

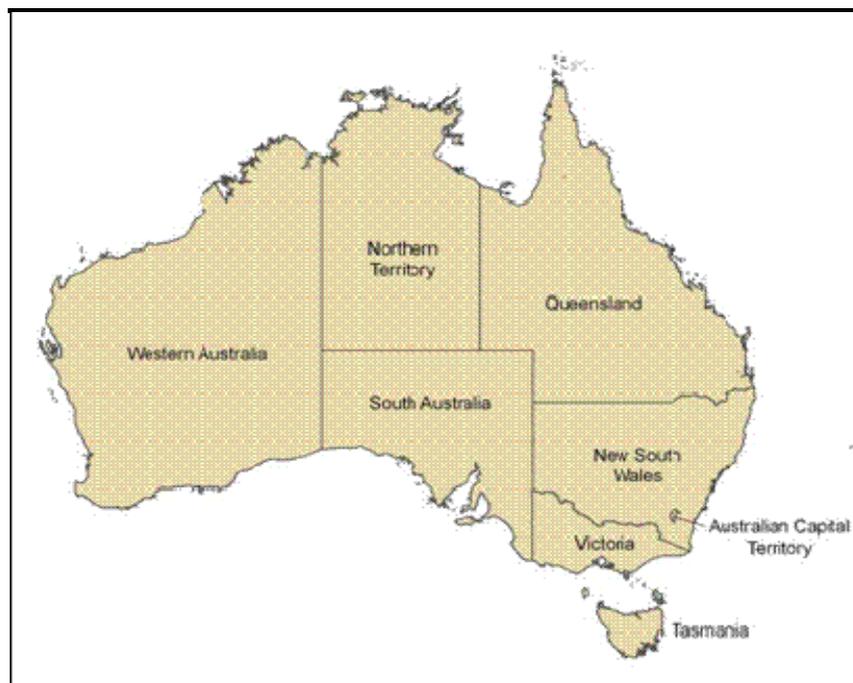


# Climate and Agricultural Update

## National Report

issued

November 2006



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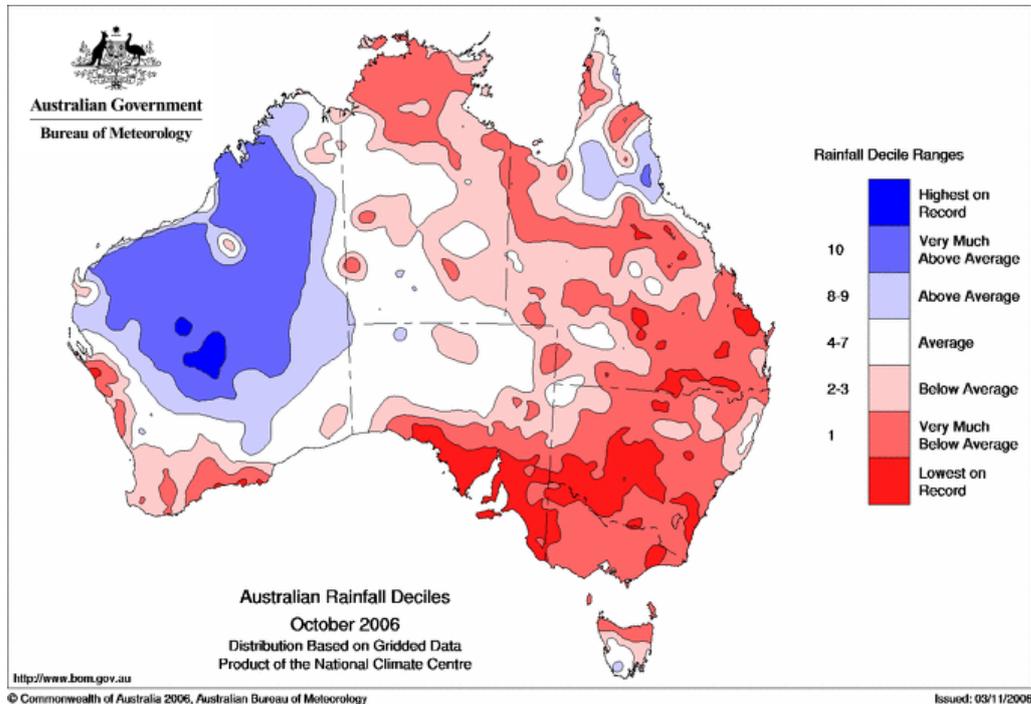
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# 1.0 Rainfall and temperature

## 1.1 Rainfall

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/>

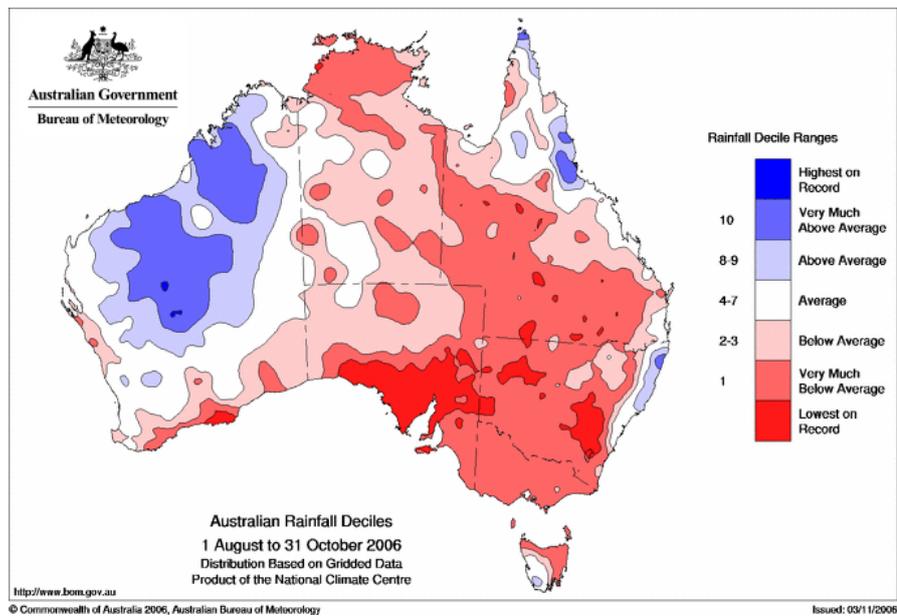
### Rainfall over the last month (October 2006)



Rainfall percentiles for October 2006

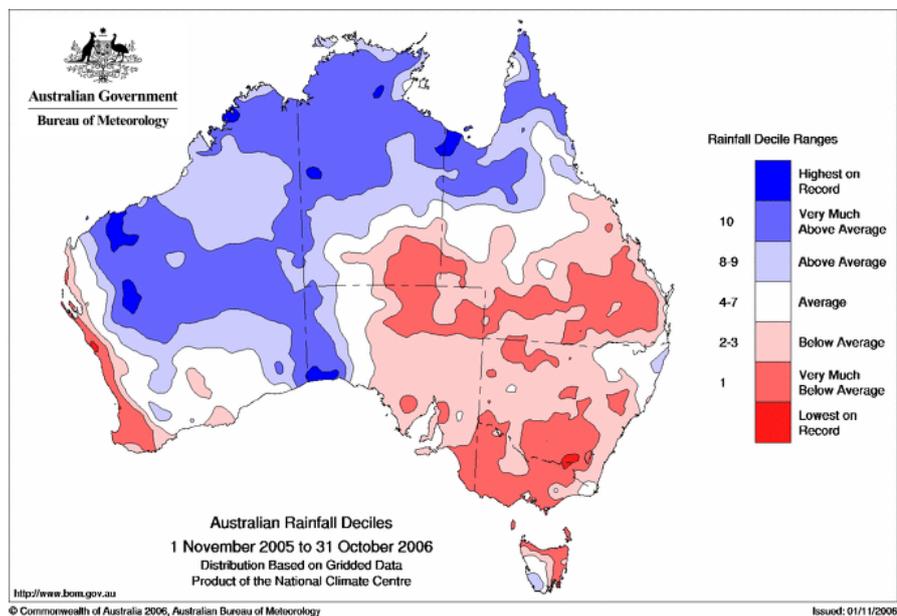
Below average to very much below average rainfall occurred across all states and territories during October, with lowest on record rainfall occurring in parts of all states except Tasmania. In contrast, above average to highest on record rainfall occurred in central and northwest Western Australia and in southern Cape York Peninsula.

## Ongoing or emerging rainfall situations



Rainfall percentiles for the three months  
August 2006 - October 2006

Below average to very much below average rainfall occurred across all states and territories over the last 3 months. Lowest on record rainfall occurred across the coastal and central parts of South Australia, parts of central and western New South Wales and Queensland, and parts of the south coast of Western Australia. In contrast, central and north western Western Australia, parts of the Cape York Peninsula and north coast of New South Wales were the only significant parts of Australia to receive above average to very much above average rainfall over the last three months. Highest on record rainfall occurred in small areas of central Western Australia.

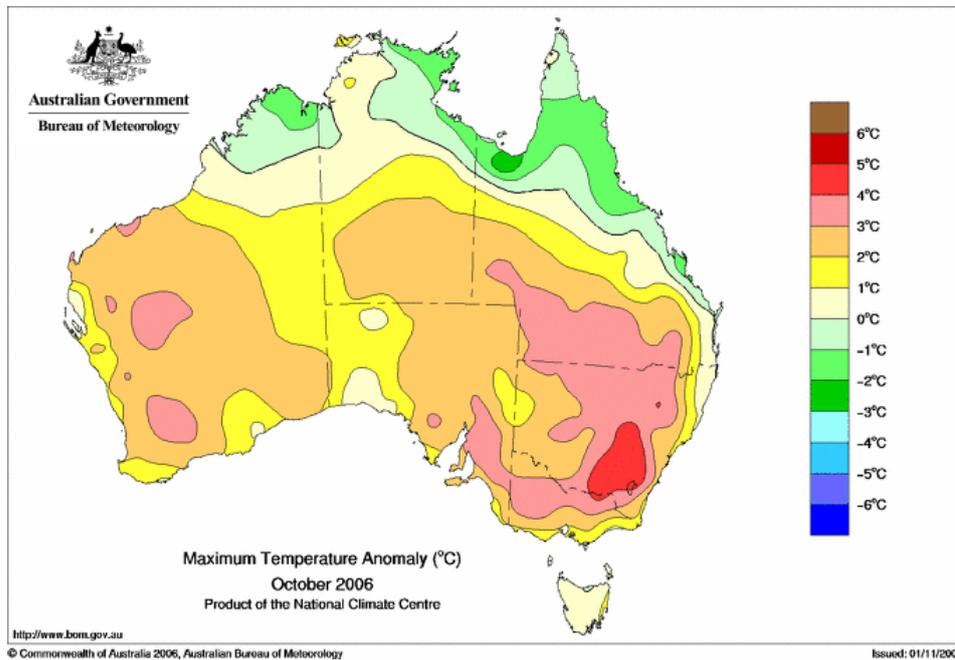


Rainfall percentiles for the 12 months  
November 2005 - October 2006

Over the last 12 months, there were significant areas of below average to very much below average rainfall across southeastern and central Australia and southwest Western Australia. Small areas of lowest on record rainfall occurred in the south of New South Wales and the west coast of Western Australia. Rainfall was generally above average to very much above average across the western and northern parts of the continent. Highest on record rainfall occurred in the southwest coast of South Australia, central and north coast of Western Australia, and parts of the Northern Territory and Queensland.

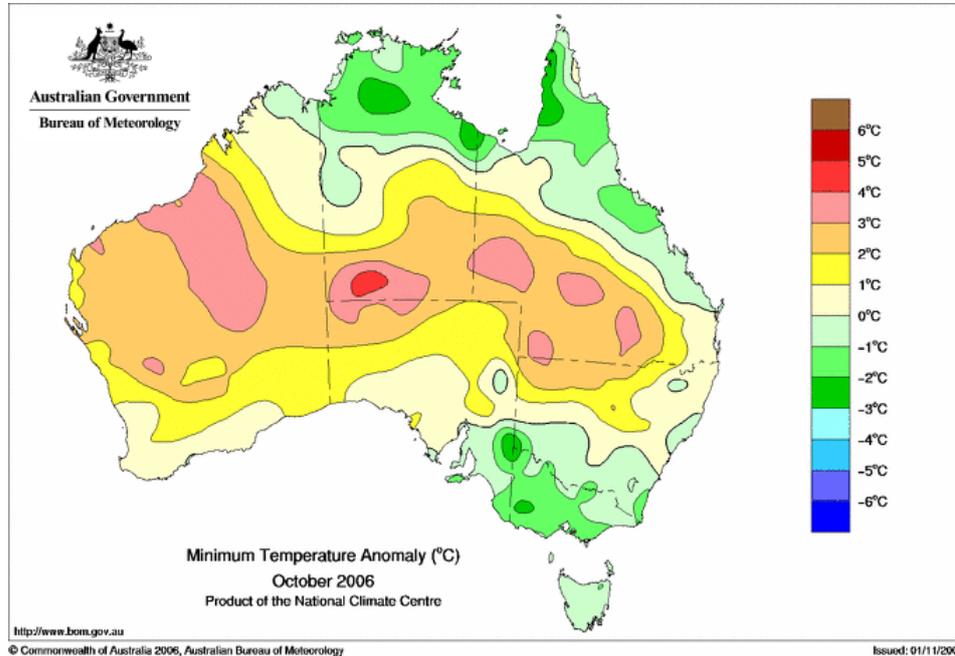
## 1.2 Maximum and minimum temperature anomalies

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 minimum from the long term average. Temperature anomalies are calculated with respect to the reference period 1961-1990. For further information on temperature anomalies, go to <http://www.bom.gov.au/climate/austmaps/>



Maximum temperature anomalies for October 2006

Maximum temperatures during October were above the long-term average in the southern and central parts of the continent, with well above average temperatures in southern tablelands and southwest slopes and plains of New South Wales. Temperatures during October were generally below average across the north of Australia.



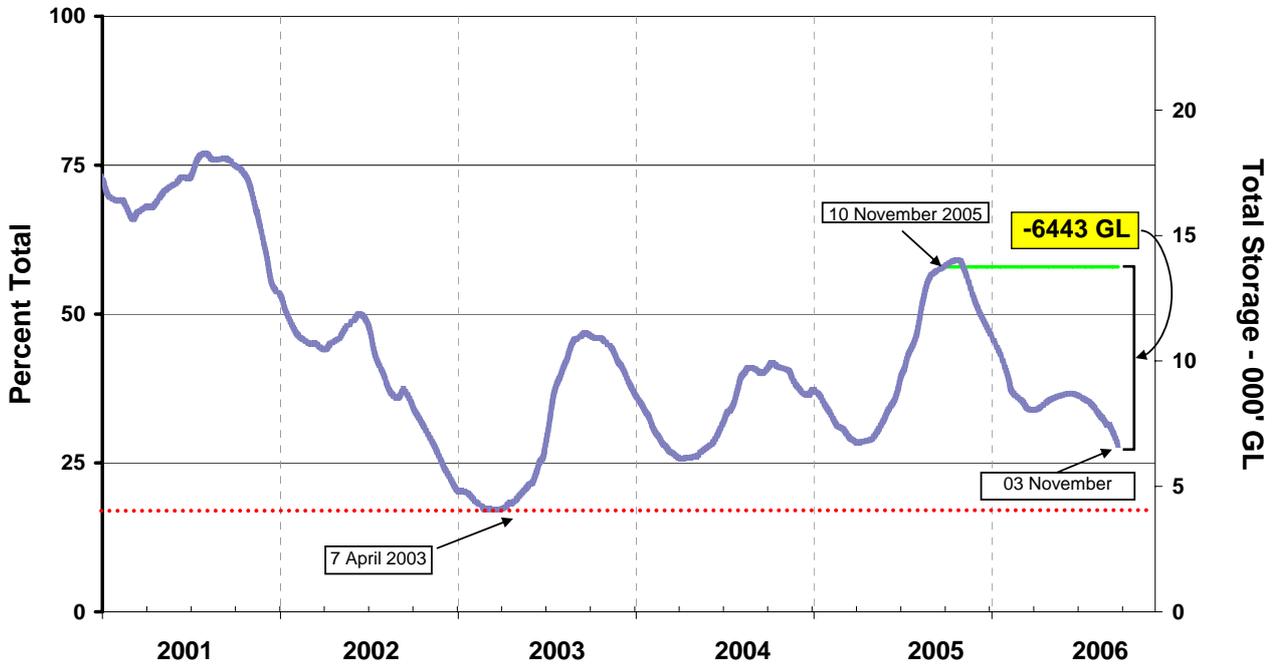
Minimum temperature anomalies for October 2006

Minimum temperatures during October were generally below the long-term average across the north and south eastern parts of the continent, and generally above average across the west and central parts of the continent.

# 2.0 Water storages and irrigation allocations

## 2.1 Water storages (current to 3 November 2006)

Water storage in the MDB (New South Wales and Victoria)

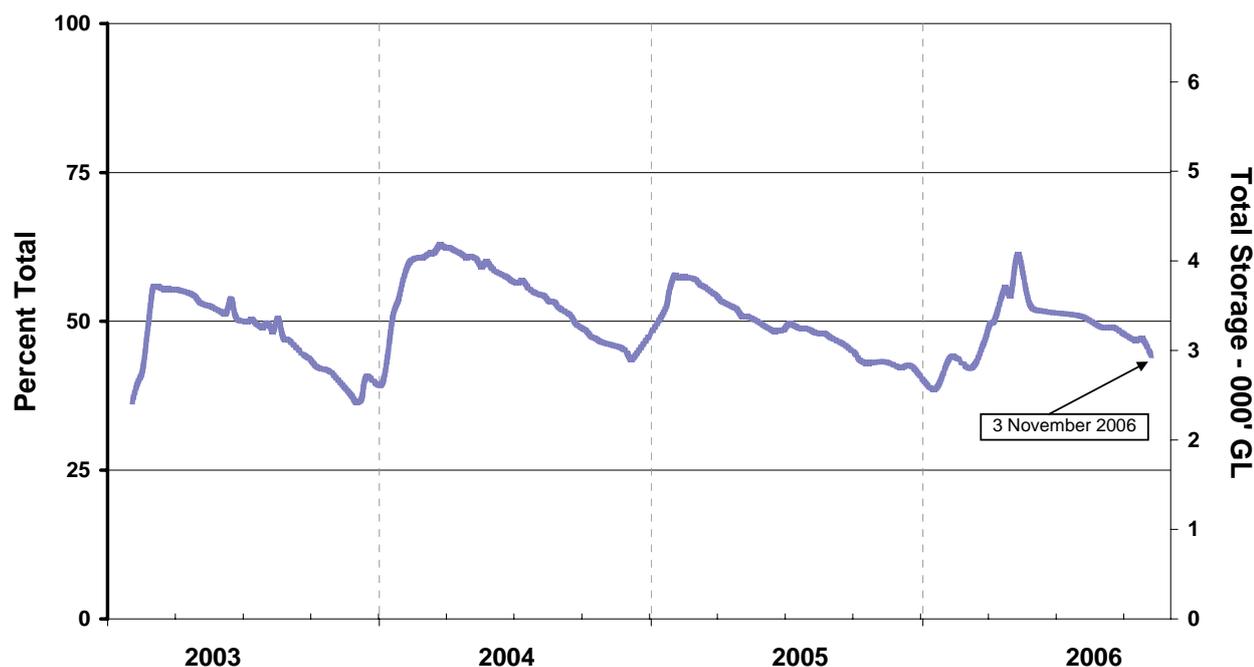


Irrigation water available in the Murray-Darling Basin from 1 January 2001 to 3 November 2006. The green line indicates the storage level at the same time last year. Source: Bureau of Rural Sciences.

The storage levels within the Murray-Darling Basin are currently declining at a rate of approximately 1000 GL per month due to irrigation water draw down. There has been no recharge over the last month due to the continuing lack of rainfall over the basin. Storage levels for irrigated agriculture are at 6,006 GL (total capacity of 21,492 GL), which is approximately 27.9% of total capacity and represents a decrease of approximately 4.6 % of total capacity (982 GL) in the last month. Current storage levels are approximately 6443 GL less than at the same time last year, which is equivalent to a decrease of approximately 30.0% of total capacity.

The storage levels of the Murray-Darling Basin discussed above do not include the water contained in Lake Eucumbene, Tantangara Reservoir and Lake Jindabyne, which represent 5700 GL of total capacity and are used for hydro-electricity generation and irrigation purposes. These storages currently hold 1543 GL (27% of capacity) of water, which represents a slight decrease over the last month.

## Water storage in Queensland



Current water storage level in Queensland as of 3 November 2006. Source: Bureau of Rural Sciences

Storage levels in Queensland are at 3,000 GL (total capacity of 6,965 GL), which is approximately 44% of total capacity and represents a decrease of approximately 2.6 % of total capacity (180 GL) in the last month. Current storage levels are approximately 76 GL greater than at the same time last year, which is equivalent to an increase of 1.1% of total capacity.

## 2.2 Irrigation allocations for the 2005/06 season

### Allocation Outlook for Victorian irrigators in the 2006/07 season (current to 6 November 2006)

- The allocation for the Goulburn system remains at 23% of Water Right and Licensed Volume. No increase is possible because of the record low rainfall and inflows for this time of the year. Goulburn-Murray Water has confirmed that emergency drought pumping at the Waranga Basin is required to support the current allocation. Goulburn-Murray Water has also announced that the irrigation season will be extended beyond the previously advised end-of-season date of 1 April, and is targeting 1 May 2007. Because the traditionally higher inflow time of the year has passed, there is little likelihood of large increases in water allocations. If inflows are equal to historical minimums for the November to January period, then the Goulburn allocation would not increase beyond the current allocation of 23% of Water Right by 15 February 2007.
- An unchanged allocation of 60% of Licensed Volume is available for irrigators in the Broken system. This allocation will be reviewed and most likely be reduced if Lake Mokoan is closed by an outbreak of blue-green algae. Customers are strongly urged to recognise this risk in their water plans for this season.
- Water resources in the Campaspe and Loddon systems are insufficient to meet irrigation entitlements and the limited water is being set aside for domestic and stock needs. There is very little prospect of sufficiently wet conditions to provide any irrigation allocation in these systems this season. In the Murray system allocations remain at 95% of Water Rights.
- The next allocation announcement is scheduled for Wednesday 15 November 2006.

### Allocation Outlook for New South Wales irrigators in the 2006/07 season (current to 6 November 2006)

- The allocation for NSW general security water users in the Murray and Lower Darling valleys for the 2006-2007 season remains at 0%. Water availability for high security users in the Murray Valley remains at 80% of entitlement, and general security users who have carried over unused water from last year remains at 80% of their carry-over. Water trading in the NSW Murray and Murrumbidgee valleys has been suspended as of November 3 due to the ongoing dry conditions. The suspension of trade will apply until mid November, or until a further announcement is made.

- General water allocations for the Murrumbidgee Valley for the 2006-2007 season remain at 18 % for the full season with 15% being available by the end of February.

For further information on irrigation allocations, go to:

Goulburn-Murray Water

[http://www.g-mwater.com.au/news.asp?ContainerID=media\\_releases](http://www.g-mwater.com.au/news.asp?ContainerID=media_releases)

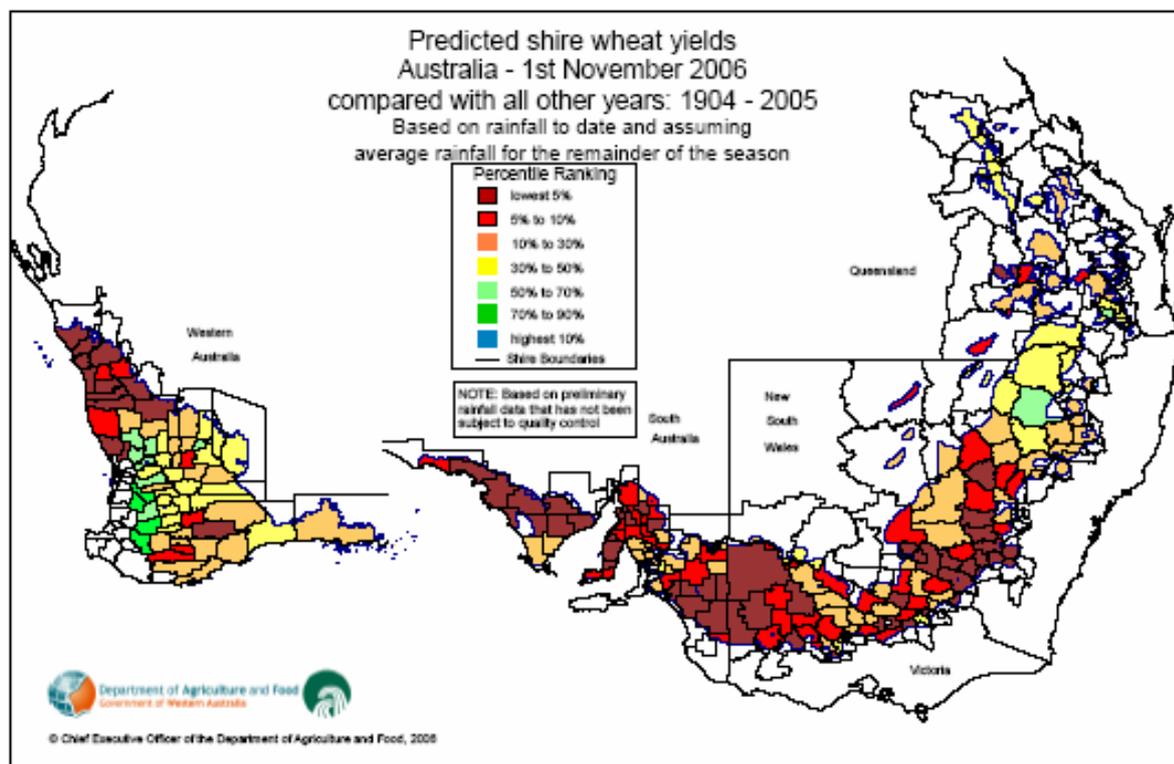
New South Wales Department of Natural Resources

[http://www.naturalresources.nsw.gov.au/mediarelnr/mr\\_toc\\_currnr.html](http://www.naturalresources.nsw.gov.au/mediarelnr/mr_toc_currnr.html)

## 3.0 Crop and livestock production

### 3.1 Crops

Predicted wheat yields are provided by the Western Australian Department of Agriculture and Food. The following figure shows wheat yield forecasts as percentiles of a 100-year historic data set. For further information on predicted wheat yields, go to [www.agric.wa.gov.au/](http://www.agric.wa.gov.au/).



Predicted shire wheat yields for the 2006 cropping season ranked relative to all years (1904-2005)

- The Australian Bureau of Agricultural and Resource Economic's (ABARE), Australian Crop and Livestock Report 2006-07: drought update, reveals that the national wheat crop is now forecast at 9.5 million tonnes for 2006-07, down 15.5 million tonnes from last season and the smallest harvest since the 9 million tonnes produced in 1994-95. The national barley crop is forecast to be down 64% from last year, at 3.6 million tonnes. Canola is forecast to be down 69% from last year, at 440 000 tonnes.
- Current predictions for shire level wheat yields for the 2006 growing season are generally well below average reflecting the continuation of dry conditions during the winter cropping season. Wheat yields in the central west and southern New South Wales, the central wheat belt of Queensland, Victoria and the eastern wheat belt of Western Australia are predicted to be below average. The northern wheat belt of Western Australia, much of South Australia, the mallee regions of Victoria, and isolated areas in central and southern New South Wales and Queensland are predicted to be in the lowest 10% of historic yields. Average yields are predicted for the southern wheat belt of Western Australia and small parts of Queensland and northern New South Wales. Because November is effectively the end of the wheat growing season, this is the last prediction for the season.

## 3.2 Livestock

- Continuing below average rainfall across large parts of eastern and southern Australia over the autumn and winter period has resulted in low potential for pasture growth throughout spring. The lack of feed and water, from these dry conditions, forced a surge of cattle and lamb to enter the market. This combined with abattoirs' inability to considerably increase slaughter capacity, has had an adverse effect on prices. The rising cost of feed due to low predicted crop yields, has led to producers sending stock earlier into the market.
- Nationally, 28% more cattle were penned in Meat and Livestock Australia's (MLA) National Livestock Reporting Service (NLRS) reported saleyards in October 2006, than in September 2006; and was 30% greater than the same time last year. The largest throughput of cattle for the spring season is expected during November due to warmer temperatures and lack of sufficient rainfall during October. Cattle prices regained some lost ground, improving across all indicator grades. Nationally, October 2006 lamb total numbers were 31% higher than for October last year at MLA's NLRS reported saleyards. Nationally, lamb numbers eased 5% at MLA's NLRS reported saleyards. All national lamb indicators dropped, as quality was noticeable weaker due to the dry seasonal conditions.
- Victoria saw an increase of 81% in cattle penned from September numbers, the numbers for October 2006 being more than double the numbers for October 2005. Large numbers of female cattle forced onto the market were a significant factor, with 29% cows and 32% heifers part of the market, these numbers compared to last year indicate that producers were selling off stock usually kept for breeding. Victoria also saw the greatest increase in October for lamb numbers in the sale yards, being 92% higher than October last year, and a record total for the month of October. South Australia yardings of lamb for October were 86% higher than October last year. New South Wales saw a 12% increase in lamb numbers from the same month last year. During October Western Australia saw 29% more lamb numbers than for October 2005. WA saw a 55% increase in lamb numbers in October this year, compared to last year.

For further information go to:

ABARE Australian Crop report and ABARE Australian Commodities forecast and issues

<http://abareonlineshop.com/>

Meat and Livestock Australia

<http://www.mla.com.au/>

Department of Agriculture Western Australia

<http://www.agric.wa.gov.au/>

New South Wales Department of Primary Industries

<http://www.agric.nsw.gov.au/reader/nsw-grains-report-sept-2005>

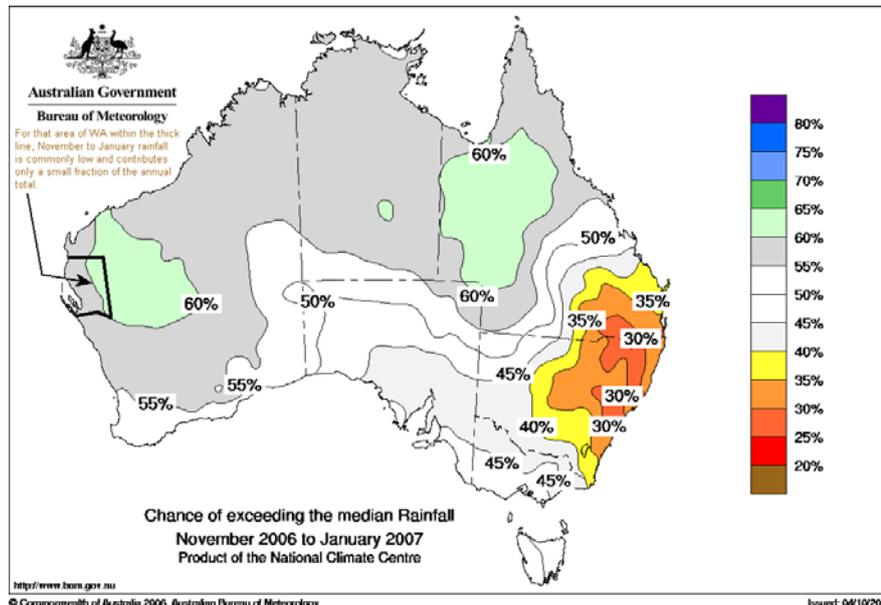
Queensland Department of Primary Industries and Fisheries

<http://www.dpi.qld.gov.au/fieldcrops/>

# 4.0 Climate Outlook

## 4.1 Rainfall Outlook

The Bureau of Meteorology provides seasonal outlooks that are statements about the probability of wetter or drier than average weather over a three-month period. The outlooks are based on the statistics of chance (the odds) taken from Australian rainfall/temperatures and sea surface temperature records for the tropical Pacific and Indian Oceans. They are not, however, categorical predictions about future rainfall, and they do not indicate the expected rainfall amount for the three-month outlook period. For further information on this rainfall outlook, go to [http://www.bom.gov.au/climate/ahead/rain\\_ahead.shtml](http://www.bom.gov.au/climate/ahead/rain_ahead.shtml)



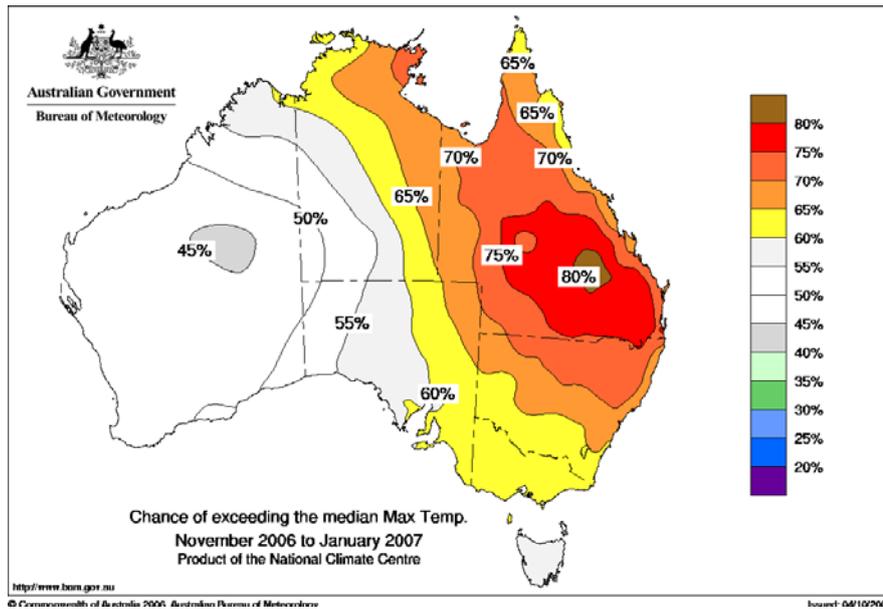
The chance of exceeding median rainfall between 01 November 2006 and 31 January 2006

Seasonal rainfall probabilities released by the Bureau of Meteorology indicate there is a mixed pattern of odds for exceeding the median rainfall over the late spring to mid-summer period (November-January). Drier than normal conditions are indicated for southeast Queensland and much of New South Wales, whereas above average conditions are favoured in western and northern Queensland and in northwest Western Australia.

## 4.2 El Niño & Southern Oscillation Index

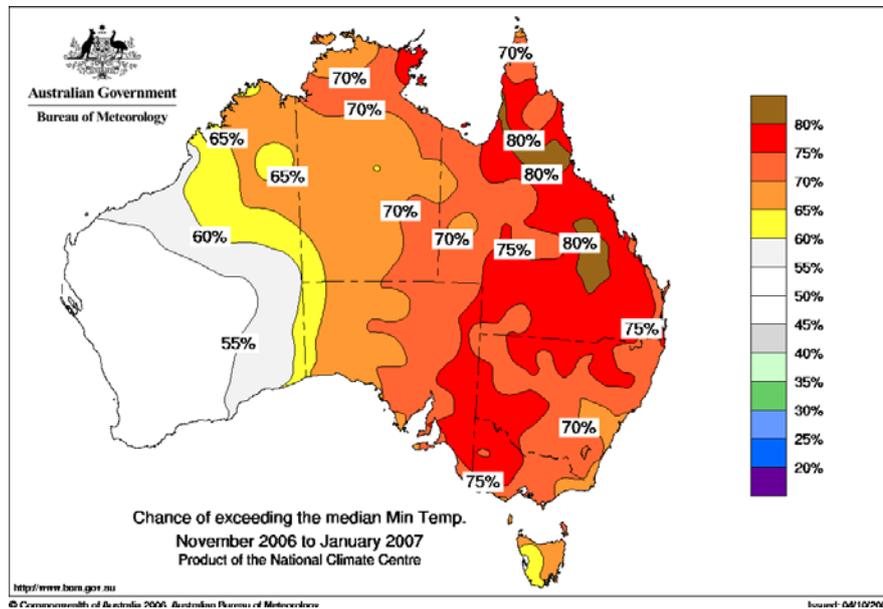
- There has been a general strengthening of the ENSO indicators during October. The 2006/07 El Niño has now developed and is about to enter the maturing phase, which is characterised by self-sustaining feedback between the Pacific Ocean temperatures, winds and cloud patterns. Computer models indicate that Pacific Ocean temperatures are likely to peak around January or February 2007.
- Noteworthy features of the Pacific climate during October were (a) weaker or much weaker than average Trade Winds over most of the basin for most of the month; (b) warming of 0.5 to 0.7°C near South America and by about 0.2°C elsewhere along the equatorial Pacific; (c) a marked drop in the SOI to around -15 or slightly lower; (d) an increase in cloudiness over the western to central Pacific; and (e) further warming of the Pacific sub-surface.
- During recent months, cooler than normal tropical ocean temperatures to the north and northwest of the continent have played an important role in drier than average conditions over eastern and southern Australia.
- The historic record shows that the main impact of an El Niño event on rainfall occurs during winter and spring, with a switch towards wetter conditions having been common, but by no means guaranteed, in January or February.

## 4.3 Temperature Outlook



The chance of exceeding median maximum daytime temperatures between 01 November 2006 and 31 January 2006

For the November to January 2006 period there is a strong chance that maximum temperatures will be above average over large parts of eastern Australia. There is a 60 and 75% chance for higher than normal maximum temperatures across the eastern half of Australia, and a 75 to 85% chance over much of southern Queensland.



The chance of exceeding median minimum daytime temperatures between 01 November 2006 and 31 January 2006

For the November to January 2006 period there is a strong chance that minimum temperatures will be above average over large parts of central and eastern Australia. The chances of seasonal minimum temperatures being higher than the median are between 60 and 80% over the eastern two-thirds of Australia.

For further information on the Bureau of Meteorology seasonal outlooks, go to <http://www.bom.gov.au/climate/ahead/>