

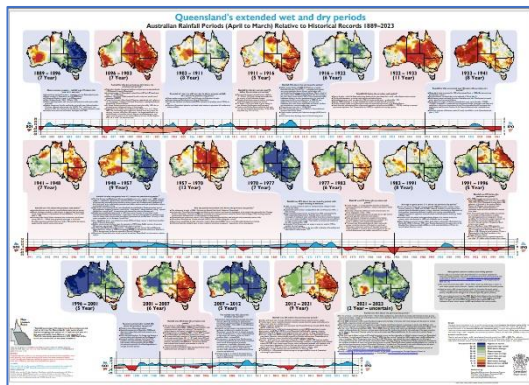
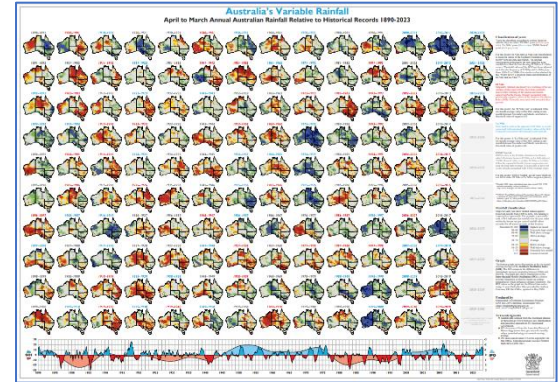
Long Paddock website Rainfall and Pasture Growth Posters - guide

The Long Paddock website suite of posters display rainfall and pasture growth maps for over 133 years (1890 to the current year; longpaddock.qld.gov.au/rainfall-poster/).



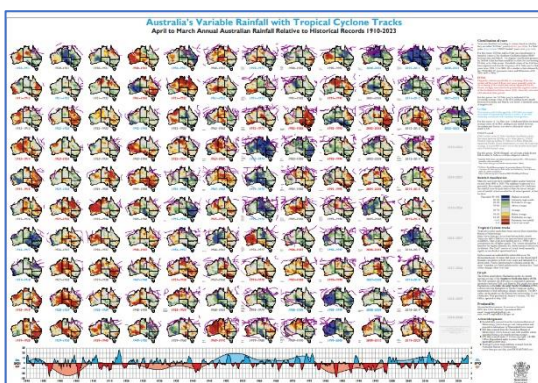
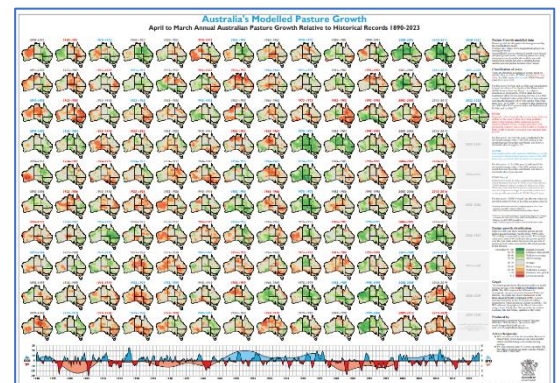
There are four types of Australia-wide posters available: annual rainfall, annual pasture growth, annual rainfall with cyclone tracks, and one showing sequences of extended wet and dry periods for Queensland.

The [Australia's Variable Rainfall](#) poster (right) shows 'April to March' rainfall (for the northern Australia wet season) presented as 'percentiles'. The maps compare each 5x5km pixel to the historical record for that pixel, ranked from: lowest on record (red colours); above median (green colours); to the highest on record (blue colours). This classification takes the guesswork out of considering whether one year was better (or worse) than another.



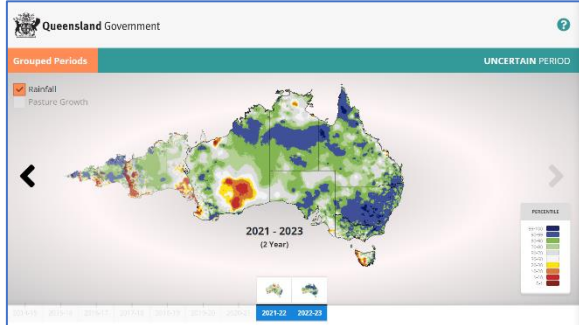
The [Queensland's extended Wet and Dry period](#) poster (left) breaks the 133 years into 9 wet and 9 dry multi-year periods (comprising 5 to 13 years in duration). The most recent dry period was 9 years (April 2012 to March 2021). The current 3-year period (2021-24) will not be named until at least 5 years of the wet/dry phase is established (see [McKeon et al. 2021](#)). Extended Wet periods contribute to high agricultural productivity and debt repayment, but also build-up of weeds and fuel loads, as well as increases in native and feral grazing populations. Dry periods impact with lower agricultural output and therefore debt accumulation, as well as higher fire risk, reduced dam fill and drought potential.

The [Australia's Modelled Pasture Growth](#) poster (right) shows 'modelled' pasture growth from the [AussieGRASS](#) environmental calculator. While total growing-season rainfall explains ~40% contribution to pasture growth (of the random variability), other factors (such as rainfall distribution, soil moisture [inc. runoff, drainage], soil type, nitrogen levels, evaporation and solar radiation) play a part in determining whether pastures grow or not. Therefore, modelled pasture growth accounting for these factors, will provide a better representation of rangeland 'production' (as percentiles; i.e. ranked with history) than rainfall alone.



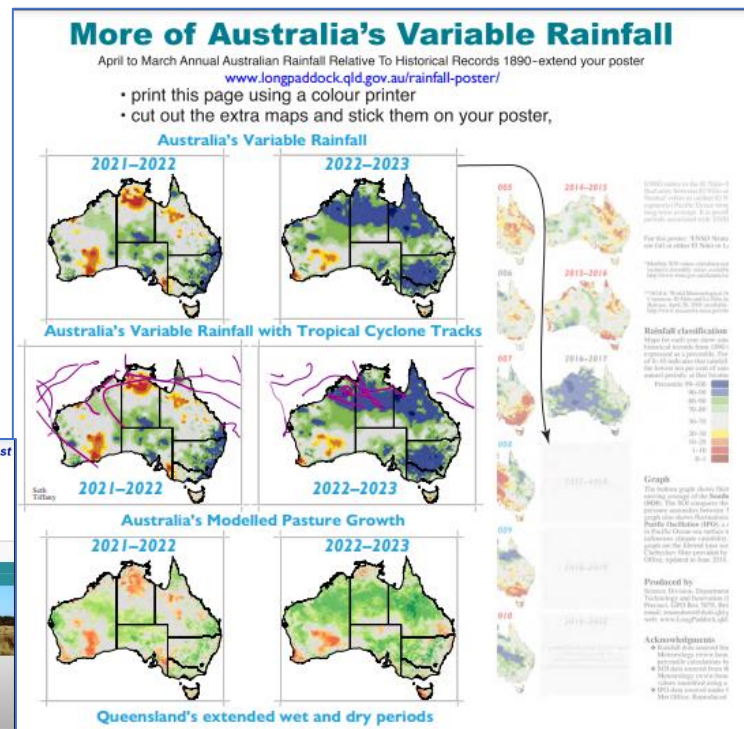
The [Australia's Variable Rainfall with Tropical Cyclone Tracks](#) poster (left) is similar to the Australia's Variable Rainfall Poster – though it starts from 1910-1911, due to the lack in cyclone data availability. The cyclone tracks 'thicken' if they make landfall – Cyclones that crossed the Queensland coast are named at the bottom left of each map. The point to make with these maps is that cyclones can occur in any ENSO phase (El Niño, Neutral or La Niña) and that they are not necessarily all 'drought-breakers'. Many land managers (particularly those in coastal areas) may identify with the Tropical Cyclone posters more than posters just showing rainfall.

All posters include information about the major climate drivers in Australia, with the years being classified as El Niño, Neutral and La Niña years, and a time series showing Southern Oscillation Index (SOI) and Interdecadal Pacific Oscillation (IPO, driver of longer-term climate variability). There is information on the posters defining these climate drivers. It is important to understand that neutral do not mean ‘average’ years – they are just not within El Niño or La Niña thresholds and normal high variability is expected. The ‘Wet and Dry’ period poster also includes historical commentaries relating the climatic/economic/social conditions that occurred for that period.



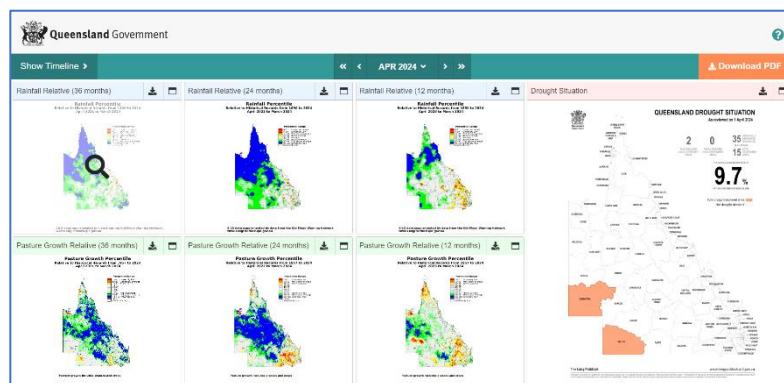
There is also the [Rainfall Map app](#), which allows for easy ‘on-screen dynamic viewing’ of the Wet and Dry periods and individual years. The ‘Map app’ combines all the maps from the ‘Wet and Dry’, Annual Rainfall and Modelled Pasture growth posters.

The Long Paddock website has a number of [videos and webinars](#) (below) explaining the various tools and information and how they may be useful. The maps are updated annually (between April and June), with a set of [annual update maps](#) (right) that can be added to existing posters (i.e. download, print, cut out and paste on to the A1 poster).



Our rainfall and pasture growth – comparing current seasons with the past
Webinar #2: "Getting the Inside Edge in grazing land management" series
Grant Stone for *The Grazing Land Systems team*

Note: The rainfall and pasture posters only display ‘annual’ or ‘multi-year’ (wet or dry) maps. Shorter and longer timescale maps (i.e. 1, 3, 6, 12, 24 & 36 months) of rainfall, pasture growth, total pasture biomass are available on the AussieGRASS page (longpaddock.qld.gov.au/aussiegrass/) or as a ‘multi-map’ [Drought Sequence viewer](#) (below or longpaddock.qld.gov.au/drought/sequence/) on the Long Paddock website.



Where can I get the posters?

The posters are available as PDF files from the Long Paddock website/Rainfall poster page and ‘hard copy’ glossy A1 rainfall posters can be obtained free by contacting longpaddock@qld.gov.au.