



Australian Government

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

Australian climate and agricultural monthly update

August 2010



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Key issues

July rainfall across the Murray-Darling Basin was the highest since 1986. The majority of Australia's eastern winter cropping regions have benefited from the average to above average rainfall during July and production conditions in the eastern states have been favourable for graziers, improving soil moisture and enhancing pasture growth in the warmer regions. Inflows to Murray-Darling Basin have increased since June. Water storage levels across much of the Basin increased during July. All indicators in the Pacific Ocean are showing the early stages of a La Niña event.

Summary

July rainfall across the Murray-Darling Basin was the highest since 1986. Day-time temperatures across the country were close to the long-term average, while night-time temperatures were the sixth warmest on record for the month.

Inflows to Murray-Darling Basin have increased since June. Water storage levels increased during July across much of the Basin, except in Queensland where storage levels declined slightly.

The majority of Australia's eastern winter cropping regions received average to above average rainfall during July 2010. This has led to improved soil moisture profiles in the upper soil layer, particularly in Queensland and New South Wales. In Western Australia, below average July rainfall has led to variable production conditions and winter crop prospects are less positive at this stage.

Improved soil moisture conditions have likely enhanced pasture growth in the warmer grazing regions of the eastern states that received above average rainfall in July. These favourable conditions have encouraged restockers to actively purchase under-finished stock and breeding cows, ewes, calves and ewe lambs.

Young lamb prices averaged \$119 per head in July, remaining well above the 2008–09 price. Sales of lambs for feedlots also increased in July, averaging \$84 per head for the lighter unfinished stock. Mutton prices continued to decline in July, averaging 398 cents per kilogram carcass weight. The softer market was attributed to the stronger Australian dollar, with exporters operating below full capacity.

All indicators in the Pacific Ocean are showing the early stages of a La Niña event. Computer models predict the central Pacific will continue to cool over the coming months, suggesting a further strengthening of the La Niña event is likely. La Niña conditions generally result in above average rainfall over much of Australia. Wetter conditions could benefit pasture growth, crop growth and water storage levels in the Murray-Darling Basin.

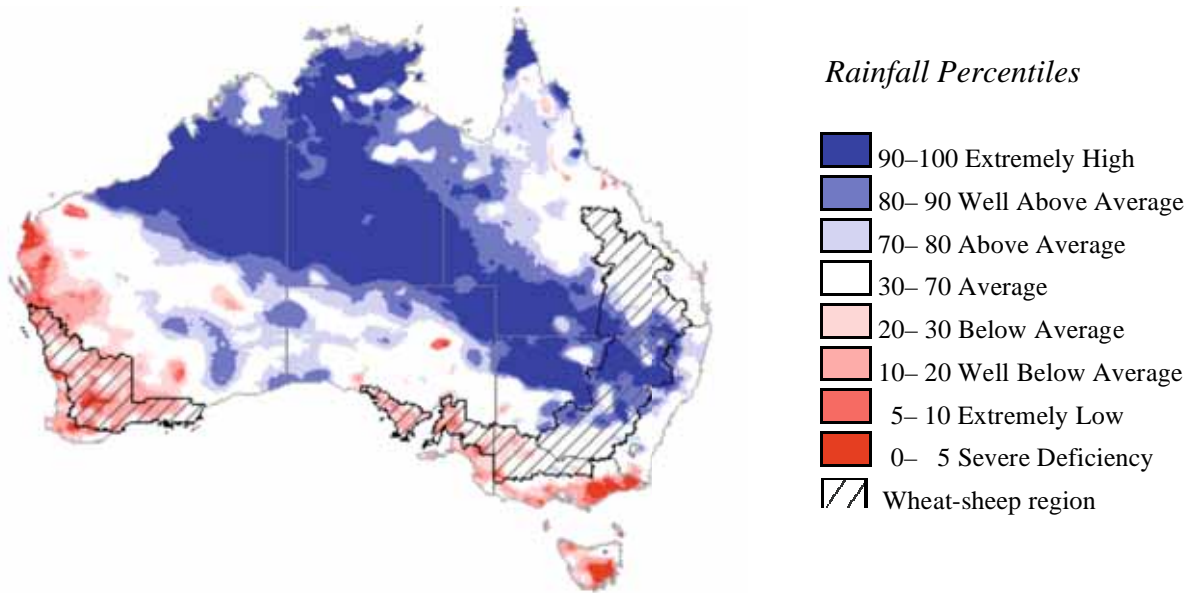
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1.0 Climate

1.1 Rainfall

Rainfall over the last month (July 2010)

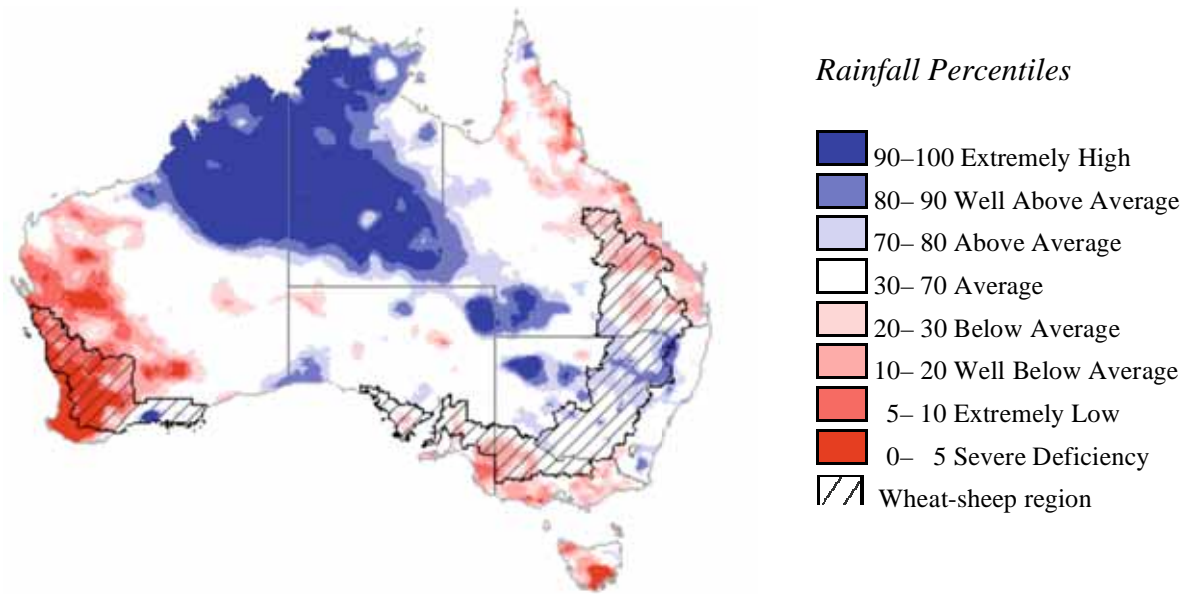


Rainfall percentiles (July 2010)

July 2010 was the thirteenth-wettest July on record for Australia with rainfall 55 per cent above the long-term average. Although northern and central parts of the continent were wetter than average in July, below average rainfall across southern areas could restrict pasture and winter crop growth in some regions.

July rainfall across the Murray-Darling Basin was the highest since 1986. An increase in water storage levels was generally recorded across the Basin during the month, except in Queensland where storage levels declined slightly.

Ongoing and emerging rainfall situations (May to July 2010)



Rainfall percentiles (May to July 2010)

Above average rainfall or higher was recorded from May to July 2010 across northern and south-eastern inland areas of Australia.

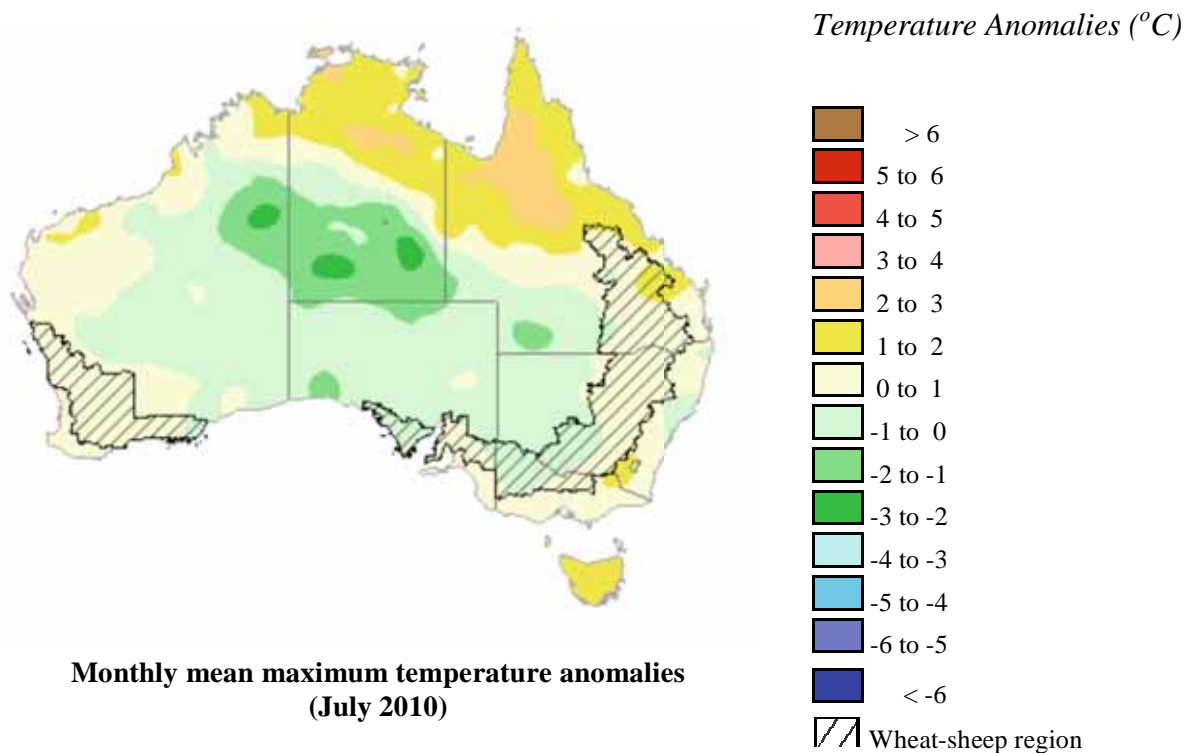
Below average rainfall in July maintained rainfall deficiencies in the west of Western Australia and strengthened deficiencies in Victoria, Tasmania and south-eastern South Australia. Rainfall deficiencies eased across northern New South Wales.

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

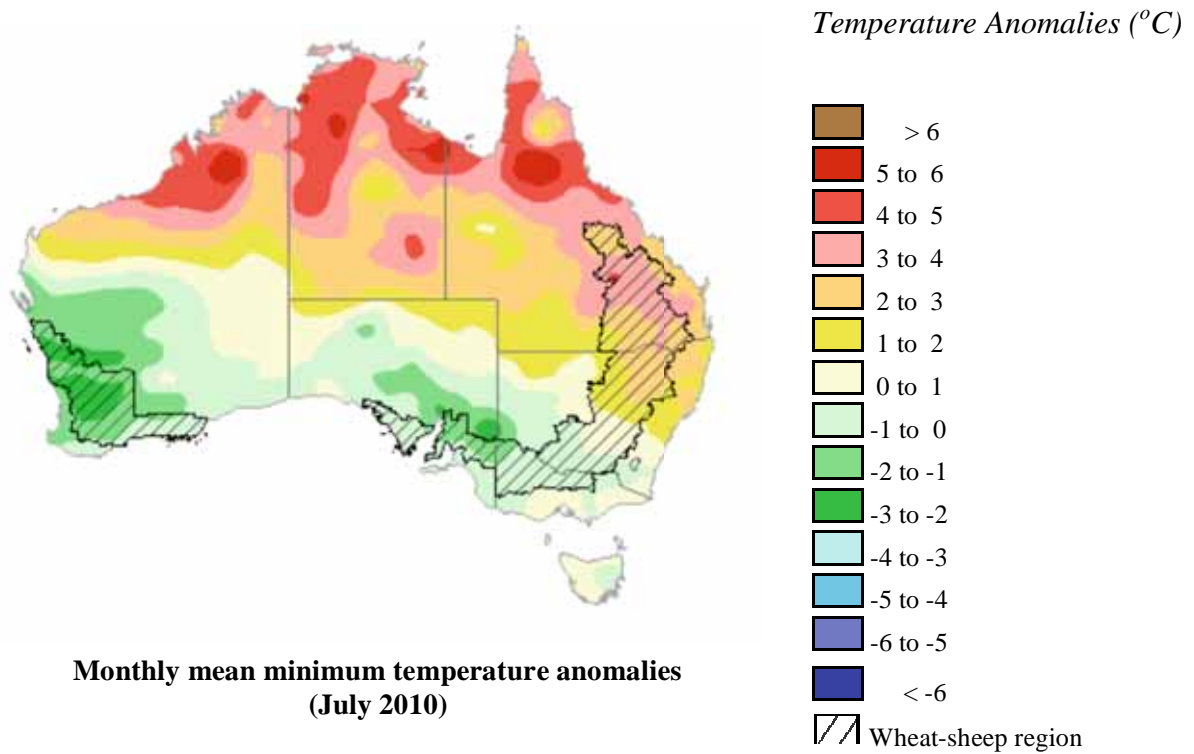
Mean maximum temperature

The mean maximum temperature for Australia during July 2010 was close to the long-term average with Tasmania reaching its highest record for July. It was warm in the north and cooler in the central and southern parts of the continent. Anomalies included maxima of 1 to 3°C above average across the northern tropics and 1 to 3°C below average in the southern parts of the Northern Territory. Near-average daytime temperatures across southern agricultural regions will enable pastures and crops to grow at normal rates assuming rainfall has been adequate.



Mean minimum temperature

The mean minimum temperature for Australia during July was sixth warmest on record. The minima were well above average across northern Australia and below average in the south. Notable anomalies included minima of 4 to 6°C above average in the northern tropics. Anomalies of 1 to 3°C below average in the south-west of Western Australia and southern part of South Australia could slow pasture growth.

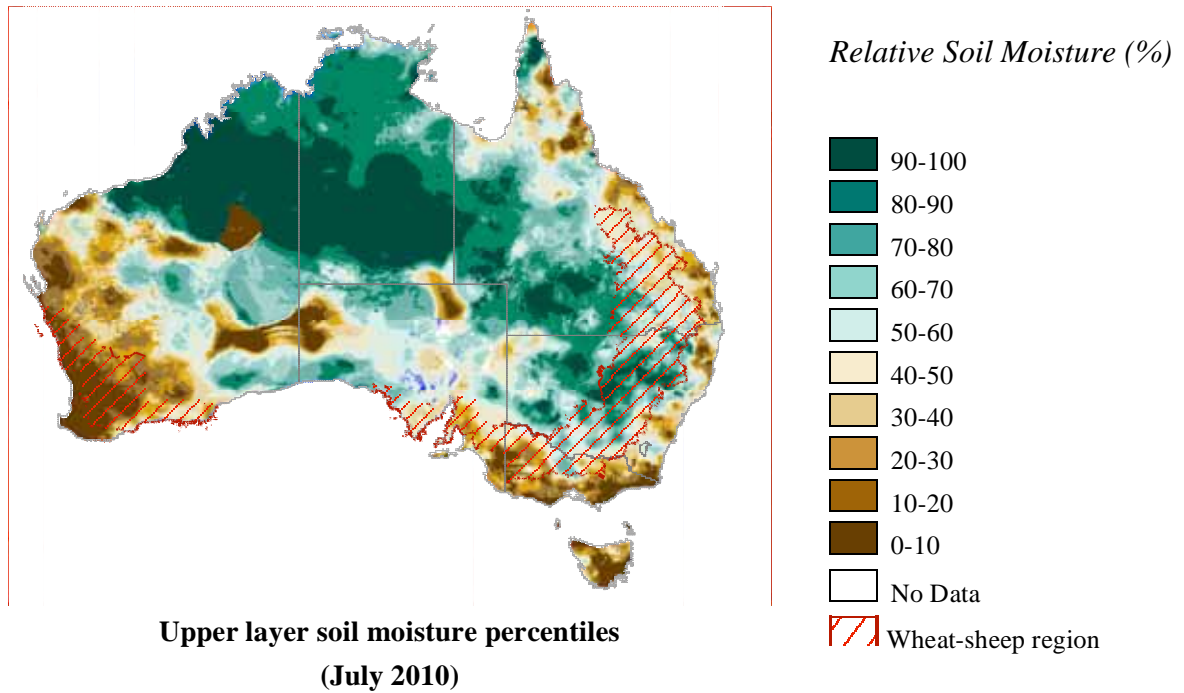


Spatial temperature analyses are based on historical monthly temperature data provided by the Bureau of Meteorology. These temperature anomaly maps show the departure of the maximum and the minimum temperature from the long-term average with respect to the reference period 1961 to 1990. For further information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

1.3 Relative soil moisture

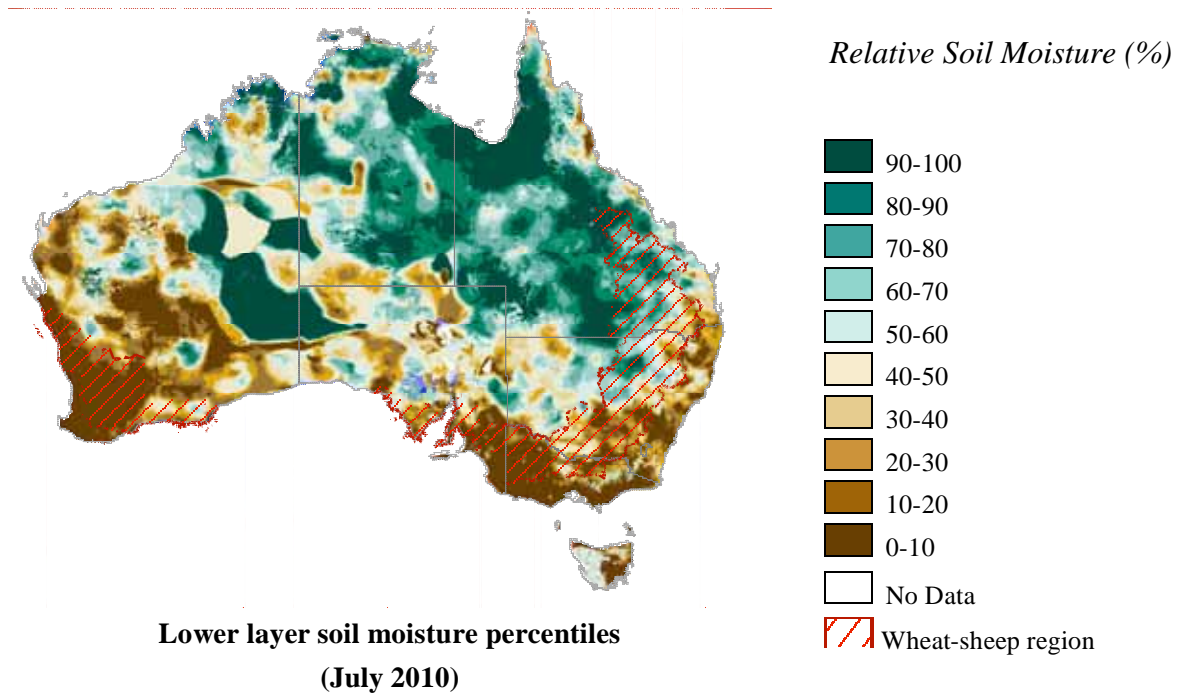
Upper layer soil moisture (top ~0.2 metres)

Soil moisture levels in the upper layer of the soil profile were relatively high across much of Queensland and New South Wales due to the generally wet conditions during July 2010. Upper layer soil moisture responds quickly to seasonal conditions and will often show a pattern that reflects monthly rainfall and temperature events.



Lower layer soil moisture (~0.2~1.5 metres)

There was little change to soil moisture levels in the lower layer of the soil profile during July 2010, with levels remaining relatively low in cropping areas of Western Australia, South Australia, Victoria and southern New South Wales. As such, crops in these areas will be particularly reliant on in-season rainfall. Lower layer soil moisture is a larger, deeper store that is slower to respond and tends to reflect accumulated events over seasonal and longer time scales.



Relative soil moisture maps presented below 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 July 2010. This data comes from a collaborative project between the Bureau of Meteorology, CSIRO and the former BRS 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 go to <http://www.daff.gov.au/brs/climate-impact/awap>.

1.4 Climate outlook

El Niño Southern Oscillation (ENSO)

All indicators in the Pacific Ocean are showing the early stages of a La Niña event. Computer models predict the central Pacific will continue to cool over the coming months, suggesting a further strengthening of the La Niña event is likely.

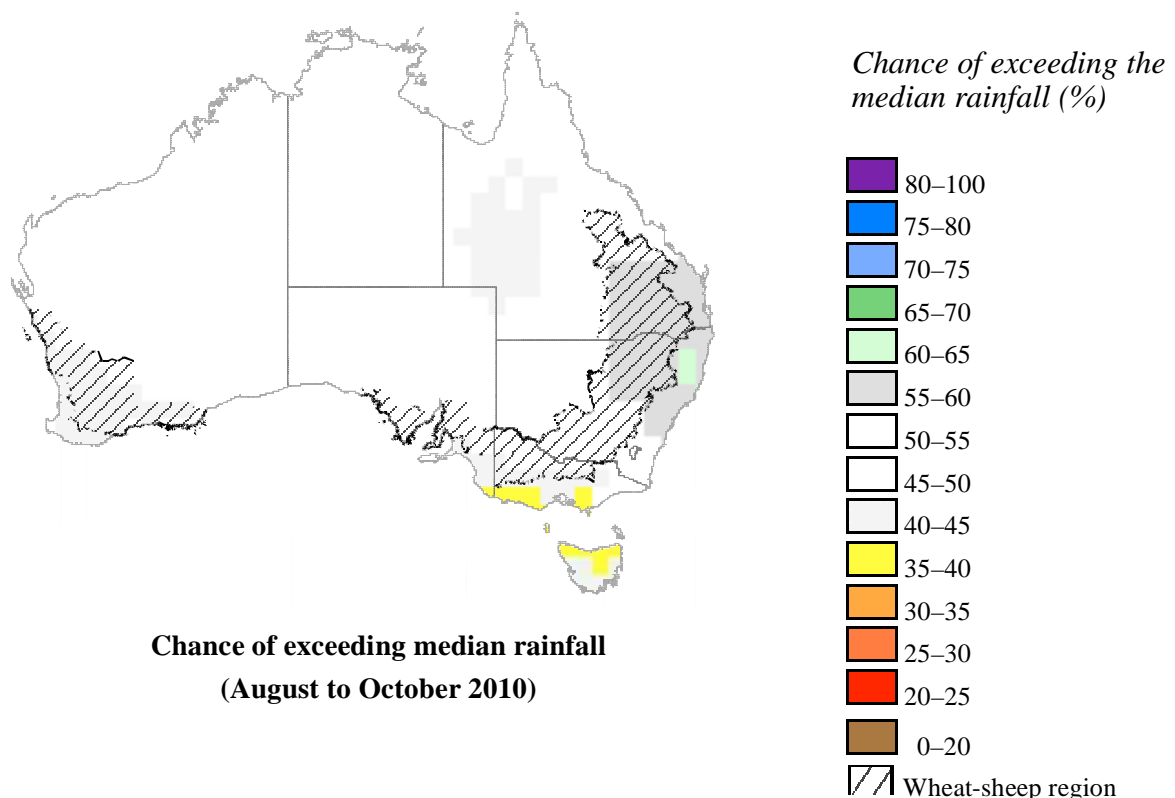
La Niña conditions generally result in above average rainfall over much of Australia. Wetter conditions could benefit pasture growth, crop growth and water storage levels in the Murray-Darling Basin.

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

Rainfall outlook

For the August to October period, the likelihood of exceeding median rainfall is between 40 and 60 per cent across most of the country. In parts of southern Victoria and northern Tasmania there is an increased chance of drier than average conditions. In contrast, parts of northern New South Wales show an increased chance of wetter than average conditions.

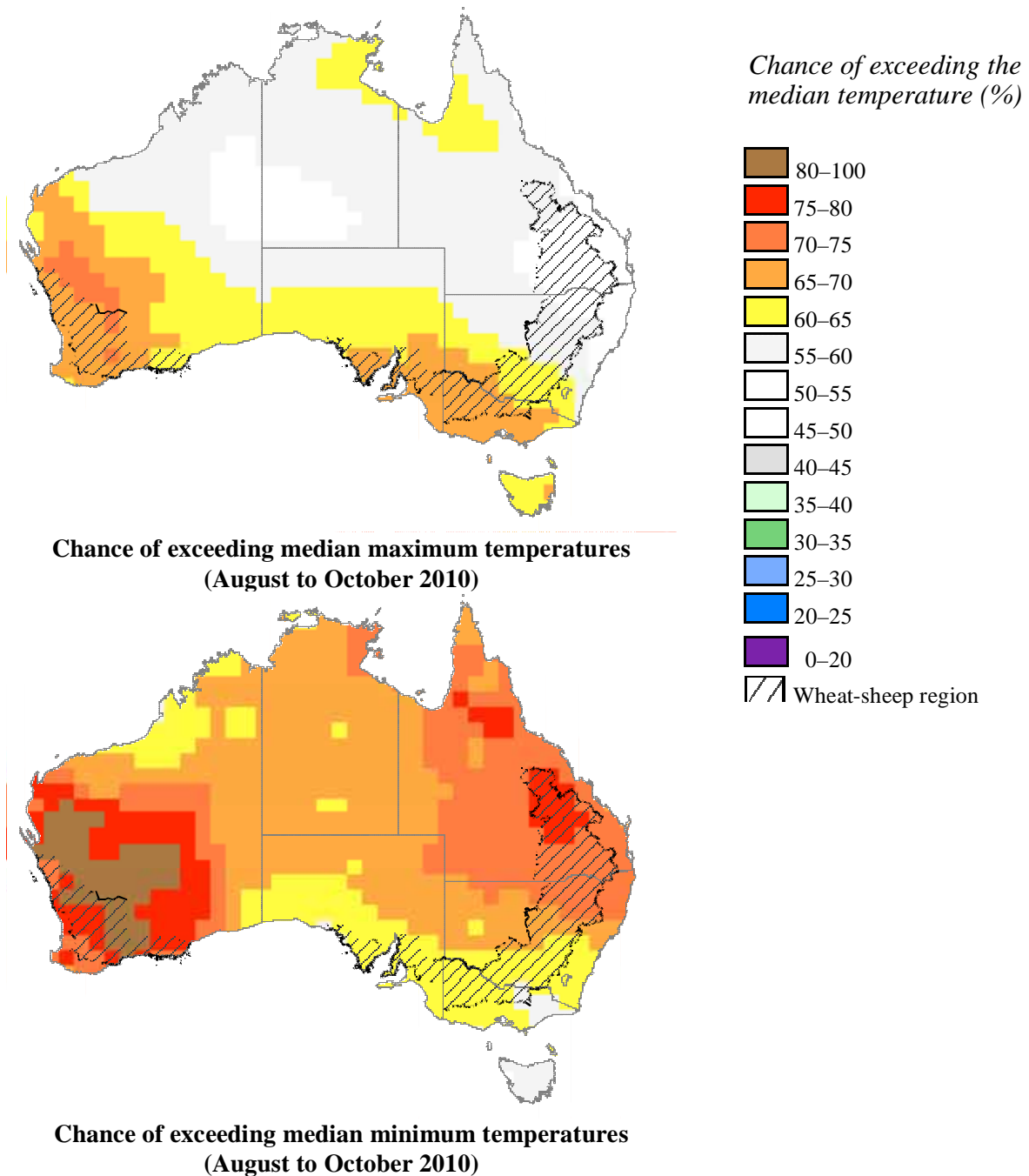
Wetter conditions during this period would be favourable for crop and pasture production.



Temperature outlook

The national outlook for maximum and minimum temperatures from August to October, favours higher than average daytime temperatures across southern Australia (60 to 75 per cent) and warmer than average nights across much of the continent (60 to 100 per cent).

Warmer temperatures generally assist pasture and crop growth rates, but temperatures above 30°C during the flowering and grain filling stages of crop growth (around September and October) could reduce final yield and grain quality.



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

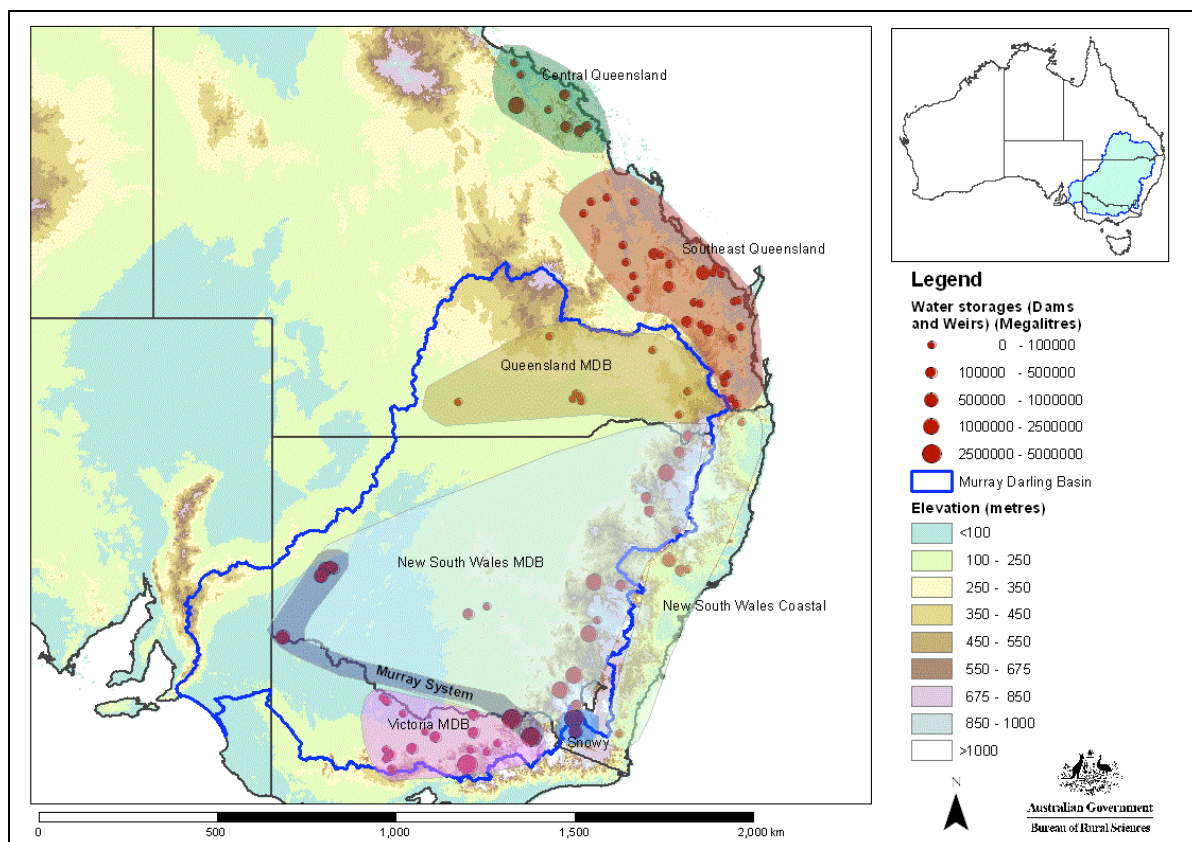
For further information on these seasonal outlooks and their interpretation go to <http://www.bom.gov.au/climate/ahead/>.

2.0 Water

2.1 Water storages

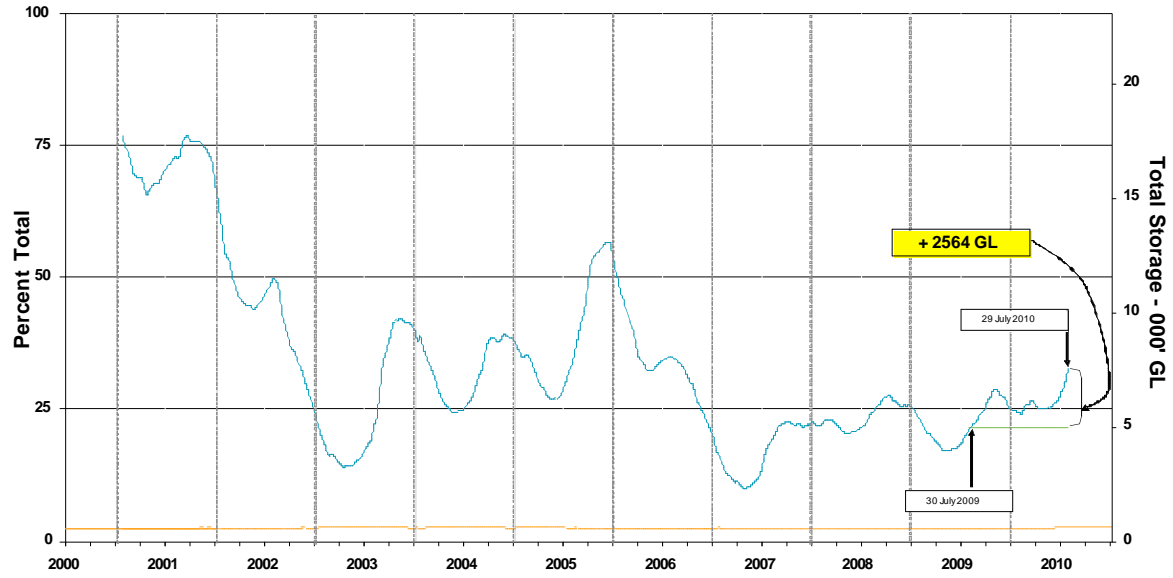
Changes in regional water storage for July 2010 and the previous 12 months are summarised in the table and graphs below (current at 29 July 2010).

Region	Total capacity (GL)	Current volume (GL)	Current volume (%)	Monthly change (GL)	Monthly change (%)	Annual change (GL)
Murray-Darling Basin (MDB)	23020	7547	33	+1000	+4.3	+2564
Snowy Scheme	5744	1419	25	+0	+0.0	+190
Murray-Darling Basin Authority (MDBA)	7621	2597	31	+349	+4.6	+1143
Queensland MDB	185	105	57	-2	-1.1	+8
Central Queensland	3155	2953	94	-52	-1.7	-13
South-east Queensland	3517	2717	77	-34	-1.0	+716
New South Wales MDB	13884	4396	32	+648	+4.7	+1279
Coastal New South Wales	1073	772	72	+22	+2.0	-49
Victoria MDB	8903	3031	34	+356	+4.0	+1273

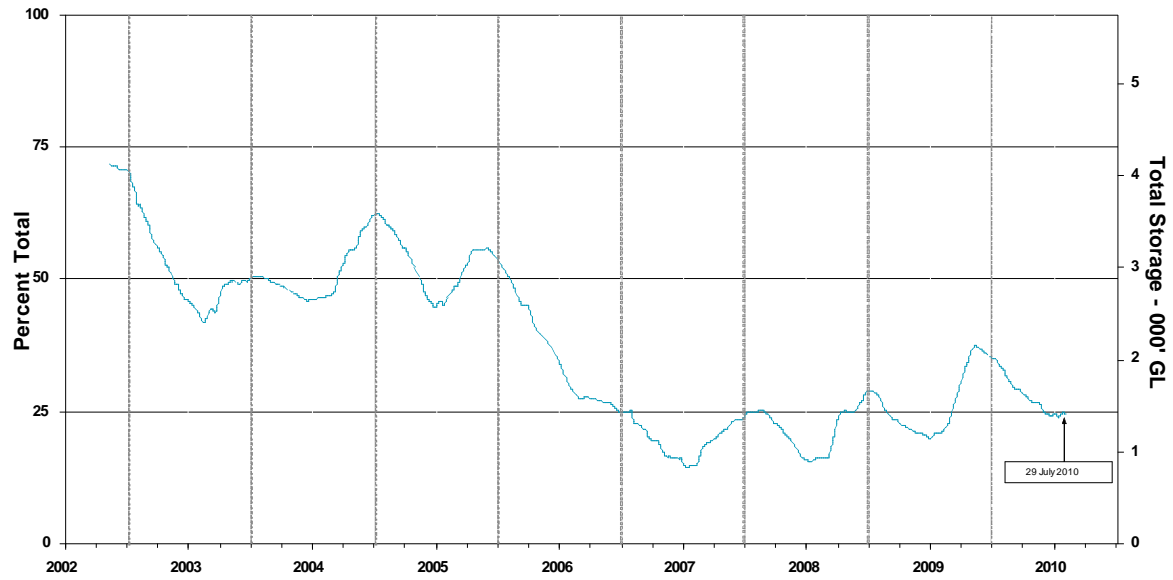


Water storages in Queensland, New South Wales and Victoria: The blue line indicates the extent of the Murray-Darling Basin and the shaded areas denote the coverage of the individual reporting regions.

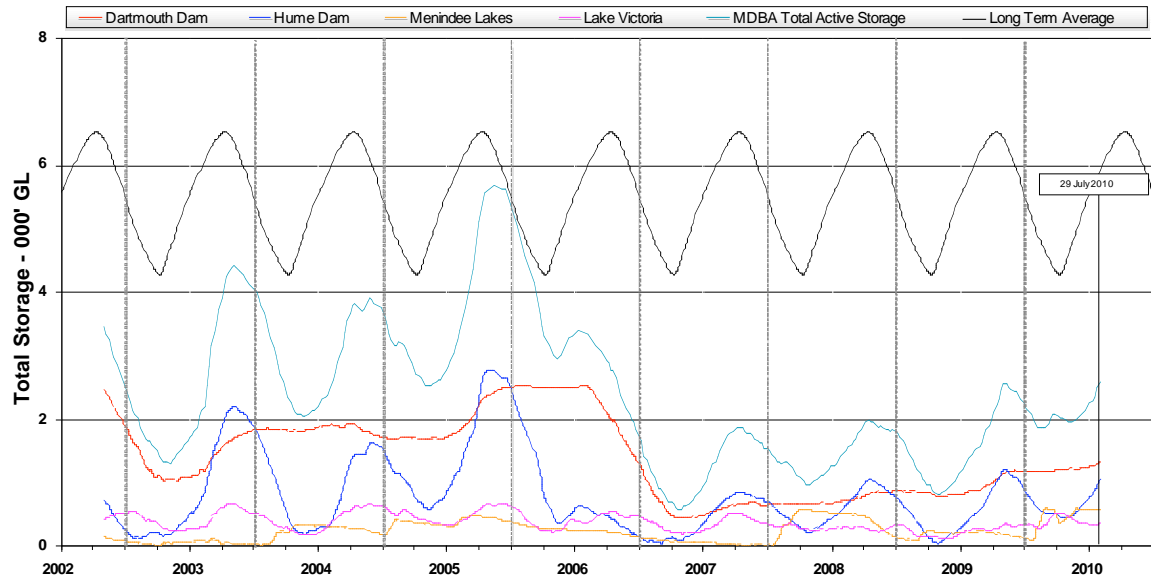
MDB (New South Wales, Victoria and Queensland)



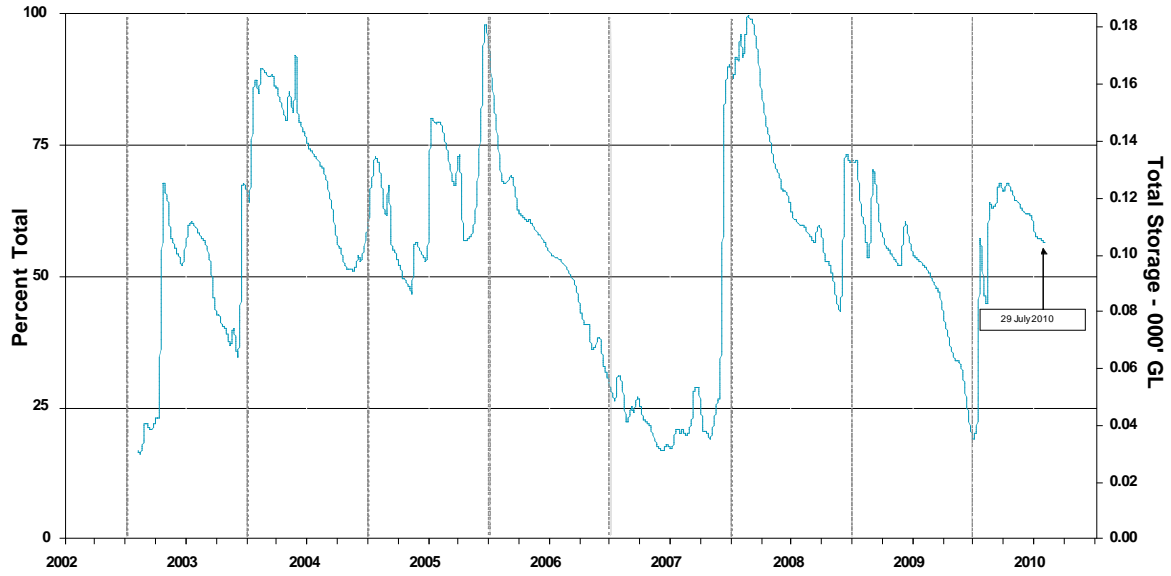
Snowy Scheme



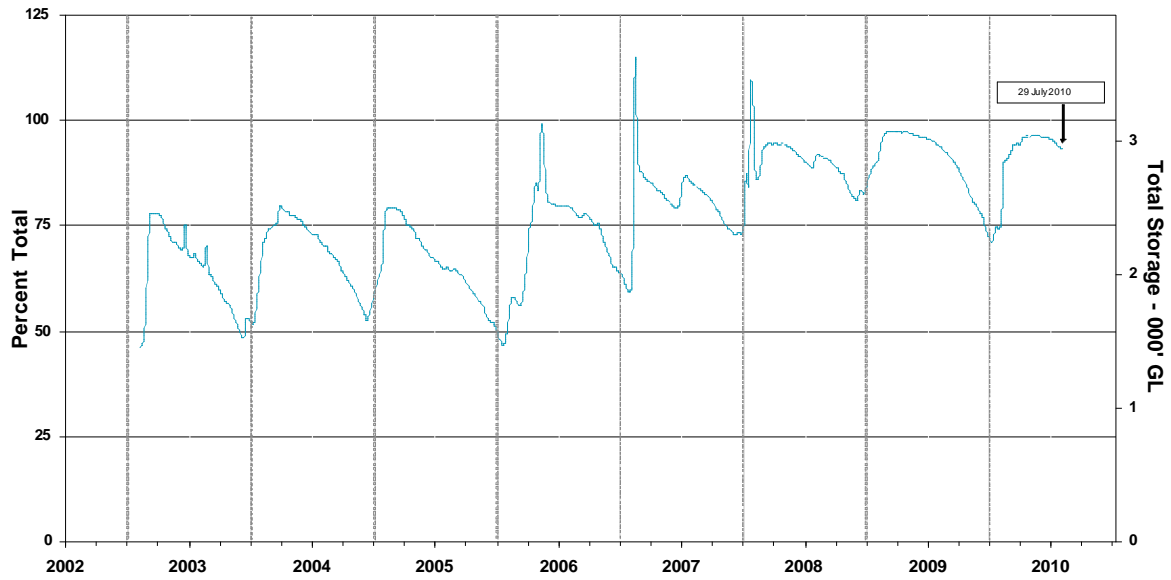
MDBA



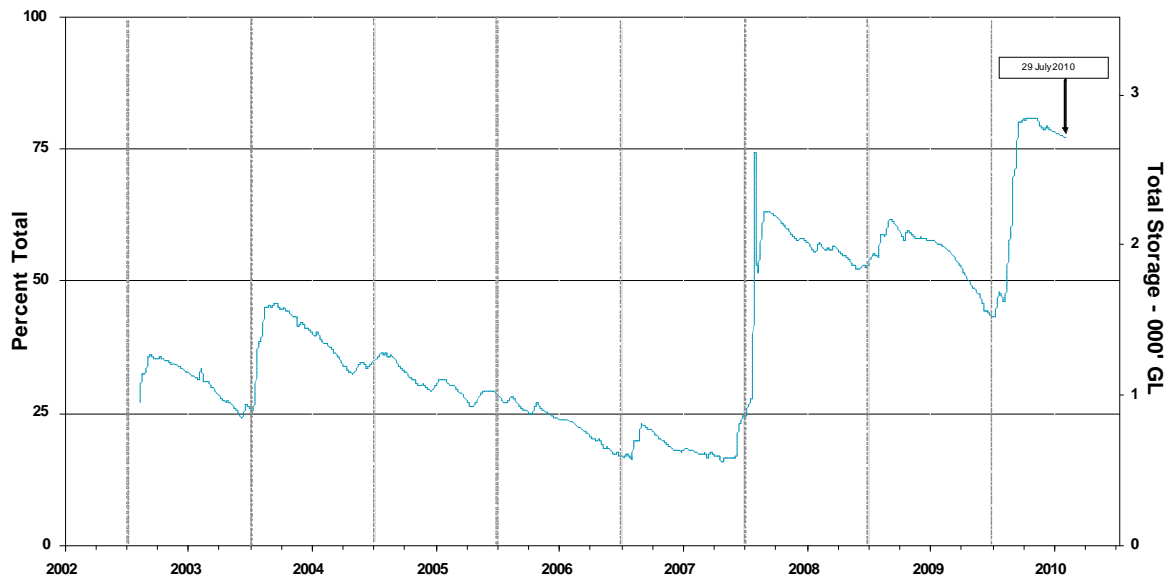
Queensland MDB



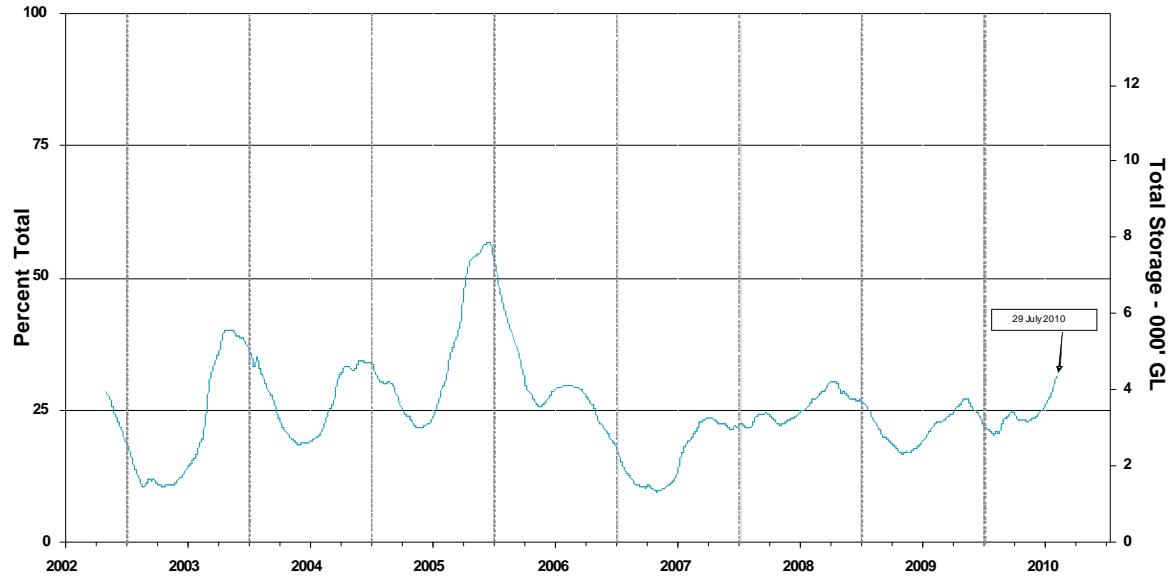
Central Queensland



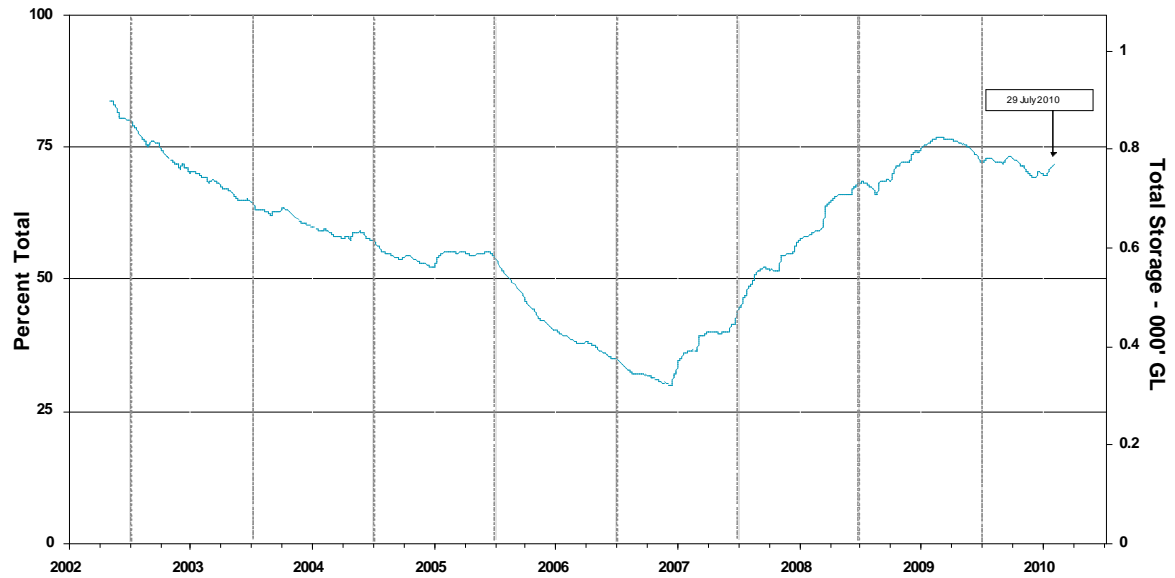
South-east Queensland



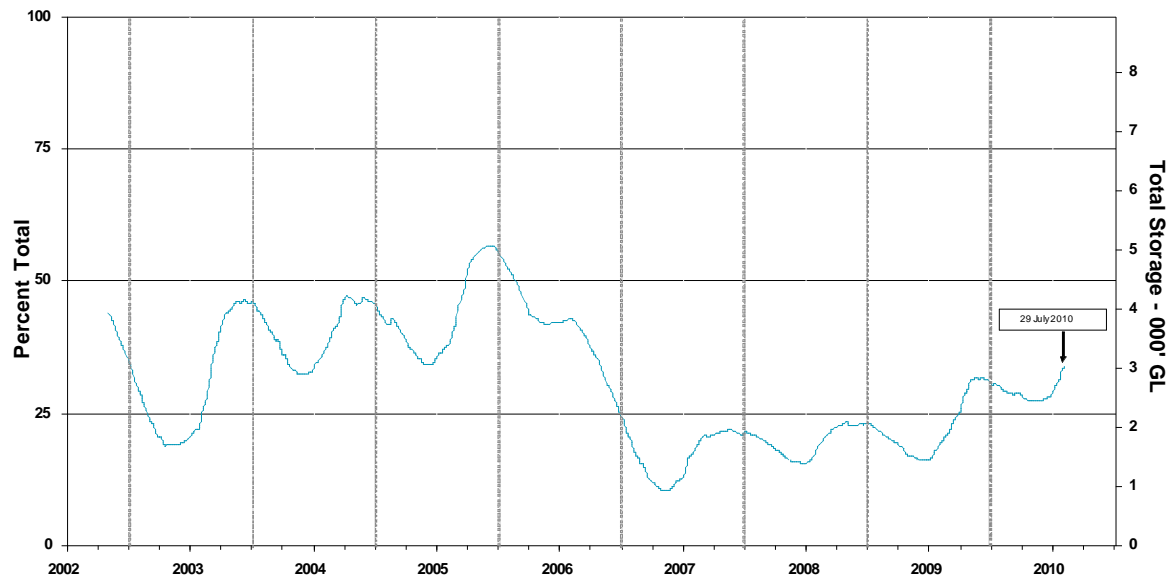
New South Wales MDB



Coastal New South Wales



Victoria MDB



For further information on water storages, go to:

- Snowy Scheme:
<http://www.snowyhydro.com.au/lakeLevels.asp?pageID=360&parentID=6>
- Queensland:
<http://www.sunwater.com.au/pdf/water/CurrentStorageSummary.pdf>
- New South Wales:
<http://www.waterinfo.nsw.gov.au/>
- 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 July 2010 (%)	Allocations at 2 August 2010 (%)
NSW Murray Valley			
High security	97	40	40
General security	27	-	0
NSW Murrumbidgee Valley			
High security	95	60	80
General security	27	-	0
NSW Lower Darling			
High security	100	-	100
General security	100	-	100
NSW Macquarie Valley			
High security	100		100
General security	0	6	6
NSW Hunter Valley			
High security	100		100
General security	100		100
NSW Lachlan Valley*			
High security	10		10
General security	0		0
NSW Border Rivers			
High security	100		100
General security	4.4	63	63
NSW Peel Valley			
High security	100		100
General security	100	20	80
Victoria Murray Valley			
High reliability	100	2	2
Victoria Goulburn			
High reliability	71	5	5
Victoria Campaspe			
High reliability	0		0
Victoria Loddon			
High reliability	3		0
Victoria Bullarook			
High reliability	19		0
Victoria Broken			
High reliability	17		0
South Australia Murray Valley			
High security	62	10	31

*Water sharing plans remain suspended in NSW for the Lachlan River valley at 2 August 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/About-Us/Media-Releases/default.aspx>,
<http://www.water.nsw.gov.au/Water-Management/Water-availability/Available-water-determinations/default.aspx> and
<http://www.wix.nsw.gov.au/wma/DeterminationSearch.jsp?selectedRegister=Determination>
- Goulburn-Murray Water:
<http://www.g-mwater.com.au/news/media-releases/>
- South Australian Department of Water:
<http://www.waterforgood.sa.gov.au/>
- Murray-Darling Basin Authority:
<http://www.mdba.gov.au/>

3.0 Production

3.1 Winter crops

New South Wales

Winter crop prospects have been boosted following rainfall events, in late May and several during June according to the New South Wales July Grains Report. Frosts in late June/early July slowed crop and pasture growth in some areas, which is normal at this time. At the start of July, most growers had completed planting.

Generally, above average rainfall across New South Wales during July has led to improved soil moisture. Where warmer temperatures allow, the moisture may have improved crop growth. Locusts are still a significant threat in spring, with hatching expected from late August until October.

http://www.dpi.nsw.gov.au/data/assets/pdf_file/0010/342658/nsw-grains-report-july-2010.pdf

Queensland

Soil moisture conditions and the seasonal rainfall outlook are favourable for the 2010 wheat crop across most of Queensland, according to the July Queensland Seasonal Crop Outlook for Wheat. After a lack of rainfall in June, July rainfall was average or better in most areas, leading to favourable production conditions.

http://www.dpi.qld.gov.au/documents/PlantIndustries_FieldCropsAndPasture/Wheat-Report-July2010.pdf

South Australia

Below average rainfall in some areas during May and June delayed sowing, although some farmers opted to dry-sow, according to the Primary Industries and Resources South Australia (PIRSA) July Crop and Pasture report. Locusts also delayed sowing in some areas. Moderate rainfall in late June assisted crops after the dry start. July rainfall was below average in many areas, leading to variable production conditions. Mice continue to be problematic.

According to the PIRSA July Crop and Pasture report, the prospects for winter crops is favourable, but remains dependent on adequate and timely winter/spring rainfall.

http://www.pir.sa.gov.au/data/assets/pdf_file/0007/137878/Jul10cpr.pdf

Victoria

Conditions for cropping across Victoria are variable as a result below average to average rainfall during July. Locusts caused a delay to sowing in a number of areas and mice persist in some regions, particularly the Mallee. Sowing was completed in most areas by early July. Cool mornings and some frosts slowed the growth of crops in the Wimmera, which is normal at this time of year.

http://new.dpi.vic.gov.au/data/assets/pdf_file/0018/38223/DSC-101-July-8-2010.pdf

Western Australia

Production conditions across most of Western Australia's winter cropping regions are variable as a result of below average rainfall during July. According to the Western Australian Department of Agriculture's July Seasonal Update, most crops in the Northern and Central Agricultural Regions were progressing well during June, although July rainfall was limited. In southern areas, crop emergence is reportedly patchy, with reports of frost damage to emerging canola.

http://www.agric.wa.gov.au/objtwr/imported_assets/content/lwe/cli/seasonalupdatejul10.pdf

3.2 Livestock

Improved soil moisture conditions have enhanced pasture growth in the warmer grazing regions of the eastern states that received above average rainfall in July. These favourable conditions have encouraged restockers to actively purchase under-finished stock and breeding cows, ewes, calves and ewe lambs.

Beef cattle

Improved seasonal conditions in 2010 have driven increased demand for restocker cattle after several years of drought that forced destocking. Increased demand for restocker cattle has driven prices higher, particularly in the eastern states.

Nationally, medium weight vealer steers returning to the paddock averaged 200 cents per kilogram (¢/kg) live weight. In Queensland, lightweight yearling steers and heifers gained 11 cents and 7 cents to average 185 cents per kilogram and 171 cents per kilogram live weight respectively.

The number of cows offered for sale remained relatively stable in July. Nationally, medium weight cows to slaughter and heavyweight cows averaged 128 cents per kilogram and 148 cents per kilogram live weight, respectively. Medium and light weight cows for restocking averaged 130 cents per kilogram and 120 cents per kilogram live weight, respectively.

Sheep and lambs

In the eastern states, new season lambs arrived earlier than previous years with July yardings 53 per cent higher than the same time last year (12 000 additional lambs). Enhanced lamb growth resulting from the mild winter experienced in New South Wales, Victoria and South Australia has resulted in the early sale of lambs.

New South Wales markets have supplied the majority of young lambs, accounting for 83 per cent of sales, while northern Victoria accounted for 8 per cent of young lamb consignments nationally. South Australian young lamb numbers increased by 85 per cent compared to July 2009, while Victorian numbers increased by 25 per cent.

Young lamb prices averaged \$119 per head in July, remaining well above the 2008–09 price. Sales of lambs for feedlots also increased in July, averaging \$84 per head for the lighter unfinished stock.

Mutton prices continued to decline in July, averaging 398 cents per kilogram carcass weight. The softer market was attributed to the stronger Australian dollar, with exporters operating below full capacity. Despite this decline, mutton prices remain very high compared to historical data, reflecting decreased supply. National mutton supply in July 2010 decreased 48 per cent compared to the same period last year.

Goats

Goat slaughter prices decreased by as much as 30 cents per kilogram carcass weight throughout July, largely as a result of a higher Australian dollar which has adversely affected export demand. The average price for goats was 289 cents per kilogram carcass weight during July; with the 10-12 kg category down 11 cents per kilogram and the 16-20 kg category down 13 cents per kilogram. The cooler winter temperatures have not affected goat quality during July, with slaughter numbers increasing by 18 per cent to 27 818 head during the last week of July; up 40 per cent on the same period last year.

<http://www.abc.net.au/rural/qld/content/2010/07/s2969072.htm>

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

<http://www.mla.com.au/Prices-and-markets/Market-news/Cattle-market-wrap300710>
<http://www.mla.com.au/Prices-and-markets/Market-news/Goat-prices-cool-down>
<http://www.mla.com.au/Prices-and-markets/Market-news/Sheep-market-wrap300710>

The above crop and livestock information is summarised from industry sources and does not represent forecasts by ABARE–BRS. Forecasts on crops and livestock and across the commodity sectors were released by ABARE in *Australian commodities* in June 2010. The next edition of *Australian commodities* is scheduled for release 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.abare-brs.gov.au/>
- 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/aboutus/news/>
<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>