



Australian Government

Australian Bureau of Agricultural and
Resource Economics – Bureau of Rural Sciences

Australian climate and agricultural monthly update

November 2010



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Australian climate and agricultural monthly update – November 2010 information accurate at date of publishing.

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Key issues

Favourable spring production conditions continue across the majority of Australia's eastern winter cropping regions following well above average October rainfall, with above average yields forecast. Dry conditions persist over large parts of south-west Western Australia and below average crop yields are forecast. Water storage levels in the Murray-Darling Basin have increased further during October. The current La Niña event remains well established. The seasonal outlook for November 2010 to January 2011 favours wetter conditions for northern, eastern and south-western Australia.

Summary

October 2010 rainfall was well above average across most of Australia, with the exception of south-west Western Australia where widespread rainfall deficiencies continue. Day time temperatures were generally below average except in the western half of Western Australia where they were above average. Night time temperatures were close to the long-term average across the continent.

Inflows in the Murray-Darling Basin for October 2010 remained above the long-term average. Water storage levels across the Basin increased further during October 2010.

Continued rainfall across most of Australia's eastern winter cropping region has maintained upper layer soil moisture availability and led to generally favourable production conditions. In the eastern states there is a limited supply of young cattle and light lambs to meet restocker and feeder demand. Rainfall deficiencies in south-west Western Australia continue to limit crop and pasture growth with winter crop yields predicted to be below average for most areas.

The current La Niña event remains well established in the Pacific Ocean with models indicating it will persist until at least early 2011. The seasonal outlook for November 2010 to January 2011 favours wetter conditions for most of the continent, particularly for areas of northern, eastern and south-western Australia. Wetter conditions should benefit pasture and crop growth as well as improve surface water and groundwater resources.

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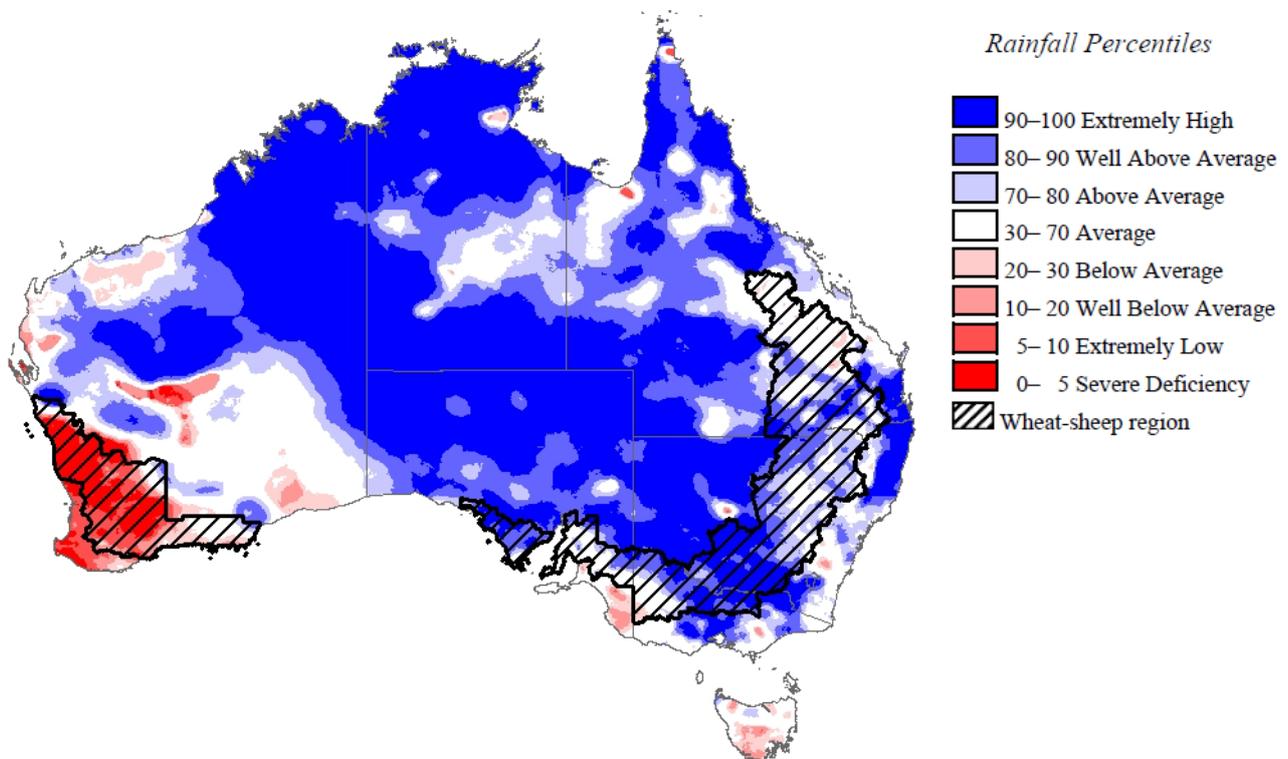
1. Climate

1.1 Rainfall

Rainfall over the last month (October 2010)

October 2010 was Australia's third wettest October on record. The Northern Territory experienced its wettest October on record, beating the previous record set in 2000. Widespread rainfall during October 2010 has maintained favourable conditions for crop and livestock production over much of the country. However, in south-west Western Australia, rainfall deficiencies during October 2010 continued to limited crop and pasture growth. There was also a lack of rainfall over parts of far south-eastern Australia during October 2010.

Rainfall across the Murray-Darling Basin was mostly above average during October 2010. An increase in water storage levels was recorded across the Basin during the month.

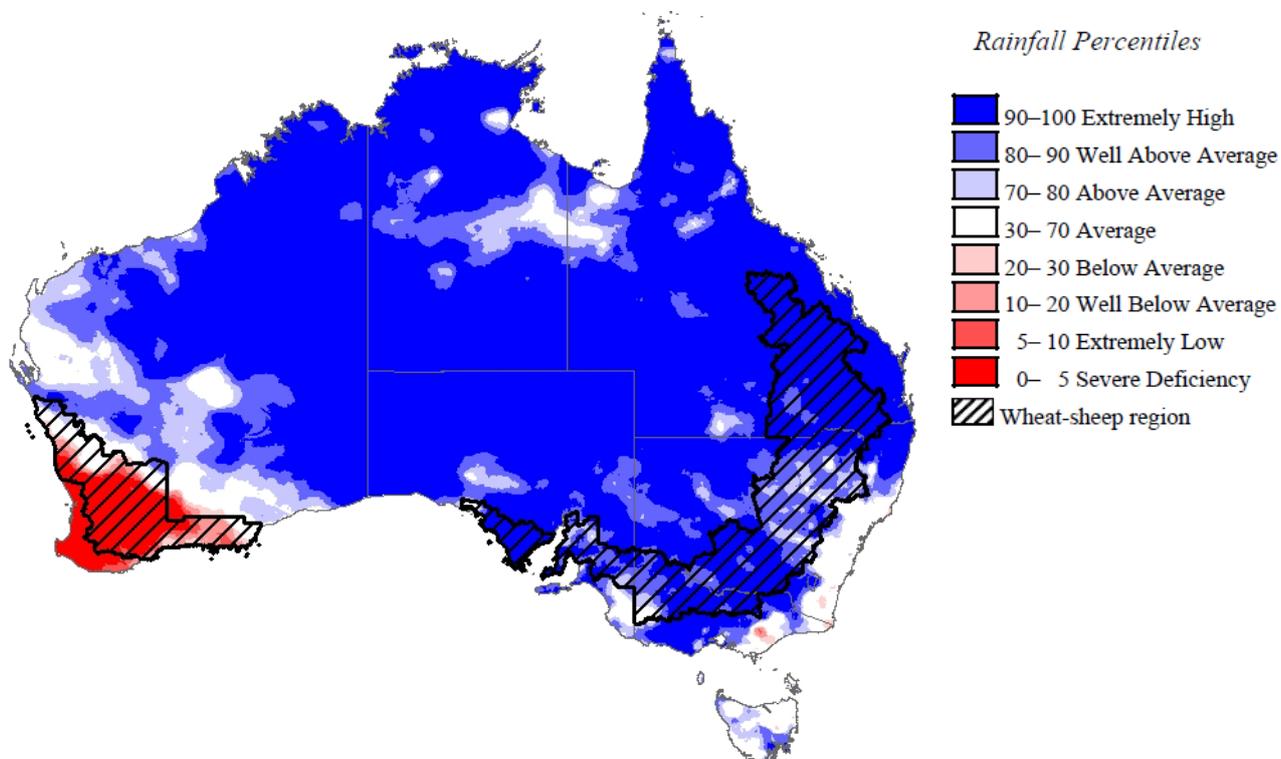


Rainfall percentiles (October 2010)

Ongoing and emerging rainfall situations (August to October 2010)

Above average to extremely high rainfall was recorded across most of the continent during the August to October 2010 period, with some areas receiving average rainfall.

In the south-west of Western Australia severely deficient rainfall in October 2010 maintained and intensified short- and long-term rainfall deficiencies.



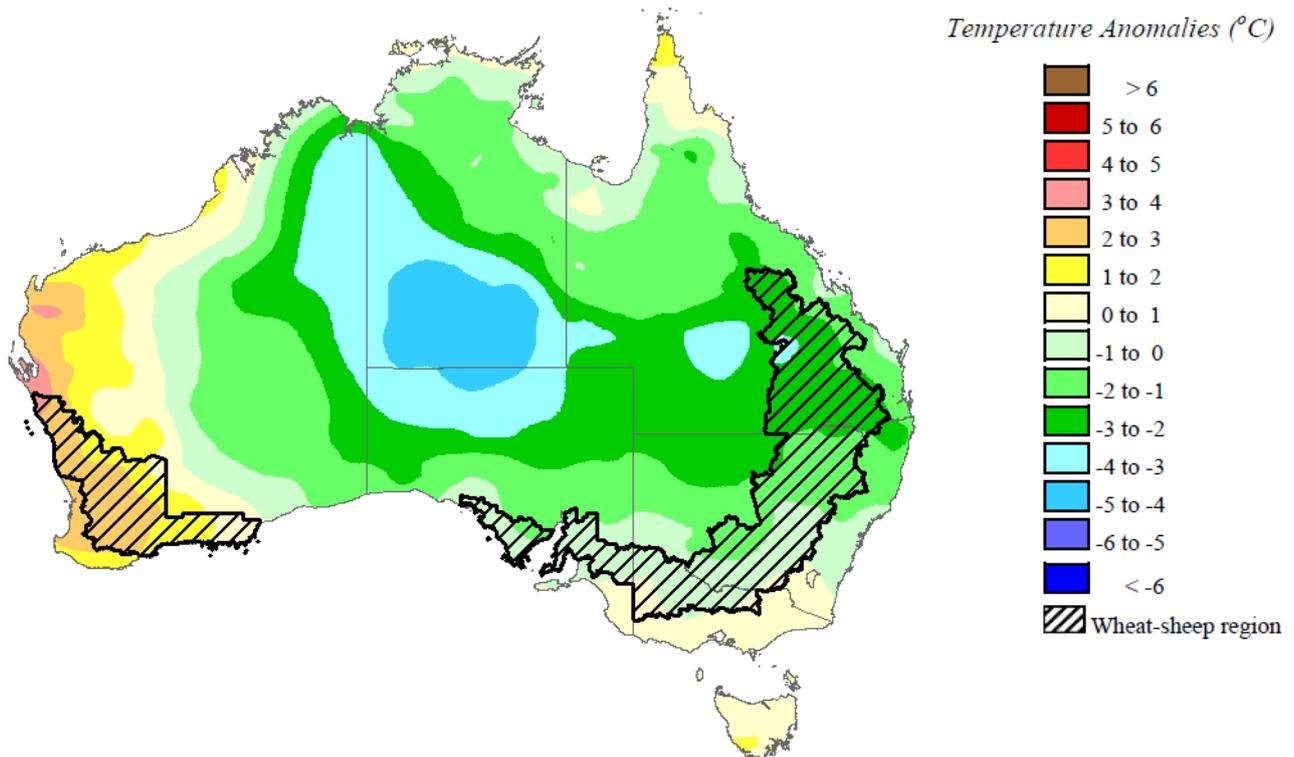
Rainfall percentiles (August to October 2010)

Spatial rainfall analyses are based on historical monthly rainfall data provided by the Bureau of Meteorology. For further information on [rainfall data and the interpretation of percentile analyses](#) go to <http://www.bom.gov.au/climate/austmaps/>.

1.2 Temperature

Mean maximum temperature

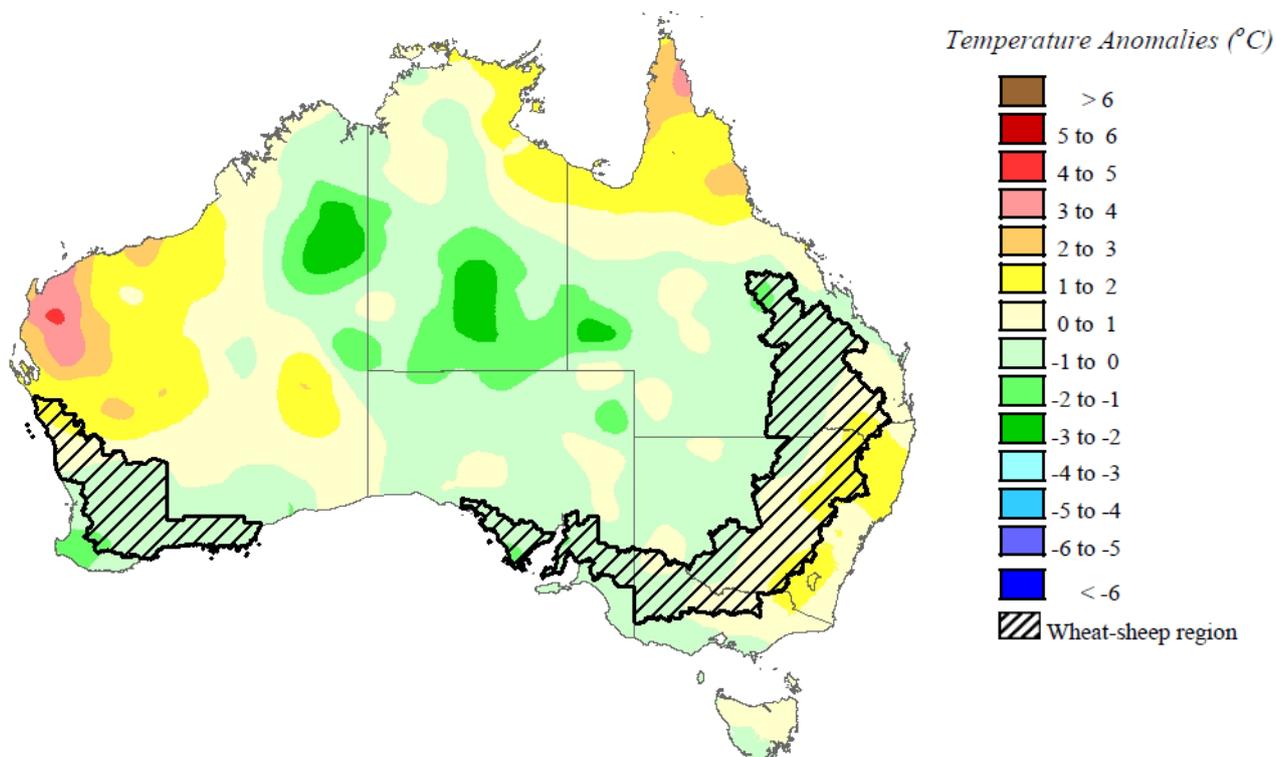
The mean maximum temperature for Australia during October 2010 was below the long-term October average across most of the continent. Maxima anomalies of 3 to 5° C below average were recorded across large parts of central Australia. In contrast, the mean maximum temperature was above the long-term October average across the western half of Western Australia. Maxima anomalies of 2 to 4° C above average were recorded in the far west of Western Australia.



Monthly mean maximum temperature anomalies
(October 2010)

Mean minimum temperature

Mean minimum temperatures for Australia during October 2010 were close to the long-term October average except for parts of northern Queensland and Western Australia where minimum temperatures were up to 3 to 4° C above the long-term October average.



Monthly mean minimum temperature anomalies (October 2010)

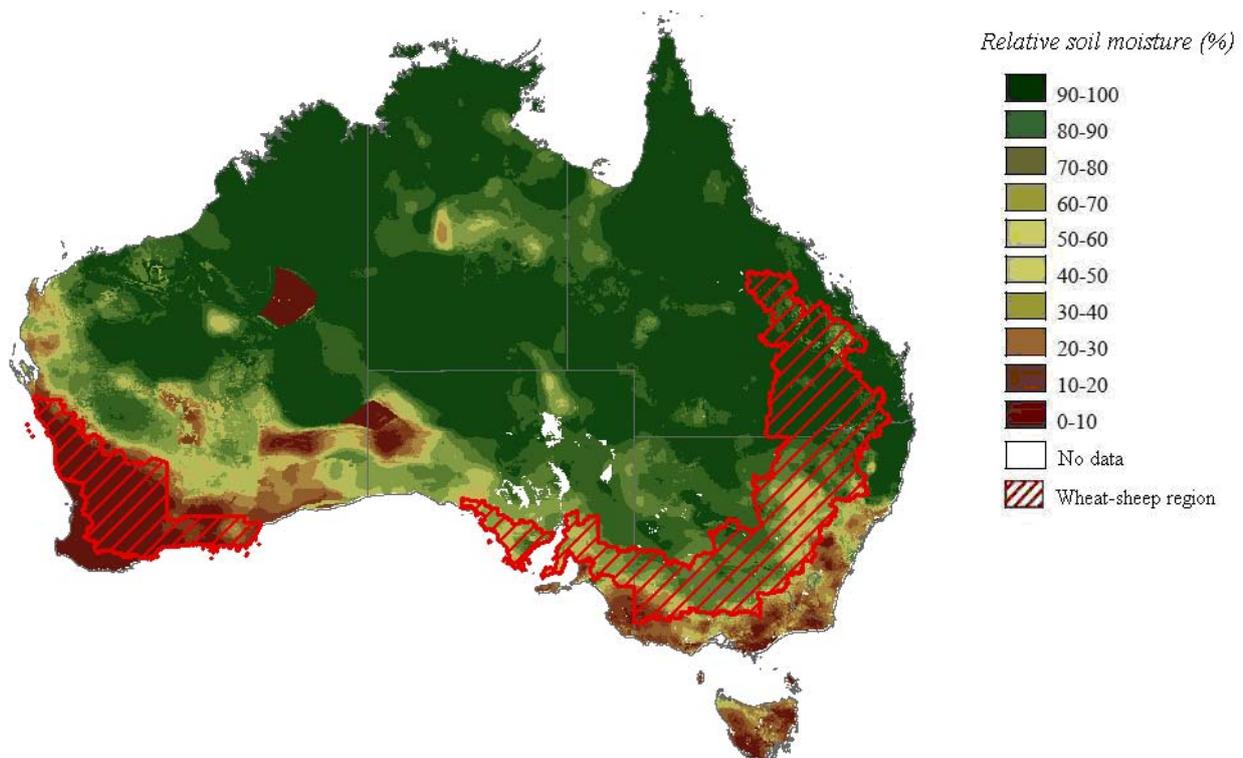
Spatial temperature analyses are based on historical monthly temperature data provided by the Bureau of Meteorology. These temperature anomaly maps show the departure of the maximum and the minimum temperature from the long-term average with respect to the reference period 1961 to 1990. For further [information on temperature anomalies](http://www.bom.gov.au/climate/austmaps/) go to <http://www.bom.gov.au/climate/austmaps/>.

1.3 Relative soil moisture

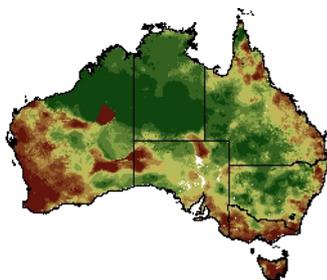
Upper layer soil moisture

Relative soil moisture in the upper layer (20 centimetres) of the soil profile was above average across most of Australia due to the generally wet conditions during October 2010. In south-west Western Australia, relative upper layer soil moisture remained below average and decreased further due to a lack of rainfall. Relative soil moisture deficiencies increased across coastal parts of mainland south-eastern Australia and most of Tasmania.

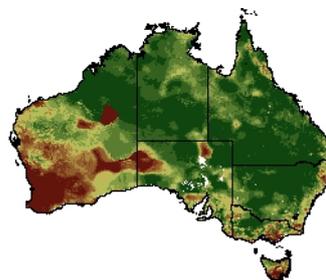
The bulk of plant roots occur in the top 30 centimetres of the soil profile and soil moisture data at the upper layer of the soil profile (0.2 metres) is the most appropriate indication of the availability of water, particularly for germinating and young plants.



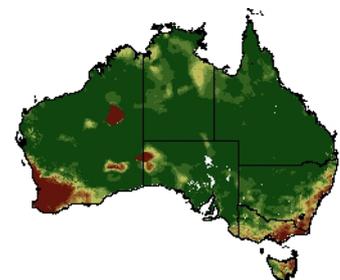
Upper layer soil moisture percentiles
(October 2010)



July



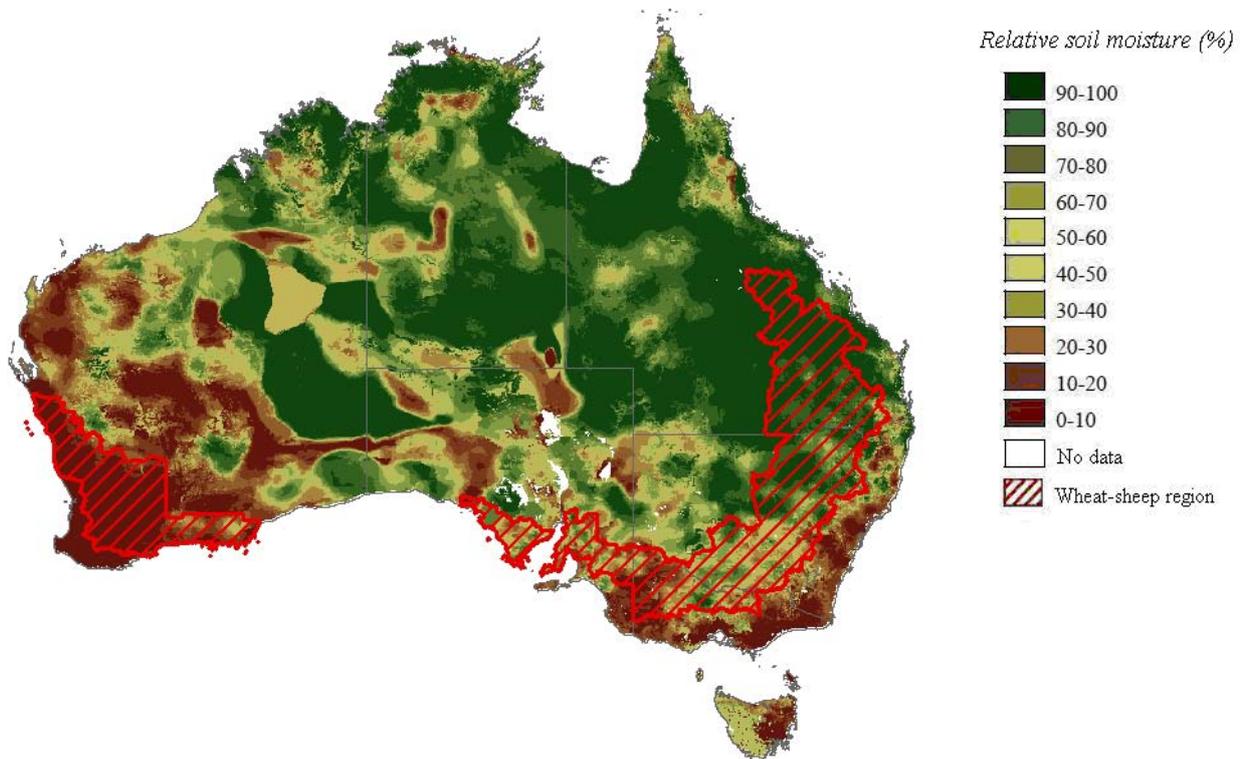
August



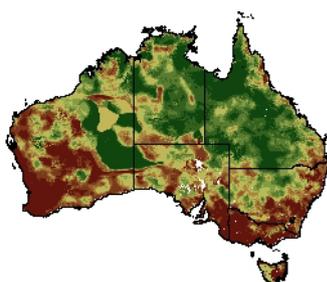
September

Lower layer soil moisture

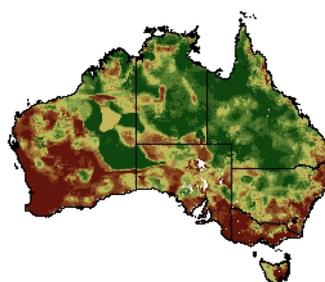
Relative soil moisture levels in the lower layer (approximately 0.2 to 1.5 metres) of the soil profile – often referred to as the ‘subsoil’ – increased slightly during October 2010, notably across central Australia and Queensland. However, lower layer soil moisture levels remained well below average in cropping areas of Western Australia and parts of Victoria and New South Wales, with the result that crops in these areas are likely to be more reliant on in-season rainfall to mature successfully. Lower layer soil moisture is a larger, deeper store that is slower to respond to rainfall and tends to reflect accumulated events over seasonal and longer time scales.



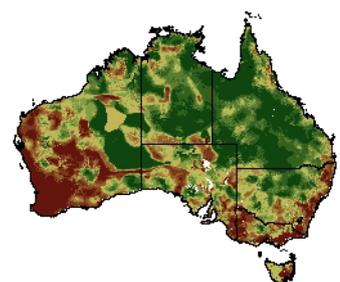
Lower layer soil moisture percentiles (October 2010)



July



August



September

The above maps show the relative levels of modelled upper (approximately 0.2 metres) soil moisture and lower (0.2 to 1.5 metres depth) soil moisture at the end of October 2010. These data come from a collaborative project between the Bureau of Meteorology, CSIRO and the former Bureau of Rural Sciences to develop estimates of soil moisture and other components of the water balance at high resolution across Australia. These maps show soil moisture estimates relative to the long-term average with respect to the reference period 1961 to 1990.

For further [information on relative soil moisture](http://www.daff.gov.au/brs/climate-impact/awap) go to <http://www.daff.gov.au/brs/climate-impact/awap>.

1.4 Climate outlook

El Niño Southern Oscillation (ENSO)

A La Niña event remains well established in the Pacific Ocean. Given the current strength of the event and the outlook from long-range models, the event is expected to persist into at least early 2011.

La Niña periods are usually, but not always, associated with above normal rainfall during the second half of the year across large parts of Australia, most notably eastern and northern regions. Night time temperatures are historically warmer than average and the occurrence of tropical cyclones in northern Australia is typically higher than normal during the cyclone season (November-April).

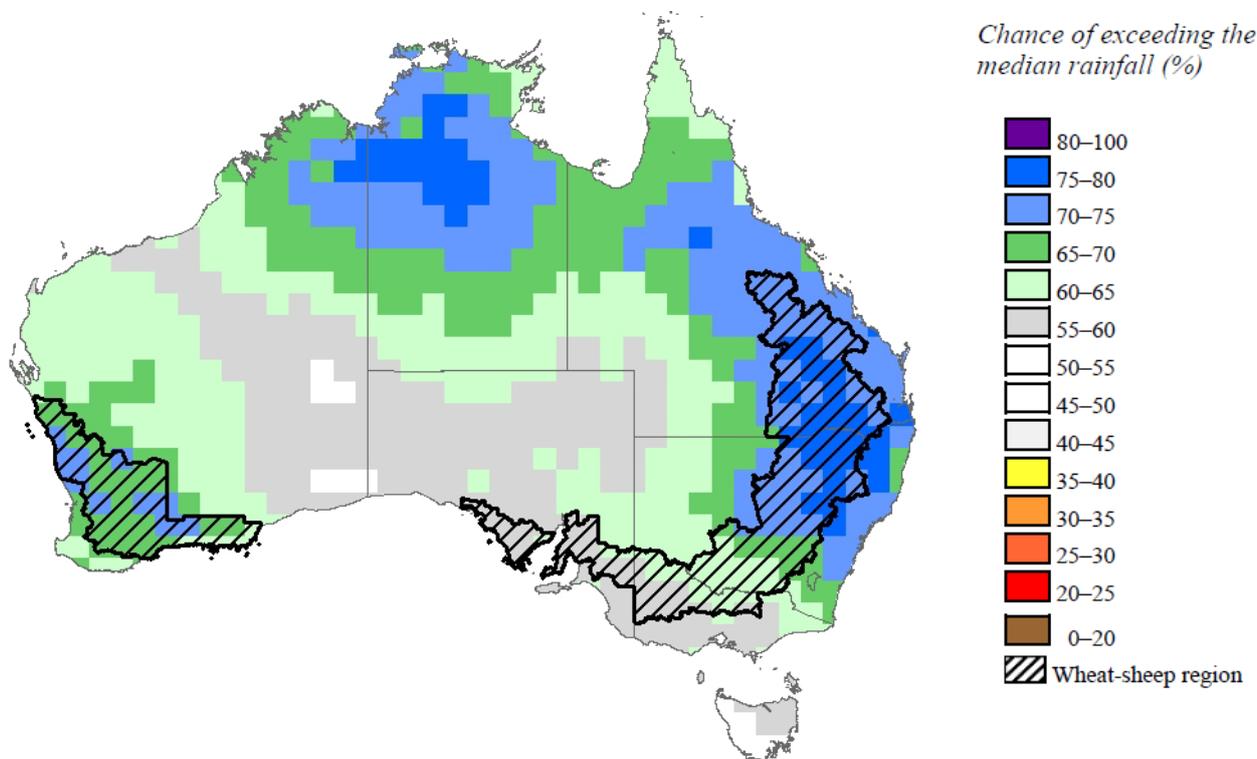
For further information on the Bureau of Meteorology interpretation of the El Niño–Southern Oscillation, go to <http://www.bom.gov.au/climate/enso/>.

The current La Niña event is associated with warm conditions in the Indian Ocean and cool conditions in the equatorial Pacific Ocean, which are influencing the November 2010 to January 2011 rainfall and temperature outlook.

Rainfall outlook

The seasonal outlook for November 2010 to January 2011 favours wetter conditions across most of the continent, particularly for areas of northern, eastern and south-western Australia.

The chance of exceeding median rainfall for November 2010 to January 2011 is over 60 per cent for most of Queensland, the Northern Territory, and New South Wales, as well as for the Kimberley and south-western parts of Western Australia. Chances increase to over 70 per cent for parts of northern, eastern and south-western Australia. Wetter conditions during this period would be favourable for production in these areas.

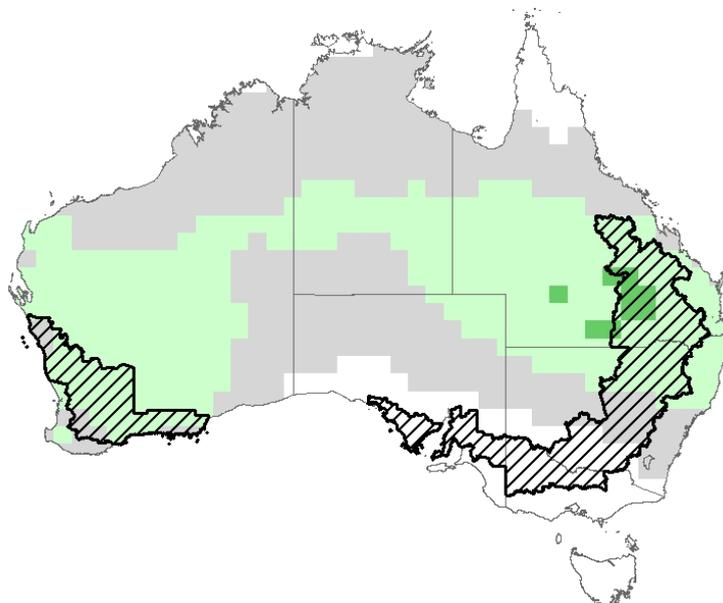
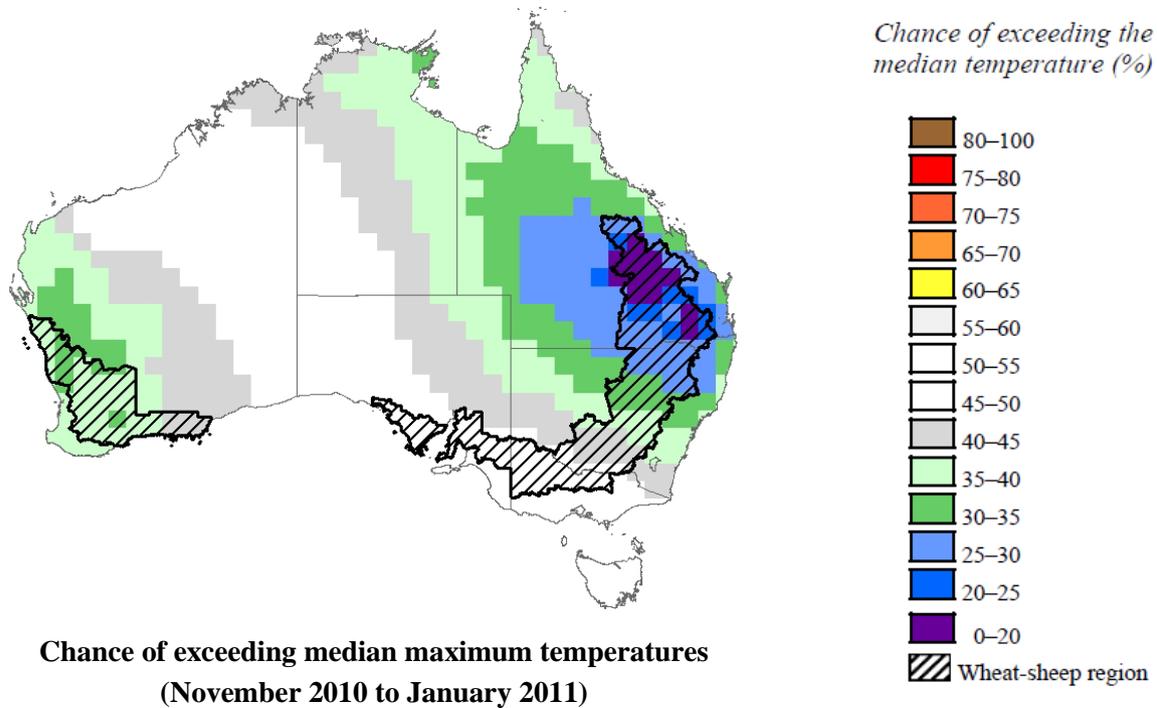


**Chance of exceeding median rainfall
(November 2010 to January 2011)**

Temperature outlook

The temperature outlook for November 2010 to January 2011 favours cooler than average daytime temperatures for large parts of eastern and western Australia, while warmer night-time temperatures are favoured for northern Queensland and the southeast of the continent.

Cooler daytime temperatures and increased rainfall may help maintain high soil moisture levels and benefit pasture and crop growth.



These outlooks are based on the statistics of chance (the odds) and are not categorical predictions.

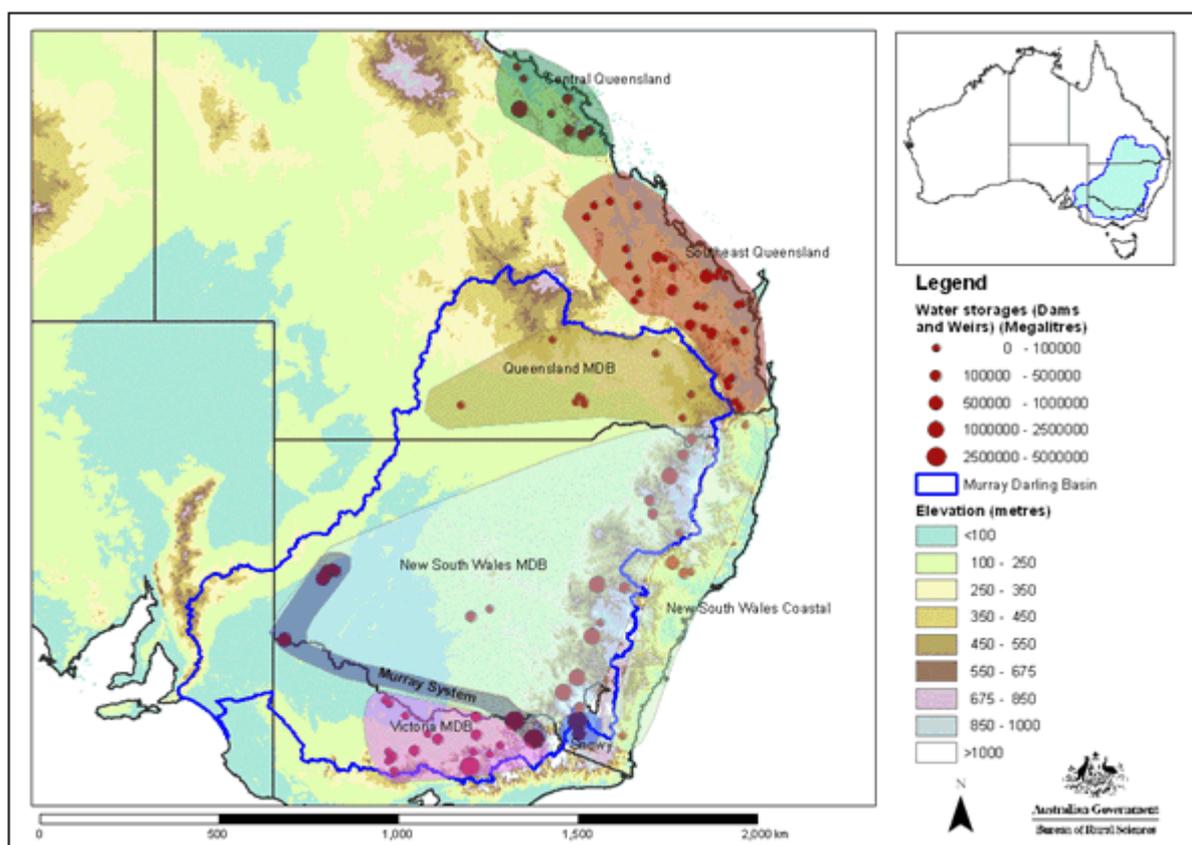
For further [information on these seasonal outlooks and their interpretation](http://www.bom.gov.au/climate/ahead/) go to <http://www.bom.gov.au/climate/ahead/>.

2. Water

2.1 Water storages

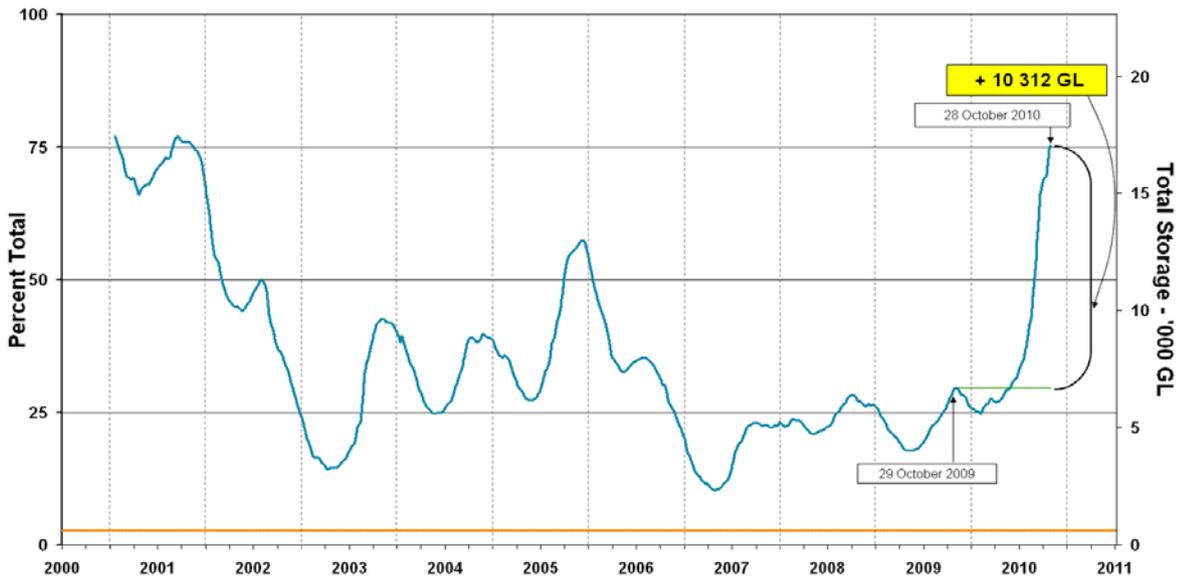
Changes in regional water storage for October 2010 and the previous 12 months are summarised in the table and graphs below (current at 28 October 2010).

Region	Total capacity (GL)	Current volume (GL)	Current volume (%)	Monthly change (GL)	Monthly change (%)	Annual change (GL)
Murray-Darling Basin (MDB)	22560	16971	75	+1517	+7	+10312
Snowy Scheme	5744	1984	35	+200	+4	-151
Murray-Darling Basin Authority (MDBA)	9352	7166	74	+779	+8	+4643
Queensland MDB	185	185	100	0	0	+121
Central Queensland	3154	2985	95	54	2	+388
South-east Queensland	3517	2977	85	+74	+2	+1255
New South Wales MDB	13918	11487	83	+1232	+9	+7703
Coastal New South Wales	1074	843	79	+15	+1	+33
Victoria MDB	8488	5124	60	+268	+3	+2326

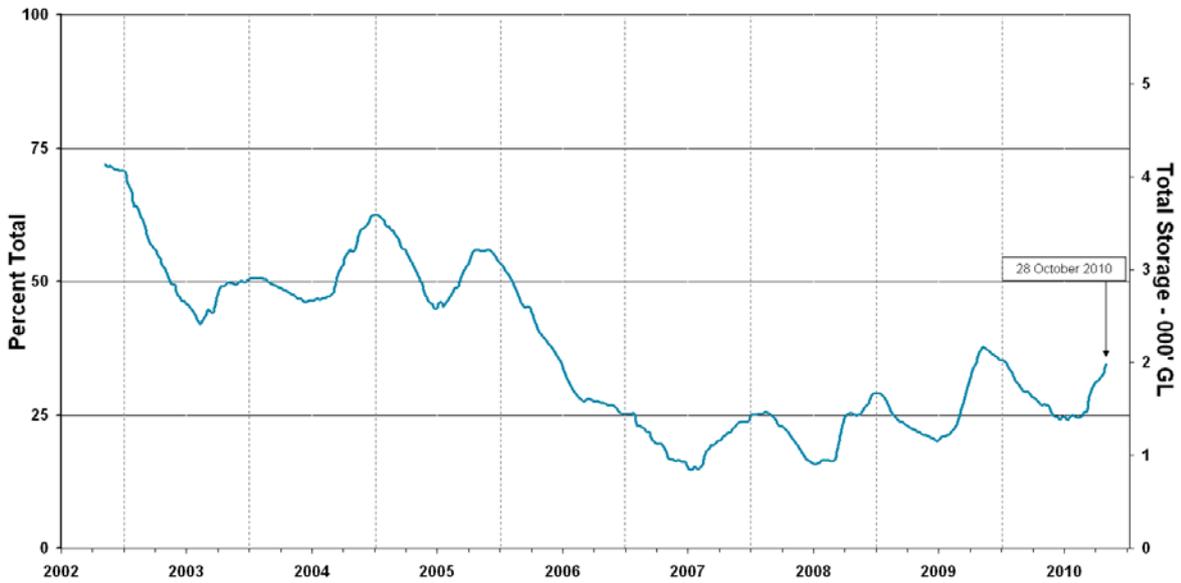


Water storages in Queensland, New South Wales and Victoria: The blue line indicates the extent of the Murray-Darling Basin and the shaded areas denote the coverage of the individual reporting regions.

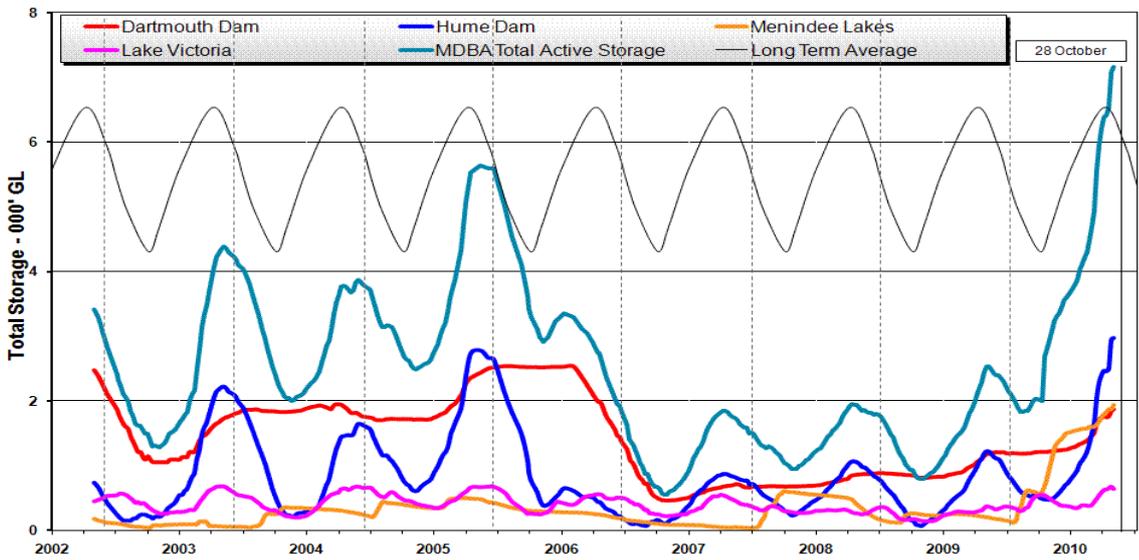
MDB (New South Wales, Victoria and Queensland)



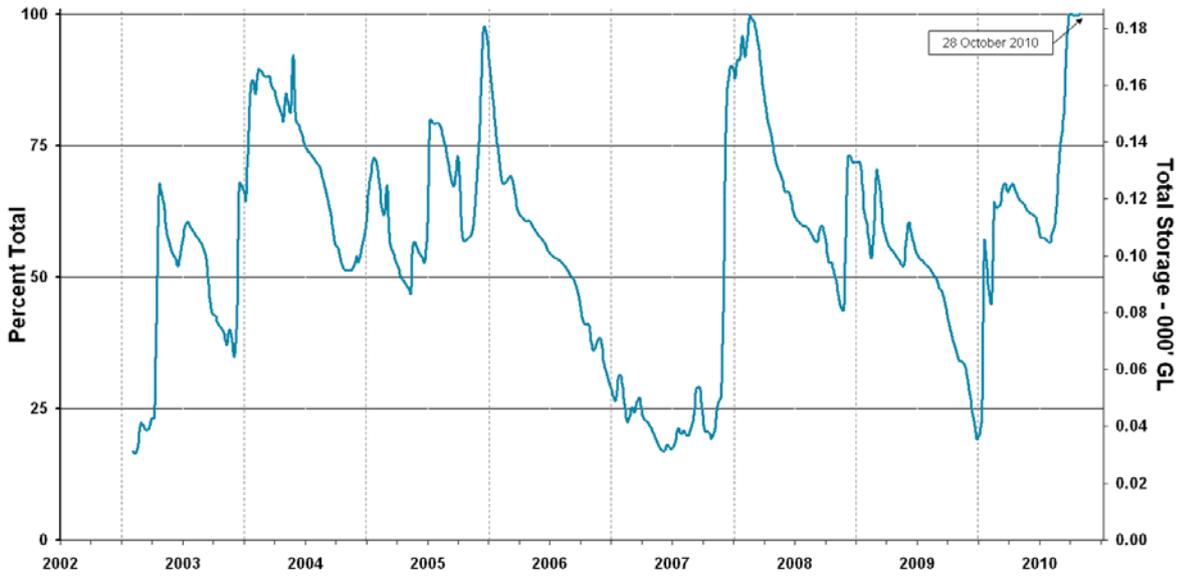
Snowy Scheme



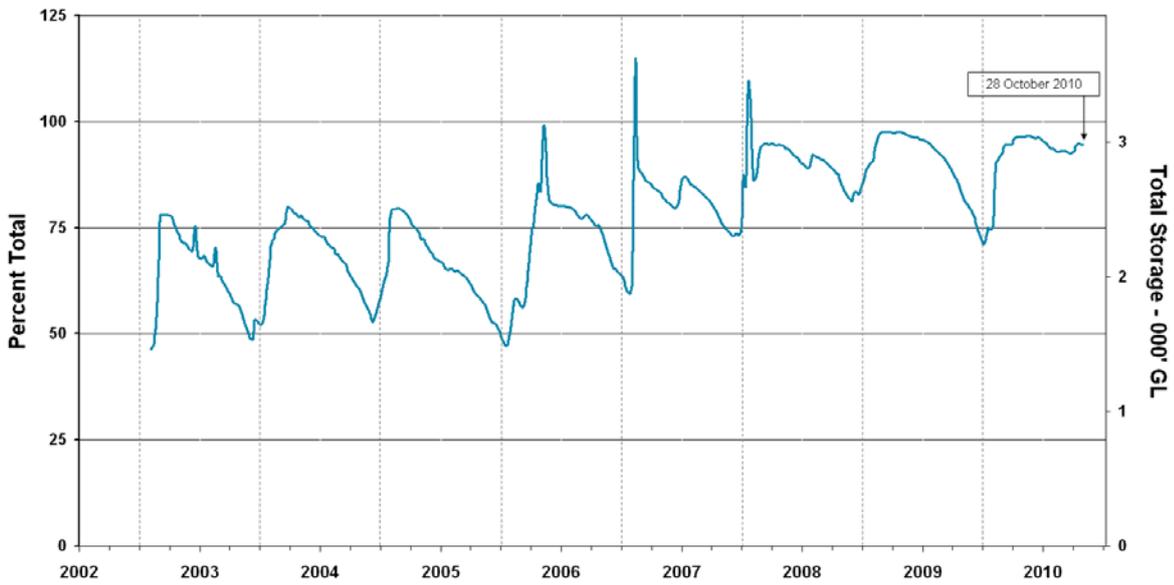
MDBA



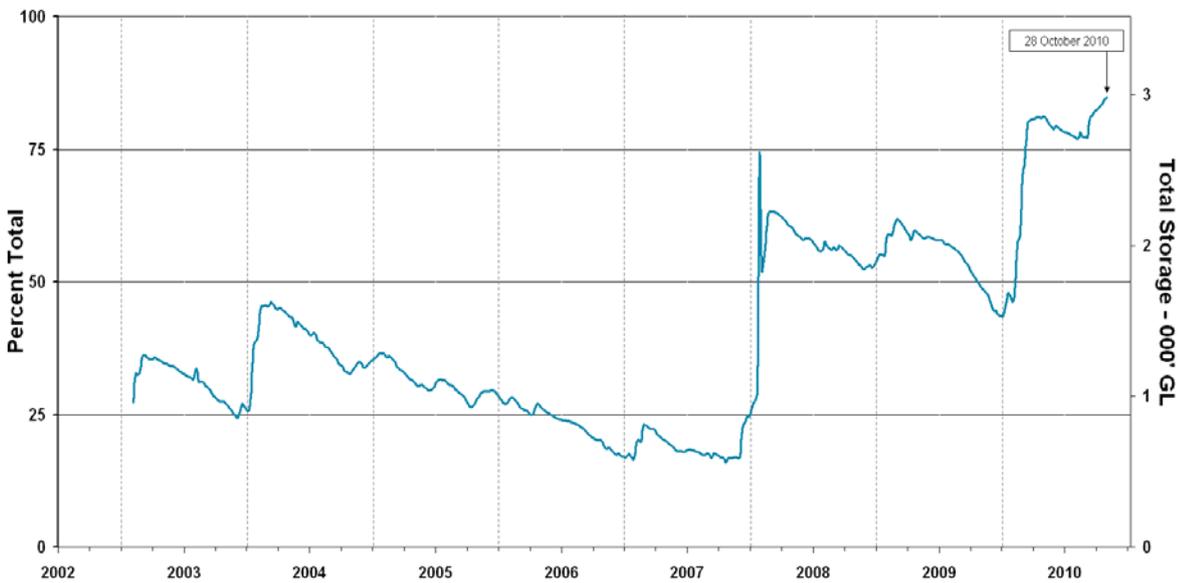
Queensland MDB



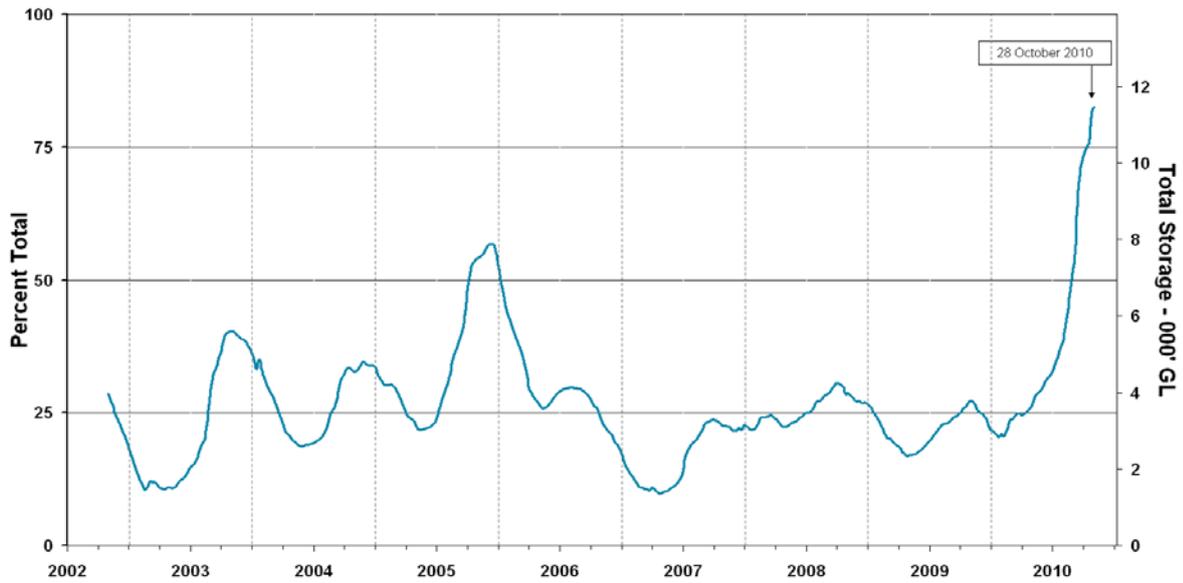
Central Queensland



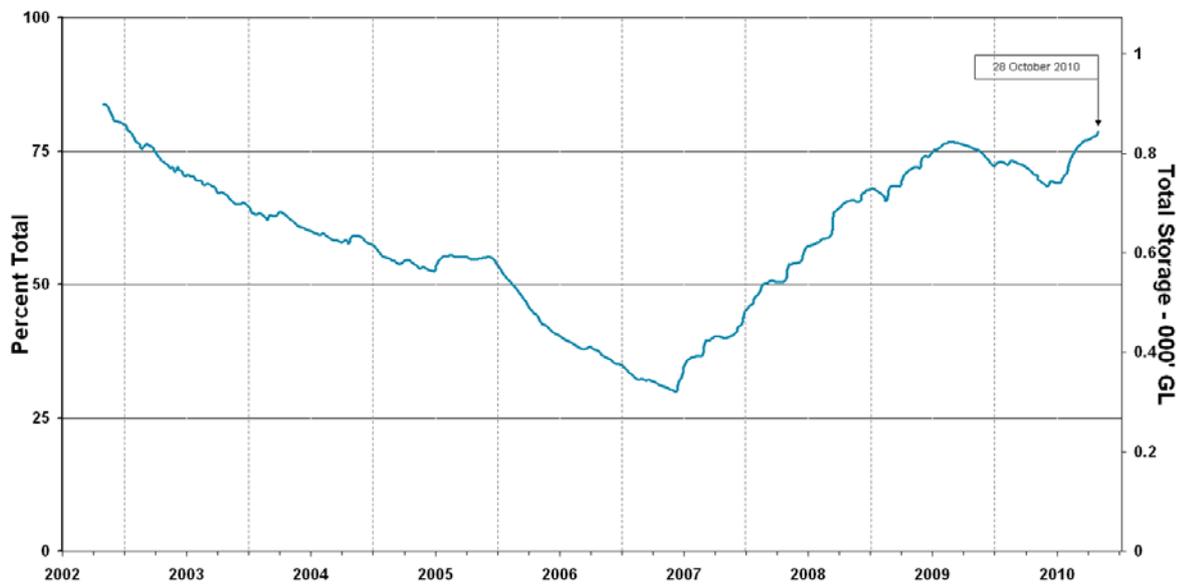
South-east Queensland



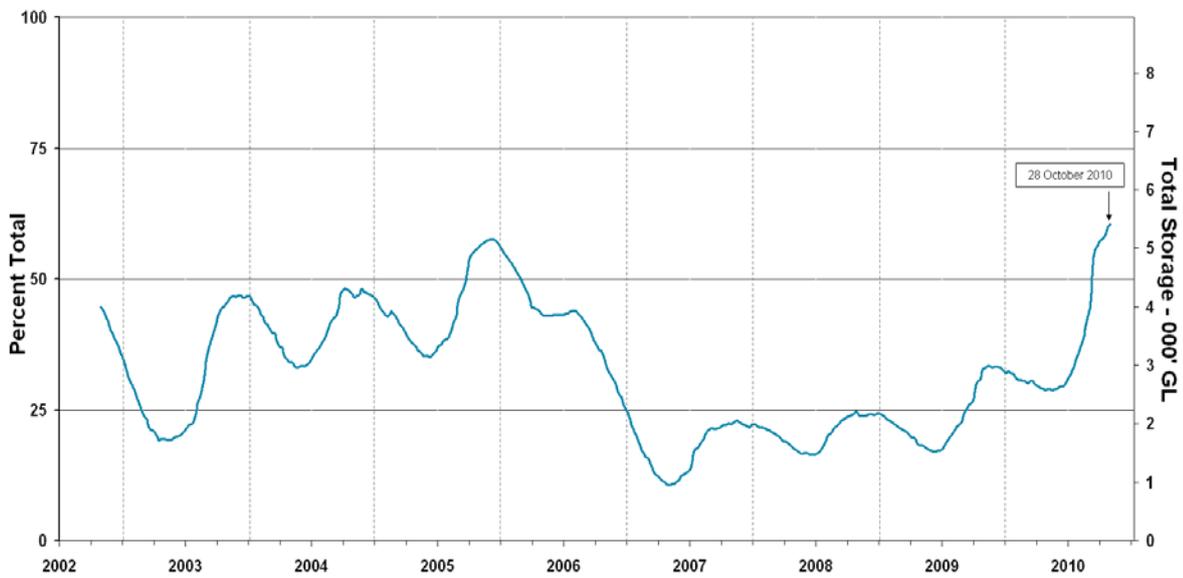
New South Wales MDB



Coastal New South Wales



Victoria MDB



For further information on water storages, go to:

- Snowy Hydro Water Resources:
<http://www.snowyhydro.com.au/lakeLevels.asp?pageID=360&parentID=6>
- Sun Water Queensland:
<http://www.sunwater.com.au/pdf/water/CurrentStorageSummary.pdf>
- New South Wales Water Information:
<http://www.waterinfo.nsw.gov.au/>
- Goulburn-Murray Water (Northern Victoria):
<http://www.g-mwater.com.au/water-resources/storage-levels/>
- Murray-Darling Basin Authority:
<http://www.mdba.gov.au/>

2.2 Water allocations

The water allocations and changes over the past month for all licence holders in New South Wales, Victoria and South Australia water systems are summarised in the following table.

	Closing allocations 2009–10 (%)	Increases from 1 October 2010 (%)	Allocations at 1 November 2010 (%)
NSW Murray Valley			
High security	97	-	97
General security	27	24	60
NSW Murrumbidgee Valley			
High security	95	-	95
General security	27	9	56
NSW Lower Darling			
High security	100	-	100
General security	100	-	100
NSW Macquarie Valley			
High security	100	-	100
General security	0		100
NSW Hunter Valley			
High security	100	-	100
General security	100	-	100
NSW Lachlan Valley			
High security	10	-	100
General security	0	10	20
NSW Border Rivers			
High security	100		100
General security	4.4	56	100
NSW Peel Valley			
High security	100	-	100
General security	100	-	82
Victoria Murray Valley			
High reliability	100	3	100
Victoria Goulburn			
High reliability	71	15	85
Victoria Campaspe			
High reliability	0	-	100
Victoria Loddon			
High reliability	3	15	85
Victoria Bullarook			
High reliability	19	-	100
Victoria Broken			
High reliability	17	-	100
South Australia Murray Valley			
High security	62	-	67

For further information on water announcements, go to:

- New South Wales Office of Water, Department of Environment, Climate Change and Water:
<http://www.water.nsw.gov.au/Home/default.aspx>
- Media releases:
<http://www.water.nsw.gov.au/About-Us/Media-Releases/default.aspx>,
- Water allocations:
<http://www.water.nsw.gov.au/Water-Management/Water-availability/Available-water-determinations/default.aspx>
- Available water determinations register:
<http://www.wix.nsw.gov.au/wma/DeterminationSearch.jsp?selectedRegister=Determination>
- Goulburn-Murray Water:
<http://www.g-mwater.com.au/>
- Media releases:
<http://www.g-mwater.com.au/news/media-releases/default.asp>
- South Australian Department of Water:
<http://www.waterforgood.sa.gov.au/>
- Murray-Darling Basin Authority:
<http://www.mdba.gov.au/>

3. Production

3.1 Winter crops

New South Wales

Conditions during the winter growing season have been favourable for New South Wales' winter crops. The New South Wales grains report indicates high rainfall over recent months has filled soil moisture profiles across all regions. In some areas, rainfall has caused water-logging in heavy clay and poorly drained soils.

www.dpi.nsw.gov.au

Queensland

Queensland's winter crop production conditions during the growing season to-date have been favourable. The October Queensland Seasonal Crop Outlook for Wheat forecasts above average state yields, with some variation by cropping region. Cropping regions in the south-west of the state are indicated to be performing best against their long term average.

www.dpi.qld.gov.au

Western Australia

According to the Western Australian Department of Agriculture's October Seasonal Update, most Western Australian cropping areas are predicted to produce below average wheat yields due to insufficient growing season rainfall. Yield potentials in the central agricultural region are likely to be particularly affected. In contrast, the Esperance and Ravensthorpe regions are predicted to have average or above average yields.

www.agric.wa.gov.au

3.2 Summer crops

The total area planted to summer crops in 2010-11 is forecast to increase by about 60 per cent to 1.3 million hectares. This is a result of above average winter and spring rainfall and a favourable seasonal outlook across southern Queensland and northern New South Wales. Total summer crop production is forecast to increase by 52 per cent to about 3.8 million tonnes for 2010-11.

The grain sorghum planting area is forecast to increase by around 46 per cent in New South Wales and 60 per cent in Queensland in 2010-11. Although early in the growing season, above average sorghum yields are predicted for most of southern Queensland and northern New South Wales based on current favourable soil moisture conditions and rainfall outlook.

According to the Queensland Department of Employment, Economic Development and Innovation, planting in some areas such as southern Queensland has been impeded by wet conditions. In contrast, drier areas such as central Queensland need above average rainfall in the coming months to improve planting levels and crop outlook. Significant increases in the planted area and production of cotton and rice are forecast as a result of increased irrigation water allocations.

ABARE-BRS *Australian Crop Report* 14 September 2010 No. 155. www.abare-brs.gov.au/

Seasonal Crop Outlook sorghum – November 2010. Queensland Department of Employment, Economic Development and Innovation. Document not yet published on website.

3.3 Livestock

Unfavourable production conditions across much of Western Australia have forced producers to turn off stock, with many unable to finish lambs and weaners. Hay production has reportedly decreased by approximately 60 per cent, with harvesting starting early. Because of the lack of feed, producers have not been able to take advantage of the lower store prices received later in the month in order to rebuild their herds and flocks.

In contrast, favourable soil moisture levels are likely to maintain pasture quality in grazing regions of the eastern states. The favourable production conditions have encouraged producers to retain, finish and market their stock, which has resulted in limited supplies of young cattle and light lambs to meet restocker and feeder demand. As such, large numbers of Western Australian stock have reportedly been sold to the eastern states. More than 640 000 sheep and 74 000 cattle have left Western Australia this year; which is a substantial increase from last year.

Beef cattle

Favourable seasonal conditions in the eastern states in 2010 have driven strong restocker demand and higher prices for young cattle, while recent wet conditions in Queensland have left some producers unable to deliver cattle to saleyards. Taken together, these factors have limited available cattle supplies over much of 2010, with some lot feeders reportedly finding it difficult to obtain suitable cattle.

Despite this, feeder cattle prices generally eased through October in line with the seasonal increase in turnover that provided some improvement in supply. Prices for medium weight yearling steers (330-400 kg) in October were 2 cents lower than in September at 195 cents a kilogram live weight, although they were 30 cents higher compared with the same period in 2009. Yearling heifers (<330 kg) averaged 188 cents a kilogram in October, down 4 cents on September, but 37 cents higher than the same period a year ago. Graziers paid an average of 131 cents a kilogram for medium weight cows for the month.

Lot feeder margins remained low through October as a result of higher prices for both feeder cattle and feed-grains, while a high Australian dollar limited export returns. Lower margins and reduced export competitiveness resulted in lot feeders purchasing fewer yearling steers over the past month. However, prices remain relatively firm due to the continued tight supply-demand situation for young cattle and strong competition between restockers and processors for available cattle in the eastern states.

Australian beef exports to Korea were up in October 2010 to 9679 tonnes as a result of strong import demand and higher prices in Korea. Exports of beef to the United States were down 35 per cent for the month to 8951 tonnes as a result of a higher Australian dollar that has reduced the price-competitiveness of Australian beef in a US market which remains relatively price sensitive.

Sheep and lambs

During October 2010, national lamb yardings declined 8 per cent compared with the same period last year, however, numbers increased 5 per cent compared with September 2010 yardings. The unfavourable production conditions in Western Australia have increased supply of lambs to the physical market, while in the eastern states, favourable production conditions have encouraged producers to hold onto stock. Large supplies of mutton have also been recorded in Western Australia this month, due to producers turning off increased numbers of adult sheep for slaughter.

Young lamb numbers accounted for 86 per cent of the national supply during October 2010, predominantly coming from New South Wales. However later in the month, Victorian and South Australian young lamb numbers increased significantly. The majority of new season lambs from Western Australia have been in store condition as producers are unable to finish lambs.

The proportion of second cross lambs sent to slaughter in October 2010 declined 9 per cent compared to last year, with fewer prime lambs being offered for sale. Although supplies of light store lambs declined 7 per cent this month compared with October 2009, restocker lamb purchases increased through October 2010. Merino lambs purchased for restocking increased 84 per cent compared with October 2009, mainly due to the increased supplies from Western Australia.

Producer demand has been exceptional during October 2010 due to the favourable production conditions in the eastern states. The national restocker price indicator was 15 per cent above the same period last year, averaging \$80.50 per head during October 2010.

The number of lambs purchased by feeders declined 19 per cent compared with the same period a year ago. This decline was due to strong competition from restockers, a decrease in the numbers of store lambs to market, high feed grain prices, and generally strong lamb prices.

Meat & Livestock Australia – Market News

<http://www.mla.com.au/Prices-and-markets/Market-news/Feeder-prices-ease-in-October>

<http://www.mla.com.au/Prices-and-markets/Market-news/Cow-prices-rebound-on-lower-numbers>

<http://www.mla.com.au/Prices-and-markets/Market-news/Prices-ease-as-spring-lambs-start-to-flow>

<http://www.mla.com.au/Prices-and-markets/Market-news/Lamb-supply-expands-in-October>

<http://www.mla.com.au/Prices-and-markets/Market-news/State-of-the-state-WA>

ABC Rural News

<http://www.abc.net.au/rural/news/content/201010/s3048542.htm>