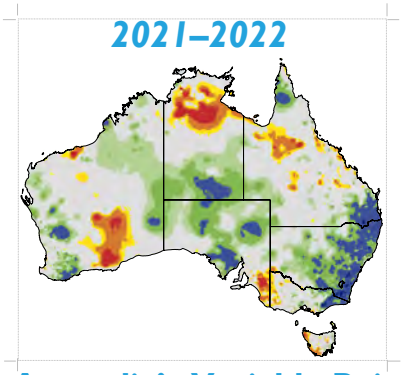
More of Australia's Variable Rainfall

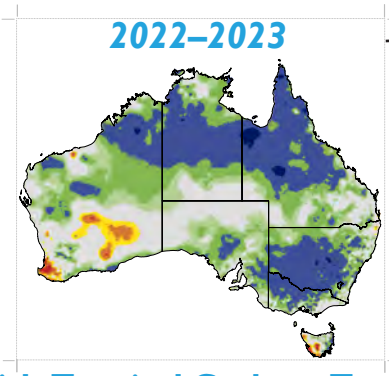
April to March Annual Australian Rainfall Relative To Historical Records 1890–extend your poster

www.longpaddock.qld.gov.au/rainfall-poster/

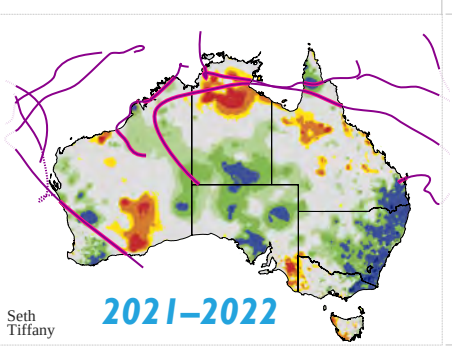
- print this page using a colour printer
- cut out the extra maps and stick them on your poster,

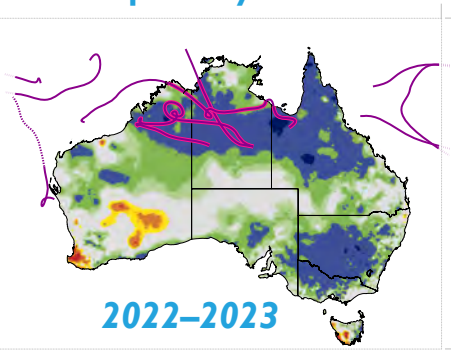
Australia's Variable Rainfall



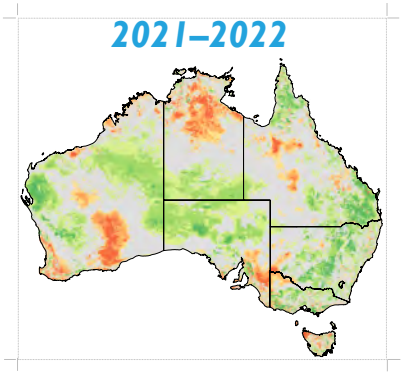


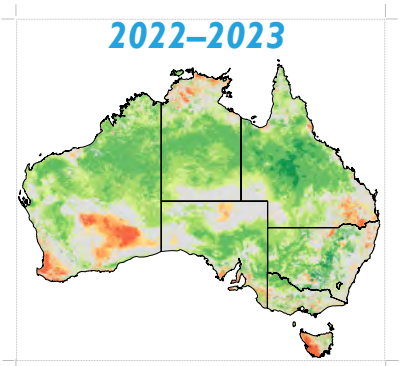
Australia's Variable Rainfall with Tropical Cyclone Tracks



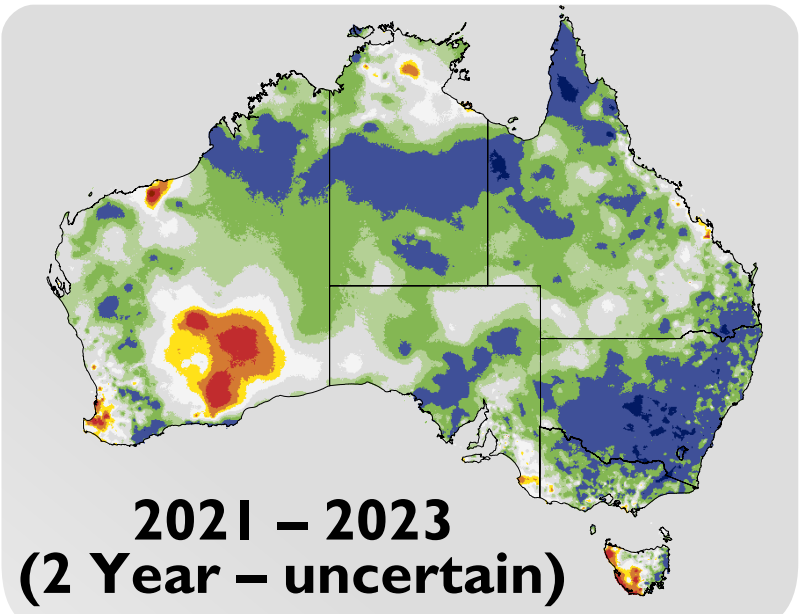


Australia's Modelled Pasture Growth





Queensland's extended wet and dry periods



Rainfall was 48% above the previous Dry period.*

- For the previous 12-month period (April 2021 – March 2022), rainfall across Queensland was mostly well-received by most grazing enterprises, however, a large area stretching from the Lower Carpentaria district across to the eastern Central Coast district did not share the early season reprieve.
- In early 2022, exceptional rainfall caused flooding throughout the southeast of the state with much damage and disruption to families, households, properties, animals and natural resources.
- Most of the state's river systems had moderate to major flooding, with Channel Country waterways in the far west fed from both local rain and upstream contributions. There were three cyclone crossings into Queensland – Cyclone Seth (twice) and Tiffany (once).
- For the recent 12-month period (April 2022 – March 2023), there has been a much more even distribution of beneficial rainfall – relative to historical records. However, a drying pattern has formed for the last six months for the south-east of the state extending to the Western Downs and Maranoa; and as far west as the south-west Queensland border for the recent three months (January – March 2023).
- While there was significant cyclone and Tropical low activity across northern Australia, no 'official' cyclones crossed into Queensland for the latter 12-month period. However, on March 7th 2023, the slow moving Tropical low 16U brought heavy rainfall and flooding rains to the lower Gulf of Carpentaria region until March 10th. This deluge exacerbated the recent widespread rain delivered by ex-Tropical Cyclone Ellie which had already saturated the Gulf's Nicholson, Gregory, Leichhardt and Flinders catchments. Evacuations and significant inundation of many rural properties and towns occurred. These flood waters caused extended isolation for a number of communities in northwest and western Queensland (Burketown, Urandangi and Camooweal) in the weeks following the rain event. Major losses of livestock and the destruction of properties and roads were reported across the region.
- There is currently 28.7% of the state (1st March 2023) drought declared. Maps and Reports showing drought duration periods are available at www.longpaddock.qld.gov.au/drought/drought-declarations/.
- Rainfall and pasture growth sequences (multiple months) can be viewed by accessing the 'Drought Sequence Viewer' at www.longpaddock.qld.gov.au/drought/sequence/, or 'AussieGRASS' www.longpaddock.qld.gov.au/aussiegrass/.

Wet period start or continuation of Dry period?

- At this stage, it is too early to tell. At present there is no forecast capability for multi-year rainfall variability. This poster presents historical Wet and Dry periods only, as described in McKeon *et al.* (2021) Queensland's multi-year Wet and Dry periods: implications for grazing enterprises and pasture resources in *The Rangeland Journal* 43(3) 121-142.
- The recent 24-month (April 2021 – March 2023) rainfall map (left) shows a wetter to much wetter pattern across Australia – relative to all other historical 24-month periods.
- There has been a 48% increase in annual rainfall for the recent 24-month period (704mm) averaged across Queensland's major livestock region (see bottom LHS of poster), compared to the average of the previous 9-year Dry period (475mm).
- The current drier forecast from June 2023 (BoM) is being influenced by several factors including an ENSO-neutral pattern (neither El Niño nor La Niña) tending towards El Niño in the latter part of the 2023, and the chance that a positive IOD event (indication of lower winter season rainfall) may develop in the coming months.