Australian Government
Bureau of Rural Sciences

Australian climate and agricultural monthly update

April 2010





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

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Key issues

Winter crops and pastures throughout the eastern states have benefited from significant rainfall events in March 2010. The improved conditions have allowed producers to hold onto sheep and cattle to restock herds and as a result the increased competition at markets has seen prices continue to rise. The Murray-Darling Basin recorded its highest March rainfall since 1989.

Summary

The Murray-Darling Basin recorded its highest March rainfall since 1989 (94 per cent above average) and New South Wales, Victoria, South Australia and Queensland all exceeded their average March rainfall. Only Western Australia and the Northern Territory recorded below average rainfall. Daytime temperatures were close to the long-term average for the month.

Increased water allocations were announced in Victoria, New South Wales and South Australia. Although water storage levels across the Murray–Darling Basin decreased by 1 per cent during March, it is likely that the high rainfall has not yet been recorded at storage gauges.

Winter crops plantings across Australia have benefitted from significant rainfall events in March, particularly in Queensland, New South Wales and Victoria, where widespread rainfall exceeded 50 millimetres.

The rainfall has also been beneficial for graziers who are taking advantage of the available feed and holding onto livestock to restock herds. Increased competition at markets has resulted in continued price rises for both cattle and sheep.

Most of the eastern states cattle price indicators are above February 2010 levels. The prices of lamb and mutton sheep during March 2010 were, respectively, 30 and 64 per cent higher than March 2009 prices. The number of lambs at market during March 2010 decreased by 5 per cent on the March 2009 numbers and throughput of beef cattle increased by 3.5 per cent compared to March 2009.

Tropical Pacific Ocean cooling over the last fortnight has accelerated the decay of the current El Niño event, according to the Bureau of Meteorology. The Southern Oscillation Index remains at negative values typical of an El Niño event. Models indicate that the decay of the El Niño event is likely by winter.

Dr Kim Ritman

Acting Executive Director

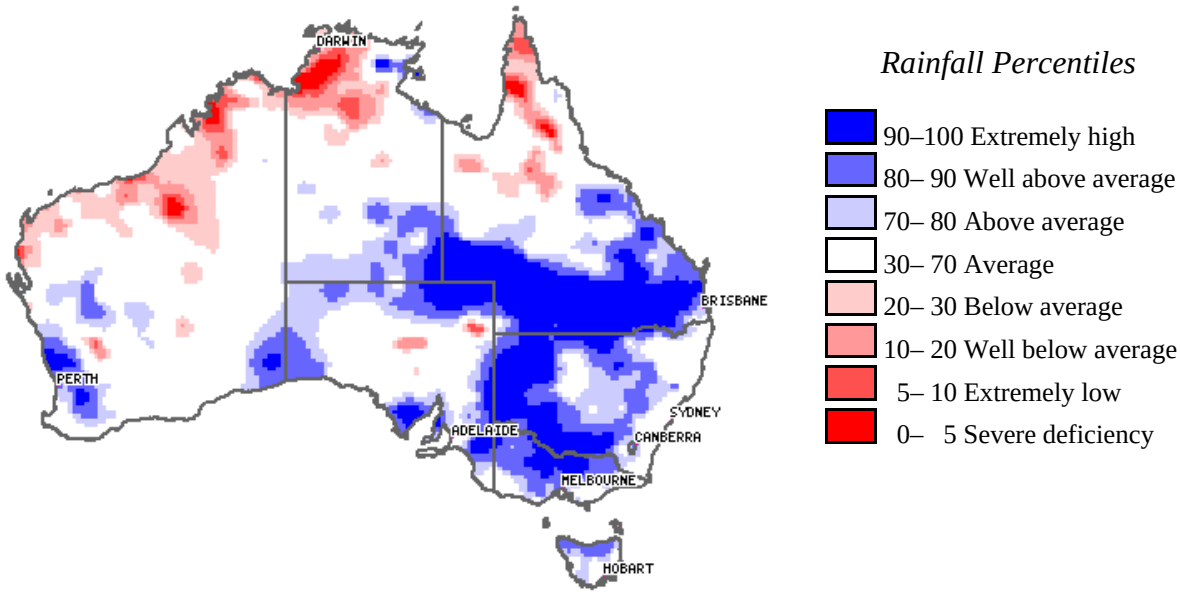
Bureau of Rural Sciences

Table of contents

1.0 Climate

1.1 Rainfall

Rainfall over the last month (March 2010)



Rainfall percentiles for March 2010

Rainfall for Australia during March 2010 was very close to the median (9 per cent below the long-term average).

South Australia, Tasmania, Victoria, New South Wales and Queensland all recorded above average March rainfall. Victoria received its highest March rainfall since 1989 (58 per cent above average). Queensland and New South Wales recorded 19 per cent and 21 per cent above average rainfall, respectively. March rainfall across Tasmania and South Australia was slightly above average (14 per cent and 8 per cent above average, respectively).

The Murray-Darling Basin recorded its highest March rainfall since 1989 (94 per cent above average), with extremely high rainfall across southern Queensland, western and southern New South Wales and northern Victoria. Much of this rain fell during the beginning of the month due to the presence of a low pressure system combined with a trough moving across inland south-eastern Australia.

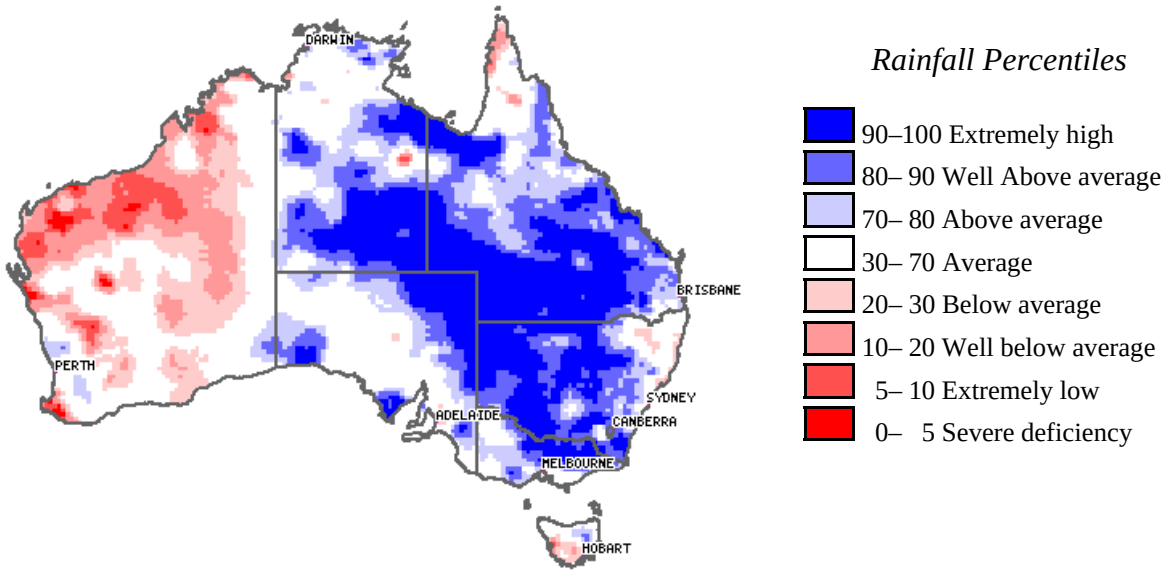
The south-west of Western Australia also recorded above average rainfall. This has increased water storages and should provide an increase in soil moisture leading into the winter cropping season.

In contrast, Western Australia and the Northern Territory recorded below average rainfall (41 per cent and 38 per cent, respectively).

Rainfall across the eastern and southern states is expected to provide favourable production opportunities for both livestock and crop producers during the remainder of the autumn production period.

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/>.

Ongoing or emerging rainfall situations



Rainfall percentiles for the past three months
January 2010 to March 2010

Extremely high rainfall from January 2010 to March 2010 occurred across parts of southern Northern Territory, South Australia, Victoria, Queensland and New South Wales.

Above average rainfall in southern South Australia and Tasmania has eased rainfall deficiencies in these areas and is likely to improve production opportunities during autumn and leading into winter.

Heavy rainfall across the Murray-Darling Basin has also improved conditions for irrigators with inflows providing further increases in water storage levels.

Rainfall deficiencies across north western Australia have strengthened due to below average rainfall during March 2010.

1.2 Temperature

Mean maximum temperature

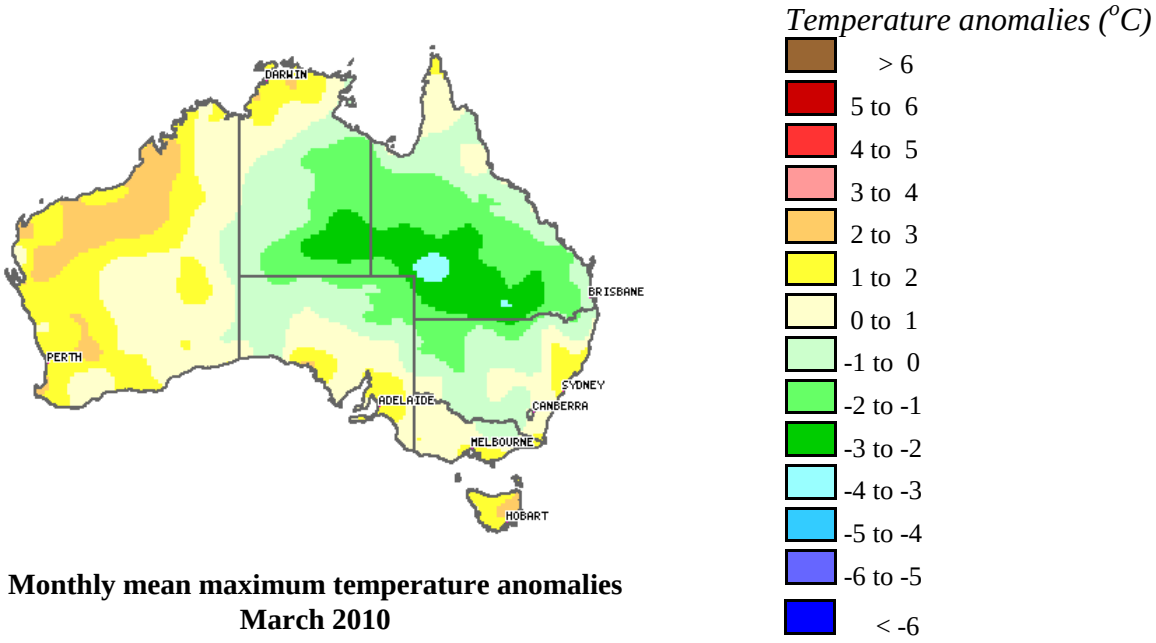
The maximum temperature in March 2010 for Australia was close to average (twenty-seventh lowest of 61 years). Maxima were spatially variable, with Tasmania experiencing the highest day-time temperature for March on record, while Queensland recorded the lowest maximum temperature for March on record. Maxima were above average across much of the south and west of the country, including Western Australia, southern South Australia, Tasmania, Victoria and the New South Wales coast.

Below average maxima were recorded across most of Queensland, the Northern Territory and New South Wales.

Notable anomalies included maxima between 2 and 3°C above average across the north-west of Western Australia and 2 to 4°C below average in the southern inland Queensland.

Higher daytime temperatures in Western Australia will reduce the effectiveness of rainfall, particularly as previous conditions have been dry and the moisture content of soil profiles is reported to be low.

Cooler weather across Queensland will assist the effectiveness of rainfall received, maintain soil moisture profiles and enhance pasture growth and quality.

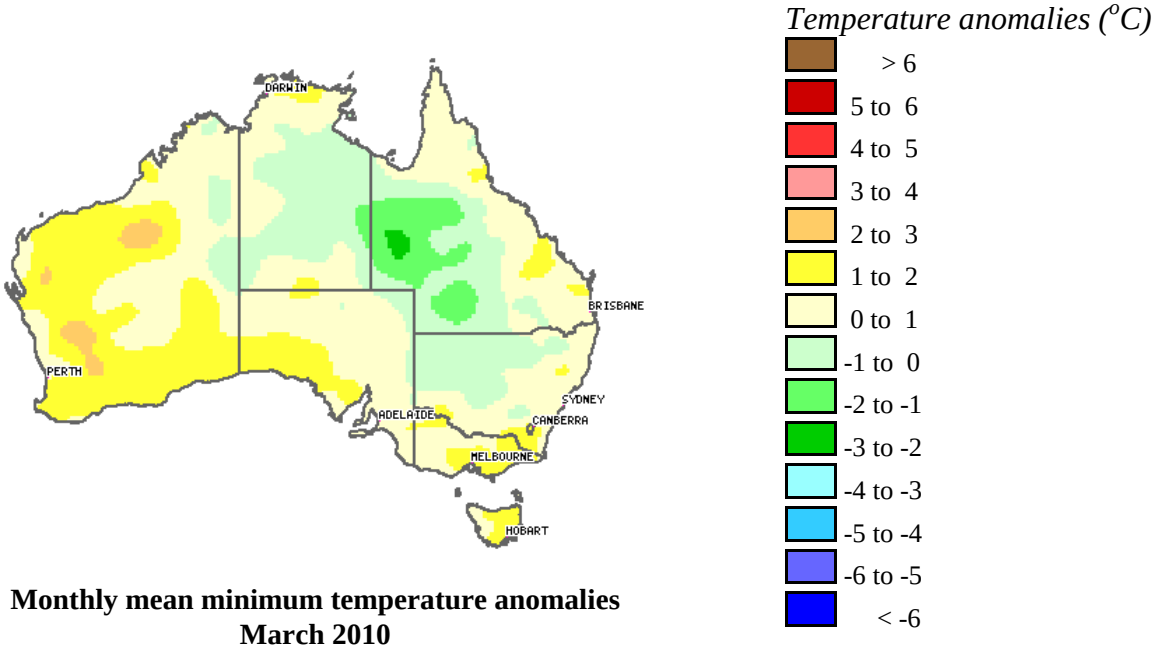


Monthly mean maximum temperature anomalies March 2010

Mean minimum temperature

Overnight minimum temperatures in March 2010 for Australia were above the March long- term average, with an anomaly of +0.28°C (twenty-second highest of 61 years). Minima of at least 1°C above average were recorded over most of western and some southern parts of Australia. Below average minima were experienced over much of inland Queensland, the Northern Territory and north-western New South Wales.

Notable anomalies include up to 3°C above average in parts of inland Western Australia and up to 3°C below average in areas of western Queensland.



Monthly mean minimum temperature anomalies March 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. Temperature anomalies are calculated 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 Climate outlook

El Niño Southern Oscillation (ENSO)

Strengthening trade winds during the past fortnight have continued to cause central Pacific Ocean surface temperatures to slowly cool. Tropical Pacific Ocean sub-surface temperatures have also begun to slowly cool. However, the Southern Oscillation Index remains at negative values typical of an El Niño event (currently at –12). Computer models currently indicate that Pacific Ocean temperatures will cool steadily over the coming months, returning to neutral conditions by winter.

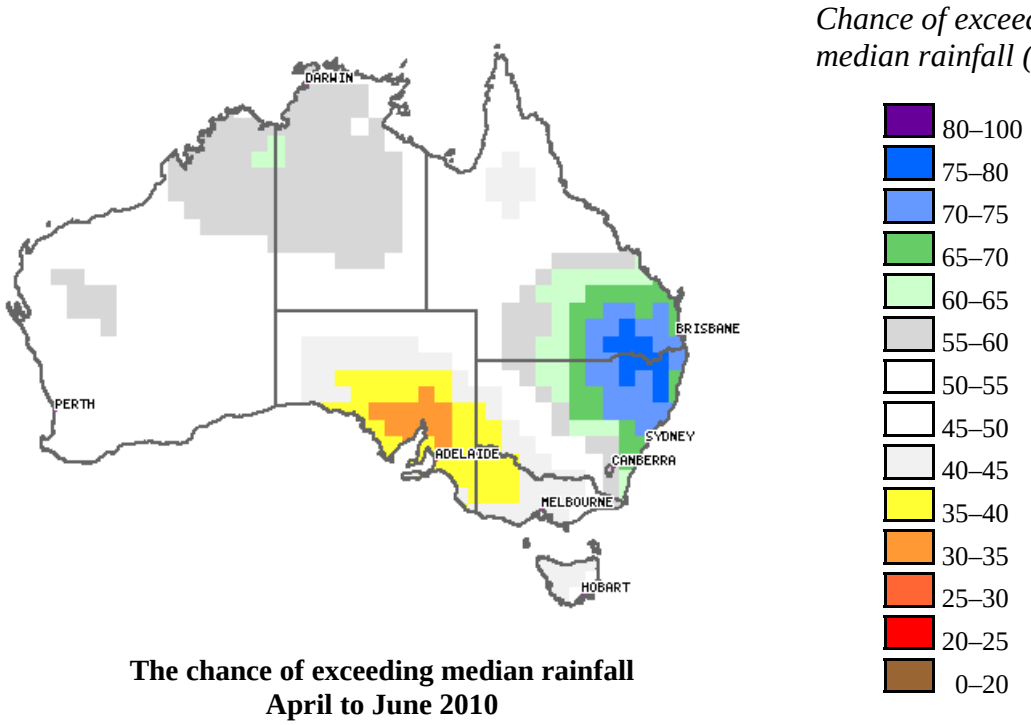
For further information on the Bureau of Meteorology interpretation of the El Niño–Southern Oscillation, go to http://www.bom.gov.au/climate/enso/

Rainfall outlook

Across south-eastern Queensland and north-eastern New South Wales there is an increased chance (60 to 80 per cent) of exceeding the median rainfall during April to June 2010. Wet conditions during this period in these areas could improve winter crop prospects and support autumn livestock production. A small area of the northern Kimberly is also expected to exceed the median rainfall (60 to 65 per cent chance).

In contrast, there is a 60 to 70 per cent chance of receiving less than the median rainfall across southern Australia from the Eyre Peninsula to the Victorian Mallee. Dry conditions during this period in these areas may affect sowing and establishment of winter crops.

There is an equal chance of receiving either above or below the median rainfall between April and June 2010 across the rest of the country.

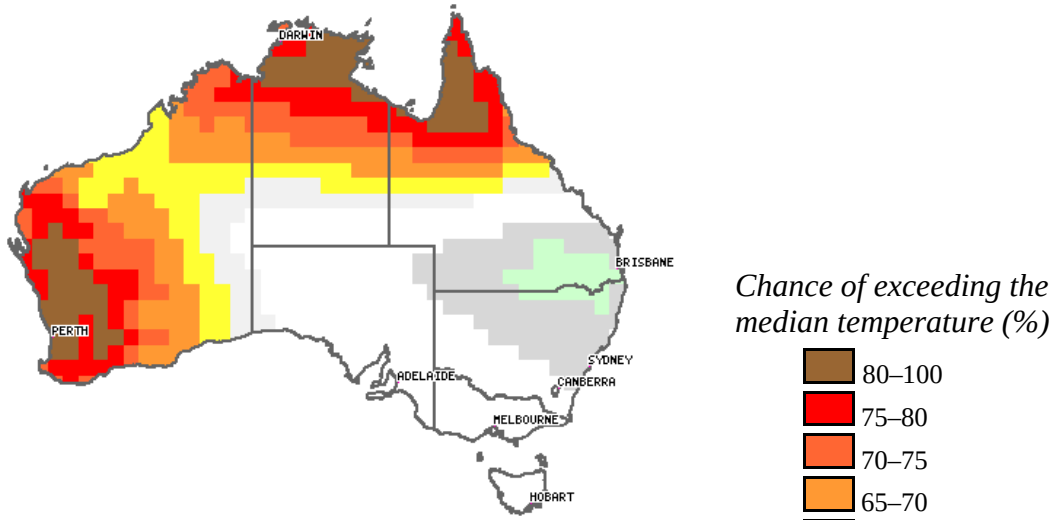


The chance of exceeding median rainfall April to June 2010

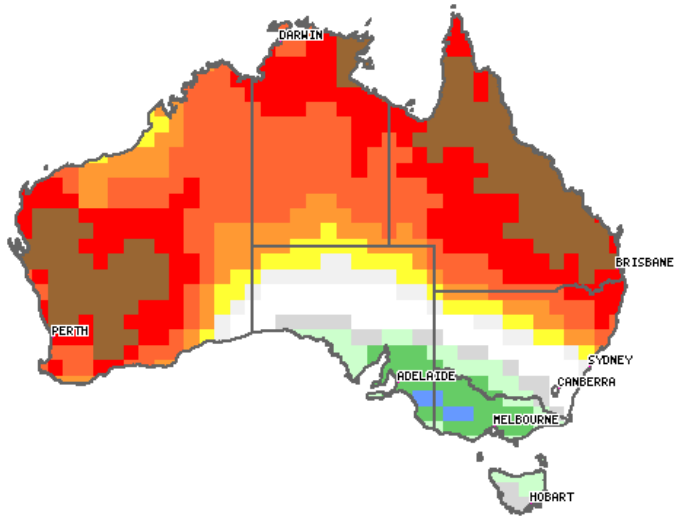
Temperature outlook

There is a 60 to 85 per cent chance of warmer day time temperatures across south western and tropical Australia. Warmer temperatures across these areas during this period may help to extend autumn pasture growth. In contrast, eastern Australia has a 60 to 65 per cent chance of experiencing cooler than average days.

Forecasts indicate a 60 to 80 per cent chance of warmer than average nights across Western Australia, the Northern Territory, Queensland and northern New South Wales. Some areas across western and inland Western Australia and coastal Queensland have an 80 per cent or higher chance of warmer night time temperatures. However, south-eastern Australia is expecting cooler than normal night time temperatures with only a 25 to 40 per cent chance of exceeding the median minimum temperature.



The chance of exceeding median maximum temperatures April to June 2010



The chance of exceeding median minimum temperatures April to June 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 go to http://www.bom.gov.au/climate/ahead/

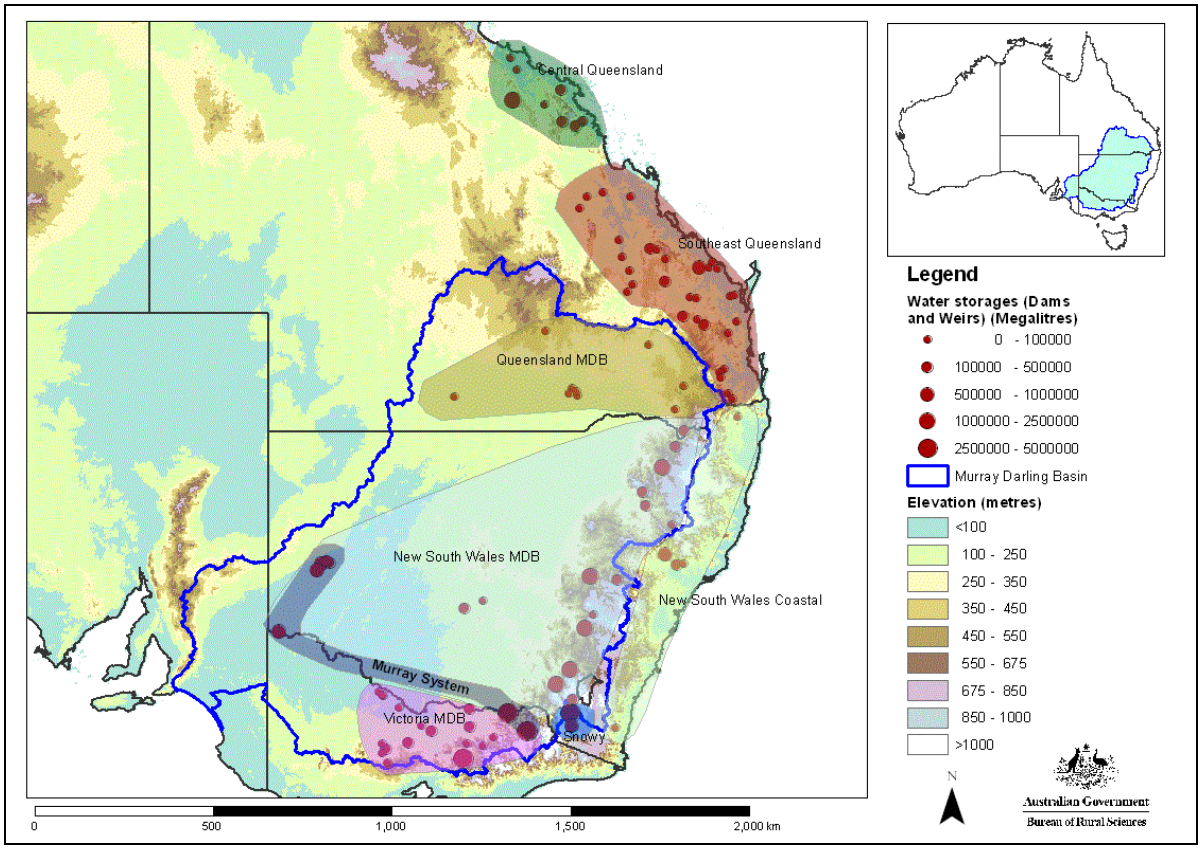
2.0 Water

2.1 Water storages

Water storage changes for March 2010 and the previous 12 months are summarised in the table and graphs below (current at 8 April 2010).

Region	Total capacity (GL)	Current volume (GL)	Current volume (%)	Monthly change (GL)	Monthly change (%)	Annual change (GL)
Murray-Darling Basin (MDB)	23 020	5 869	26	-126	-1	+1650
Snowy Scheme*	5 744	1 674	29	-10	-0.2	+325
Murray-Darling Basin Authority (MDBA)	7 621	2 035	24	+94	+1	+1148
Queensland MDB	185	126	68	+7	+4	+23
Central Queensland	3 155	3 035	96	+56	+2	-35
South-east Queensland	3 517	2 850	81	+320	+9	+816
New South Wales MDB	13 884	3 252	23	-63	-0.5	+796
Coastal New South Wales	1 073	779	73	-1	-0.06	+13
Victoria MDB	8 903	2 478	28	-73	-1	+814

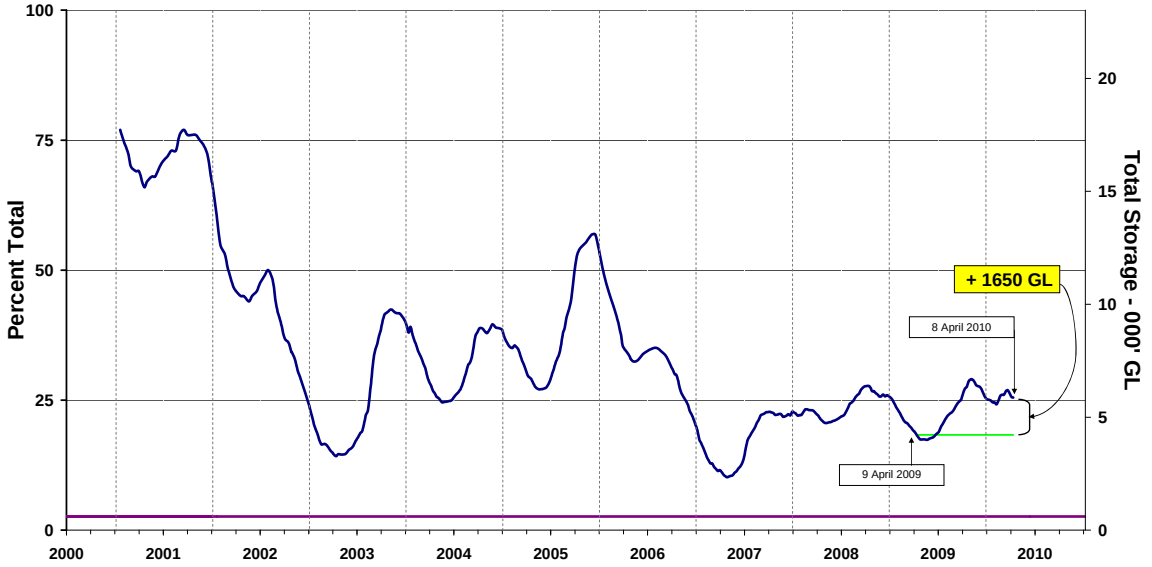
*Last update 18 March 2010



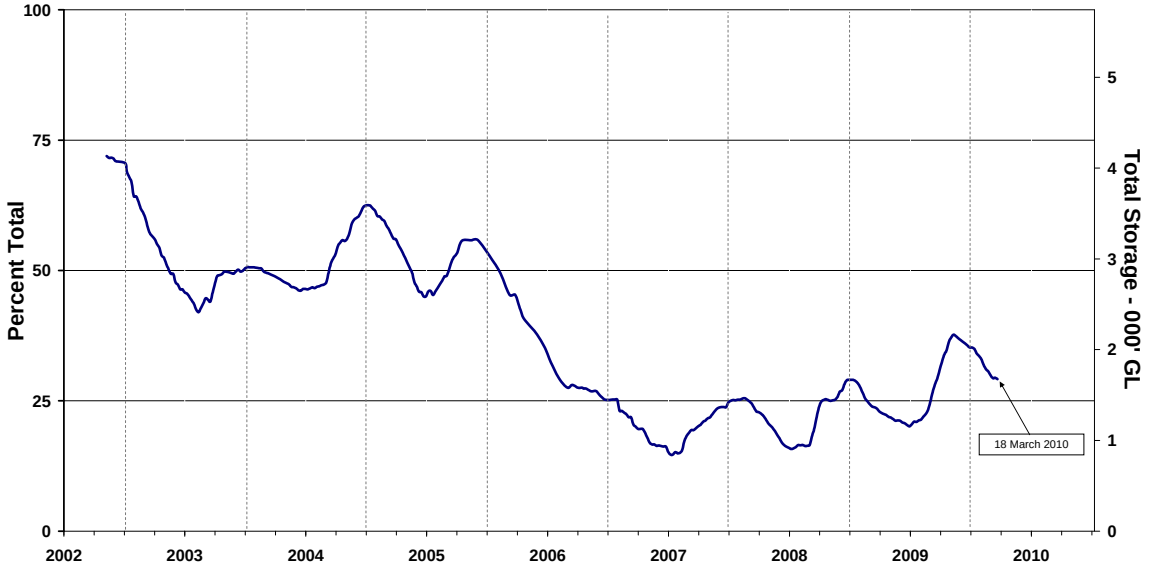
Water storages in Queensland, New South Wales and Victoria

Note: the blue line indicates the extent of the Murray-Darling Basin and the shaded areas denote the coverage of the individual reporting regions.

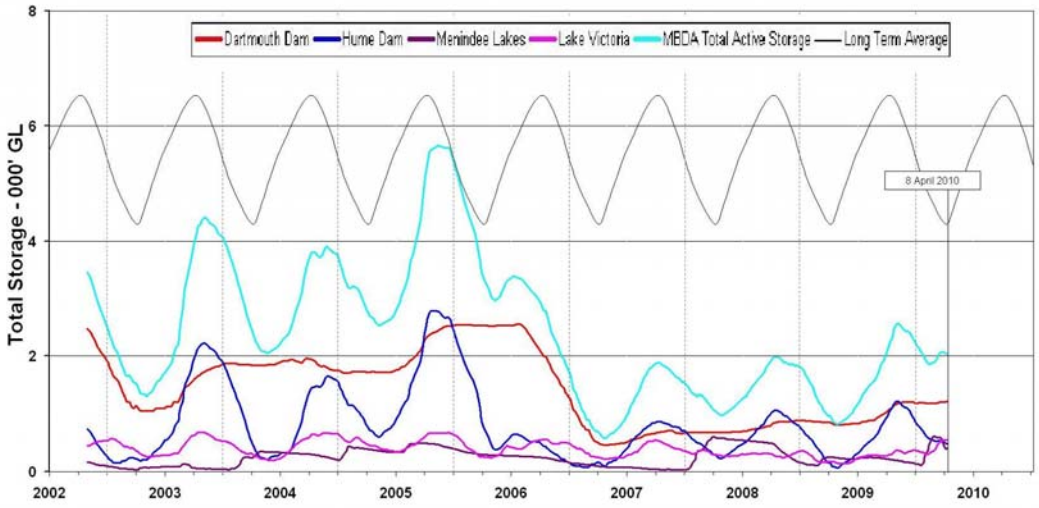
MDB (New South Wales, Victoria and Queensland)



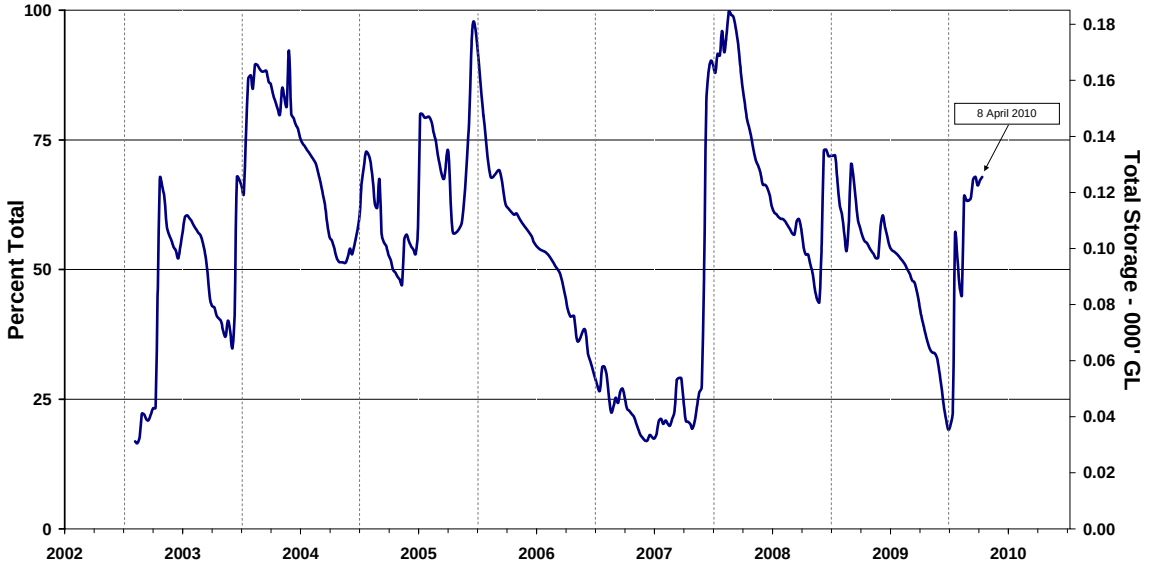
Snowy Scheme



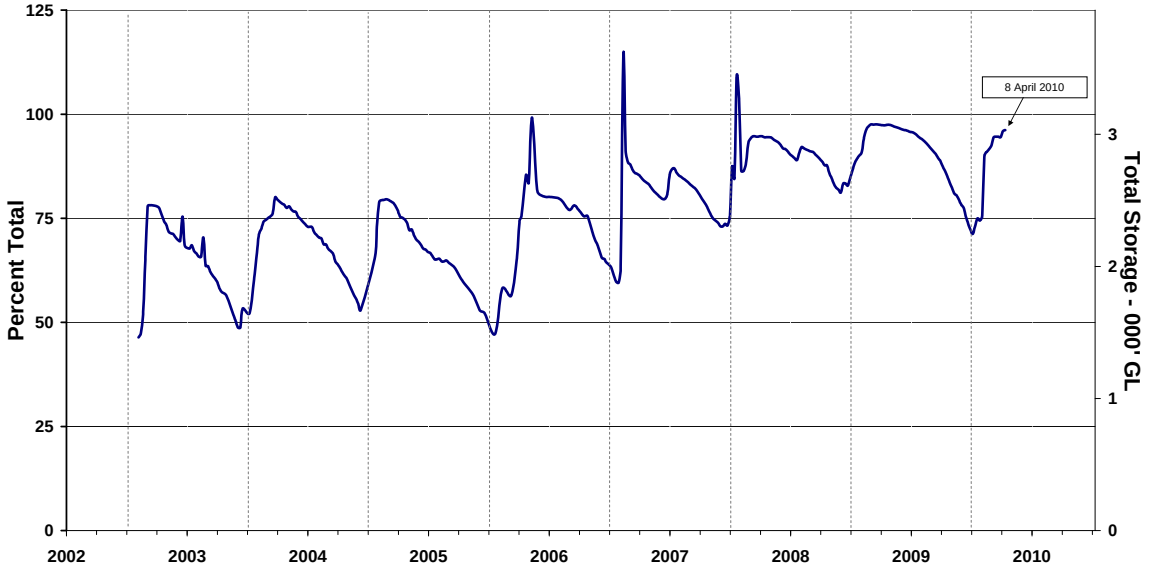
MDBA



Queensland MDB

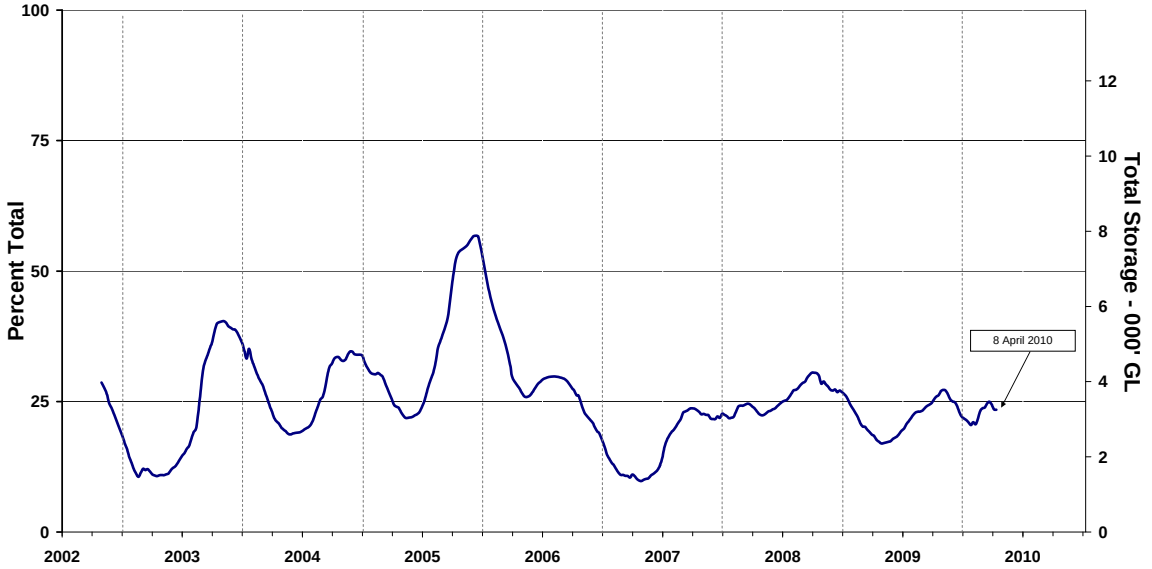


Central Queensland

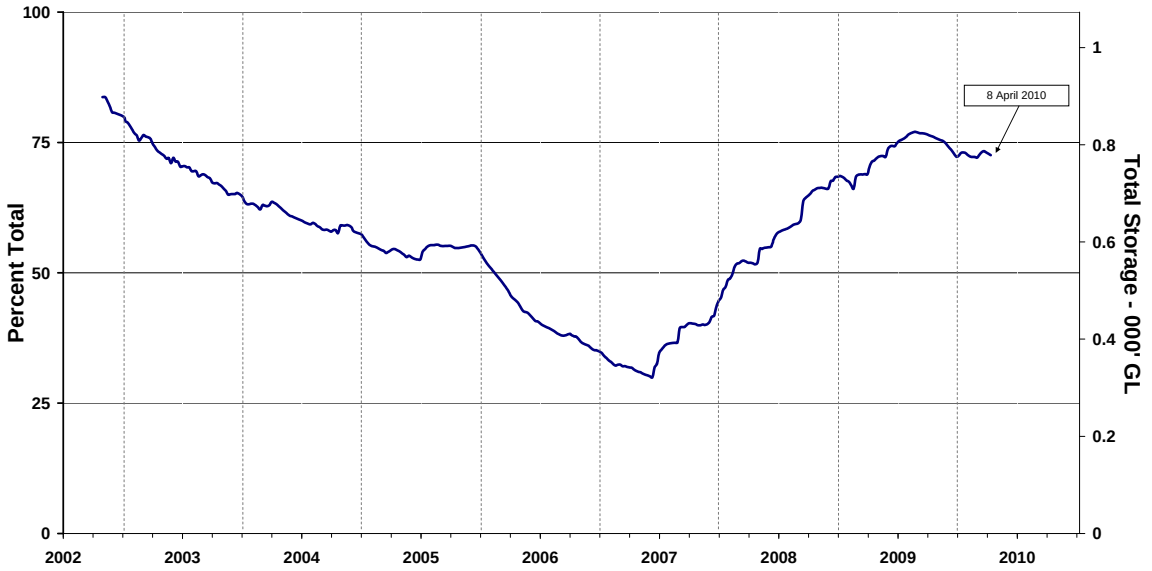


South-east Queensland

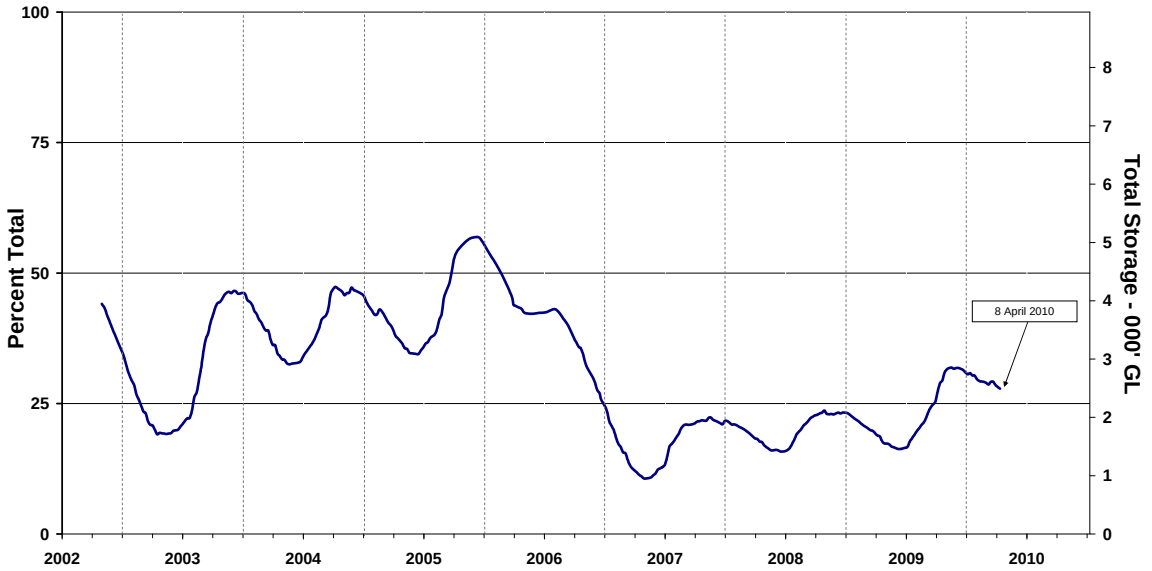
New South Wales MDB



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 2008–09 (%)	Increase from 1 March 2010 (%)	Allocations 1 April 2010 (%)
NSW Murray Valley*			
High security	95	-	97
General security	9	+7	27
NSW Murrumbidgee Valley*			
High security	95	-	95
General security	21	+3	27
NSW Lower Darling*			
High security	100	-	100
General security	50	-	100
NSW Macquarie Valley			
High security	100	-	100
General security	10	-	0
NSW Hunter Valley			
High security	100	-	100
General security	100	-	100
NSW Lachlan Valley*			
High security	30	-	10
General security	0	-	0
NSW Border Rivers			
High security	100	-	100
General security	0	-	4.4
NSW Peel Valley			
High security	100	-	100
General security	80	-	100
Victoria Murray Valley			
High reliability	35	+34	100
Victoria Goulburn			
High reliability	33	+11	71
Victoria Campaspe			
High reliability	0	-	0
Victoria Loddon			
High reliability	0	+3	3
Victoria Bullarook			
High reliability	0	+4	19
Victoria Broken			
High reliability	0	+11	17
South Australia Murray Valley			
High security	18	+7	62

*Water sharing plans remain suspended in NSW for Murray-Lower Darling, Murrumbidgee and Lachlan River valleys

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
  http://wma.naturalresources.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, Land and Biodiversity Conservation:
  http://www.dwlbc.sa.gov.au/media.html
- Murray-Darling Basin Authority:
  http://www.mdba.gov.au/

3.0 Production

3.1 Crops

Winter Crops

Rainfall during March 2010 has been beneficial for winter crop plantings across Australia, particularly in Queensland, New South Wales and Victoria where widespread rainfall exceeded 50 millimetres.

Western Australia

Western Australia's 2009 grain harvest delivered 11 million tonnes and was completed in January 2010 with only minor rain delays in some districts. Wheat was the dominant crop with deliveries of 7.5 million tonnes, aided by a much improved growing season in the northern agricultural region. About 2.1 million tonnes of barley was produced and canola production achieved a new record high of just over 0.95 million tonnes. Lupin deliveries showed some recovery on previous seasons due to better conditions in the north. Spring frost in the central wheat-belt contributed to lower wheat production. Crop areas in 2010 are expected to be dependent on moisture conditions at planting. If dry conditions continue throughout autumn, the area sown could be reduced. Apart from southern areas near the coast, summer rainfall has been insufficient in most of the wheat-belt to build stored soil moisture.
http://www.agric.wa.gov.au/objtwr/imported_assets/content/lwe/cli/seasonalupdatemar10.pdf

South Australia

Farmers have been actively controlling summer weeds when conditions have allowed, with paddocks in some districts already sprayed twice. Mice numbers are reported to be higher than usual in a number of districts including central Eyre Peninsula, parts of Yorke Peninsula and the Upper North, the Murray Mallee and the Upper South East. With the current poor outlook for grain prices in 2010, total crop area may be slightly reduced in the coming season as farmers reduce their area of barley in favour of wheat, with possible increases of lentils, chickpeas and canola in more reliable areas. The final estimates for the 2009 season are for a total crop area of 4.02 million hectares with a total crop production of 7.83 million tonnes.
http://outernode.pir.sa.gov.au/__data/assets/pdf_file/0007/126988/Mar10cpr.pdf

Victoria

In the Mallee region, conditions have been variable with soil profiles ranging from almost total capacity to very dry. Winter navel orange production is likely to be reduced in 2010 but the individual fruits will be large and well-suited to export markets. Crop yields for wine grapes are the lowest for some time. Thunderstorms across the Wimmera, North Central and Northern Irrigation regions have led to a good outlook for winter cropping but have also promoted weed growth. In East Gippsland, forage crops such as millet, sorghum and maize have responded well to the rain and humidity.
http://www.dpi.vic.gov.au/dpi/nrenfa.nsf/LinkView/B1ECB3AB8F830EB0CA2576E000790CB32B72296A5108C4FFCA25734F0009F96F

3.2 Livestock

Beef cattle

The March 2010 market throughput of cattle increased by 3.5 per cent compared to March 2009, despite the wet start to the month that restricted the movement of cattle, particularly in Queensland. The improved conditions in northern Australia, have allowed producers to hold onto livestock and as a result there is increased competition in the markets. Most of the eastern states cattle price indicators are above February 2010 levels and well above levels in March 2009. Cattle throughput during March 2010 follows low throughput in the previous two months and some producers might take advantage of the increased prices.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2010/March+cattle+numbers+up.htm

Sheep and lambs

Lambs and ewes suitable for restocking flocks were in high demand and in low supply. As a consequence, prices at the end of the month were around 30 per cent higher for lambs and 64 per cent higher for mutton sheep compared to the same time last year. Finished lambs suitable for butchers, supermarkets and export were in good supply, reflecting the seasonal conditions. The national trade lamb indicator was 7 per cent higher and the heavy lamb indicator was 3 per cent higher than the same time last year.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2010/Queensland+plants+drop+rates+on+export+grades.htm

The number of lambs at national markets during March 2010 increased by 10 per cent on the five-year average, with 850 000 lambs sold. This number is 5 per cent lower than March 2009 and is influenced by the improved seasonal conditions.
http://www.mla.com.au/TopicHierarchy/News/MarketNews/2010/Feeder+buyers+still+hungry.htm

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:
  http://abareconomics.com/
- 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