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Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)

Postal address GPO Box 858 Canberra ACT 2601

Switchboard +61 2 6272 3933

Email info.abares@agriculture.gov.au

Web agriculture.gov.au/abares

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The next issue of Australian crop report is scheduled to be released on 1 December 2015.

In the next issue:

2015–16 winter crop area estimates and production forecasts updated

2015–16 summer crop area and production forecasts updated

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Overview

Favourable seasonal conditions in most cropping regions in Australia during winter have resulted in improved prospects for 2015–16 winter crop production. Winter rainfall in New South Wales was above average, and Western Australia and South Australia had timely rainfall events. However, conditions were drier than average in all major cropping regions in Victoria during winter.

The outlook for spring rainfall is favourable for most cropping regions in Australia. In its latest three-month rainfall outlook (September to November 2015), issued on 27 August 2015, the Bureau of Meteorology forecast that wetter than average conditions were likely in most cropping regions in New South Wales, Victoria, South Australia and Western Australia. Close to average spring rainfall is likely in most cropping regions in Queensland.

As a result of the generally favourable seasonal conditions over winter and the favourable outlook for spring rainfall, forecast winter crop production in 2015–16 has been revised up from the ABARES June 2015 forecast. Forecast production has been revised up for all major producing states, although forecast production in Victoria is expected to be below average.

Total **winter crop** production is forecast to rise by 8 per cent in 2015–16 to 41.4 million tonnes, largely as a result of forecast production increases in Western Australia and New South Wales. Winter crop production is expected to rise in Queensland and Victoria but remain largely unchanged in South Australia.

For the major winter crops, **wheat** production is forecast to increase by 7 per cent in 2015–16 to 25.3 million tonnes and **barley** production is forecast to rise by 8 per cent to 8.6 million tonnes. In contrast, **canola** production is forecast to fall by 9 per cent to around 3.1 million tonnes, driven by an estimated 13 per cent fall in planted area.

Among other crops, production of **oats** and **pulses** is forecast to increase in 2015–16 because of an estimated increase in planted area and generally higher forecast yields. Oats production is forecast to increase by 30 per cent to 1.4 million tonnes and chickpea production is forecast to increase by 78 per cent to 990 000 tonnes, reflecting very high chickpea prices at planting time.

Table 1 Winter crop production, Australia

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
	kt	kt	kt	kt	kt	kt
2005–06	11 984	6 271	1 435	7 518	13 946	41 236
2006–07	3 796	1 751	925	2 793	8 279	17 588
2007–08	4 001	4 695	1 195	4 706	10 762	25 423
2008–09	9 441	3 890	2 327	4 864	13 786	34 386
2009–10	7 789	5 892	1 618	7 036	12 944	35 352
2010–11	14 786	7 629	1 822	9 317	8 045	41 681
2011–12	11 955	7 348	2 330	7 368	16 599	45 666
2012–13	11 127	6 879	2 157	6 468	11 241	37 928
2013–14	9 776	6 775	1 517	7 224	16 504	41 882
2014–15 s	9 233	5 534	1 418	7 574	14 552	38 389
2015–16 f	10 512	5 680	1 787	7 537	15 828	41 411
% change 2014–15 to 2015–16	14	3	26	–0	9	8

f ABARES forecast. **s** ABARES estimate.

Note: Includes barley, canola, chickpeas, faba beans, field peas, lentils, linseed, lupins, oats, safflower, triticale and wheat.

Table 2 Winter crop area, Australia

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha
2005–06	5 595	2 972	969	3 868	7 408	20 837
2006–07	5 673	3 085	810	4 141	6 478	20 215
2007–08	6 314	3 378	876	4 131	7 266	21 988
2008–09	6 296	3 494	1 212	3 979	7 900	22 909
2009–10	6 108	3 491	1 176	3 783	8 272	22 853
2010–11	6 159	3 460	1 220	3 821	7 716	22 401
2011–12	5 968	3 408	1 208	3 840	8 251	22 693
2012–13	5 848	3 454	1 225	3 775	8 094	22 412
2013–14	5 313	3 285	1 108	3 450	8 243	21 420
2014–15 s	5 843	3 387	1 133	3 986	8 273	22 641
2015–16 s	5 871	3 392	1 187	4 033	8 419	22 923
% change 2014–15 to 2015–16	0	0	5	1	2	1

s ABARES estimate.

Note: Includes barley, canola, chickpeas, faba beans, field peas, lentils, linseed, lupins, oats, safflower, triticale and wheat.

Area planted to **summer crops** in 2015–16 is forecast to increase by 1 per cent to around 1.1 million hectares, reflecting a forecast increase in area planted to cotton. Total summer crop production is forecast to fall by 2 per cent to 3.9 million tonnes, reflecting an assumed fall in average yields from 2014–15.

August rainfall was average to above average in most major summer cropping regions in northern New South Wales and southern Queensland. This rainfall increased the level of upper layer soil moisture, which is important for crop planting and establishment.

Area planted to **grain sorghum** is forecast to be largely unchanged in 2015–16 at 651 000 hectares. This reflects an outlook for average spring rainfall in growing regions. Assuming a return to average yields, production is forecast to fall by 4 per cent to 2 million tonnes.

Area planted to **cotton** is forecast to increase by 6 per cent in 2015–16 to 214 000 hectares in response to expected favourable returns from growing cotton, compared with alternative crops. Australian cotton production is forecast to rise by 4 per cent to 470 000 tonnes of cotton lint and 665 000 tonnes of cottonseed. The average storage level of public irrigation dams serving cotton growing regions was around 37 per cent of capacity on 21 August 2015, similar to the level at the same time in 2014.

Area planted to **rice** is forecast to fall by 7 per cent in 2015–16 to 66 000 hectares, reflecting an expected fall in supply of water available for irrigating rice. Production is forecast to decline by 10 per cent to around 655 000 tonnes, largely reflecting the forecast fall in planted area.

Table 3 Summer crop plantings and production, Australia

Year	New South Wales		Queensland		Australia	
	'000 ha	kt	'000 ha	kt	'000 ha	kt
2005–06	776	2 791	645	1 516	1 433	4 352
2006–07	338	1 037	545	1 099	918	2 166
2007–08	398	1 668	791	2 877	1 199	4 567
2008–09	402	1 430	746	2 350	1 156	3 794
2009–10	381	1 405	514	1 342	903	2 764
2010–11	713	2 514	790	1 901	1 514	4 446
2011–12	769	3 101	792	2 394	1 578	5 546
2012–13	702	3 222	687	2 259	1 402	5 533
2013–14	575	2 345	567	1 484	1 154	3 892
2014–15 s	472	2 135	606	1 814	1 090	3 994
2015–16 f	481	2 060	609	1 805	1 102	3 907
% change 2014–15 to 2015–16	2	–3	0	–0	1	–2

f ABARES forecast. **s** ABARES estimate.

Note: State production includes cottonseed, grain sorghum, corn (maize), mung beans, rice, peanuts, soybeans and sunflower. Total for Australia also includes navy beans and small areas and volumes of summer crops in other states.

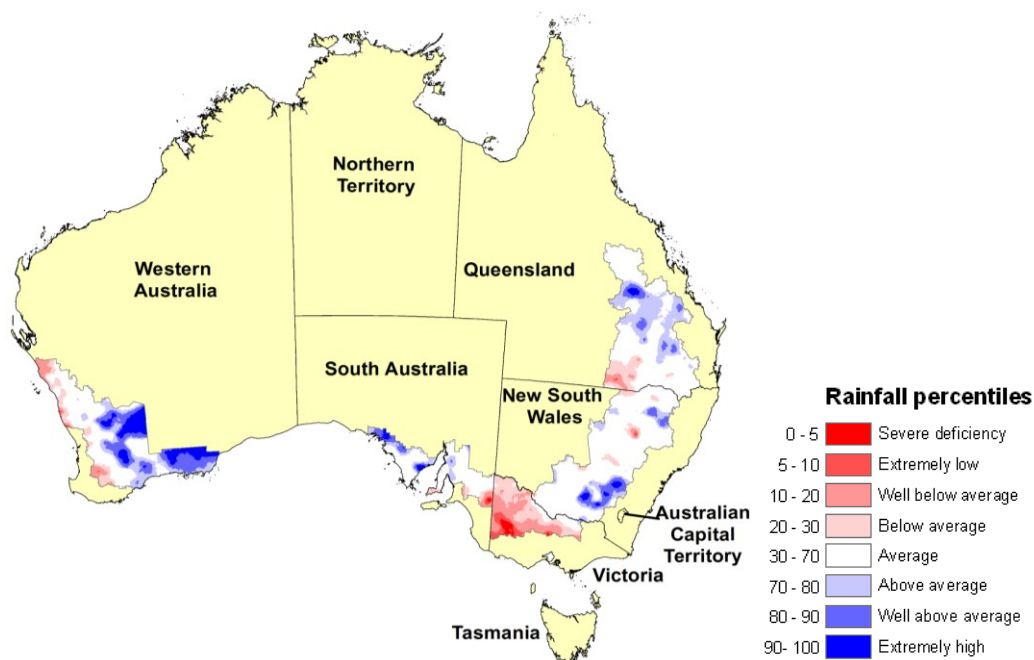
Climatic and agronomic conditions

Spatial rainfall percentile analyses are based on historical monthly rainfall data provided by the Bureau of Meteorology. These rainfall percentile maps show how rainfall recorded during a given period compares with the rainfall recorded in that same period during the entire historical record (1900 to present). To calculate percentiles, the entire rainfall record at a certain point in time is divided into 100 equal parts. The fifth percentile for winter 2015 means that only five per cent of all winters in the historical record have recorded a rainfall total that is at or below the rainfall recorded during winter 2015.

June 2015 rainfall was generally average to above average for cropping regions in Queensland and New South Wales, and mixed for cropping regions in Victoria, South Australia and Western Australia. Rainfall was average to above average during July 2015 in most cropping regions in New South Wales, southern Queensland and Western Australia, and was mostly below average in central Queensland, Victoria and South Australia.

During August 2015 rainfall was generally average to above average across cropping regions in New South Wales, Queensland, South Australia and Western Australia (Map 1). August rainfall was below average across most cropping regions in Victoria and across parts of eastern South Australia, western Western Australia and south-west Queensland.

Map 1 Australian rainfall percentiles, 1 to 31 August 2015



Note: Rainfall percentiles are displayed for cropping regions only.

Source: Bureau of Meteorology

The rainfall outlook for September to November 2015 shows the likelihood of exceeding median rainfall for the upcoming three months (Map 2).

The Bureau of Meteorology notes that an El Niño event persists in the tropical Pacific Ocean and that the Indian Ocean is characterised by record warm sea surface temperatures (SSTs). El Niño is usually associated with below average winter and spring rainfall in the eastern half of Australia. In 17 of the 26 El Niño events in Australia since 1900, drier than average seasonal conditions have been widespread. However, the combination of El Niño and the record warm SSTs in the Indian Ocean means that chances of a wetter or drier than average three months in

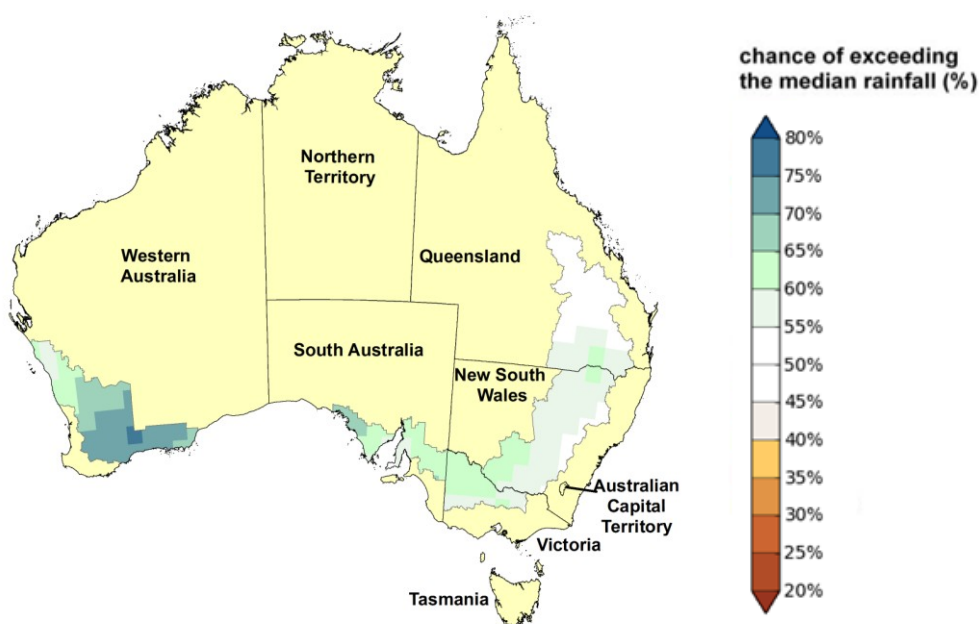
the eastern half of the country are roughly equal and chances of above average rainfall across Western Australia and South Australia are increased. This pattern of SSTs in the Pacific and Indian oceans partially resembles the 1997–98 El Niño, which was also a strong event but had only minor impacts on Australian rainfall patterns. The combination of warm tropical Pacific and warm Indian Ocean is unusual.

Climate models suggest that the current El Niño event is likely to peak towards the end of 2015 and weaken in the first quarter of 2016.

Currently, the Indian Ocean Dipole (IOD) is neutral. The IOD is commonly measured by an index that is the difference between SST anomalies in the western and eastern equatorial Indian Ocean. Three out of five international models suggest an increased chance of a positive IOD event developing during spring 2015. Positive IOD events are typically associated with decreased winter and spring rainfall over southern and central Australia. However, the widespread warmth across the Indian Ocean may offset this historical influence.

In its latest three-month rainfall outlook (September to November 2015), issued on 27 August 2015, the Bureau of Meteorology forecast that wetter than average conditions were more likely for most cropping regions in New South Wales, Victoria, South Australia and Western Australia. The outlook favours close to average conditions across most cropping regions in Queensland (Map 2).

Map 2 Rainfall outlook, September to November 2015



Note: Rainfall outlook is displayed for cropping regions only.

Source: Bureau of Meteorology

The temperature outlook for spring (September to November) 2015 favours cooler than average days and warmer than average nights across most cropping regions in Western Australia. Cooler than average days and average night-time temperatures are more likely across South Australia, Victoria and southern New South Wales. Warmer than average daytime and night-time temperatures are more likely in cropping regions in northern New South Wales and Queensland.

Maps 3 and 4 show the relative levels of modelled upper layer (~0.2 metres) and lower layer (~0.2 to ~1.5 metres) soil moisture for cropping zones across Australia as at 30 August 2015.

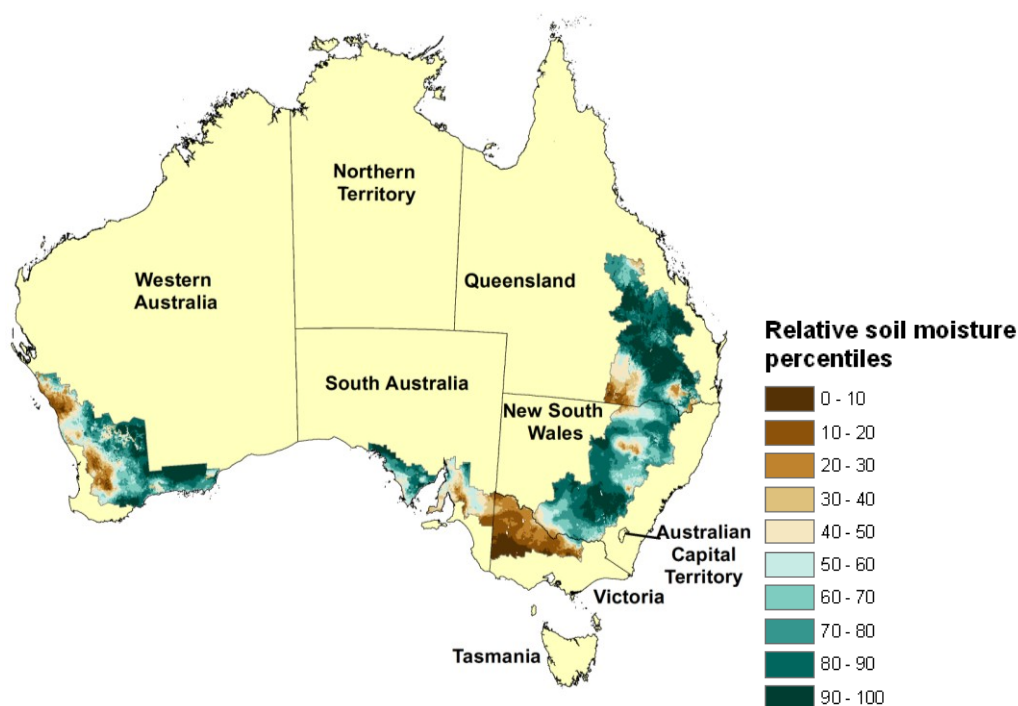
Soil moisture estimates are relative to the standard climatological 1961–90 reference period and presented in percentiles.

The 90th to 100th percentiles in maps 3 and 4 indicate where the estimated soil moisture level for August 2015 falls into the wettest 10 per cent of estimated soil moisture levels for that month during the 1961–90 reference period. The 0 to 10th percentiles indicate where the estimated soil moisture levels for August 2015 falls into the driest 10 per cent of estimated soil moisture levels for that month during the 1961–90 reference period. These data are from a collaborative project between the Bureau of Meteorology, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and ABARES that estimates soil moisture and other components of water balance at high resolution across Australia.

Upper layer soil moisture responds quickly to seasonal conditions and will often show a pattern that reflects rainfall and temperature events of the same month. Lower layer soil moisture is a larger, deeper store that is slower to respond to seasonal conditions and tends to reflect the accumulated effects of events that have occurred over longer periods.

Relative upper layer soil moisture as at 30 August 2015 (Map 3) was predominantly average to above average throughout most cropping regions in New South Wales, Queensland, South Australia and Western Australia. Relative upper layer soil moisture at the end of August 2014 was below average in Victoria and some isolated cropping regions in southern Queensland, South Australia and Western Australia.

Map 3 Upper layer soil moisture, as at 30 August 2015

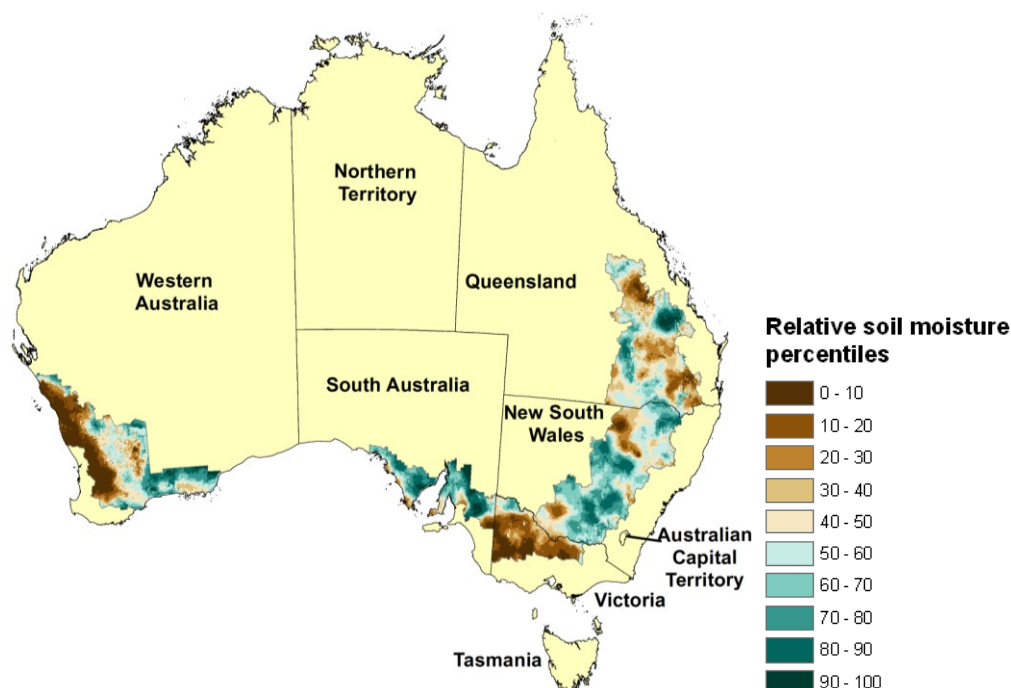


Note: Relative upper layer soil moisture displayed for wheat–sheep zone only.

Source: ABARES; Bureau of Meteorology (Australian Water Availability Project); CSIRO

Relative soil moisture in the lower layer as at 30 August 2015 (Map 4) was average to above average in many areas of the cropping zone in the eastern states (including South Australia). However, in large areas of the cropping zone in southern and northern New South Wales, Victoria, Queensland and Western Australia it was below average. Producers in these areas will be reliant on timely in-crop spring rainfall.

Map 4 Lower layer soil moisture, as at 30 August 2015



Note: Relative lower layer soil moisture displayed for wheat–sheep zone only.

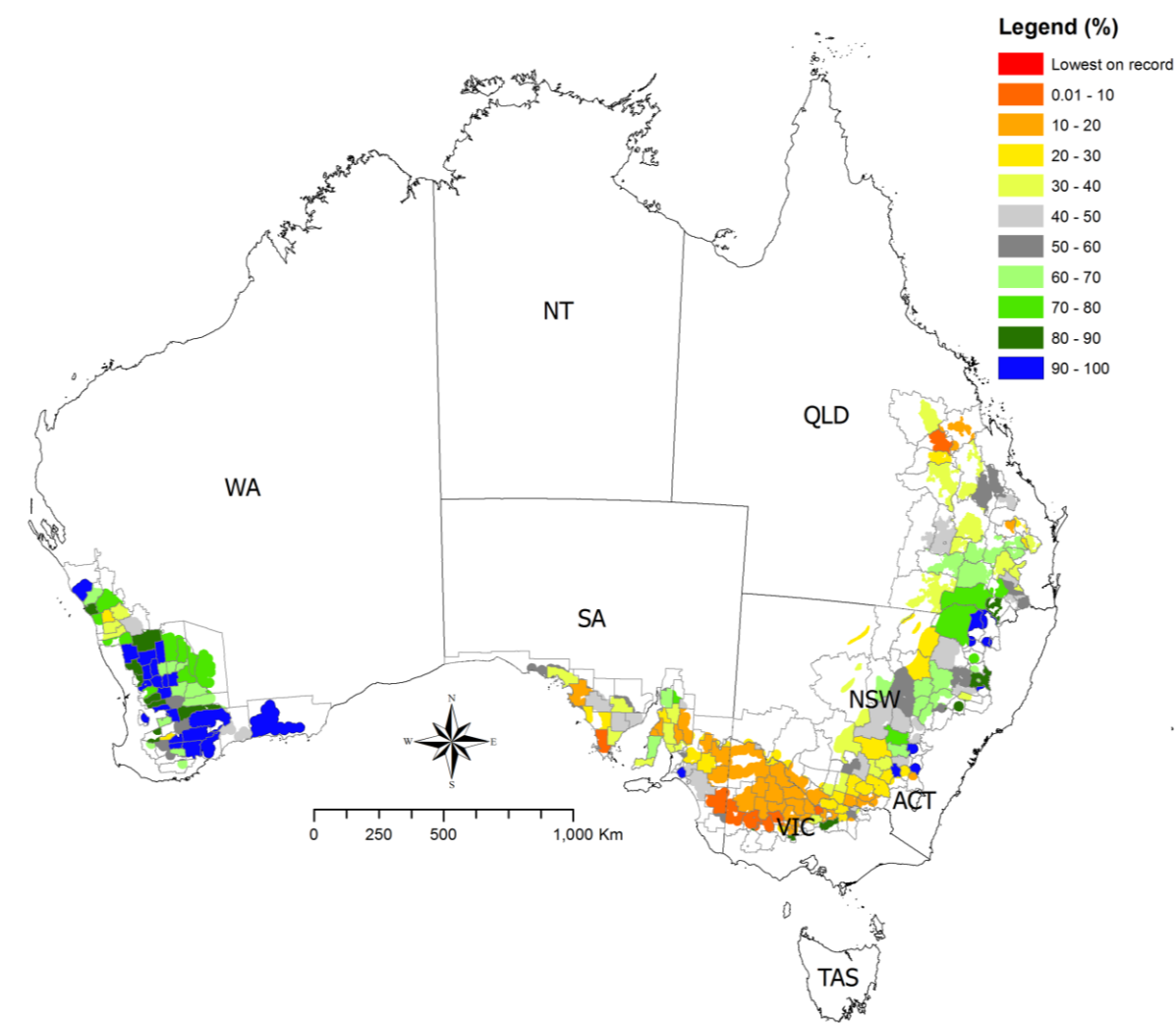
Source: ABARES; Bureau of Meteorology (Australian Water Availability Project); CSIRO

The Queensland Alliance for Agriculture and Food Innovation’s shire-scale wheat forecasting system produces yield predictions for wheat. The system combines starting soil moisture conditions with the seasonal outlook, including the most recent trend in the Southern Oscillation Index (SOI).

At the beginning of September 2015, forecast wheat yields for cropping regions across Australia are variable (Map 5). Parts of southern Queensland, northern and central New South Wales and much of Western Australia are showing an increased chance (between 60 per cent and 100 per cent) of recording above average yield, largely as a result of above average rainfall in recent months. In contrast, the chance of above average yields (between 0 per cent and 30 per cent) being recorded in central Queensland, parts of southern and north-western New South Wales, Victoria and parts of South Australia is decreased.

This wheat yield forecast is based on climate data up to the beginning of September 2015 and projected climate data after this date. The projected climate data are drawn from historical analogue years based on similarity to the prevailing phase of the SOI. The prevailing SOI phase during the two months preceding this forecast was ‘consistently negative’.

Map 5 Forecast median shire wheat yield ranked relative to all years



Source: Queensland Alliance for Agriculture and Food Innovation

Table 4 Rainfall in major cropping districts

District	District no.	June median mm	June 2015 mm	July median mm	July 2015 mm	August median mm	August 2015 mm
New South Wales							
NW Plains (W)	52	33	54	30	45	19	21
NW Plains (E)	53	37	61	37	48	29	29
NW Slopes (N)	54	38	53	42	55	37	44
NW Slopes (S)	55	43	67	42	43	40	40
N Tablelands (N)	56	43	40	45	46	42	44
CW Plains (S)	50	38	36	37	60	30	28
CW Plains (N)	51	33	56	28	38	23	23
CW Slopes (N)	64	40	64	45	55	36	29
CW Slopes (S)	65	47	35	50	83	46	51
C Tablelands (N)	62	42	46	46	51	45	40
C Tablelands (S)	63	54	39	57	71	59	68
Riverina (W)	75	32	51	30	39	32	30
Riverina (E)	74	44	67	41	46	43	54
SW Slopes (N)	73	58	63	60	88	62	82
SW Slopes (S)	72	93	80	102	108	114	111
Victoria							
N Mallee	76	26	23	29	18	30	16
S Mallee	77	33	31	33	26	36	18
N Wimmera	78	42	36	42	29	43	19
S Wimmera	79	58	43	64	51	65	25
Lower North	80	41	33	40	30	39	25
Upper North	81	54	36	55	47	52	28
Lower North East	82	107	55	114	114	118	91
North Central	88	80	37	83	80	85	46
Western Plains	89	57	44	60	55	67	33
West Coast	90	85	60	90	85	93	58
Queensland							
Central Highlands	35	28	30	17	7	13	27
Maranoa	43	25	54	22	30	19	20
W Darling Downs	42	27	42	29	38	19	27
E Darling Downs	41	30	22	32	29	24	25
Moreton S Coast	40	37	35	37	12	29	39

Table 4 Rainfall in major cropping districts (continued)

District	District no.	June median mm	June 2015 mm	July median mm	July 2015 mm	August median mm	August 2015 mm
South Australia							
Upper South East	25B	50	21	53	48	56	32
Murray Mallee	25A	31	13	31	30	35	25
Murray River	24	29	16	27	24	30	24
East Central	23	74	27	76	69	74	65
Yorke Peninsula	22A	53	25	57	43	53	48
Lower North	21	43	26	44	36	47	51
Upper North	19	26	43	29	24	27	34
Western Agricultural	18	30	23	29	22	28	40
Western Australia							
North Coast	8	71	49	65	76	48	42
Central Coast	9	145	73	141	98	112	82
Northern Central	10	54	33	51	66	43	49
South Central	10A	56	35	59	38	51	55
South East	12	19	20	18	22	16	30

Note: Median rainfall is calculated over the period 1900 to 2015. Australian rainfall districts are shown in Map 6.

Source: Bureau of Meteorology monthly district rainfall reports

Map 6 Australian rainfall districts



Note: Displayed for major cropping districts only. See Table 4 for district names and observed district rainfall.

Source: Bureau of Meteorology

Crop conditions and production forecasts, by state

New South Wales

Seasonal conditions were generally favourable during winter in most cropping regions in New South Wales, despite the presence of a strong El Niño event. In the southern cropping zone, rainfall was well above average when crops were flowering. In the northern cropping zone, crops were not planted in some areas in the north-west because of unfavourable conditions earlier in the season. However, crops in the north-east, and those that were planted in the north-west, benefited from rainfall in August and most are in a satisfactory condition.

In its three-month rainfall outlook for spring, issued on 27 August 2015, the Bureau of Meteorology forecast the chance of rainfall exceeding the median in the southern and central cropping zones at more than 50 per cent. In the northern cropping zone, it forecast the chance of rainfall exceeding the median at around 50 per cent.

Total **winter crop** production in New South Wales is forecast to increase by 14 per cent in 2015–16 to 10.5 million tonnes, reflecting the expectation that increases in production of wheat, barley and pulse crops will more than offset a small forecast fall in canola production. Average yields are forecast to be higher than last season, reflecting favourable seasonal conditions in the central and southern cropping zones.

Wheat production is forecast to increase by 15 per cent in 2015–16 to 7.2 million tonnes, driven by a forecast 15 per cent increase in average yield to around 1.9 tonnes a hectare. Area planted to wheat is estimated to have remained largely unchanged at around 3.9 million hectares.

Barley production is forecast to increase by 14 per cent in 2015–16 to around 1.4 million tonnes, reflecting an estimated increase in planted area and a forecast increase in average yield. Planted area is estimated to have increased by 5 per cent to 670 000 hectares and average yield is forecast to increase by 9 per cent to 2 tonnes a hectare.

Canola production is forecast to fall by 8 per cent in 2015–16 to around 833 000 tonnes, reflecting an estimated decline in planted area in response to less favourable returns than barley at the time of planting. Average yield is forecast to be 8 per cent higher than last season, at 1.5 tonnes a hectare, because of more favourable seasonal conditions in southern New South Wales.

Table 5 Winter crop forecasts, New South Wales, 2015–16

Crop	Area '000 ha	Yield t/ha	Production kt	Area change %	Prod. change %
Wheat	3 900	1.85	7 215	0	15
Barley	670	2.02	1 353	5	14
Canola	555	1.50	833	–15	–8

Note: Yields are based on area planted.

Total area planted to **summer crops** in New South Wales is forecast to increase by 2 per cent in 2015–16 to 481 000 hectares. Total summer crop production is forecast to be around 2.1 million tonnes.

The planting window for summer crops in northern New South Wales runs to around mid January.

Area planted to **grain sorghum** is forecast to be largely unchanged in 2015–16 at 205 000 hectares. Grain sorghum production is forecast to fall by 6 per cent to 707 000 tonnes, which reflects an assumed fall in average yield.

Area planted to **cotton** is forecast to rise by 7 per cent in 2015–16 to 139 000 hectares, because more favourable returns are expected from growing cotton compared with production alternatives. Cotton production is forecast to increase by 6 per cent to 309 000 tonnes of cotton lint and around 437 000 tonnes of cottonseed. Average yield is assumed to fall by 1 per cent to 2.2 tonnes a hectare.

Area planted to **rice** is forecast to decline by 7 per cent in 2015–16 to 65 000 hectares, reflecting an expected decline in supply of water available to irrigate rice. Production is forecast to fall by 10 per cent to 650 000 tonnes, reflecting the forecast decline in planted area and an assumed 3 per cent fall in average yield.

Table 6 Summer crop forecasts, New South Wales, 2015–16

Crop	Area	Yield	Production	Area change	Prod. change
	'000 ha	t/ha	kt	%	%
Grain sorghum	205	3.45	707	0	–6
Cotton lint	139	2.22	309	7	6
Cottonseed	139	3.14	437	7	6
Rice	65	10.00	650	–7	–10

Note: Yields are based on area planted.

Queensland

Favourable winter rainfall has improved the winter crop prospects in Queensland. Rainfall in south-western Queensland was above average and was average to below average in most other cropping regions in Queensland.

In its latest rainfall outlook, issued on 27 August 2015, the Bureau of Meteorology forecast a 30 per cent to 40 per cent chance of rainfall exceeding the median in Queensland's cropping regions in September 2015. Harvesting of winter crops in Queensland is expected to begin in late September.

Total **winter crop** production in Queensland is forecast to rise by 26 per cent in 2015–16 to 1.8 million tonnes, largely driven by forecast record chickpea production. Total area planted to winter crops is estimated to have risen by 5 per cent in 2015–16 to 1.2 million hectares.

Wheat production is forecast to increase by 7 per cent in 2015–16 to around 1.1 million tonnes. Area planted to wheat is estimated to have fallen by 11 per cent to around 750 000 hectares.

Chickpea production is forecast to more than double in 2015–16 to a record 518 000 tonnes. Area planted to chickpeas is estimated to have doubled to 338 000 hectares. The increase in planted area was largely in response to high chickpea prices at planting time.

Table 7 Winter crop forecasts, Queensland, 2015–16

Crop	Area '000 ha	Yield t/ha	Production kt	Area change %	Prod. change %
Wheat	750	1.50	1 125	-11	7
Barley	75	1.71	128	-25	-15
Chickpeas	338	1.53	518	105	158

Note: Yields are based on area planted.

Area planted to **summer crops** in Queensland is forecast to be largely unchanged in 2015–16, at 609 000 hectares. Total summer crop production in Queensland is forecast to fall slightly to 1.8 million tonnes.

Area planted to **grain sorghum** is forecast to remain largely unchanged in 2015–16 at 445 000 hectares. Grain sorghum production is forecast to decline by 2 per cent to 1.3 million tonnes, largely reflecting an assumption of a return to average yields.

The grain sorghum planting window in Queensland runs from September until February. In its latest three-month rainfall outlook (September to November 2015) the Bureau of Meteorology forecast the chance of rainfall exceeding the median during the start of the grain sorghum planting window at between 50 per cent and 60 per cent. Average seasonal conditions are assumed beyond the current three-month rainfall outlook.

The area planted to **cotton** is forecast to rise by 4 per cent in 2015–16 to 75 000 hectares. Cotton production is forecast to increase by 2 per cent to 161 000 tonnes of cotton lint and around 228 000 tonnes of cottonseed. Average yield is assumed to fall by 2 per cent to 2.1 tonnes a hectare.

Table 8 Summer crop forecasts, Queensland, 2015–16

Crop	Area '000 ha	Yield t/ha	Production kt	Area change %	Prod. change %
Grain sorghum	445	2.97	1 320	0	-2
Cotton lint	75	2.15	161	4	2
Cottonseed	75	3.04	228	4	2

Note: Yields are based on area planted.

Victoria

Seasonal conditions have been unfavourable in the major cropping regions in Victoria. Winter rainfall was significantly below average, particularly in August, and soil moisture levels are well below average. Rainfall has been sufficient for crops to continue developing but yield prospects have declined. Sufficient and timely rainfall during spring will be critical given the current condition of crops in Victoria and the below-average levels of soil moisture.

In its latest three-month seasonal outlook (September to November 2015), issued on 27 August 2015, the Bureau of Meteorology forecast the chance of rainfall exceeding the median as above 50 per cent for most key cropping areas in Victoria. The Bureau of Meteorology also forecast cooler than average daytime temperatures in Victoria.

Total **winter crop** production in Victoria is forecast to rise by 3 per cent in 2015–16 to 5.7 million tonnes, which largely reflects an expected increase in yields. However, even with favourable spring rainfall, yields would still be expected to be below average.

Wheat production is forecast to rise by 4 per cent in 2015–16 to around 2.8 million tonnes. Average yield is forecast to increase by 3 per cent, following below average yields in 2014–15.

Barley production is forecast to increase by 6 per cent in 2015–16 to 1.7 million tonnes. Planted area is estimated to have risen by 3 per cent and average yield is forecast to rise by 3 per cent. The estimated increase in area planted to barley is likely to have been at the expense of area planted to canola.

Canola production is forecast to fall by 19 per cent in 2015–16 to 485 000 tonnes. Planted area is estimated to have declined by 19 per cent, reflecting unfavourable seasonal conditions and relatively low prices at the time of planting.

Table 9 Winter crop forecasts, Victoria, 2015–16

Crop	Area '000 ha	Yield t/ha	Production kt	Area change %	Prod. change %
Wheat	1 625	1.75	2 850	1	4
Barley	960	1.82	1 745	3	6
Canola	365	1.33	485	-19	-19

Note: Yields are based on area planted.

South Australia

Timely rainfall in August improved the outlook for 2015–16 winter crops in South Australia, following unfavourable seasonal conditions in early winter. Below average rainfall in many cropping regions in June and July resulted in falling levels of soil moisture. Winter temperatures were below average in parts of the Eyre Peninsula and the northern districts, which slowed crop development.

Yields are forecast to fall slightly but still compare favourably with the 10-year average to 2014–15. Over the 10 years to 2014–15, average yields for wheat, barley and canola in South Australia were 1.7 tonnes a hectare, 1.9 tonnes a hectare and 1.2 tonnes a hectare, respectively.

In its latest three-month rainfall outlook for spring (September to November), issued on 27 August 2015, the Bureau of Meteorology forecast the likelihood of rainfall exceeding the median in most cropping regions in South Australia at 60 per cent to 65 per cent.

Total **winter crop** production in South Australia is forecast to be largely unchanged in 2015–16 at 7.5 million tonnes, reflecting an expected decline in average yields. Area planted to winter crops is estimated to be 1 per cent higher in 2015–16, at around 4 million hectares.

Wheat production is forecast to fall by 3 per cent in 2015–16 to around 4.5 million tonnes, reflecting a forecast decline in average yield from 2014–15. Area planted to wheat is estimated to have been largely unchanged at 2.4 million hectares.

Barley production is forecast to increase by 4 per cent in 2015–16 to 2 million tonnes. Area planted to barley is estimated to have increased by 7 per cent to 935 000 hectares, reflecting expected favourable returns compared with production alternatives. However, average yield is forecast to fall by 4 per cent to 2.1 tonnes a hectare.

Canola production is forecast to fall by 14 per cent in 2015–16 to 281 000 tonnes, largely reflecting an estimated 21 per cent decline in planted area to 225 000 hectares. If realised, this would be the smallest area planted to canola in South Australia since 2010–11. The estimated fall in planted area was a response by producers to relatively unfavourable returns from growing canola compared with barley and pulse crops.

Table 10 Winter crop forecasts, South Australia, 2015–16

Crop	Area	Yield	Production	Area change	Prod. change
	'000 ha	t/ha	kt	%	%
Wheat	2 360	1.92	4 531	0	-3
Barley	935	2.14	2 001	7	4
Canola	225	1.25	281	-21	-14

Note: Yields are based on area planted.

Western Australia

Winter crop prospects have improved in Western Australia as a result of timely rainfall events in the grains belt during the end of July and early August. This rainfall increased soil moisture to favourable levels. It followed generally unfavourable seasonal conditions during June to late July, when rainfall was generally average to below average.

In its latest three-month rainfall outlook for spring (September to November), issued on 27 August 2015, the Bureau of Meteorology forecast the chance of spring rainfall exceeding the median in the Western Australian grains belt at 60 per cent to 70 per cent.

Total **winter crop** production in Western Australia is forecast to increase by 9 per cent in 2015–16 to 15.8 million tonnes. Given the late winter rainfall and the favourable rainfall outlook for spring, crop yields for the state are forecast to be above average. However, crops in some southern regions and earlier sown crops in all regions are expected to achieve around average yields.

Wheat production is forecast to increase by 7 per cent in 2015–16 to 9.5 million tonnes, largely reflecting a forecast 6 per cent rise in average yield to around 1.9 tonnes a hectare. Area planted to wheat is estimated to have risen by 1 per cent to 5.2 million hectares.

Barley production is forecast to rise by 10 per cent in 2015–16 to around 3.4 million tonnes, reflecting an estimated 5 per cent rise in planted area and a forecast 4 per cent increase in average yield.

Canola production is forecast to fall by 5 per cent in 2015–16 to 1.5 million tonnes. Area planted to canola is estimated to have fallen by 9 per cent to 1.2 million hectares, which partly reflects an increase in area planted to minor crops such as lupins and oats.

Lupins production is forecast to rise by 39 per cent in 2015–16 to 532 000 tonnes, reflecting an estimated increase in planted area and forecast higher yields.

Table 11 Winter crop forecasts, Western Australia, 2015–16

Crop	Area '000 ha	Yield t/ha	Production kt	Area change %	Prod. change %
Wheat	5 150	1.85	9 528	1	7
Barley	1 350	2.50	3 375	5	10
Canola	1 200	1.29	1 548	–9	–5
Lupins	326	1.63	532	13	39

Note: Yields are based on area planted.

Table 12 Australian winter crop production and area

Crop	Area			Production		
	2013-14	2014-15 s	2015-16 s	2013-14	2014-15 s	2015-16 f
	'000 ha	'000 ha	'000 ha	kt	kt	kt
Wheat	12 613	13 810	13 793	25 303	23 666	25 284
Barley	3 814	3 836	3 996	9 174	8 014	8 623
Canola	2 721	2 712	2 347	3 832	3 464	3 149
Chickpeas	508	425	662	629	555	990
Faba beans	152	164	259	328	284	419
Field peas	245	237	235	342	290	288
Lentils	170	189	213	254	242	321
Lupins	387	443	487	626	549	735
Oats	715	683	808	1 255	1 087	1 409
Triticale	80	126	106	126	225	181

f ABARES forecast. s ABARES estimate.

Note: The crop year refers to crops planted during the 12 months to 31 March. Slight discrepancies may appear between tables as a result of including the Australian Capital Territory and Northern Territory in the Australian totals.

Sources: ABARES; Australian Bureau of Statistics; Pulse Australia

Table 13 Australian summer crop production and area

Crop	Area			Production		
	2013-14	2014-15 s	2015-16 f	2013-14	2014-15 s	2015-16 f
	'000 ha	'000 ha	'000 ha	kt	kt	kt
Grain sorghum	532	651	651	1 282	2 104	2 029
Cottonseed	392	202	214	1 252	636	665
Cotton lint	392	202	214	885	450	470
Rice	75	71	66	819	724	655
Corn (maize)	52	67	66	390	389	406
Soybeans	31	27	31	62	54	63
Sunflower	26	24	23	31	30	29

f ABARES forecast. s ABARES estimate.

Note: The crop year refers to crops planted during the 12 months to 31 March. Slight discrepancies may appear between tables as a result of including the Australian Capital Territory and Northern Territory in the Australian totals.

Sources: ABARES; Australian Bureau of Statistics

Table 14 State production, major crops

Crop	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	area '000 ha	prod. kt	area '000 ha	prod. kt	area '000 ha	prod. kt	area '000 ha	prod. kt	area '000 ha	prod. kt	area '000 ha	prod. kt
Winter crops												
Wheat												
2015–16 f	3 900	7 215	1 625	2 850	750	1 125	2 360	4 531	5 150	9 528	8	35
2014–15 s	3 900	6 275	1 615	2 750	840	1 050	2 350	4 650	5 097	8 900	8	41
2013–14	3 269	6 596	1 536	3 396	758	1 036	1 927	4 254	5 115	9 977	8	43
Five-year average to 2014–15	3 668	7 839	1 641	3 585	865	1 422	2 197	4 611	4 983	8 334	7	36
Barley												
2015–16 f	670	1 353	960	1 745	75	128	935	2 001	1 350	3 375	6	20
2014–15 s	640	1 184	935	1 650	100	150	870	1 931	1 285	3 075	6	24
2013–14	715	1 486	919	2 036	106	180	810	1 892	1 258	3 556	6	25
Five-year average to 2014–15	705	1 515	868	1 918	94	167	844	1 911	1 221	2 638	7	26
Canola												
2015–16 f	555	833	365	485	1	1	225	281	1 200	1 548	1	1
2014–15 s	650	904	453	600	1	0	285	328	1 322	1 630	1	2
2013–14	673	922	439	710	2	1	297	419	1 307	1 777	1	3
Five-year average to 2014–15	711	1 044	456	668	1	1	284	387	1 195	1 344	1	1
Oats												
2015–16 f	250	300	106	175	18	12	80	136	350	777	4	9
2014–15 s	250	270	106	170	20	10	73	132	230	495	4	10
2013–14	268	283	106	213	23	3	54	82	260	661	4	12
Five-year average to 2014–15	262	311	125	217	25	11	63	101	258	521	4	9

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Table 14 State production, major crops (continued)

Crop	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	area	prod.	area	prod.	area	prod.	area	prod.	area	prod.	area	prod.
	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt
Summer crops												
Grain sorghum												
2015–16 f	205	707	0	1	445	1 320	0	0	1	2	0	0
2014–15 s	205	750	0	1	445	1 350	0	0	1	3	0	0
2013–14	175	419	0	0	356	860	0	0	1	2	0	0
Five-year average to 2014–15	202	696	1	2	420	1 257	0	0	1	2	0	0
Cottonseed												
2015–16 f	139	437	0	0	75	228	0	0	0	0	0	0
2014–15 s	130	414	0	0	72	223	0	0	0	0	0	0
2013–14	256	831	0	0	136	421	0	0	0	0	0	0
Five-year average to 2014–15	275	813	0	0	170	452	0	0	0	0	0	0
Rice												
2015–16 f	65	650	0	2	1	4	0	0	0	0	0	0
2014–15 s	70	720	0	2	0	2	0	0	0	0	0	0
2013–14	73	812	1	7	1	0	0	0	0	0	0	0
Five-year average to 2014–15	87	864	0	4	0	1	0	0	0	0	0	0

f ABARES forecast. **s** ABARES estimate.

Note: Zero area or production estimates may appear as a result of rounding to the nearest whole number, where production or area estimates are less than 500 tonnes or 500 hectares.

Sources: ABARES; Australian Bureau of Statistics

Table 15 State production, other crops

Crop	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	area	prod.	area	prod.	area	prod.	area	prod.	area	prod.	area	prod.
	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt
Winter crops												
Chickpeas												
2015–16 f	291	441	13	13	338	518	17	15	3	4	0	0
2014–15 s	209	282	26	52	165	201	21	16	3	4	0	0
2013–14	220	251	48	50	216	296	19	27	5	6	0	0
Five-year average to 2014–15	271	316	41	55	189	243	16	19	5	5	0	0
Field peas												
2015–16 f	48	71	53	52	0	0	112	129	22	36	0	0
2014–15 s	51	66	51	65	0	0	110	127	25	32	0	0
2013–14	50	53	51	68	0	0	112	184	32	37	0	0
Five-year average to 2014–15	44	54	54	73	0	0	111	157	56	53	0	0
Lentils												
2015–16 f	3	3	100	114	0	0	111	205	0	0	0	0
2014–15 s	1	1	86	80	0	0	102	162	0	0	0	0
2013–14	1	1	79	112	0	0	89	141	1	1	0	0
Five-year average to 2014–15	1	1	86	110	0	0	96	158	1	1	0	0
Lupins												
2015–16 f	62	76	32	42	0	0	68	85	326	532	0	0
2014–15 s	56	66	32	26	0	0	68	75	287	382	0	0
2013–14	57	57	28	29	0	0	56	78	246	461	0	0
Five-year average to 2014–15	75	104	35	38	0	0	62	79	372	464	0	0

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Table 15 State production, other crops (continued)

Crop	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	area	prod.	area	prod.	area	prod.	area	prod.	area	prod.	area	prod.
	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt
Summer crops												
Corn (maize)												
2015–16 f	22	188	3	27	40	187	0	0	1	4	0	0
2014–15 s	22	180	3	26	41	176	0	0	1	7	0	0
2013–14	22	209	3	38	26	137	0	0	1	5	0	0
Five-year average to 2014–15	24	206	3	25	37	183	0	1	1	4	0	0
Soybeans												
2015–16 f	20	43	1	1	10	19	0	0	0	0	0	0
2014–15 s	18	38	1	1	8	15	0	0	0	0	0	0
2013–14	20	42	1	1	10	19	0	0	0	0	0	0
Five-year average to 2014–15	21	45	1	1	9	18	0	0	0	0	0	0
Sunflower												
2015–16 f	16	22	1	0	7	7	0	0	0	0	0	0
2014–15 s	17	23	0	0	7	7	0	0	0	0	0	0
2013–14	18	23	0	0	8	8	0	0	0	0	0	0
Five-year average to 2014–15	20	27	0	1	11	12	0	0	0	0	0	0

f ABARES forecast. **s** ABARES estimate.

Note: Zero area or production estimates may appear as a result of rounding to the nearest whole number, where production or area estimates are less than 500 tonnes or 500 hectares.

Sources: ABARES; Australian Bureau of Statistics; Pulse Australia

Table 16 Australian supply and disposal of wheat, oilseeds and pulses

Crop	2008-09 kt	2009-10 kt	2010-11 kt	2011-12 kt	2012-13 kt	2013-14 kt
Wheat						
Production	21 420	21 834	27 410	29 905	22 855	25 303
Apparent domestic use	7 306	4 999	5 663	6 334	6 451	6 680
– seed	694	675	695	649	631	691
– other a	6 612	4 324	4 968	5 685	5 820	5 989
Exports b	14 707	14 791	18 584	24 656	18 644	18 612
Imports b	12	15	12	14	17	20
Canola						
Production	1 844	1 907	2 359	3 427	4 142	3 832
Apparent domestic use a	778	721	810	871	631	969
Exports	1 067	1 187	1 549	2 557	3 512	2 863
Pulses						
Production						
– lupins	708	823	808	982	459	626
– field peas	238	356	395	342	320	342
– chickpeas	443	487	513	673	813	629
Apparent domestic use a						
– lupins	404	470	621	416	290	310
– field peas	104	196	95	130	145	175
– chickpeas	1	1	39	93	1	0
Exports						
– lupins	304	353	186	565	169	316
– field peas	137	162	302	215	177	169
– chickpeas	508	503	474	581	853	629

a Calculated as a residual: production plus imports less exports less any observed or assumed change in stocks and, for wheat only, less seed use. **b** Includes grain and grain equivalent of wheat flour.

Note: Production, use, trade and stock data are on a marketing year basis: October–September for wheat; November–October for canola, peas and lupins. The export data on a marketing year basis are not comparable with financial year export figures published elsewhere.

Sources: ABARES; Australian Bureau of Statistics; Pulse Australia

Table 17 Australian supply and disposal of coarse grains

Crop	2008-09 kt	2009-10 kt	2010-11 kt	2011-12 kt	2012-13 kt	2013-14 kt
Barley						
Production	7 997	7 865	7 995	8 221	7 472	9 174
Apparent domestic use	4 104	3 230	2 631	2 075	2 182	2 218
– seed	221	226	199	166	167	164
– other a	3 884	3 004	2 432	1 909	2 015	2 054
Export	3 892	4 635	5 364	6 146	5 289	6 957
– feed barley	2 254	2 668	3 601	3 758	2 972	3 944
– malting barley	980	1 248	1 062	1 619	1 512	2 273
– malt (grain equivalent)	658	720	700	770	805	740
Oats						
Production	1 160	1 162	1 128	1 262	1 121	1 255
Apparent domestic use	999	954	1 009	1 058	850	1 003
– seed	59	42	41	40	35	35
– other a	940	912	969	1 019	815	968
Export	161	208	118	204	271	252
Triticale						
Production	363	545	355	285	171	126
Apparent domestic use	363	545	355	285	171	126
– seed	18	9	7	5	4	6
– other a	345	536	348	280	167	119
Export	0	0	0	0	0	0
Grain sorghum						
Production	2 692	1 508	1 935	2 239	2 229	1 282
Apparent domestic use	1 694	1 167	984	1 060	1 083	885
– seed	2	3	3	3	3	3
– other a	1 691	1 164	981	1 056	1 080	882
Export b	957	998	341	950	1 179	1 146
Corn (maize)						
Production	376	328	357	451	506	390
Apparent domestic use	363	321	312	346	402	331
– seed	1	1	1	1	1	1
– other a	362	320	311	345	401	330
Export b	67	13	9	46	106	106

a Calculated as a residual: production plus imports less exports less any observed or assumed change in stocks and less seed use. **b** Export volumes are shown in the year of actual export, which is typically one year after production.

Note: Production, use and export data are on a marketing year basis: marketing years are November–October for barley, oats and triticale; March–February for grain sorghum and corn (maize). The export data on a marketing year basis are not comparable with financial year export figures published elsewhere.

Sources: ABARES; Australian Bureau of Statistics; United Nations Commodity Trade Statistics Database (UN Comtrade)

Table 18 Grains and oilseeds prices

Crop	2013 Q4 A\$/t	2014 Q1 A\$/t	2014 Q2 A\$/t	2014 Q3 A\$/t	2014 Q4 A\$/t	2015 Q1 A\$/t	2015 Q2 A\$/t
Wheat							
Domestic: feed, del. Sydney	300	317	327	288	295	300	297
International: US no. 2 hard red winter, fob Gulf a	341	344	356	308	334	323	304
Barley							
Domestic: 2 row feed, del. Sydney	241	301	316	283	284	283	285
Export: feed b	262	278	265	278	299	325	327
Export: malting b	327	304	286	295	326	352	373
International: feed, fob Rouen a	270	274	250	219	247	262	251
Grain sorghum							
Domestic: feed, del. Sydney	310	350	338	323	316	314	328
Export b	383	414	349	326	369	377	354
Oats							
Domestic: feed, del. Sydney	203	261	269	232	221	279	310
International: CME oats nearby contract	257	325	271	265	264	248	221
Corn (maize)							
Domestic: feed, del. Sydney	383	410	403	386	375	370	387
International: US no. 2 yellow corn, fob Gulf a	215	235	230	189	203	222	217
Oilseeds							
Domestic: canola, del. Melbourne	513	524	532	468	470	494	501
Domestic: sunflowers, del. Melbourne	540	569	599	644	603	648	604
International: US no. 2 soybeans, fob Gulf a	568	604	616	504	493	505	497
Pulses							
Domestic: lupins, del. Kwinana	309	349	327	293	322	350	320
Domestic: chickpeas, del. Melbourne	390	437	449	433	449	607	768
Domestic: field peas, del. Melbourne	335	366	389	366	361	433	530
Export: chickpeas b	498	537	534	556	571	618	699
Export: field peas b	420	422	431	468	462	513	575

a Average of daily offer prices made in US\$, converted to A\$ using quarterly average of daily exchange rates. **b** Export unit values reflect the average price received for grain exported over the quarter, not current market prices. These prices are the average unit value (free on board) of Australian exports recorded by the Australian Bureau of Statistics. A long lag time can exist between when exporters negotiate prices and when the product is exported.

Note: Q1 refers to January–March; Q2 refers to April–June; Q3 refers to July–September; Q4 refers to October–December. Prices used in these calculations exclude GST.

Sources: ABARES (compiled from various market sources); Australian Bureau of Statistics