

January 2019 Weather Update

Connecting people in the business of sheep

Rainfall in 2018

Many SA regions have been drought declared now for a few months. Figure 1 (left) shows the rainfall deciles for SA for the last 3 months (Oct-Dec). The lack of heavy drenching events adds to the rainfall deficit received for most of SA over the past 9 months since April (Figure 1 right). Much of central and eastern part of SA has received rainfall in the lowest 20% of historical average with the red areas receiving rainfall in the lowest 10% on record.

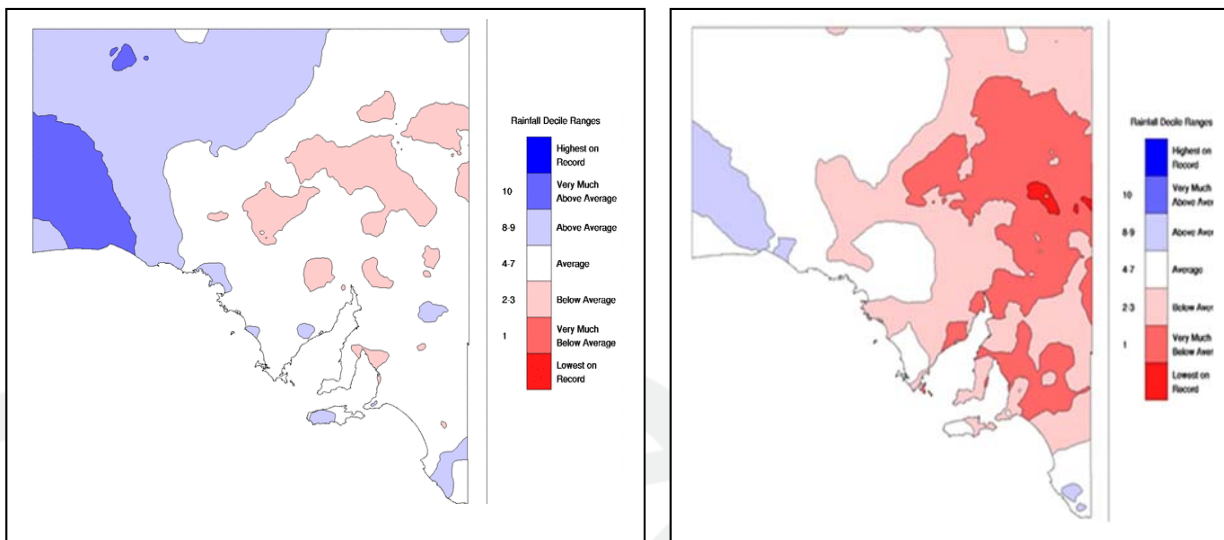


Figure 1: Left- Rainfall for the last 3 months October to December 2019. Right Rainfall deciles for the last 9 months April to December 2019. Figures courtesy of the Australian Bureau of Meteorology based on gridded data.

Drought support can be found via this link

http://pir.sa.gov.au/grants_and_assistance/drought_support.

BOM provides [Soil Moisture Maps](#) for most of Australia. Many farming systems groups also have their own local probes. Most moisture probes in SA are currently showing little to no stored soil moisture or less than 2%.

With low rainfall deciles and low stored soil moisture most are asking when there will be respite.

Seasonal Climate Indicators

The good news is that Australia is not El Nino declared. If an El Nino had presented itself, this would further increase the chances of below normal rainfall to come. In addition, if the Indian Ocean Dipole was positive this would also exacerbate the chances of dry conditions. But this is also not the case. The main indicators that are measured for El Nino declaration include the Southern Oscillation Index (SOI) and Sea Surface Temperatures (SSTS). The SOI is currently neutral and this is OK, however the SSTS in the Pacific Ocean

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above Australia are cooler than normal, and hence there is less evaporation from the ocean and hence less moisture available for rainfall that can be brought to southern and eastern Australia currently. For an excellent explanation on climate indicators refer to the [Climate Dogs](#).

Another large influence on SA rainfall currently is the size and position of high-pressure systems. The BOM has produced a number of articles suggesting that the mean size of high-pressure systems has increased, meaning they take longer to cross SA and cause longer than normal dry spells. Another indicator that is currently influencing SA is the Southern Annular Mode (SAM). SAM influences the position of high-pressure systems across SA. Currently the SAM outlook suggests the high-pressure systems will continue to track where they are for at least the next few weeks causing long dry spells and reduced chances of rainfall.

Seasonal Climate Outlook

Unfortunately, at this time of year the climate indicators are hard to predict by all climate models and forecast centres. This means that the accuracy of most seasonal climate outlooks at this time of year are low. Figure 2 left shows the Australian Bureau of Meteorology seasonal climate outlook for January to March with no strong swings toward above normal rainfall for much of central and eastern SA. If you look at the corresponding accuracy map on the right, the grey areas show that the outlook is correct for less than 50% of the time. Hence our seasonal climate outlooks can not tell us much at this time of year. It is always important to check both the outlook and accuracy to make decisions. See [Rainfall – past accuracy](#). There are times of the year, like winter and spring, when the accuracy is much higher and you should look at the outlooks.

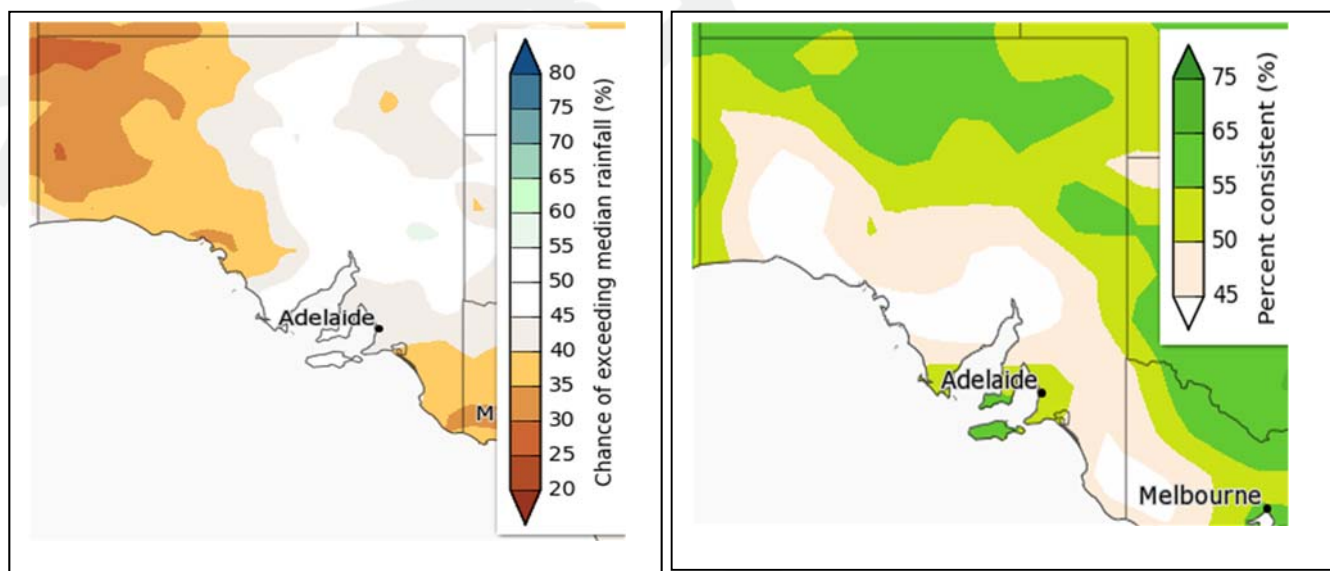


Figure 2: Left- Seasonal Climate Outlook for January to March for SA. Right- Corresponding accuracy map for the January to March for the seasonal climate outlook. Figures courtesy of the Australian Bureau of Meteorology based on gridded data.

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How to Plan

With the seasonal outlook of little use at this time of year, there are still some indicators to support current decisions. These include:

- [The probability of rainfall amounts](#). Click on the map at your location.
- [10-day outlooks from Met Eye at your location](#)
- [current stored soil moisture](#)

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