

Northern Australia Climate Program

Seasonal climate outlook Supplement for North West Queensland December 2018

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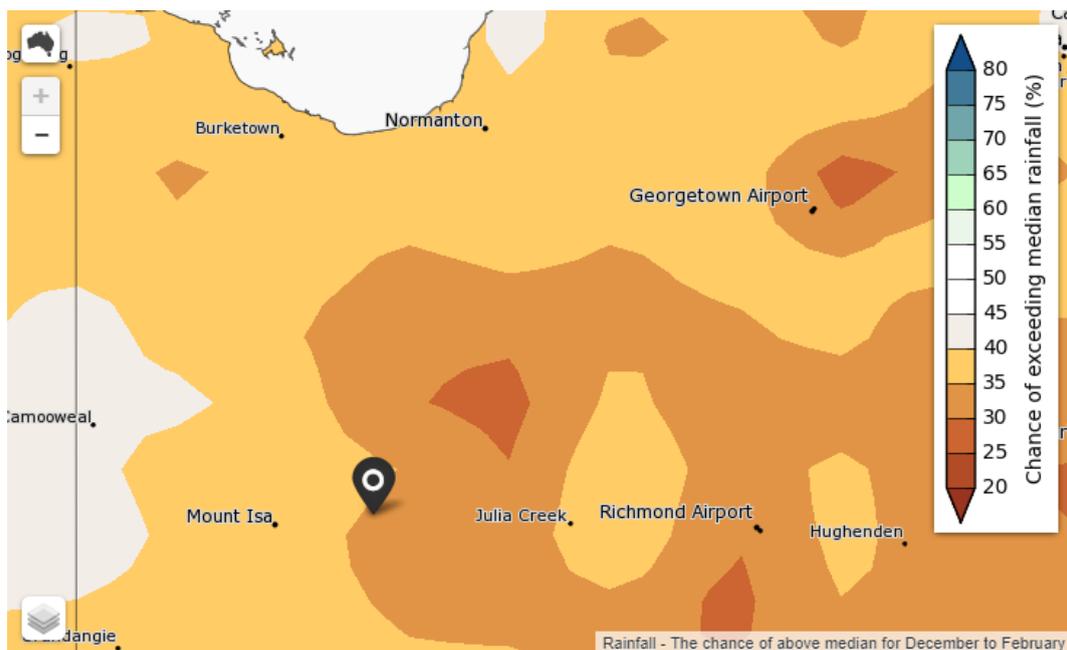
Rainfall outlook for North West Queensland from December to February (BoM)

Climate outlook overview

- **The summer (December 2018 to February 2019) climate outlook, indicates large parts of WA, Queensland and the Top End of the NT are likely to be drier than average.**
- **Warmer than average days and nights are likely for almost all of Australia for December to February.**
- **Development towards El Niño in the tropical Pacific Ocean continues, with outlooks suggesting El Niño conditions are likely through the summer months.**
- **Due to the further development of El Niño like conditions, there is a higher than average chance of a later start to the monsoonal wet season for much of the Northern half of Australia.**

Probability of receiving above median rainfall

A large area of NW Queensland has less than a 50% chance of receiving above median rainfall from December to February. Some areas of NWQLD only have a 30 – 35% chance of receiving above median rainfall based on this modelling. This also means that there is a higher than average chance of receiving less than the median rainfall for this period.



Median or average?

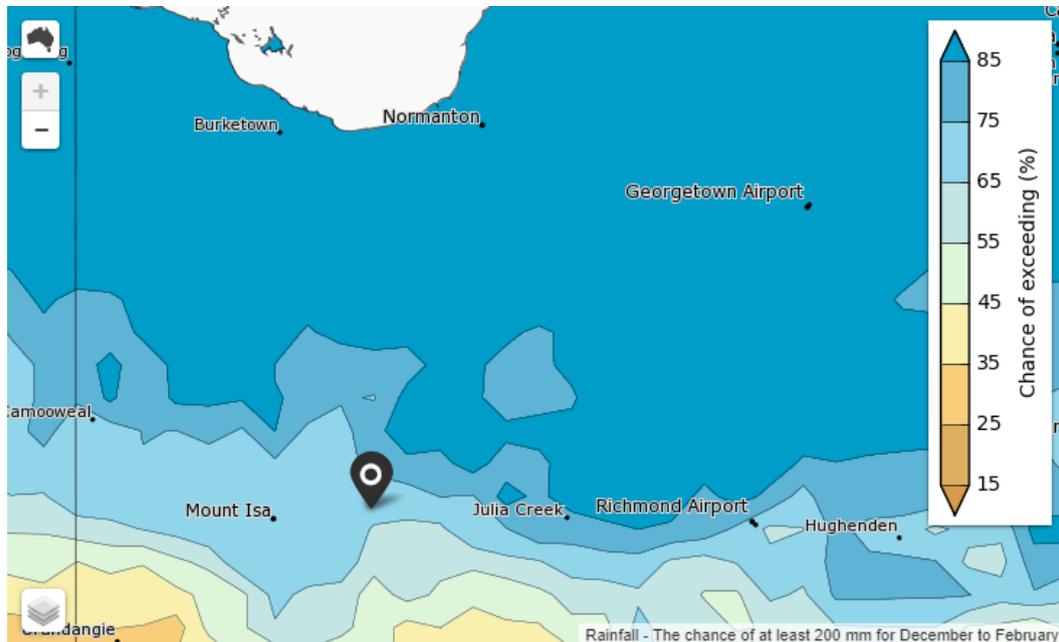
The BoM uses median rainfall rather than average rainfall for forecasting, as median rainfall is considered to be a more reliable predictor than average. The median is the middle value and the average is the sum of all values divided by the number of values. However, it is probably likely that most people rely on averages, simply because an average is easier to calculate from historical records.

All of the maps on these pages are from the Bureau of Meteorology webpage. You can access them yourself for more information. <http://www.bom.gov.au/climate/rainfall-onset/> or contact Megan Munchenberg: Email: megan.munchenberg@usq.edu.au or phone (07) 4748-5522

December to February total rainfall scenarios (BoM)

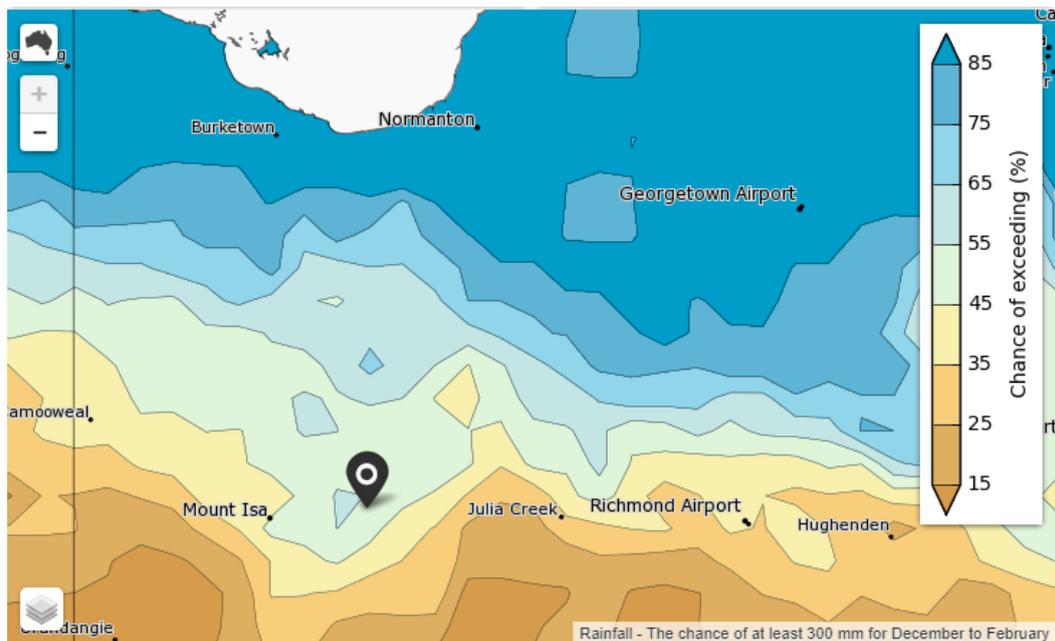
Probability of receiving at least 200 mm from December to February

The chance of receiving at least 200 mm from December to February is around 75%- 85% or slightly higher than average throughout the upper Gulf regions which would normally be expected at this time of year, and around a 35% - 55% chance in other western inland regions across the NW QLD region.



Probability of receiving at least 300 mm from December to February

There is a slightly above average to a significantly higher than average chance of receiving around 300 mm in the Upper Gulf Regions (65 – 85%), but there is a slightly below average to significantly below average chance for many south west inland areas (15% – 45%).

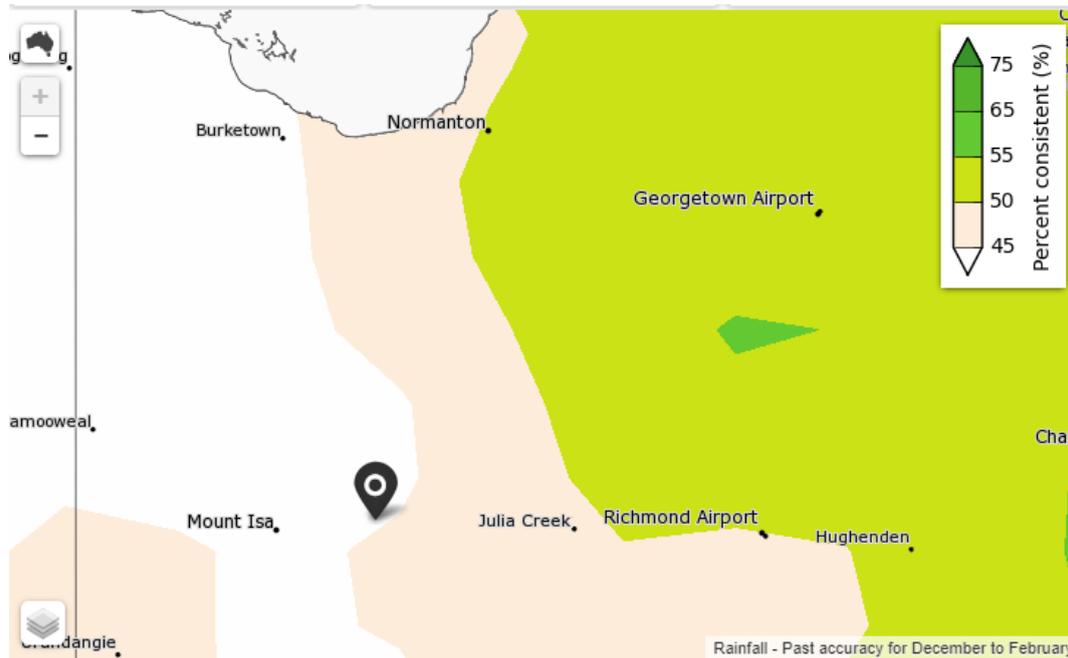


Important note: There may be a probability of receiving median rainfall, but if the total is received through a large number of low rainfall events, pasture growth could be much lower than normal.

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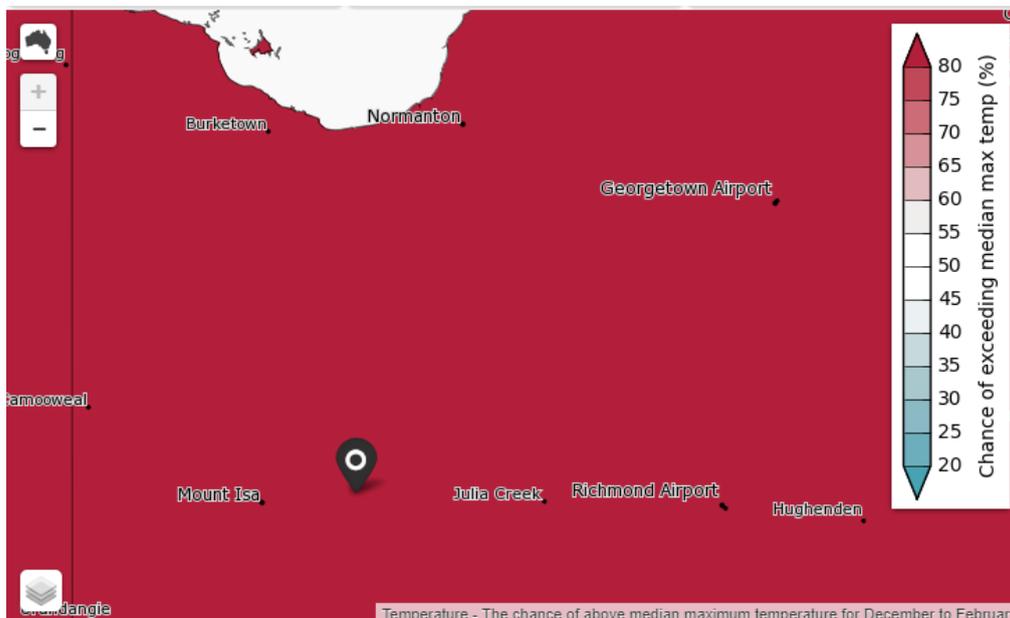
What has been the accuracy of forecasts during this period in in the past?

The accuracy of forecasts during this period in the past has been below average in the west and around average towards the east across the NW QLD region. This low reliability is likely related to local convection (thunderstorms) and cyclone activity that may or may not occur in the region and which are difficult to predict more than a week in advance.



Maximum temperature outlook

Virtually all areas of Australia will endure higher than average maximum temperatures from December to February. The NW QLD region is no exception, with most areas having an 80% or higher probability of exceeding the long-term median. Minimum temperatures will also be higher than average, with a similar probability of exceeding the long-term median minimum temperature.



The risk of grass fires in NW QLD remains extremely high risk for much of the region. The rainfall outlook for December is for below median rainfall for almost all of NW QLD. These dry conditions are likely to be exacerbated by the high temperatures if minimal rainfall occurs.

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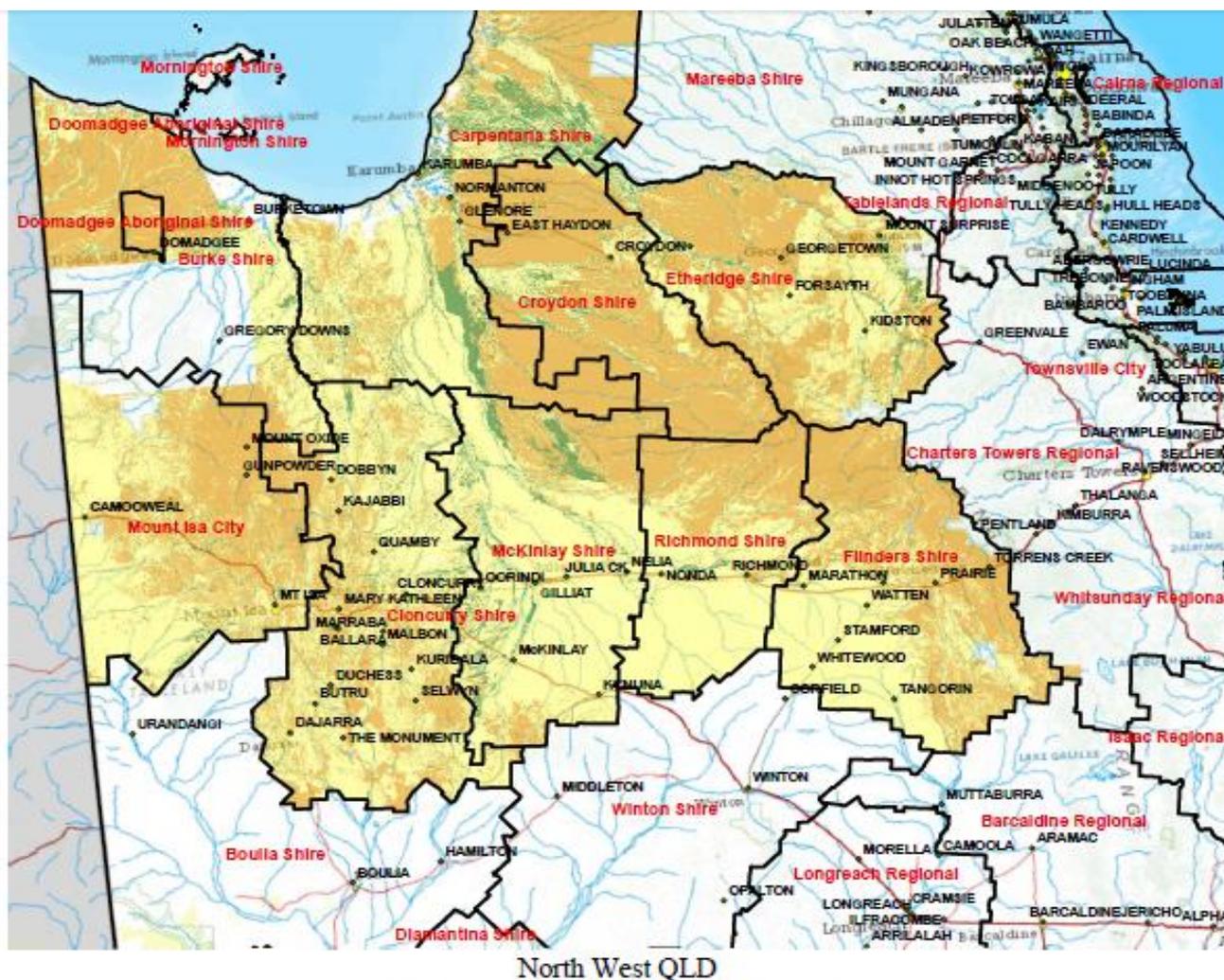
What does this forecast mean for producers?

Medium to longer term forecasts are just that: forecasts. In any given summer in NW QLD there is always the expectation that there will be monsoonal rainfall across the region bringing good amounts of rainfall to the majority of the region. Cyclones could also be a contributing factor in some locations. However, it may be wise to consider probability, rather than possibility.

Most producers have a pretty good idea of the amount of grass they can grow in an average season. Given the seasonal outlook, it may be wise to assume a 20 – 40% reduction in pasture biomass, simply due to a reduced probability of rainfall.

If your property is in a medium pasture growth area (1,500 – 3,500 kgs/ha), it may be worth considering that pasture growth this season may only be 1,000 – 2,500 kgs/ha. This may reduce your carrying capacity over the next dry season by a significant percentage.

Stocking rate decisions should be based on an assessment of current land condition. This should consider patterns of grazing distribution within paddocks. Pasture, soil and stock condition are all indicators of the effectiveness of the stocking rates estimates. The condition of perennial grass tussocks (such as the amount of residual biomass) are important indicators of future plant survival and pasture productivity. Reducing stocking rates late in the wet season may allow improved seed production by palatable perennial grasses. Although it is noted this is not always practical.



Colour key

Brown: Low (< 1,500 kgs/ha DM)

Yellow: Medium (1,500 – 3,000 kgs/ha DM)

Green: High (> 3,000 kgs/ha DM)

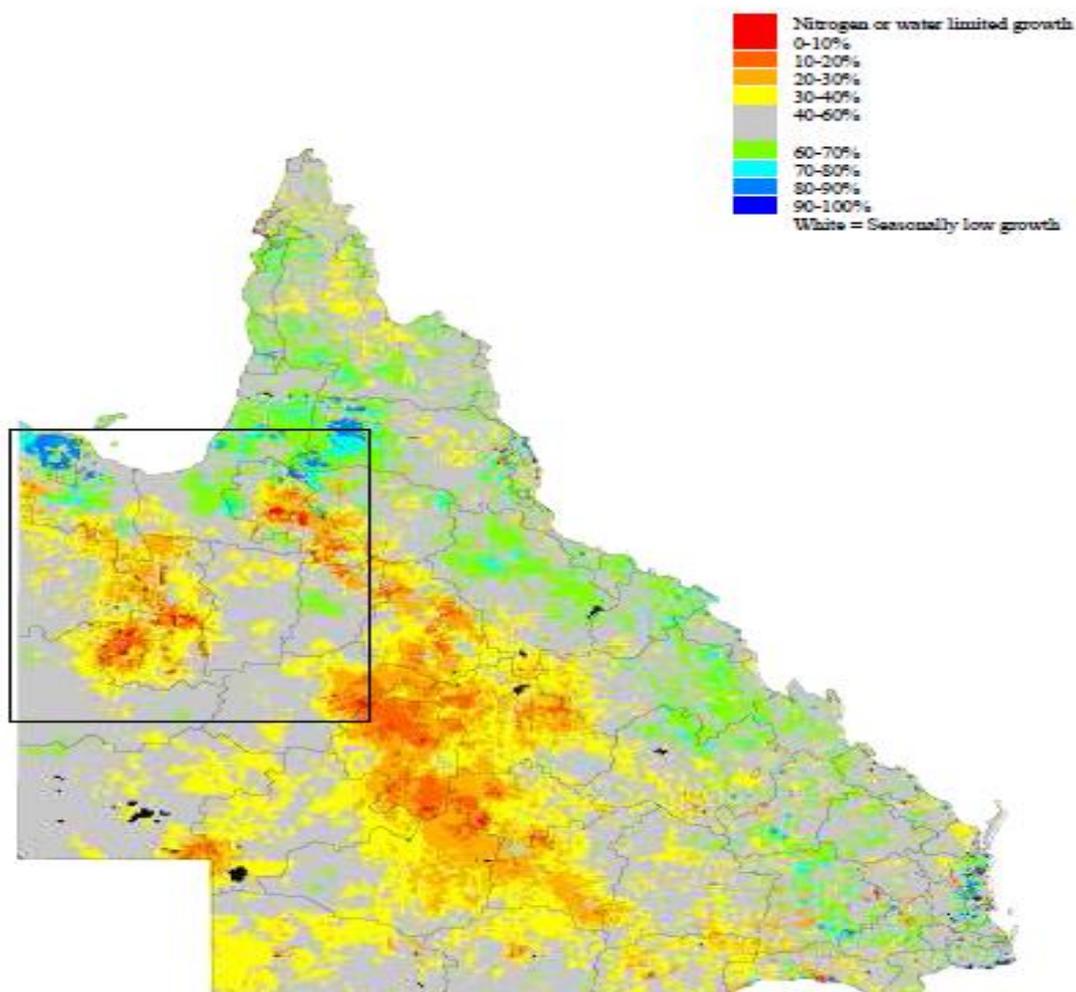
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Forage Property Report service from the LongPaddock website: A Forage report will indicate rainfall and pasture growth outlook based on a number of data sources, including climate indicators, satellite imagery and pasture growth models, and is available on a lot/plan scale.

Go to the LongPaddock website by clicking on <http://www.longpaddock.qld.gov.au> then click on the Forage report tab. Enter your lot/plan and download the PDF file.

LongPaddock also provides a monthly seasonal pasture growth outlook map, for the whole of Australia and state by state. The Queensland pasture growth outlook map for December to February is shown below.

Chance of Exceeding Median Growth December 2018 to February 2019



This map is showing a 30-40 % chance of above median growth across much of the North West. Therefore, a less than 50% chance of above average pasture growth. It is also showing a potential for a 40 – 60% chance of above median growth across the region for the December to February period. In the Upper Western and Eastern regions of the Gulf it is showing a 60-70% and a 70 -80% chance of above median pasture growth.

The opportunity for maximum pasture growth may be limited in some locations due to the later than normal onset of the wet season, which has been predicted.

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Future updates and more information

Our next update will be around mid-January. For more information, the following websites could be very useful. Click on the links to take you there.

Bureau of Meteorology

Climate drivers: a useful site that explains the influences on the Australian climate <http://www.bom.gov.au/climate/about>

Seasonal outlooks: forecast information for the next few months <http://www.bom.gov.au/climate>

Weekly forecast: MetEye <http://www.bom.gov.au/australia/meteye>. Put in your location or postcode for a 7- day forecast for your location. Depending on your location, this forecast can be relatively accurate.

Climate Kelpie

A useful site for easy to understand climate and forecasting information <http://www.climatekelpie.com.au>

Australian CliMate

A free online app for your smart device where landholders can get a whole lot of information about their local area, including how's the season, the drought situation, El Nino, rainfall and temperature trends, and much more. <https://climateapp.net.au>