

Seasonal conditions

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Seasonal conditions

Global production conditions generally favourable. Promising start to winter growing season across south-eastern Australia.

Climatic conditions in major crop-producing countries

As at 28 May 2019 global production conditions are generally favourable.

Grains

In the southern hemisphere, conditions for wheat sowing are generally favourable. In the northern hemisphere, wheat crop development is continuing under generally favourable conditions.

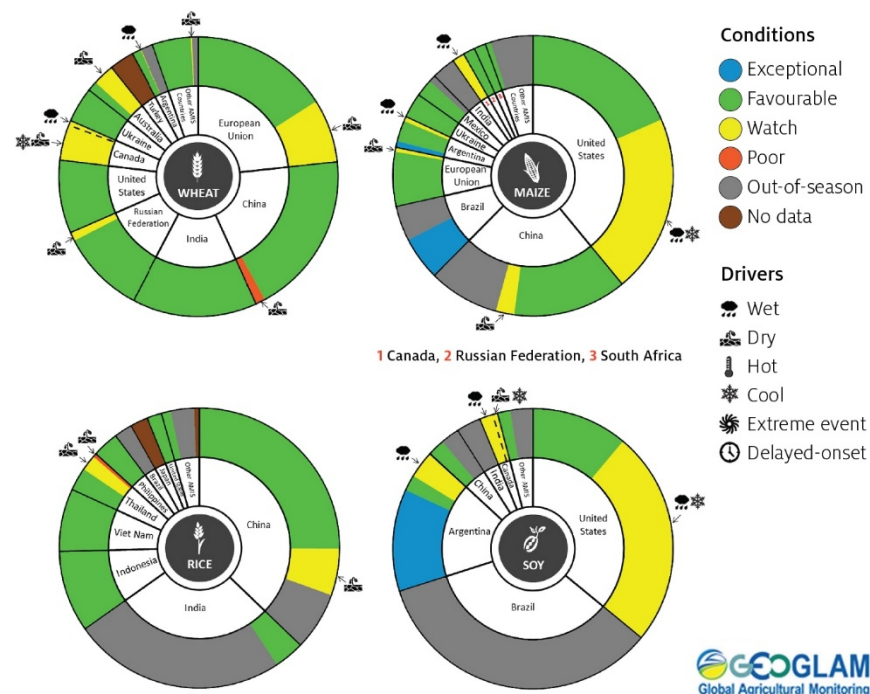
Growing conditions for maize are generally favourable in Brazil, Argentina, Mexico and the European Union, but conditions are mixed in the United States.

Growing conditions are favourable for rice in India, Vietnam, the Philippines and the United States. Indonesian dry-season rice sowing conditions are favourable and wet-season rice yields are expected to be average. Dry-season rice conditions in Thailand are generally favourable but dry conditions are negatively impacting crops in north-east Thailand.

Oilseeds

Growing conditions for soybeans are generally favourable in the Ukraine but are mixed in the United States and Canada due to wet conditions delaying sowing. Conditions in Argentina are favourable to exceptional, although flooding is affecting conditions in the north-east of the country.

Crop conditions, AMIS countries, 28 May 2019



AMIS Agricultural Market Information System.

Source: AMIS

Climate outlook for Australia

Crop production concerns for 2019–20

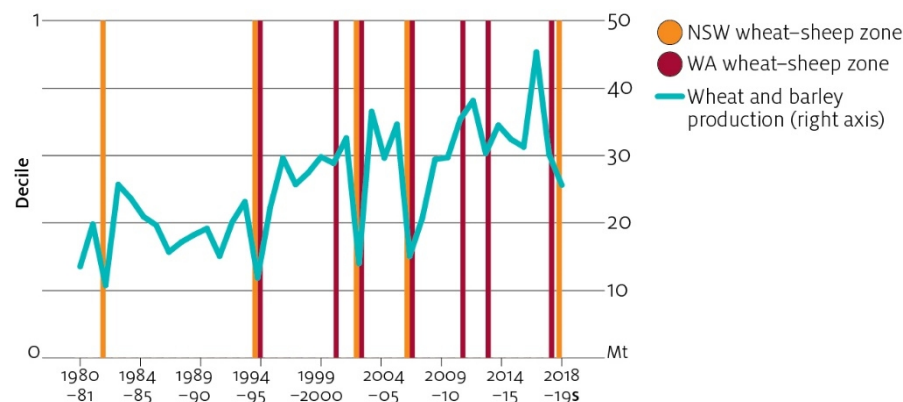
Low winter crop production across Australia's eastern states in 2018–19 has reduced the availability of grain for domestic consumption and led to increased prices. This has raised concerns over the availability of grains in 2019–20 if seasonal conditions remain unfavourable for crop production.

The 2019–20 winter cropping season has had a mixed start and the chance of a positive Indian Ocean Dipole (IOD) event developing has increased. A positive IOD often results in below average winter–spring rainfall particularly in central and south-eastern Australia. This represents a significant downside risk to final winter crop production levels in 2019–20.

Over the past 25 years Australia's lowest winter crop production years were in 1994, 2002 and 2006. The years in which growing season (April to October) rainfall totals were in the lowest 10% (decile 1) of the historical record are shown in Figure 2. In 1994, 2002 and 2006 growing season rainfall was decile 1 or below for both New South Wales and Western Australia—Australia's two largest grain-producing states.

This is extremely rare and has only occurred five times since 1900. It has never occurred for two consecutive years over the 118 years of historical climate records. In New South Wales decile 1 rainfall was recorded for two consecutive years only once in the last 118 years, in 1940 and 1941.

Decile 1 rainfall (April to October) and annual grain production, 1980–81 to 2018–19



s ABARES estimate.

Mixed autumn break to start the winter cropping season

Autumn started with variable rainfall across Australia's cropping regions, followed by a dry April. The autumn break—the first significant rainfall of the winter growing season—occurred in May for most eastern winter cropping regions. Generally this occurs when at least 25 millimetres of rainfall is recorded within a 7-day period.

At the end of March, two severe tropical cyclones (*Trevor* and *Veronica*) crossed the coast of tropical northern Australia, bringing extremely high rainfall to parts of northern and eastern Australia. This provided an early start to the season for cropping regions in northern and eastern Queensland and parts of eastern New South Wales. After a dry April for most cropping regions, further tropical intrusions of moisture during May provided follow up rain for early sown winter

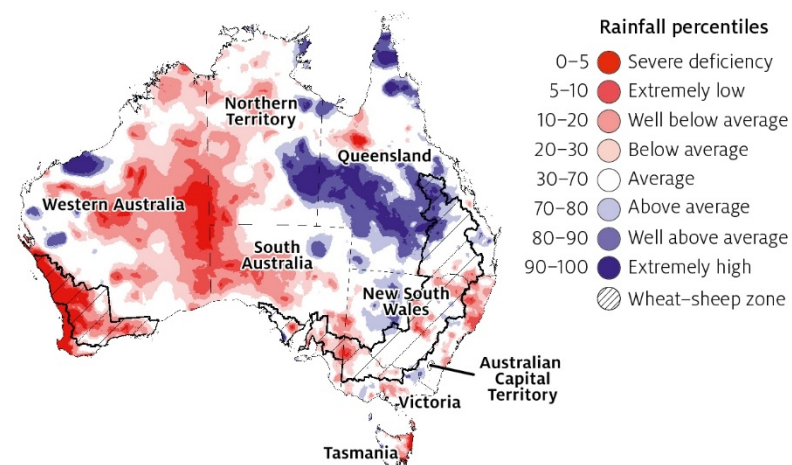
crops and initiated the start of the growing season for many areas in New South Wales, Victoria, Queensland and South Australia.

In contrast, variable rainfall was recorded across Western Australia's cropping regions in March, followed by average rainfall in April and below to very much below average conditions in May. The far south cropping region of Western Australia received sufficient rains to start the season but most of the state has not experienced a traditional autumn break.

Rainfall in May 2019 was mixed across Australia. Average to above average rainfall was recorded across much of New South Wales, Victoria, northern and western Queensland, South Australia and the Northern Territory. In contrast, below average rainfall was recorded across eastern New South Wales, south-eastern Queensland and most of Western Australia.

Rainfall for May 2019 in winter cropping regions was generally average to above average in New South Wales, Victoria and South Australia, and below average in Queensland and Western Australia.

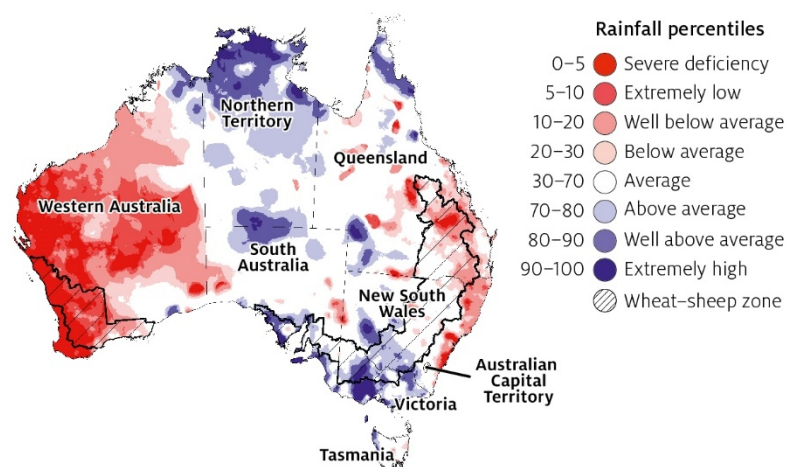
Rainfall percentiles, Australia, 1 March 2019 to 31 May 2019



Note: Rainfall for March to May 2019 relative to the long-term record and ranked in deciles. This analysis ranks rainfall for the selected period compared with the historical average (1900 to present) recorded for that period.

Source: Bureau of Meteorology

Rainfall percentiles, Australia, May 2019



Note: Rainfall for May 2019 relative to the long-term record and ranked in deciles. This analysis ranks rainfall for the selected period compared with the historical average (1900 to present) recorded for that period.

Source: Bureau of Meteorology

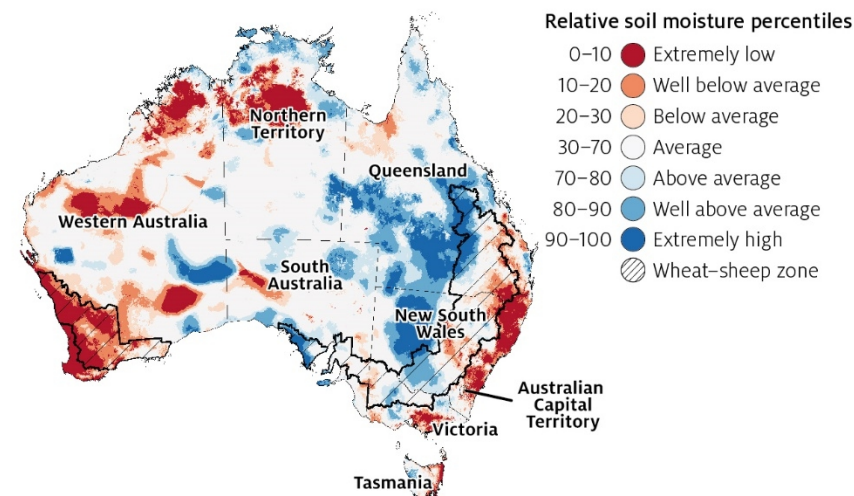
Autumn rainfall leads to increased soil moisture

Autumn rainfall improved soil moisture across Australia following a summer of below average rainfall and well above average temperatures. Root zone moisture was below average across much of Australia during March and variable in April and May.

In May 2019 soil moisture in cropping regions was below average in Western Australia and variable across the eastern regions. There was average to above average soil moisture in parts of southern and northern New South Wales, eastern Victoria, western Queensland and South Australia. The low May rainfall and low soil moisture in Western Australia is likely to limit crop germination, consequently growth of

these crops will rely on timely and sufficient rainfall during winter, rather than stored soil moisture.

Modelled root zone soil moisture, Australia, May 2019



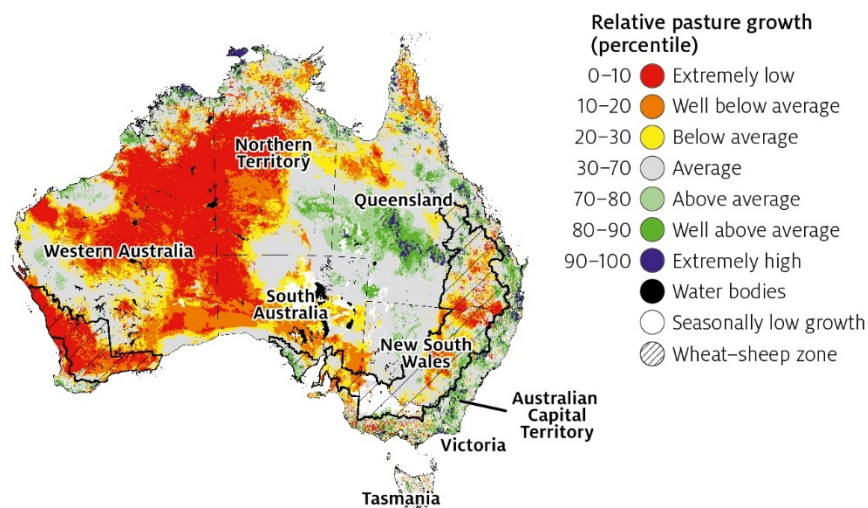
Note: Soil moisture estimates are relative to the long-term record and ranked in percentiles. Estimates are used to compare root zone soil moisture during May 2019 and ranked by percentiles for each May in the 1911–2015 historical reference period. Root zone soil moisture is defined as the soil surface to 1 metres in depth.

Source: Bureau of Meteorology

Pasture growth below average for some key livestock production regions

Below average northern wet season and autumn rainfall has limited pasture production across large areas of western, central and northern Australia. For the 3 months to May 2019 modelled pasture growth was well below average to extremely low across large areas of the Northern Territory, eastern Western Australia, eastern and southern South Australia and parts of south-eastern Queensland, central and southern New South Wales and southern Victoria.

Relative pasture growth, Australia, 1 March 2019 to 31 May 2019



Note: AussieGRASS pasture growth estimates are relative to the long-term record and shown in percentiles. Percentiles rank data on a scale of zero to 100. This analysis ranks pasture growth for the selected period against average pasture growth for the long-term record (1957 to 2016). Pasture growth is modelled at 5km² grid cells.

Source: Queensland Department of Science, Information Technology and Innovation

A return to average rainfall levels in late summer and autumn has benefited pasture production in parts of western and eastern New South Wales, central Queensland and southern Victoria.

Sufficient rainfall likely for most winter cropping regions

The current El Niño-like warmth in the central tropical Pacific Ocean is expected to cool to neutral ENSO levels during winter. In contrast, the Indian Ocean Dipole (IOD) is forecast to become positive from early winter. A positive IOD typically brings drier conditions to much of southern and central Australia during winter and spring.

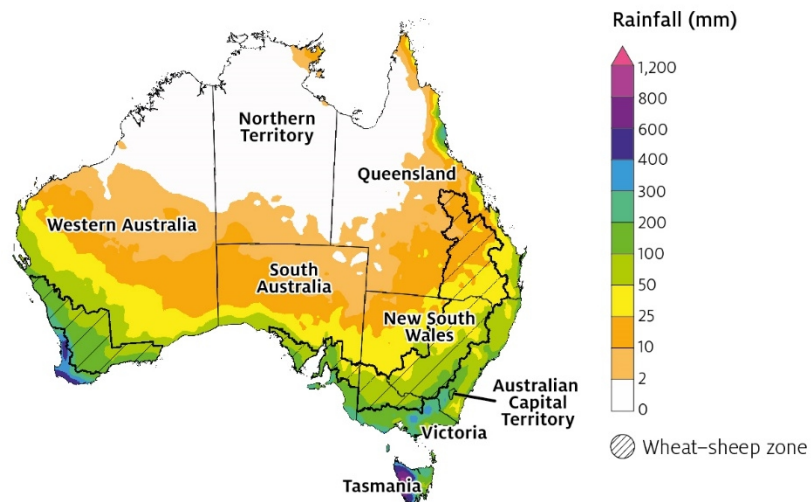
The Bureau of Meteorology's climate outlook for June to August 2019 (released 30 May 2019) indicates that a drier than average winter is likely across large areas of eastern Australia and parts of southern Australia. Much of northern Australia also has a dry outlook but low rainfall is typical in this region during winter. Conditions for much of the remainder of the country are not expected to be wetter or drier than average during winter 2019.

The Bureau of Meteorology's climate outlook suggests drier than average rainfall across large areas of eastern Australia and parts of southern Australia. However, areas unlikely to exceed median rainfall are still likely to receive rainfall sufficient to sustain crop and pasture production except in parts of Queensland.

Between June and August 2019 cropping regions in New South Wales and Victoria have a 75% chance of receiving between 25 and 100 millimetres. Cropping regions in South Australia and Western Australia have a similar probability of receiving between 50 and 200 millimetres.

Across Queensland there is a 75% chance of receiving between 10 and 50 millimetres. In areas with low soil moisture these probable low three-month rainfall totals are unlikely to be sufficient to sustain crop production.

Rainfall totals that have a 75% chance of occurring, June to August 2019



Note: Shows the amount of rainfall (mm) that has a 75% chance of occurring during June-August 2019.

Source: Bureau of Meteorology