



Australian Government

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

Australian climate and agricultural monthly update

September 2010



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Extract from Australian climate and agricultural monthly update – September 2010 information accurate at date of publishing.

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Key issues

Rainfall across the majority of Australia's eastern winter cropping regions during August has improved production conditions leading into spring. Conditions remained dry over large parts of Western Australia, with crops and pastures in need of rain. Inflows and water storage levels in the Murray-Darling Basin have continued to increase during August. A La Niña event is now well established in the Pacific Ocean, with models indicating the event will persist until at least early 2011. The Seasonal Outlook for spring 2010 favours wetter conditions for south-west Western Australia and parts of eastern Australia.

Summary

August 2010 rainfall was generally at least average across Australia, with the exception of south-west Western Australia where there were widespread rainfall deficiencies. Day and night time temperatures were generally close to the long-term average.

Inflows to Murray-Darling Basin have increased since July. Water storage levels across the Basin have increased further during August.

The rainfall across the majority of Australia's eastern winter cropping region has improved soil moisture profiles in the upper soil layer, resulting in generally favourable production conditions. As a result producers in the eastern states have retained, finished and marketed their stock, which has limited supply of young cattle and light lambs to meet restocker and feeder demand. In south-west Western Australia, the lack of August rainfall has led to variable production conditions and winter crop prospects are less positive at this stage. Rain is needed to improve soil moisture in this area.

A La Niña event is now well established in the Pacific Ocean with major models indicating that the event will persist until at least early 2011. La Niña conditions can result in above average rainfall over much of Australia. Wetter conditions in combination with the forecast warmer temperatures could benefit pasture growth, crop growth as well as improve water storage levels in the Murray-Darling Basin.

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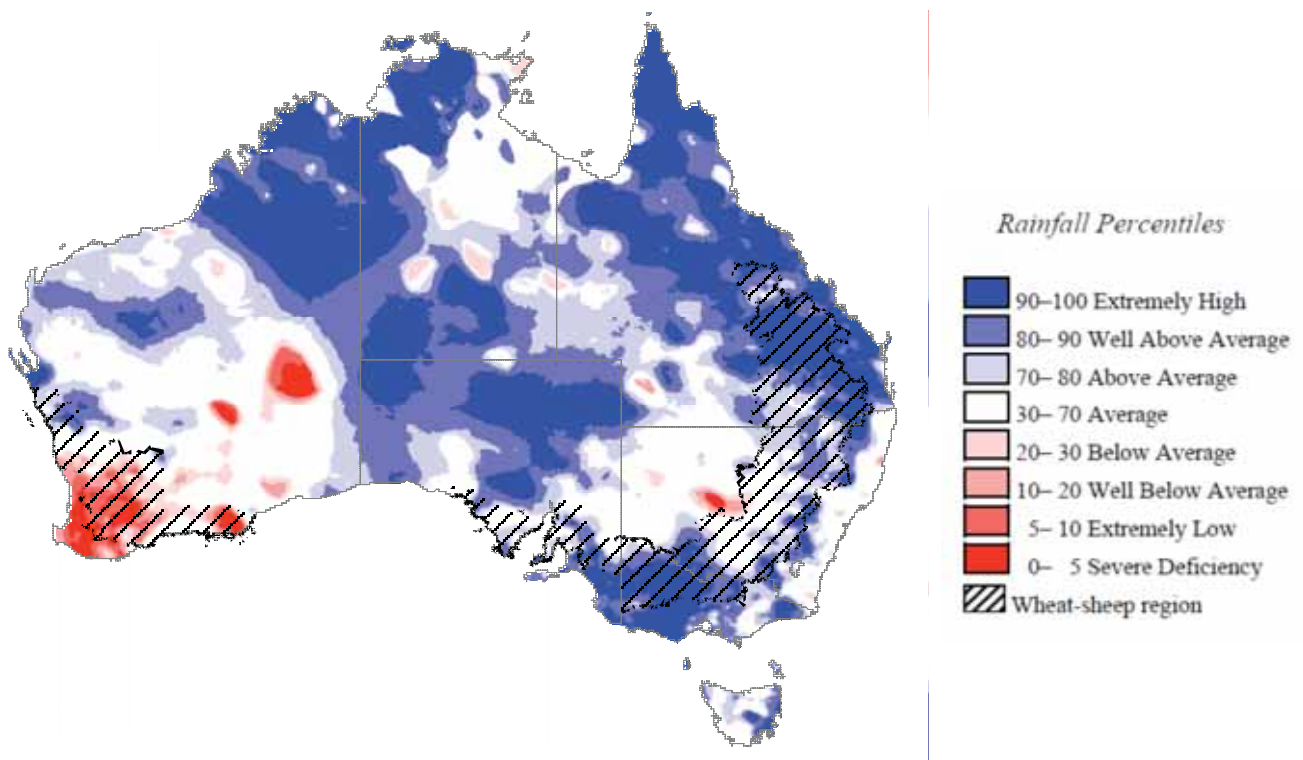
1. Climate

1.1 Rainfall

Rainfall over the last month (August 2010)

August 2010 was the fourteenth-wettest August on record for Australia with rainfall 42 per cent above the long-term average. Widespread rainfall over much of the country during August will provide favourable conditions for crop and livestock production leading into spring. Low rainfall in south-west Western Australia during August is likely to limit crop and pasture growth in this region.

Rainfall across the Murray-Darling Basin was average to above average during August 2010. An increase in water storage levels was recorded across the Basin during the month, although some storage levels remain low.

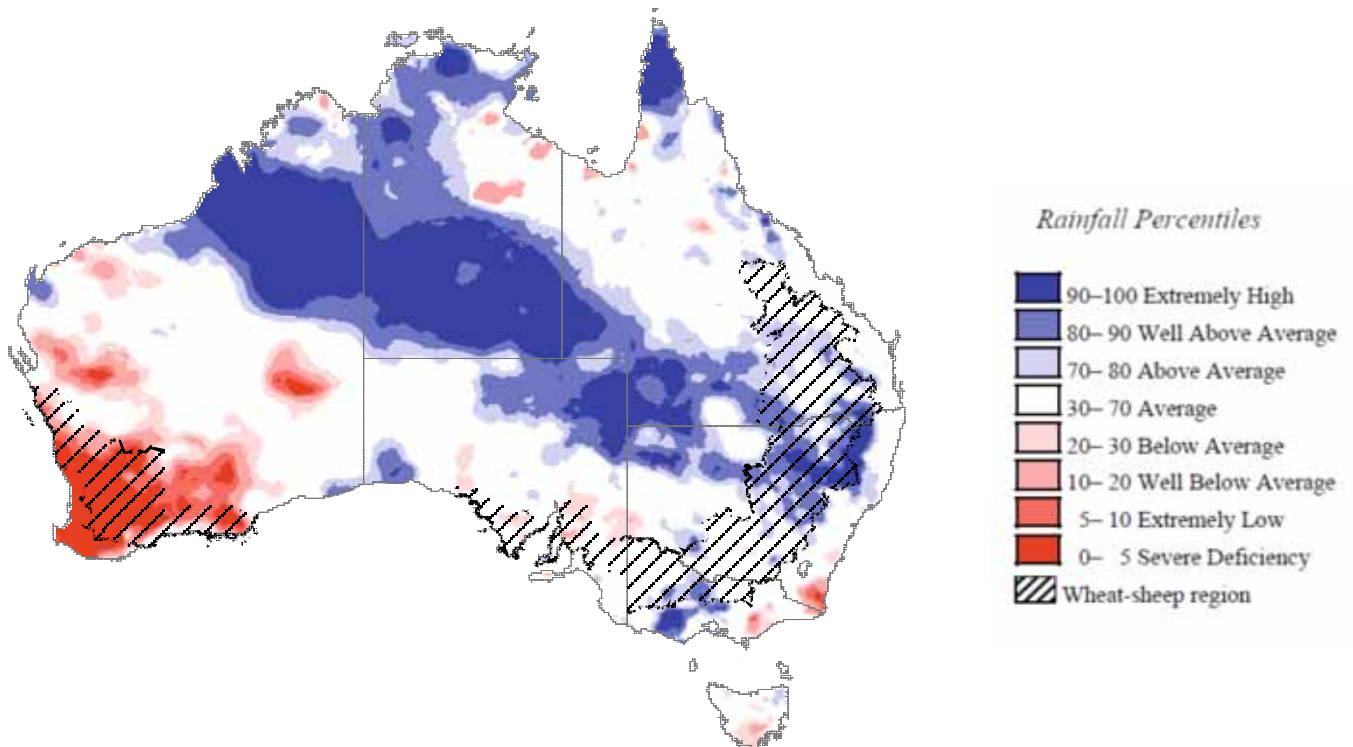


Rainfall percentiles (August 2010)

Ongoing and emerging rainfall situations (June to August 2010)

At least average rainfall was recorded during winter 2010 (June to August) across most of northern and central and eastern areas of Australia.

In southern parts of Western Australia below average rainfall in August increased short term rainfall deficiencies. Above average rainfall during July and August eased short term rainfall deficiencies in eastern parts of Australia.



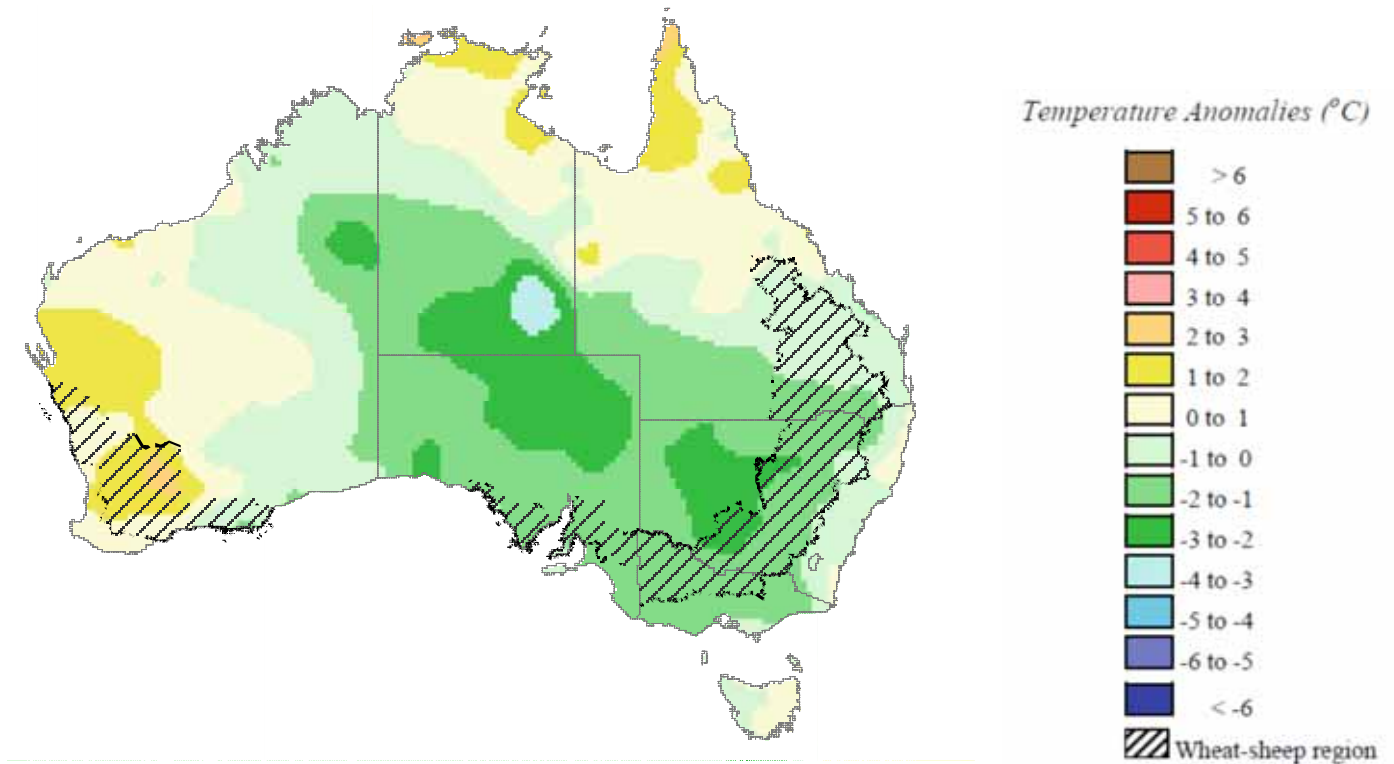
Rainfall percentiles (June to August 2010)

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](http://www.bom.gov.au/climate/austmaps/) go to <http://www.bom.gov.au/climate/austmaps/>.

1.2 Temperature

Mean maximum temperature

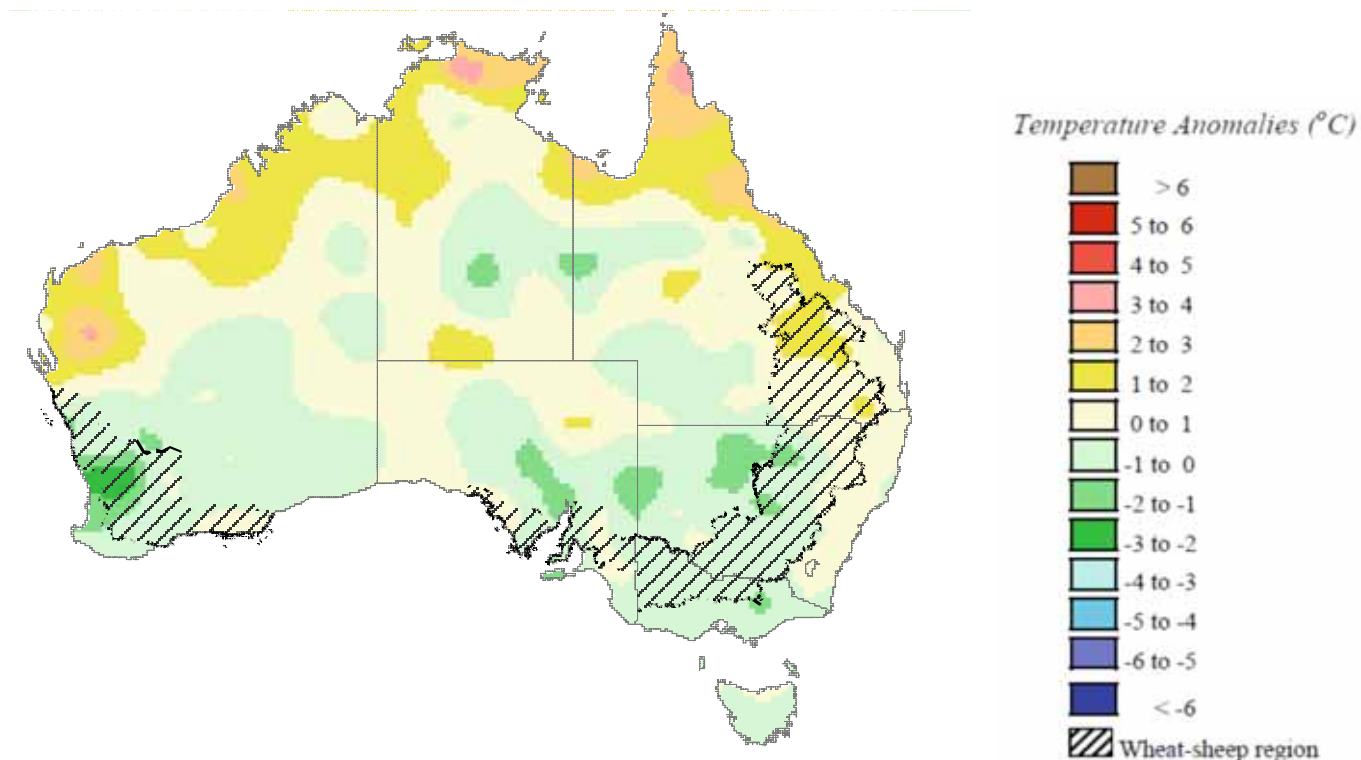
The mean maximum temperature for Australia during August 2010 was below the long-term August average. It was cooler in central and southern parts of the continent and warmer in the northern tropics and western parts of Western Australia. Maxima anomalies of 3 to 4° C below average were recorded in southern parts of the Northern Territory. Maxima anomalies of 2 to 3° C above average were recorded in parts of south-west Western Australia.



**Monthly mean maximum temperature anomalies
(August 2010)**

Mean minimum temperature

Mean minimum temperatures for Australia during August were close to the long-term August average. Warmer minima anomalies of 3 to 4° C were recorded in parts northern Australia. Cooler minima anomalies of 2 to 3° C were recorded in the south-west Western Australia.



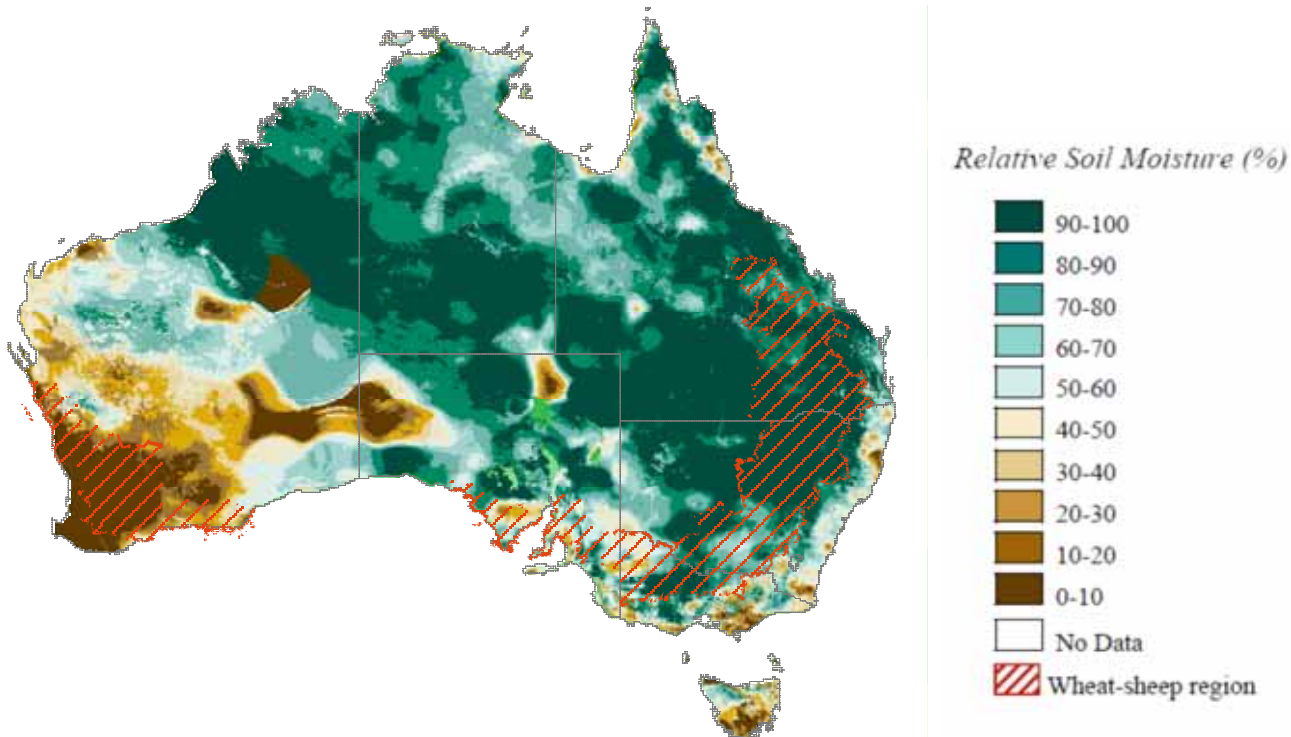
Monthly mean minimum temperature anomalies (August 2010)

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

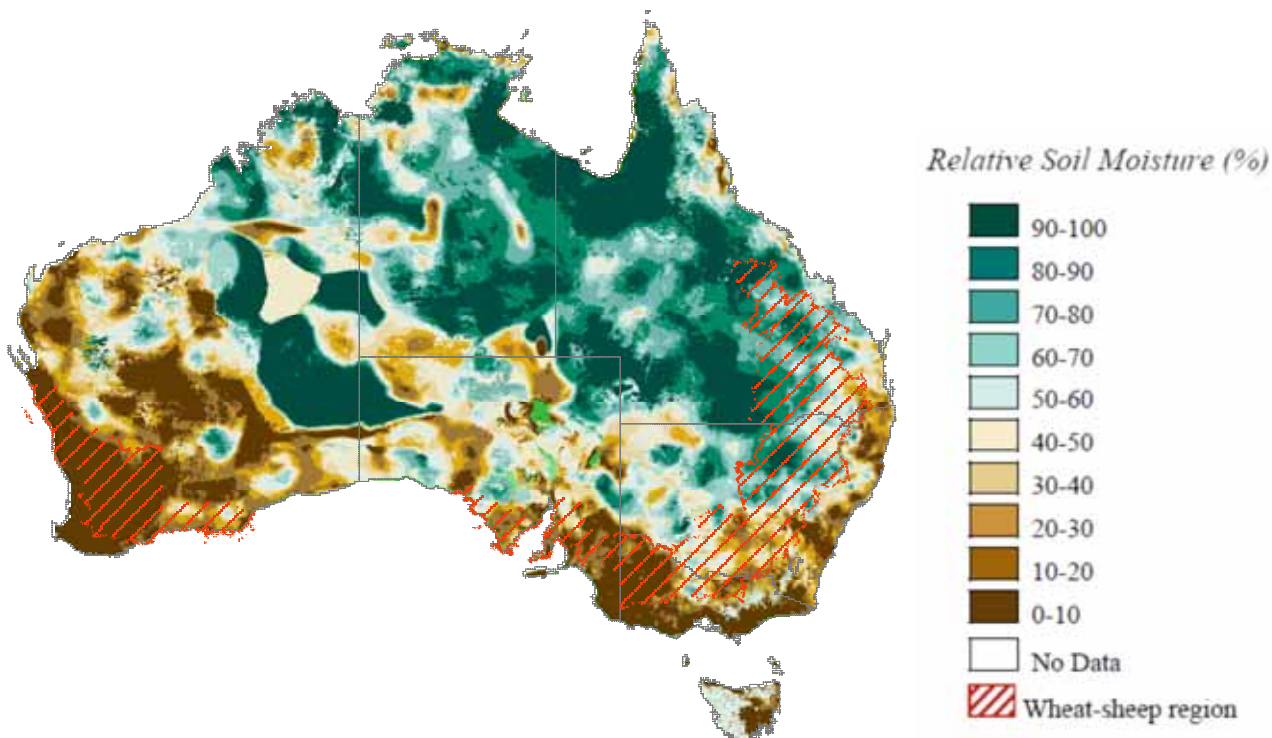
Relative soil moisture levels in the upper layer of the soil profile were at least average across most of Australia due to the generally wet conditions during August 2010. Relative upper layer soil moisture levels remain below average in south-western Western Australia.



**Upper layer soil moisture percentiles
(August 2010)**

Lower layer soil moisture

There were slight increases in relative soil moisture levels in the lower layer of the soil profile during August 2010, notably in the central east coast. However, lower level soil moisture levels remain well below average in cropping areas of Western Australia, South Australia, Victoria and parts of southern New South Wales. Crops in these areas may be more reliant on in-season rainfall. 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 (August 2010)

The above maps show the relative levels of modelled upper (~0.2 metres) soil moisture and lower (~0.2 to ~1.5 metres) soil moisture at the end of June 2010. This data comes from a collaborative project between the Bureau of Meteorology, CSIRO and the 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 is now well established in the Pacific Ocean. All of the major models are predicting that Pacific Ocean sea surface temperatures will continue to exceed La Niña thresholds through spring 2010, with the majority indicating that the event will persist until at least early 2011.

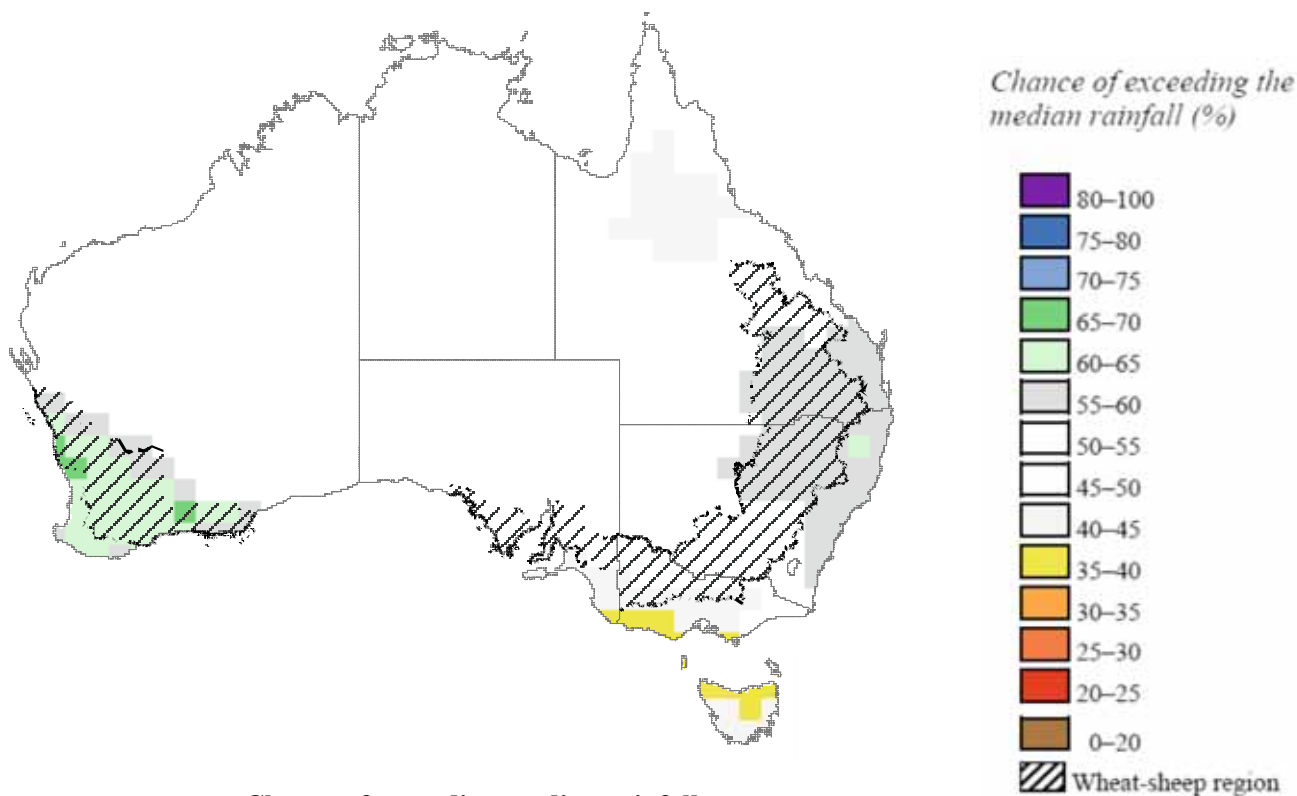
La Niña periods are usually, but not always, associated with above normal rainfall during the second half of the year across large parts of Australia, most notably eastern and northern regions. Night time temperatures are historically warmer than average and Tropical Cyclone occurrence for northern Australia 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](http://www.bom.gov.au/climate/enso/), go to <http://www.bom.gov.au/climate/enso/>.

Rainfall outlook

There is an equal chance of receiving either above or below the median rainfall during the September to November 2010 period across most of Australia. The likelihood of exceeding median rainfall is higher (60 to 70 per cent) in south-western areas of Western Australia, and in parts of north-east New South Wales (60 to 65 per cent). Wetter conditions during this period would be favourable for winter crop and pasture production in these areas.

In south-eastern parts of South Australia, southern parts of Victoria, and northern parts of Tasmania, there is a lower (35 to 40 per cent) likelihood of exceeding median rainfall during the September to November 2010 period.



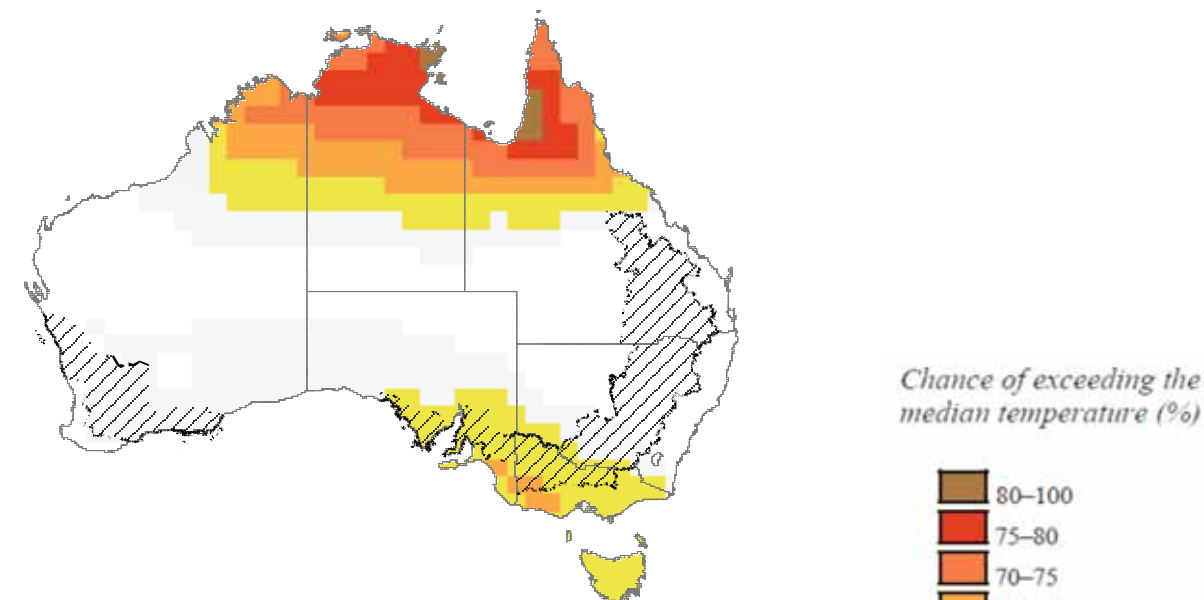
**Chance of exceeding median rainfall
(September to November 2010)**

Temperature outlook

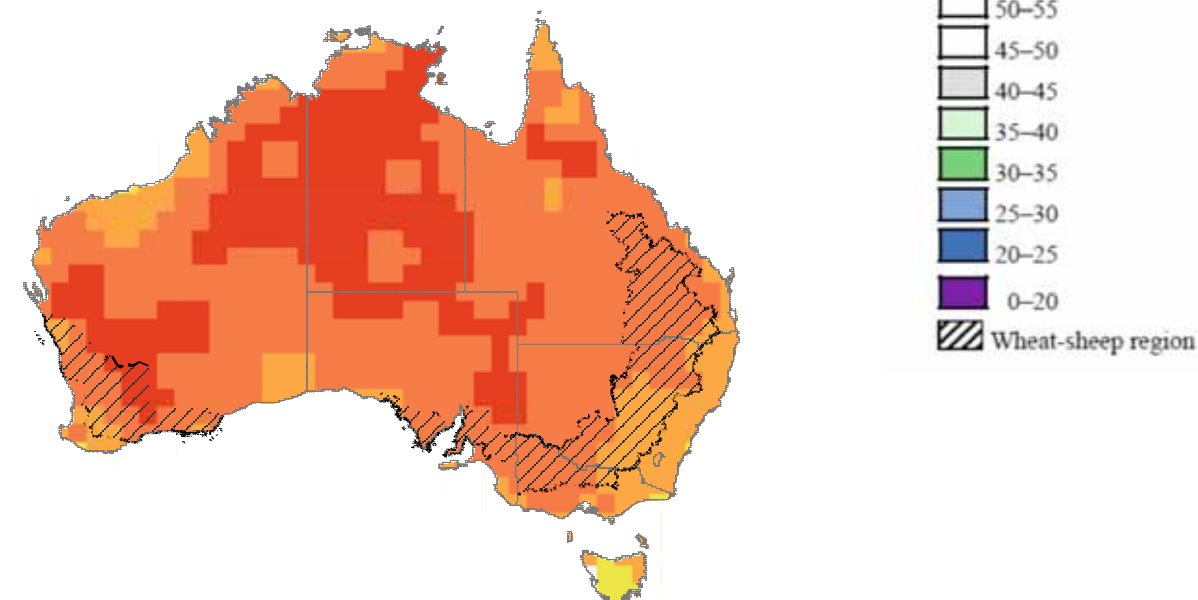
There is an increased likelihood of warmer day time temperatures in the northern most parts of Australia and in south-eastern Australia.

Forecasts indicate that Australia will experience warmer nights during the September to November 2010 period, with the likelihood approaching 80 per cent in some areas of Australia.

Warmer temperatures may assist pasture and crop growth rates. However, increased daytime temperatures during the flowering stage of crop growth (around September) can limit final yield.



**Chance of exceeding median maximum temperatures
(September to November 2010)**



**Chance of exceeding median minimum temperatures
(September to November 2010)**

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/>.

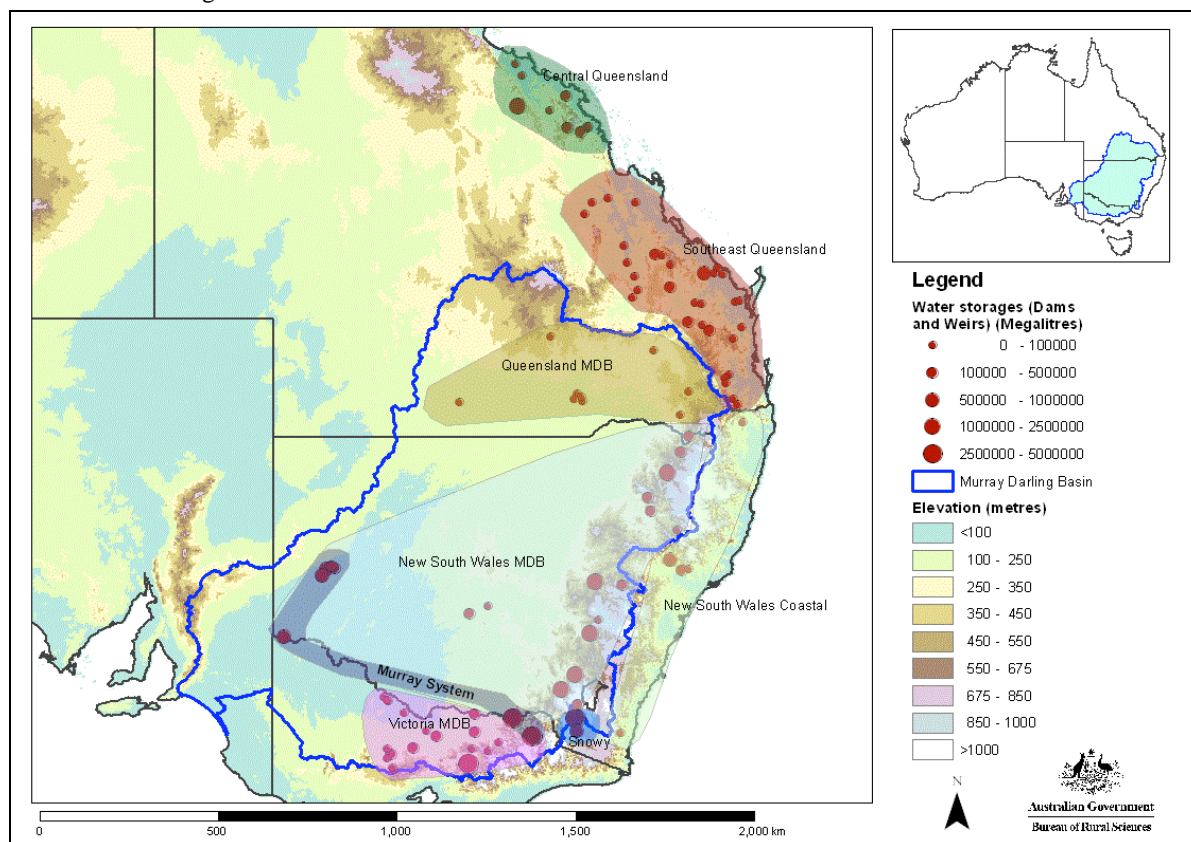
2.0 Water

2.1 Water storages

Changes in regional water storage for August 2010 and the previous 12 months are summarised in the table and graphs below (current at 2 September 2010).

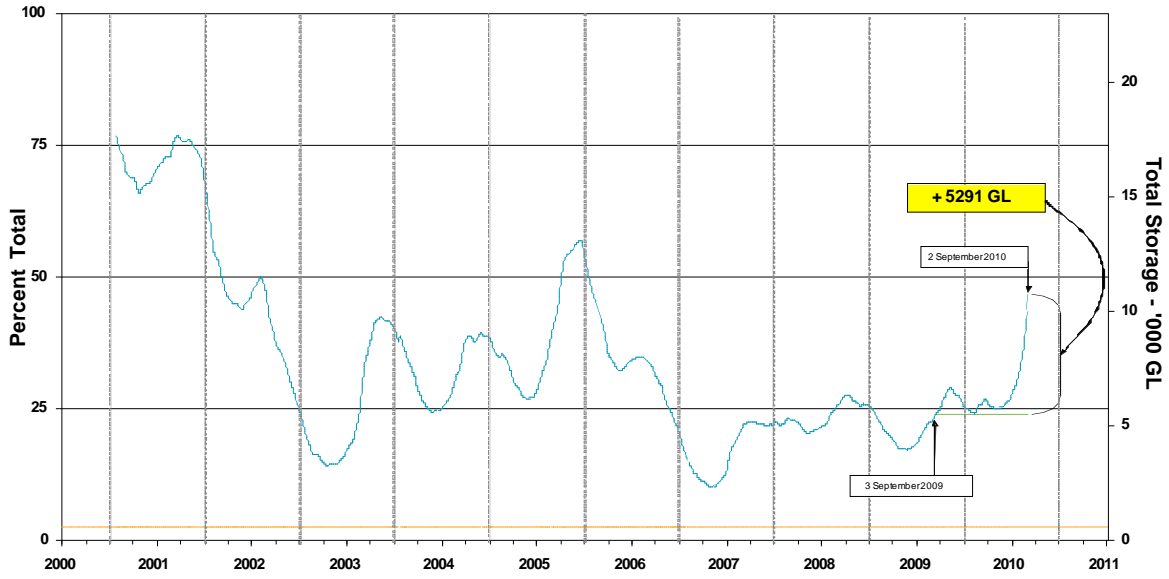
Region	Total capacity (GL)	Current volume (GL)	Current volume (%)	Monthly change (GL)	Monthly change (%)	Annual change (GL)
Murray-Darling Basin (MDB)	23020	10773	47	+3226	+14.0	+5291
Snowy Scheme*	5744	1471	26	+51	+0.9	+49
Murray-Darling Basin Authority (MDBA)	7621	3378	42	+781	+10.3	+1631
Queensland MDB	185	143	77	+38	+20.7	+54
Central Queensland	3155	2934	93	-19	-0.6	+61
South-east Queensland	3517	2714	77	-3	-0.1	+789
New South Wales MDB	13884	6664	48	+2268	+16.3	+3365
Coastal New South Wales	1073	844	79	+72	+6.7	+20
Victoria MDB	8903	3907	44	+876	+9.8	+1822

*Current at 26 August 2010

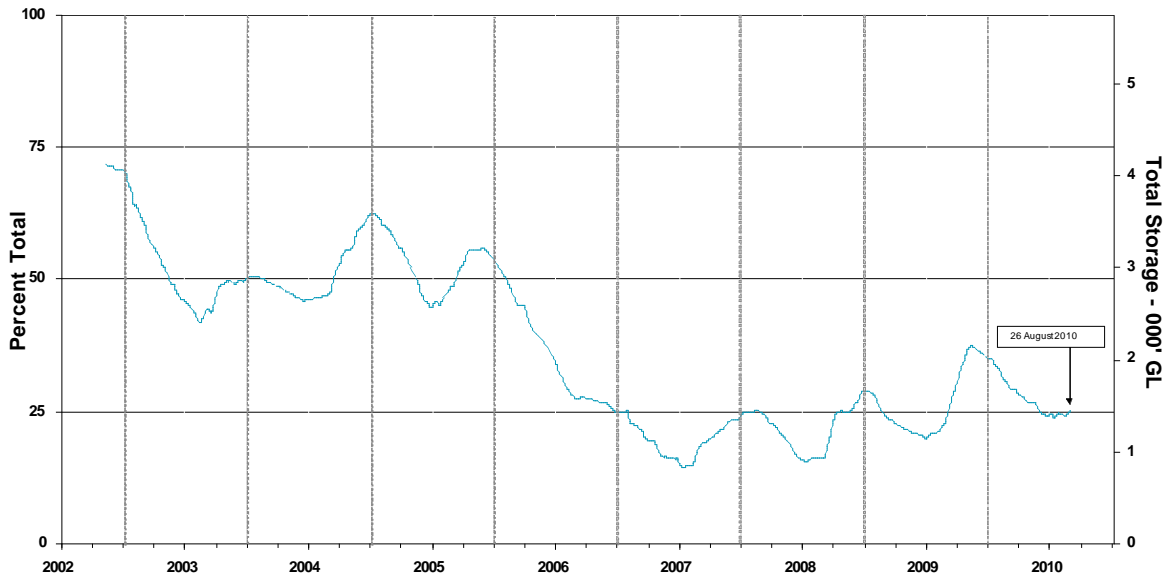


Water storages in Queensland, New South Wales and Victoria: The blue line indicates the extent of the Murray-Darling Basin and the shaded areas denote the coverage of the individual reporting regions.

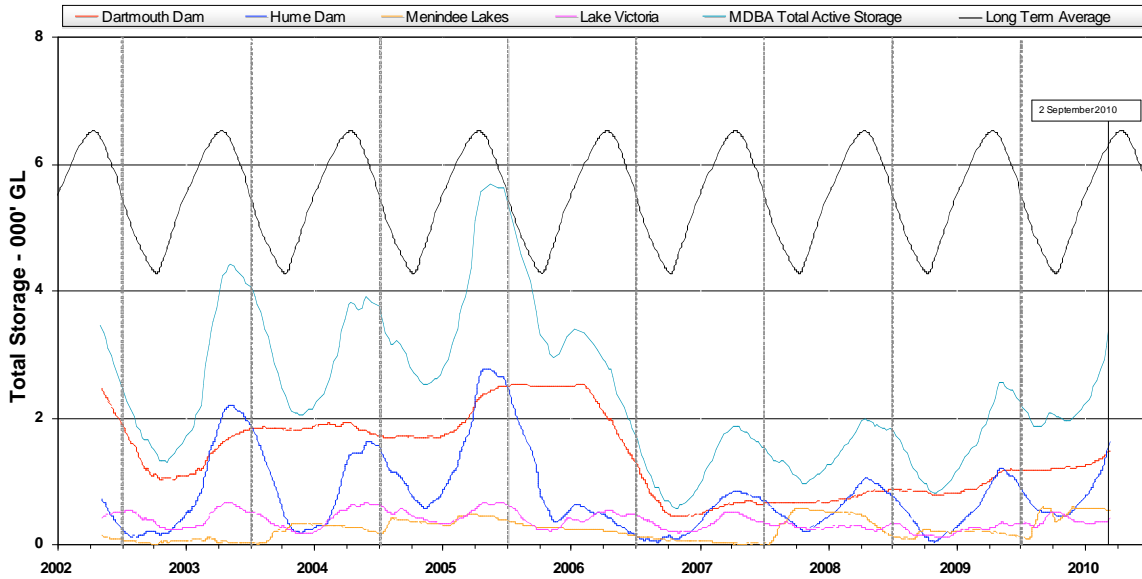
MDB (New South Wales, Victoria and Queensland)



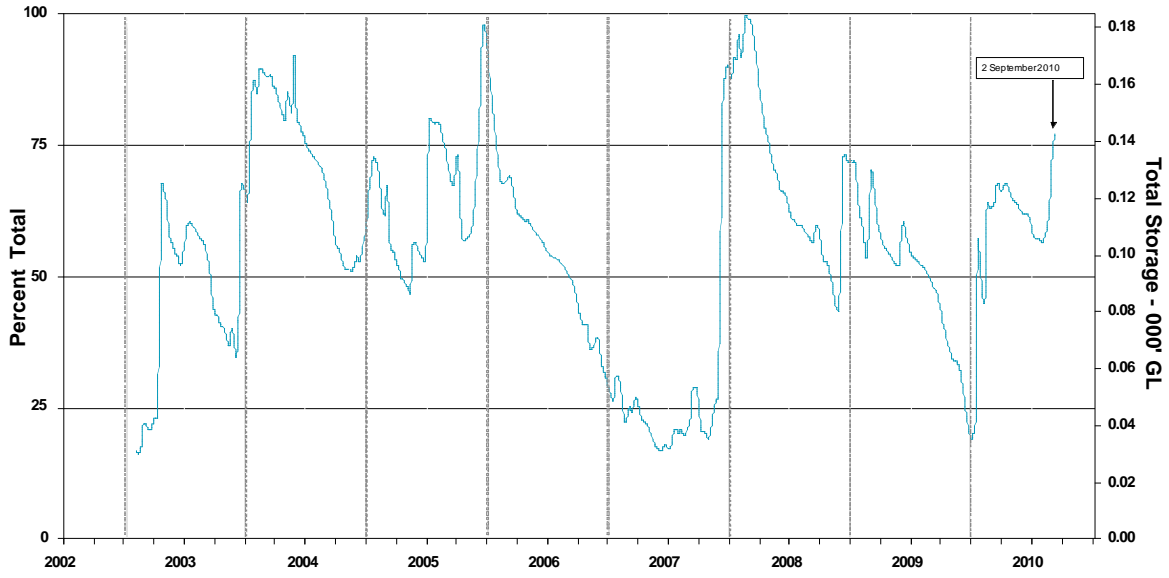
Snowy Scheme



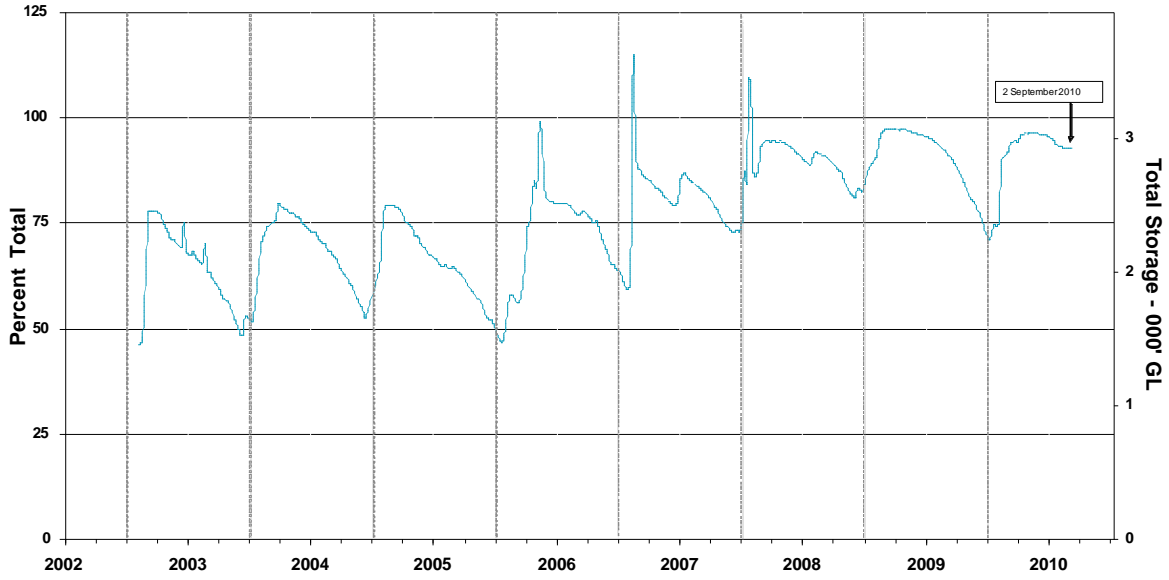
MDBA



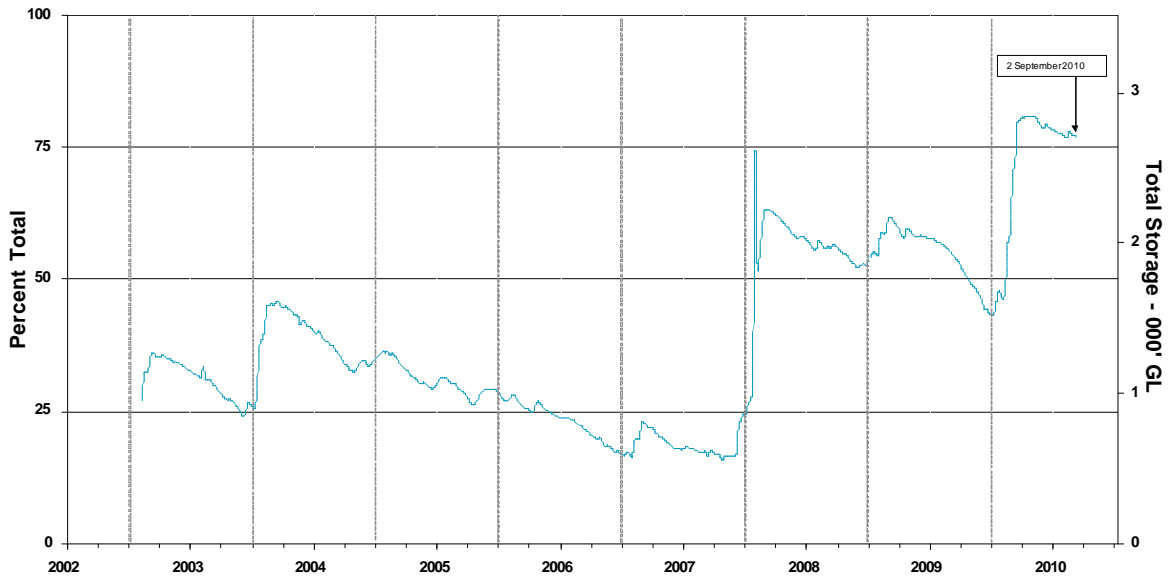
Queensland MDB



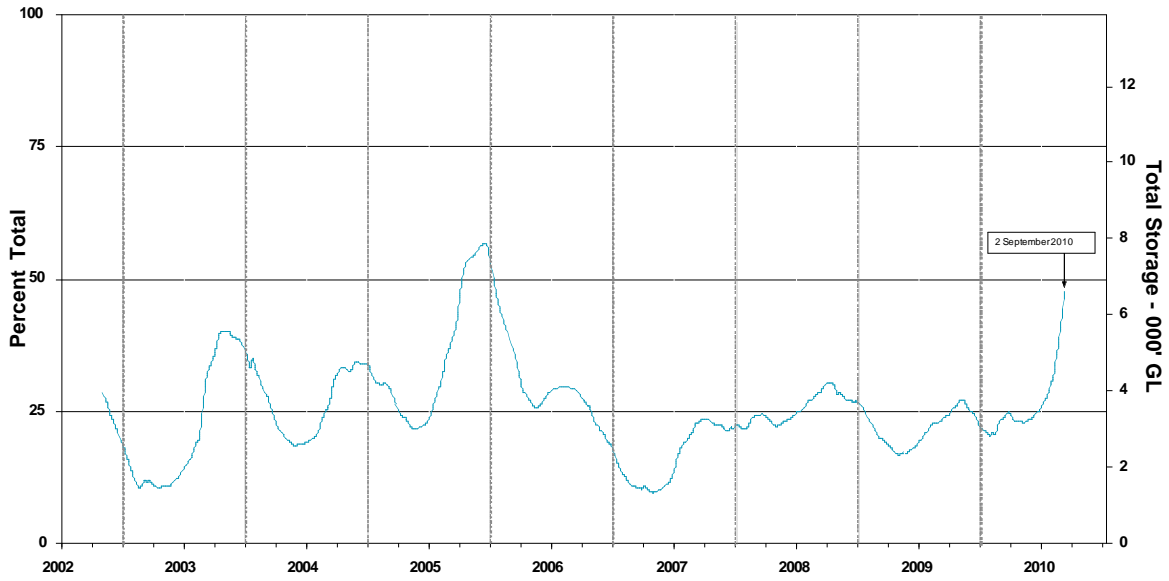
Central Queensland



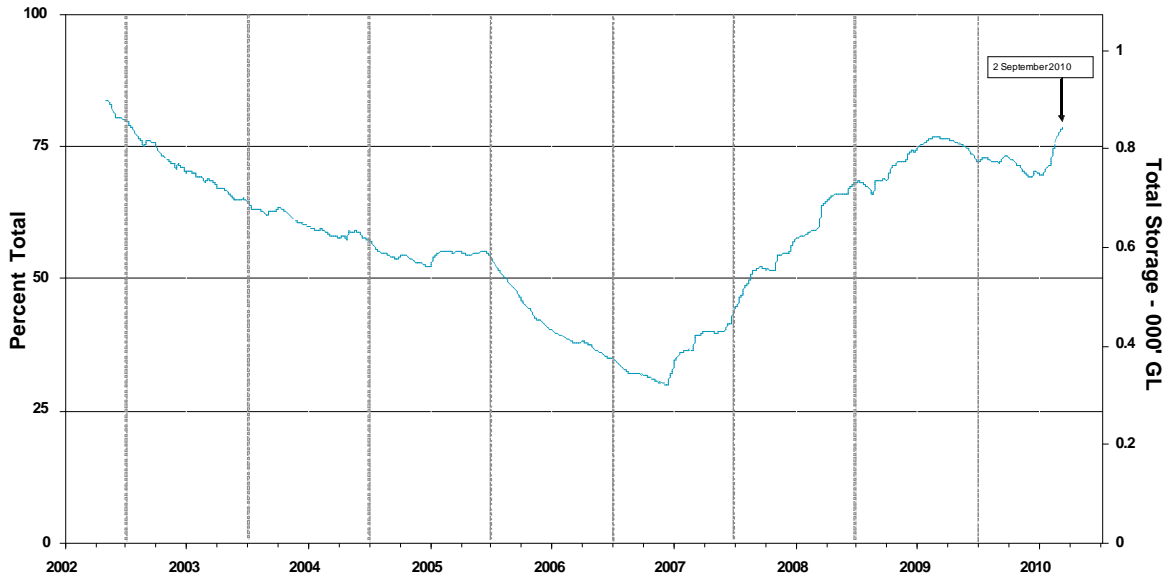
South-east Queensland



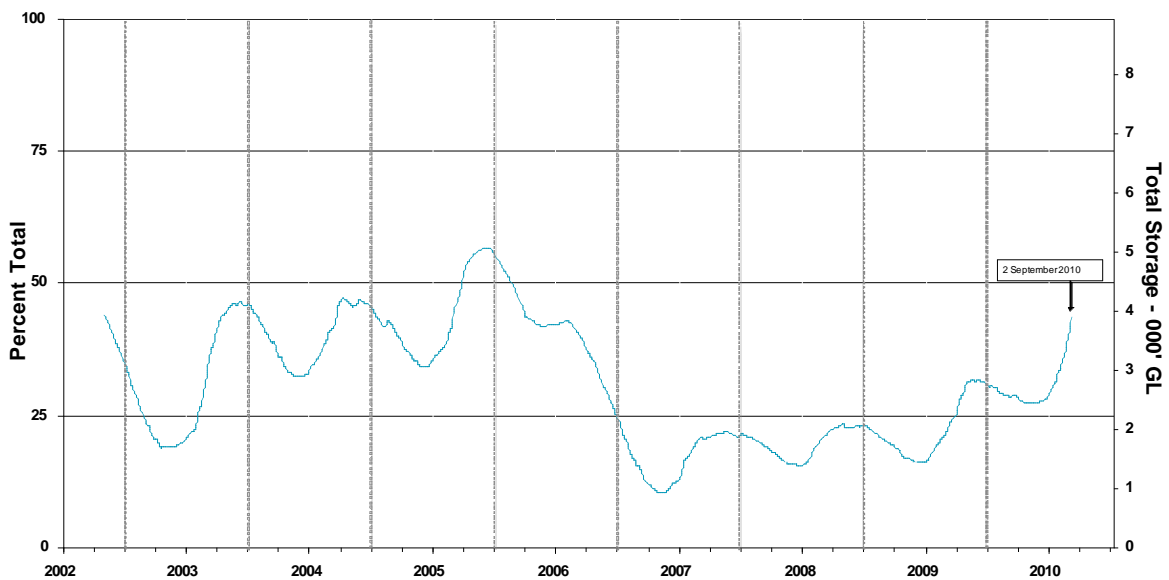
New South Wales MDB



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

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 August 2010 (%)	Allocations at 1 September 2010 (%)
NSW Murray Valley			
High security	97	57	97
General security	27	8	8
NSW Murrumbidgee Valley			
High security	95	15	95
General security	27	9	9
NSW Lower Darling			
High security	100	-	100
General security	100	-	100
NSW Macquarie Valley			
High security	100	-	100
General security	0	41	47
NSW Hunter Valley			
High security	100	-	100
General security	100	-	100
NSW Lachlan Valley			
High security	10	30	30
General security	0	15	15
NSW Border Rivers			
High security	100	-	100
General security	4.4	-	37
NSW Peel Valley			
High security	100	-	100
General security	100	-	80
Victoria Murray Valley			
High reliability	100	55	57
Victoria Goulburn			
High reliability	71	36	41
Victoria Campaspe			
High reliability	0	90	90
Victoria Loddon			
High reliability	3	41	41
Victoria Bullarook			
High reliability	19	100	100
Victoria Broken			
High reliability	17	100	100
South Australia Murray Valley			
High security	62	10	41

*Water sharing plans remain suspended in NSW for the Lachlan River valley at 1 July 2010.

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

On 14 September, the Australian Bureau of Agricultural and Resource Economics – Bureau of Rural Sciences (ABARE–BRS) will be releasing its 2010-11 crop forecasts in the Crop report.

New South Wales

No new information available.

Queensland

Seasonal conditions have been generally favourable across most of Queensland's winter cropping regions, although according to the August Queensland Seasonal Crop Outlook for Wheat rainfall is needed during spring to maintain yield expectations. There is an increased chance of exceeding the median rainfall over spring 2010, according to the latest Seasonal Outlook released by the Bureau of Meteorology.

http://www.dpi.qld.gov.au/documents/PlantIndustries_FieldCropsAndPasture/wheat-report-August-

South Australia

No new information available.

Victoria

No new information available.

Western Australia

Production conditions across most of Western Australia's winter cropping regions are variable as a result of below average rainfall during Winter. According to the Western Australian Department of Agriculture's August Seasonal Update, rainfall is needed to boost soil moisture in the north-eastern and central wheatbelt. The lower south-west and Esperance areas have better yield potential, although some parts of the south coast are experiencing waterlogging. According to the spring 2010 Seasonal Outlook from the Bureau of Meteorology there is an increased chance of exceeding the median rainfall across south-west Western Australia,.

http://www.agric.wa.gov.au/objtwr/imported_assets/content/lwe/cli/seasonalupdateaug10.pdf

3.2 Livestock

Increased soil moisture levels are likely to improve pasture growth in grazing regions of the eastern states. These favourable conditions have encouraged producers in the eastern states to retain, finish and market their stock, which has limited supply of young cattle and light lambs to meet restocker and feeder demand. In some eastern areas, favourable autumn rainfall allowed early sowing of fodder crops such as oats and winter wheat. This has provided livestock with sufficient feed through winter, allowing a break from hand feeding.

Beef cattle

In all states except South Australia, cattle numbers passing through sale yards increased during August. Cattle quality varied nationally, with some young cattle, affected by the recent wet conditions, being offered in poorer condition. In contrast, yearlings and grown steers were in excellent condition as a result of the increased availability of fodder from crops.

Young cattle prices reached four year highs through August, reaching 369 cents per kilogram carcass weight. These prices averaged 10 per cent above prices received at the same time last year and were predominantly fuelled by restocker demand.

Nationally, yearling steers (330–400 kg) averaged 11 per cent higher in August compared with the previous year. Restocker medium weight yearling steers averaged 199 cents per kilogram live weight, while steers to slaughter averaged 194 cents per kilogram live weight. Medium weight cow and heavy weight steer and bullock prices decreased through August.

Throughout August, lot feeder margins decreased due to higher prices for both feeder cattle and grains, and decreasing returns for the finished product due to the higher Australian dollar and low export demand. Due to the lower financial margins, lot feeders have purchased less yearling steers during the past three months. However, the eastern states have recorded a 19 per cent increase in yearling steers (36 563 head), with restockers pushing prices higher.

Sheep and lambs

New season lamb yardings have increased 24 per cent over the past 2 months, compared with the same time last year. Lamb yardings from Western Australia have also increased even though producers have experienced below average rainfall events. Although numbers have increased, lamb prices have continued to reach record highs over the past month.

Favourable conditions through autumn and mild winter 2010 conditions experienced in some areas have enhanced pasture growth, leading to improved lamb growth rates. Approximately 16 per cent of new season lambs have been over 22 kg carcass weight compared with only 9 per cent at the same time last year. Due to more fodder crops available for feed, the condition of young lambs has also improved. While the new season lambs have already started to enter the market, it is expected that the peak in numbers usually observed will be less prominent this year, potentially reducing the extent of the traditional spring price declines. The national restocker indicator is currently at \$87 per head, ranging from \$70 to \$110 per head.

Trade weight (18-22 kg carcass weight.) and heavy weight lambs (>22 kg carcass weight.) have accounted for the majority of young lambs since July. Due to favourable growing conditions, producers have been able to finish lambs at heavier weights in a shorter period of time. As such, the proportion of heavy lambs to yards has more than doubled compared with the same time last year. During August, trade lamb prices have remained steady at 554 cents per kilogram carcass weight, while heavy weight lambs slipped back 5 cents to 538 cents per kilogram carcass weight.

Mutton prices were strong during August, with prices reaching more than 400 cents per kilogram carcass weight. However, numbers are starting to decline as producers are retaining more ewes for breeding and wether numbers are generally low.

Meat & Livestock Australia – Market News

<http://www.mla.com.au/Prices-and-markets/Market-news/Lamb-and-sheep-market-wrap270810>

<http://www.mla.com.au/Prices-and-markets/Market-news/State-of-the-State-NSW-Central-Tablelands->

<http://www.mla.com.au/Prices-and-markets/Market-news/Spring-in-the-step-of-livestock-markets>

<http://www.mla.com.au/Prices-and-markets/Market-news/Sheep-market-alert010910>

<http://www.mla.com.au/Prices-and-markets/Market-news/Cattle-market-alert010910>

<http://www.mla.com.au/Prices-and-markets/Market-news/Feedlot-margins-squeezed-in-August>

The above information is summarised from industry sources and does not represent forecasts by ABARE–BRS. Forecasts on livestock and across the commodity sectors will be released by ABARE–BRS in *Australian commodities* in September 2010.

For further information on crops and livestock, go to:

- Australian Bureau of Statistics:
<http://www.abs.gov.au/>
- Australian Bureau of Agricultural and Resource Economics – Bureau of Rural Sciences:
<http://www.daff.gov.au/abare-brs>
- Meat and Livestock Australia:
<http://www.mla.com.au/>
- Department of Agriculture and Food Western Australia:
<http://www.agric.wa.gov.au/>
- New South Wales Department of Primary Industries:
<http://www.dpi.nsw.gov.au/>
 - News and Events
<http://www.dpi.nsw.gov.au/aboutus/news/>
 - NSW Grains Report
<http://www.dpi.nsw.gov.au/aboutus/resources/periodicals/newsletters/grains-report-nsw>
- Primary Industries and Resources South Australia:
<http://www.pir.sa.gov.au/grains/cpr/>
- Queensland Drought Monitor:
<http://www.longpaddock.qld.gov.au/QueenslandDroughtMonitor/>
- The Land Farmonline:
<http://theland.farmonline.com.au/>
- Victorian Department of Primary Industries:
<http://www.dpi.vic.gov.au>