-	4,900	-	-	-	-	-	<b>248,700</b>	<b>62%</b>
South Australia	2,200	13,800	83,400	31,100	125,400	161,600	75,000	-	<b>206,000</b>	<b>70%</b>
Victoria	8,600	6,000	78,700	8,900	36,000	70,200	40,100	200	<b>492,500</b>	<b>84%</b>
Western Australia	2,900	700	6,700	-	32,800	-	378,800	3,500	<b>425,400</b>	<b>83%</b>
<b>Total 2014 (t)</b>	<b>475,900</b>	<b>41,600</b>	<b>250,500</b>	<b>40,000</b>	<b>273,300</b>	<b>232,300</b>	<b>525,600</b>	<b>37,500</b>	<b>1,876,700</b>	<b>84%</b>
<b>% of 2013 (t)</b>	<b>89%</b>	<b>45%</b>	<b>76%</b>	<b>81%</b>	<b>80%</b>	<b>92%</b>	<b>89%</b>	<b>110%</b>	<b>84%</b>	

## Major projects funded by

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

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

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



# Chickpea

## Desi Chickpea

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)	2,900	2,200	8,600	33,900	44,700	201,100	227,200	428,300	<b>475,900</b>
2014 Sown area (ha)	2,800	2,600	7,750	26,000	36,350	165,000	166,000	331,000	<b>370,150</b>
Variation from Dec 2014 (t)	-800	970	0	0	970	15,100	89,200	104,300	104,470
Variation from Dec 2014 (ha)	0	1,350	0	0	1,350	10,000	64,000	74,000	75,350

## Kabuli Chickpea

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)	700	13,800	6,000	2,000	21,800	0	19,100	19,100	<b>41,600</b>
2014 Sown area (ha)	500	18,500	18,650	1,800	38,950	0	15,500	15,500	<b>54,950</b>
Variation from Dec 2014 (t)	0	4,500	0	0	4,500	0	400	400	4,900
Variation from Dec 2014 (ha)	0	6,600	0	0	6,600	0	0	0	6,600

## Queensland

Once again, desi chickpea has demonstrated its ability to grow and yield in these 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 yields achieved by any given crop have been surprisingly good given the constraints that the crop faced in terms of available soil moisture during the season.

Whilst the area planted was well down due to a lack of suitable planting rains, yields have tended to be only slightly on the lower side of average. However, the likely return (\$/ha) from chickpea compared to wheat, shows once again that chickpea has stacked up very well in most situations.

Yields in central Qld are averaging 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 good soil moisture fields, although there were some double cropped situations which performed very poorly with 0.6 t/ha being common.

Western Qld 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 resulted in 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.

## Western Australia

The Geraldton region of WA is the most suitable part of the state for chickpea production. It was once home to 50,000 ha. The recent run of dry seasons, coupled with the subdued market for chickpea has delayed a return of chickpea to the paddock.

The 2014 yields were poor, very disappointing after a solid start which was ideal for chickpea. All the factors are in the paddock for chickpea growers; ascochyta resistance, enhanced herbicide options, a resurgent market. What's missing is some confidence in the season to take the 'punt' on incorporating chickpea into the rotation.

The area of chickpea for 2015, as a consequence, is unlikely to change much for the current low level.

## New South Wales

In northern NSW, chickpeas were sown late due to the lack of sowing rainfall. Those that planted on time put them deep into moisture. This delayed the crops emergence and crop development. In most cases they were sown on a good profile of moisture, however the onset of very cold weather delayed growth.

Yields have varied due to many factors. The first and main problem was the extreme seasonal conditions. A very cold start after emergence and then a very hot and dry finish. The crops sown late into deep moisture struggled and yielded 0.8 to 1 t/ha. The earlier sown crops reached yields of 2 t/ha.

The area sown to chickpea in 2014 was estimated at 166,000 ha in the north of NSW and 34,000 ha in the south of NSW. The area sown in the north is down due to the continuing drought in the North West cropping regions like Walgett and Coonamble. These areas are major growers of Desi Chickpeas. Hopefully further summer rainfall will eventuate in these regions allowing the depleted soil profile to fill ready for a 2015 winter crop.

The quality of chickpeas was generally good with a higher percentage of No. 1 grades compared to the 2013 season. There was less observations of damage to kernels.

## South Australia and Victoria

Chickpea crops, despite having average potential during winter, never recovered from the October and November frosts and yields were extremely low where harvesting was viable.

# Faba/Broad bean

## Faba bean

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)	6,700	83,400	78,700	20,900	183,000	4,900	55,900	60,800	<b>250,500</b>
2014 Sown area (ha)	4,000	61,800	62,400	8,000	132,200	3,000	24,700	27,700	<b>163,900</b>
<i>Variation from Dec 2014 (t)</i>	-1,900	3,400	5,000	0	8,400	200	0	200	6,700
<i>Variation from Dec 2014 (ha)</i>	-1,000	-3,800	2,500	0	-1,300	0	0	0	-2,300

## Broad bean

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)		31,100	8,900		40,000				<b>40,000</b>
2014 Sown area (ha)		19,000	5,300		24,300				<b>24,300</b>
<i>Variation from Dec 2014 (t)</i>		0	0		0				0
<i>Variation from Dec 2014 (ha)</i>		0	0		0				0

## New South Wales

The good rainfall in March and mild conditions in May produced ideal starting conditions for faba beans. However, aphids and cutworm and frost combined impacted some crops as well as the hot and dry finish in October and November. Dryland faba beans 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 ideal season for irrigated faba beans. The dry conditions reduced disease incidence, however the presence of aphids early in the season produced significant virus symptoms later in the crop if they were not controlled. Faba bean quality was good with a higher percentage of No. 1 grade when compared to 2013.

In the south of the state faba beans have yielded from 1 to 2 t/ha with frost impacting yields. Overall the season was good in the south due to good rainfall during the season. It is predicted that more faba beans will be sown in 2015 pending good rainfall. Prices have been good and remain strong due to overseas demand and the falling Australian dollar. It was estimated that 56,000 ha was sown in the north of NSW, predominantly PBA Warda and Doza and approximately 21,000 ha in the south of NSW. The quality of faba bean was good in the south as well.

## Queensland

This has been the first year that there was a significant area planted to Faba bean in southern Qld. Yields have average 1.5 to 1.7 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 achieving #2 grade and quite a few 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 high faba bean price, most growers were still pleased with their results and so long as 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.

## South Australia and Victoria

Faba bean crops in Victoria's north east and on irrigation yielded anywhere from 3.5 t/ha to 4.3 t/ha.

Bean crops were severely affected by all climatic elements from waterlogging on the EP to frost and hot, dry windy condition with yield below average across all regions.

Growers were very pleased with the price being paid for faba beans.

## Field pea

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)	32,800	125,400	36,000	67,400	228,800		11,700	11,700	<b>273,300</b>
2014 Sown area (ha)	25,300	110,000	51,200	45,000	206,200		6,000	6,000	<b>237,500</b>
<i>Variation from Dec 2014 (t)</i>	600	-1,800	-6,600	12,400	4,000		500	500	5,100
<i>Variation from Dec 2014 (ha)</i>	800	-300	6,000	0	5,700		0	0	6,500

### South Australia and Victoria

Frost significantly reduced the yields of field peas in some areas of the Mallee and South West regions, but those unaffected crops have returned average yields, particularly the Eyre and Yorke Peninsular.

### New South Wales

Field peas in the central west have yielded from 1.5 to 4 t/ha. It has been an excellent season for Field Pea growers in the Central Western and Eastern regions of NSW. In the south, frost affected Field Peas with yields varying from 1 to 2 t/ha. The estimate for areas sown to field peas in the north were 12,000 ha and approximately 54,000 ha in the south of NSW. The area for the central west was up compared to 2013 due to good rainfall. The quality of Field peas was excellent for most of the crop, however due to the hot finish some seed wrinkle was observed causing some downgrading. However this was only a minor issue.

### Western Australia

The dryish winter in the Esperance region enable field pea to be established without a substantial disease pressure. Yields were average t slightly above average following a favourable spring.

PBA Gonyah and Kaska continue to be the dominant varieties. PBA Wharton was released in 2013. It is resistant to Pea Seed-borne Mosaic Virus. Preliminary results show it was lower yielding than PBA Gonyah and Kaska in most trials. The area of field pea is unlikely to change much for 2015. Continuing competition from canola is restricting enthusiasm for field pea. However, the current market demand is pushing prices higher. It remains to be seen if this will cause a rise in plantings.

## Lentil

### Red & green lentil

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)		161,600	70,200	500	232,300				<b>232,300</b>
2014 Sown area (ha)		102,200	86,200	600	189,000				<b>189,000</b>
<i>Variation from Dec 2014 (t)</i>		0	-17,700	0	-17,700				-17,700
<i>Variation from Dec 2014 (ha)</i>		12,500	4,500	0	17,000				17,000

Lentil yields were best on South Australia's Yorke Peninsula, yielding about average at 1.8 to 2.5 t/ha. Worst areas for lentils were the southern Mallee, northern and eastern Wimmera districts and some pulse crops were not harvested.

The Red lentil price is still strong, hovering over \$1000/t. The southern red lentil yields across all regions were average to well below average.

# Lupin

## Australian Sweet Lupin (*Angustifolius*)

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)	378,800	75,000	40,100	17,900	133,000		13,800	13,800	<b>525,600</b>
2014 Sown area (ha)	284,000	68,300	31,700	17,000	117,000		11,200	11,200	<b>412,200</b>
Variation from Dec 2014 (t)	-8,000	13,500	400	0	13,900		0	0	5,900
Variation from Dec 2014 (ha)									

## Australian Albus Lupin (*Albus*)

Region State	Western	Southern				Northern			Australia Total
	WA	SA	VIC	S/NSW	Subtotal	QLD	N/NSW	Subtotal	
2014 Production (t)	3,500	0	200	14,600	14,800		19,200	19,200	<b>37,500</b>
2014 Sown area (ha)	2,500	0	200	12,600	12,800		15,100	15,100	<b>30,400</b>
Variation from Dec 2014 (t)	-500	0	0	100	100		2,100	2,100	1,700
Variation from Dec 2014 (ha)	0	0	0	0	0		0	0	0

### Western Australia

The lupin area in WA rose in 2014 as growers looked to rejuvenate paddock fertility exhausted by record yields in most regions in 2013. The stable market for lupin is also providing some confidence in lupin gross returns.

The 2014 season was average to better along the west coast but fell away to be very disappointing east of the Midland Road in the Geraldton Region. Virtually no rain for July and August, coupled with temperatures north of 30°C in August, caused severe moisture stress in any lupin crop with a soil constraint restricting root development. Compounding the stress was the appearance of Charcoal rot. This disease is endemic to most soil types and moves on plants weakened by drought. Typically, this is at the end of the season but in 2014 it occurred in September. It reduced yield potential severely in drought affected crops.

Aside for this problem, lupins performed well with above average yields. With the current strong pricing, gross returns were rivalling wheat for the 3<sup>rd</sup> year in a row.

The new varieties PBA Barlock and PBA Gunyidi continue to show strong yield advantages over Mandelup and they will continue to increase as a percentage of the total crop in WA. They are not suited to every district as shown by the impact of Bean Yellow Mosaic Virus on PBA Barlock in Boyup Brook. The tolerant variety Jenabillup was far less affected and recorded a yield increase of 10% in a 3 t/ha crop.

For 2015, the lupin area should rise by 10 to 15% on the back of continuing good paddock performance and the robust export price.

#### Albus lupin

Grower interest in Albus lupins remains good despite a very dry season and disappointing yields in 2014. Of some concern was the appearance of Anthracnose in Amira lupins close the west coast. After the strong 2013 season, anthracnose was always going to be a bigger threat. While showing in crops, the dry winter curtailed any threat Anthracnose posed and it did not cause yield losses. It did however show the potential for anthracnose to be a risk that needs managing in Amira albus lupin.

The area for Albus should rise in 2015, supported by the current strong market demand .

### New South Wales

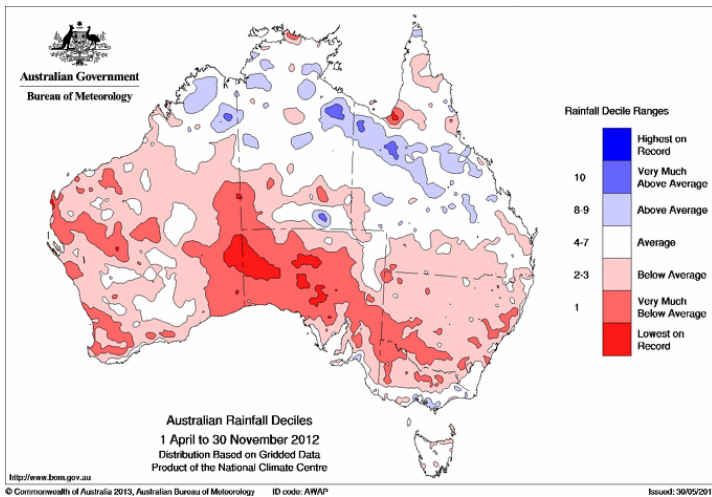
Albus lupins have yielded from 800 kg/ha in the North West to 2 t/ha in the central west region of NSW. Narrow leaf yields varied from 1 to 2.5 t/ha. It has certainly been a good year for the central west for lupins. If spring rains had arrived in time, this region could have produced significantly more. The falling Australian dollar has meant that prices have stabilised or in some cases seen a slight increase. It was estimated that 21,000 ha of Albus Lupins was sown in northern NSW. Some of this crop struggled in the more north western regions that did not receive any significant rainfall. In the south of NSW it was estimated that 15,000 ha of Albus Lupins were sown. The estimates for Sweet Lupins was 14,000 ha for the northern region of NSW and 18,000 ha in southern NSW. In the south 75 to 85% of Albus Lupins were No. 1 grade with the remainder split between No. 2 and feed quality.

### South Australia and Victoria

Lupin crops that suffered from frost and dry conditions consequently yielded well below average. However prices have continued to increase with local and interstate demand for stockfeed after a disappointing harvest.

# Australian weather 2014- rainfall

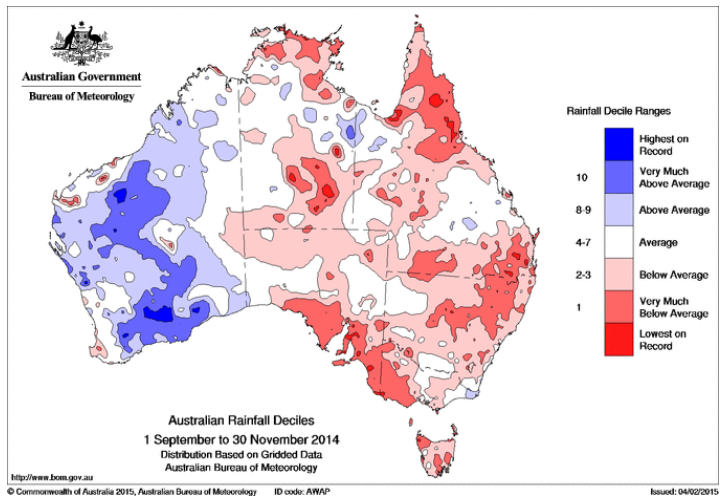
## Growing season rainfall deciles- April to November



Growing season rainfall across all states was low at decile 1 to 3. This reflects the low winter and spring rainfall after Western Australia, South Australia, Victoria and southern New South Wales experienced a wet start to the season in April and May.

For Queensland and northern New South Wales, the low winter rainfall followed a dry summer season.

## Spring rainfall deciles- September to November

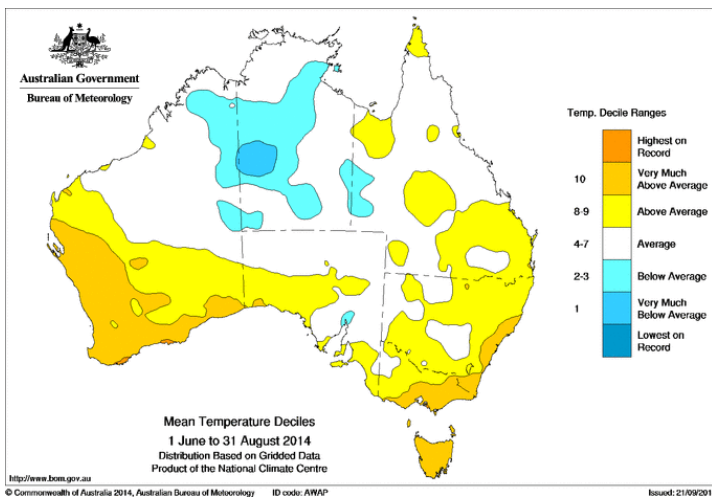


September to November rainfall deciles show very dry conditions for the south east of Australia, northern New South Wales and Queensland, which contributed mostly to the low overall rainfall total for the season.

Average to above average spring rainfall in Western Australia (decile 6 to 9) produced high yields across the southern half of the state.

# Australian weather 2014- temperature

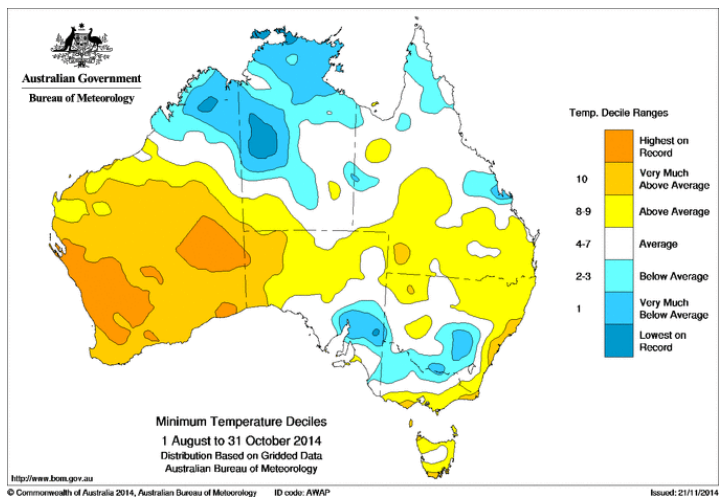
## Winter temperature deciles- June to August



Winter temperatures across Australia were very much higher than average at decile 8 to 10. This trend of warmer winter temperatures has now been seen in the last 4 years.

The warmer than average conditions contributed to excellent winter growth of crops, especially in South Australia and Victoria and the southern half of Western Australia.

## Spring Minimum temperature deciles- September to November



The minimum temperature decile map for September to November shows northern New South Wales, Queensland and Western Australia recorded decile 8 to highest on record minimum temperatures.

South Australia, Victoria and southern New South Wales experienced very cold minimums at decile 1 to 2. A series of crop damaging frost events were recorded in this period.

2014 was the second successive year that damaging spring frosts have not occurred on a wide scale in southern regions of WA.

## 5 year area and production averages

Australian Pulse Production	Average 2009/10-2013/14		2014/15 estimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
Lupin	476,200	642,909	442,600	563,100
Field Pea	269,890	350,133	237,500	273,300
Chickpea	453,400	564,106	425,100	517,500
Lentil	155,020	232,750	189,000	232,300
Bean	157,000	328,392	188,200	290,500
<b>Total</b>	<b>1,511,510</b>	<b>2,118,291</b>	<b>1,482,400</b>	<b>1,876,700</b>

Pulse Production by State	Average 2009/10-2013/14		2014/15 estimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	399,775	518,677	349,500	504,100
Queensland	158,900	211,324	168,000	206,000
South Australia	333,520	555,550	382,400	492,500
Victoria	233,870	345,600	263,400	248,700
Western Australia	385,580	487,280	319,100	425,400
<b>Total</b>	<b>1,511,645</b>	<b>2,118,431</b>	<b>1,482,400</b>	<b>1,876,700</b>

Chickpea	Average 2009/10-2013/14		2014/15 estimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	239,440	283,512	209,300	282,200
Queensland	157,600	209,174	165,000	201,100
South Australia	14,440	18,900	21,100	16,000
Victoria	35,500	46,240	26,400	14,600
Western Australia	6,420	6,280	3,300	3,600
<b>Total</b>	<b>453,400</b>	<b>564,106</b>	<b>425,100</b>	<b>517,500</b>

Field Pea	Average 2009/10-2013/14		2014/15 estimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	49,290	57,873	51,000	79,100
Queensland	-	-	-	-
South Australia	116,800	175,840	110,000	125,400
Victoria	47,600	68,720	51,200	36,000
Western Australia	56,200	47,700	25,300	32,800
<b>Total</b>	<b>269,890</b>	<b>350,133</b>	<b>237,500</b>	<b>273,300</b>

Faba/Broad Bean	Average 2009/10-2013/14		2014/15 estimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	42,540	82,692	32,700	76,800
Queensland	1,300	2,150	3,000	4,900
South Australia	74,600	138,020	80,800	114,500
Victoria	52,160	100,260	67,700	87,600
Western Australia	3,200	5,270	4,000	6,700
<b>Total</b>	<b>173,800</b>	<b>328,392</b>	<b>188,200</b>	<b>290,500</b>

Lupin	Average 2009/10-2013/14		2014/15 estimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	67,830	93,899	55,900	65,500
South Australia	62,000	88,360	68,300	75,000
Victoria	26,610	32,620	31,900	40,300
Western Australia	319,760	428,030	286,500	382,300
<b>Total</b>	<b>476,200</b>	<b>642,909</b>	<b>442,600</b>	<b>563,100</b>

Lentil	Average 2009/10-2013/14		2014/15 estimates	
	Area Planted (hectares)	Production (tonnes)	Area Planted (hectares)	Production (tonnes)
New South Wales	675	700	600	500
South Australia	82,480	134,430	102,200	161,600
Victoria	72,000	97,760	86,200	70,200
<b>Total</b>	<b>155,020</b>	<b>232,750</b>	<b>189,000</b>	<b>232,300</b>

 <b>Contact details</b>
<p><b>CEO</b> Tim Edgecombe</p> <p>Pulse Australia Ltd Level 10 24-28 Collins St Melbourne Vic 3000 Phone: 03 9004 0520 0425 717 133 <a href="mailto:tim@pulseaus.com.au">tim@pulseaus.com.au</a></p>

<b>Industry Development Managers</b>	
Queensland Gordon Cumming	0408 923 474 <a href="mailto:gordon@pulseaus.com.au">gordon@pulseaus.com.au</a>
South Australia and Victoria Mary Raynes	0408 591 193 <a href="mailto:mary@pulseaus.com.au">mary@pulseaus.com.au</a>
Western Australia Alan Meldrum	0427 384 760 <a href="mailto:alan@pulseaus.com.au">alan@pulseaus.com.au</a>
New South Wales Tim Weaver	0427 255 086 <a href="mailto:timw@pulseaus.com.au">timw@pulseaus.com.au</a>

<b>Disclaimer</b>
The information herein has been obtained from sources considered reliable but its accuracy and completeness cannot be guaranteed. No liability or responsibility is 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 in this publication. Readers who act on this information do so at their own risk. Consult 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© 2015 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.