

Northern Australia Climate Program

Climate and Weather Newsletter

Issued Monday 30/8/21

Here is this week's opinion and review of relevant weather and seasonal forecast systems produced by major global agencies. Note that smaller, individual regions may vary in forecast probability values from this overview (in which case please refer to "ClimateARM" and similar).

Updated information, issued Monday 30/8/21 covering shorter-term weather forecasts, monthly and seasonal climate forecasts, to cover cattle (and sugar) production regions on an advisory basis and as a follow-up to the Managing for Climate Workshops and similar (but other industry regions are also now included as an addition in the text). In effect, this means we are providing review information for the short, medium and seasonal (longer term) periods.

- The 30-day average of the SOI is +3.7 (+3.7).
- The MJO may next be due soon in early September.
- In terms of individual daily forecasts please refer to BoM for these shorter term forecasts.

Weather Forecasts

The model outputs below are obtained from a variety of sources without further comment, except that they are based purely on my opinion on the capability of various weather and climate models and based on the initiating agencies verification outputs and published manuscripts and as explained at our regional workshops.

1st week weather forecasts – higher confidence (all values approximate) – an opinion and summary/review:

Values in mm – all values approximate.

Weekly rainfall forecast totals - review of the US COLA and BoM system:

30/8-7/9 10-20 mm through most of Qld, NSW, VIC, and central NT, increasing to 20-50 mm through parts of central NT and central eastern Qld (e.g. around Mackay) plus also between Rollingstone and Mossman. Nil significant remainder.

7/9-15/9 (much less confidence for this period): Nil significant throughout.

Weekly temperature forecast anomalies

30/8-7/9 mostly above mean temperatures through all districts (+2 to +4 deg) but with the exception of central eastern WA and the Pilbara where below mean temperatures are forecast (-1 to -3 deg).

Seasonal Forecasts

For the longer period, the *seasonal climate forecast models* are indicating the following (to be updated when new information confirmed). The forecasts are probabilistic:

- The USQ/Qld Govt SOI phase statistically-based model result for the end of August is 'consistently positive'. For the September to November total period this equates to

a 60% to 80% probability of exceeding of the long-term median rainfall (relevant to this time of the year, and depending on location) through most of eastern Australia. Remaining regions of northern and inland Australia have a reasonable probability of close to a 50%-60% probability of exceeding median rainfall (i.e. climatology), relative to this time of year for this period.

- For the September to November total period, the BoM 'ACCESS-S' coupled GCM is still indicating the probably of above median rainfall is 80% for all regions and states except WA where closer to the climatological median (or below median along the west coast) conditions are forecast.
- The UK Met Office GCM is also indicating 70% to 80% probability of exceeding median rainfall for much of inland Australia through to end of November, similar to the output from BoM/ACCESS outputs especially for eastern Australia (which utilises similar components to UKMO model). However, notably, for the later summer period the forecast probability values are closer to just 'average' (or 'climatology') for all of Australia.
- The European ECMWF GCM is indicating an 'average' ~50% probability of exceeding median rainfall for much of northern Australia for the summer months ahead.
- The SOI 30-day average is now +3.7 (+3.7)
- MJO information (also courtesy of BoM): the MJO may be due again across our longitudes around early September.

We are very grateful to Meat and Livestock Australia and the MLA Donor Company for funding key research projects in this area of seasonal and shorter-term forecasting and to which this output belongs.

Best wishes,

Roger Stone

Centre for Applied Climate Sciences

University of Southern Queensland

Toowoomba

This Climate and Weather update has been reinstated by the Northern Australia Climate Program (NACP) with funding from MLA Donor Company, the Drought and Climate Adaptation Program (Qld Government) and the University of Southern Queensland.

NACP has climate risk advisers (climate mates) in 8 regions across northern Australia.

