Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

PestFacts
WESTERN AUSTRALIA

GRDC
GRAINS RESEARCH & DEVELOPMENT CORPORATION

PestFacts WA webinar

"DPIRD Seasonal status of pests and diseases delivered to growers" project. GRDC co-investment.

Acknowledgment of Country

The Department of Primary Industries and Regional Development acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal community and their cultures; and to Elders both past and present.

Webinar agenda

WA’s spring climate outlook. Ian Foster. DPIRD senior research scientist

Foliar diseases that have been occurring across the WA grainbelt so far. Ciara Beard, Geoff Thomas & Kithsiri Jayasena. DPIRD senior research scientists

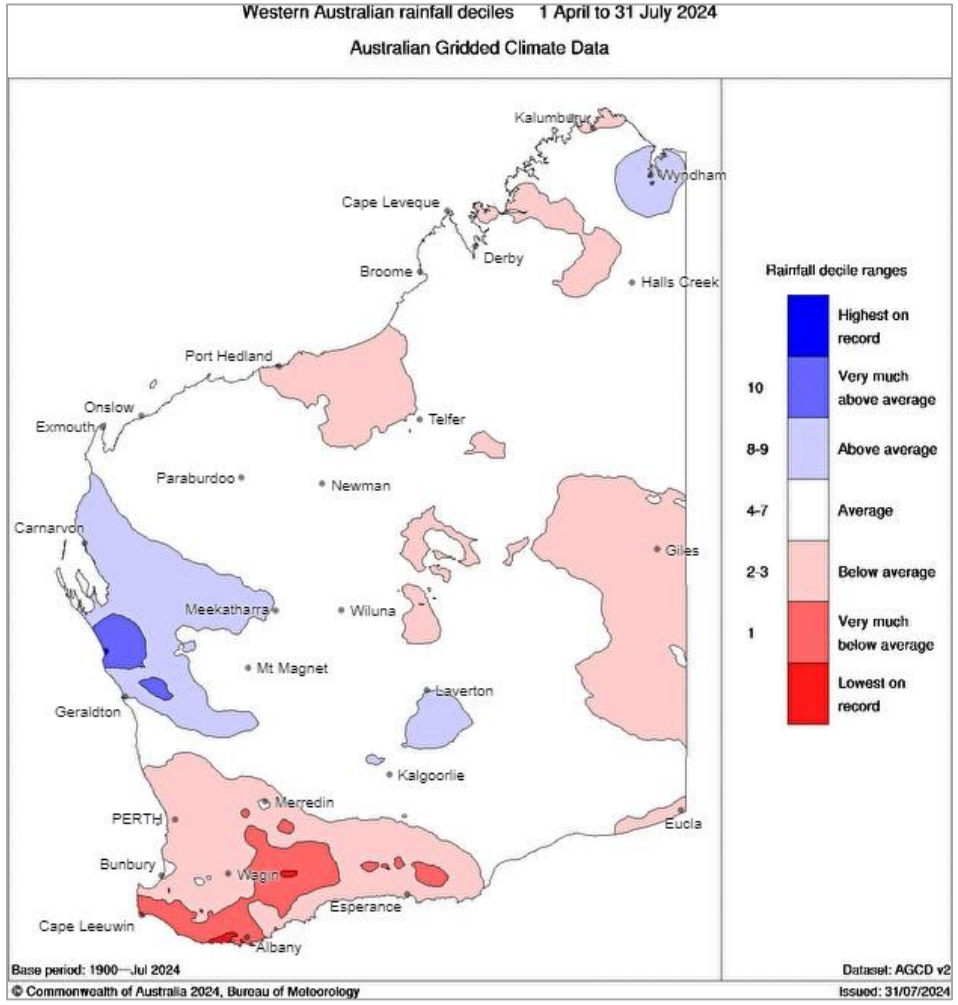
Managing disease risk from spring onwards. Ciara Beard, Geoff Thomas & Kithsiri Jayasena. DPIRD senior research scientists

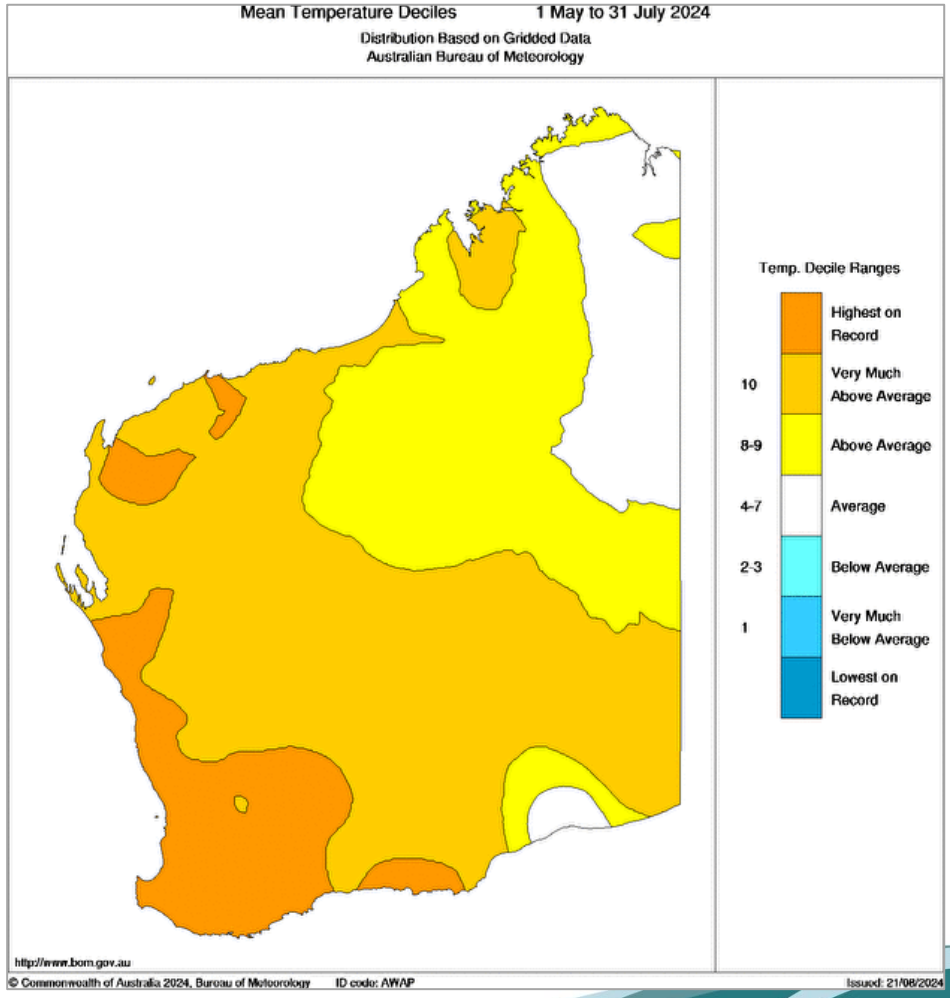
Question and Answer session.

Climate outlook Outline

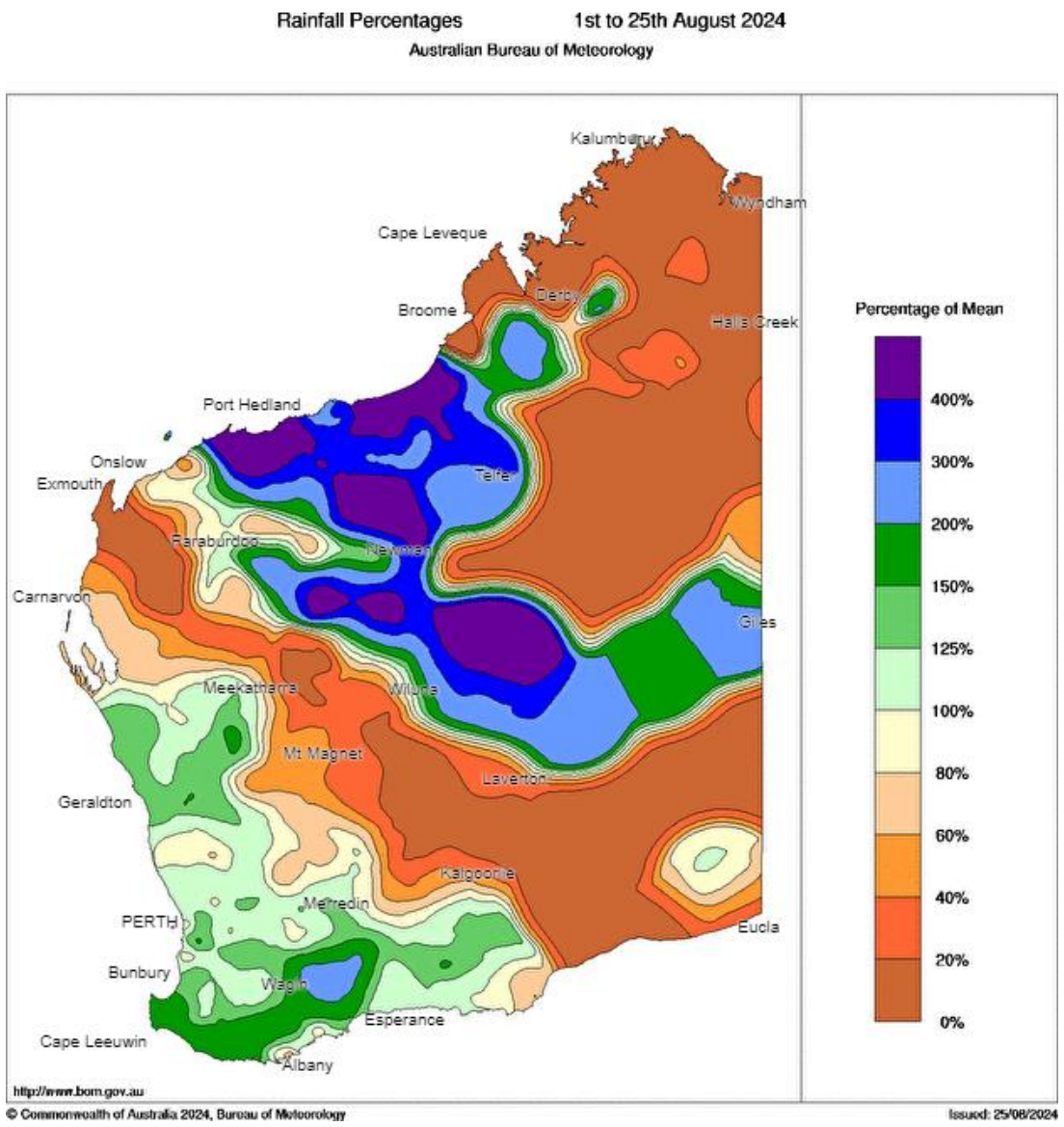
- Recap of seasonal rain to date.
- Rain and temperature outlook for the next 2 months.

Seasonal rain and temperatures 2024

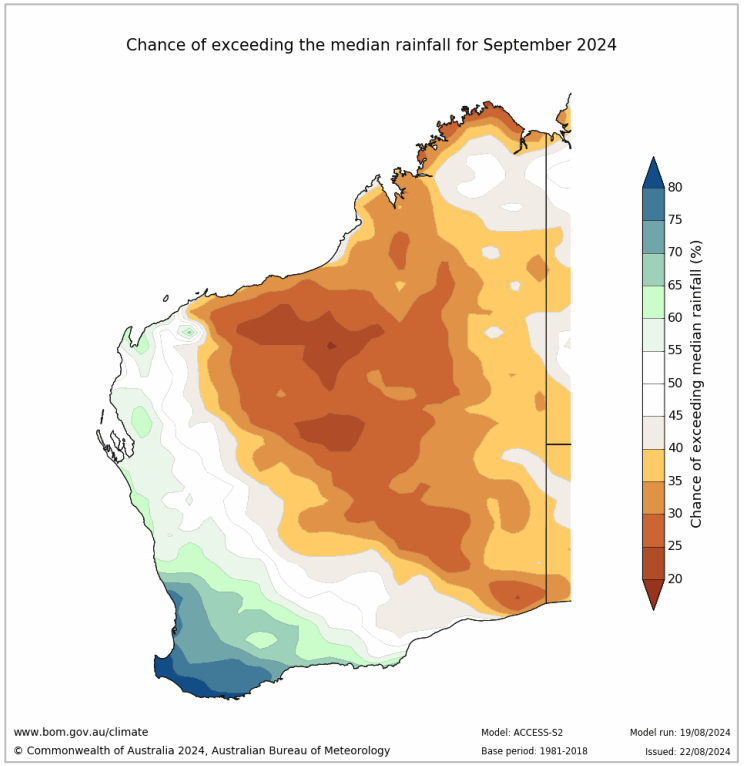




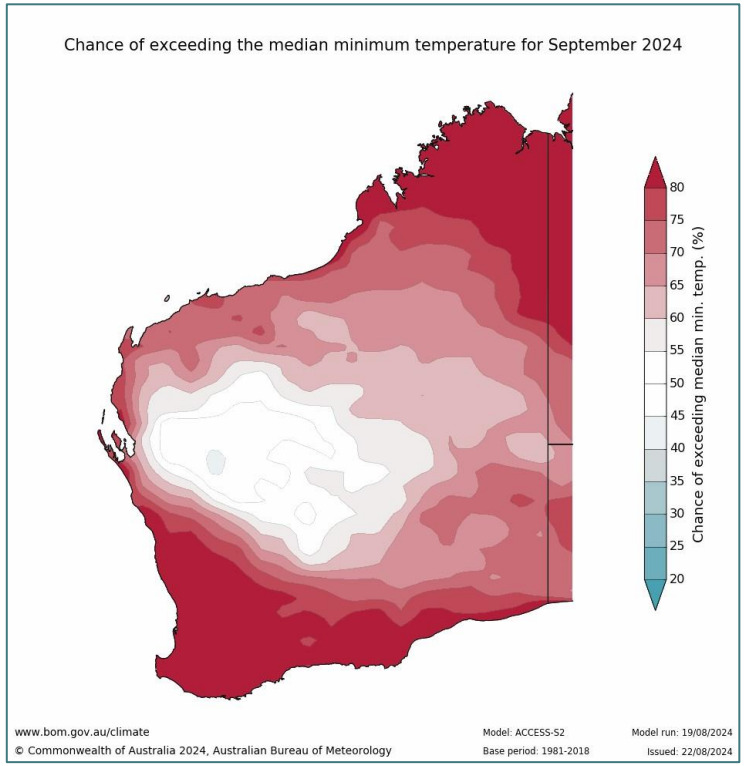
August rain to date 2024



Sept rain and temperature outlook



Rain



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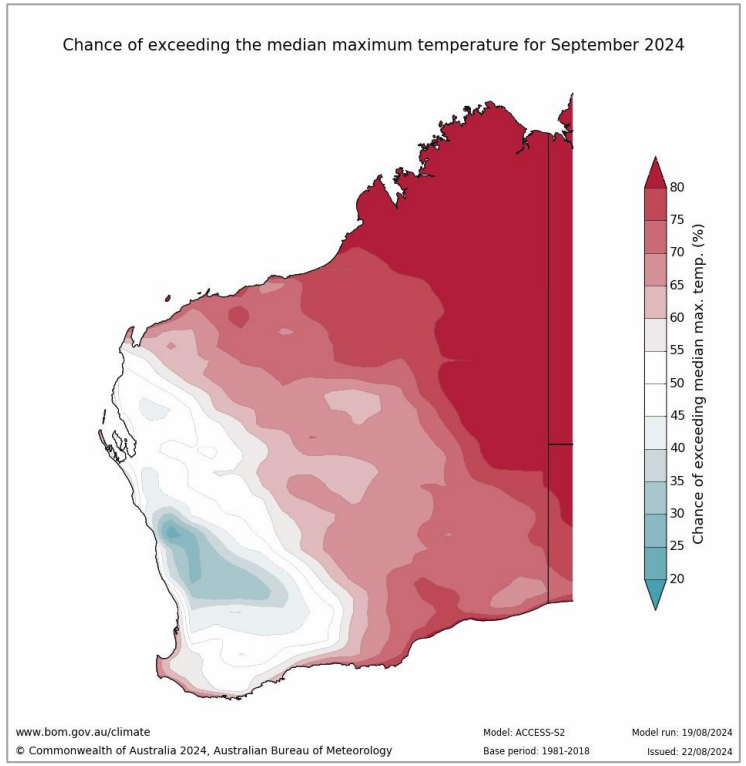

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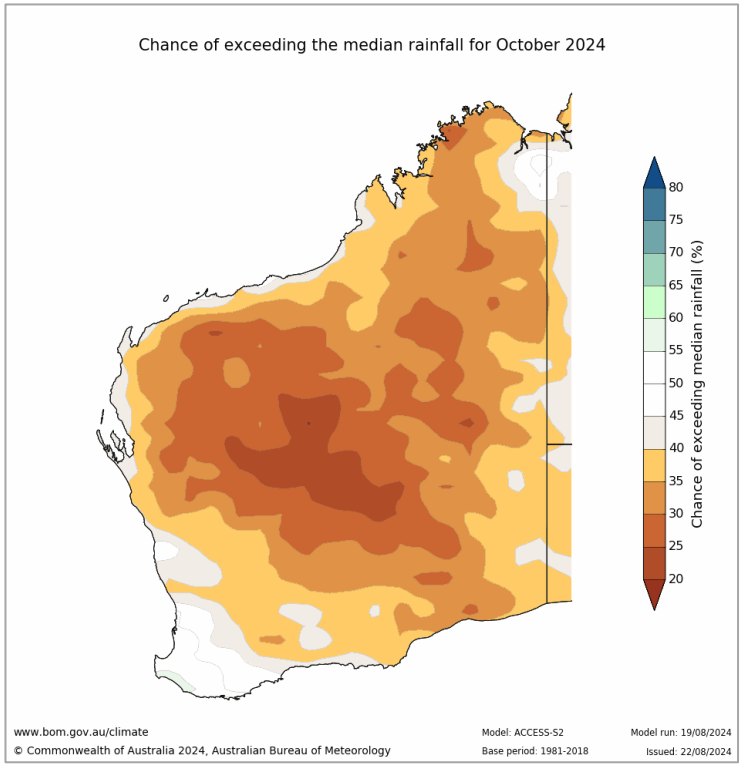
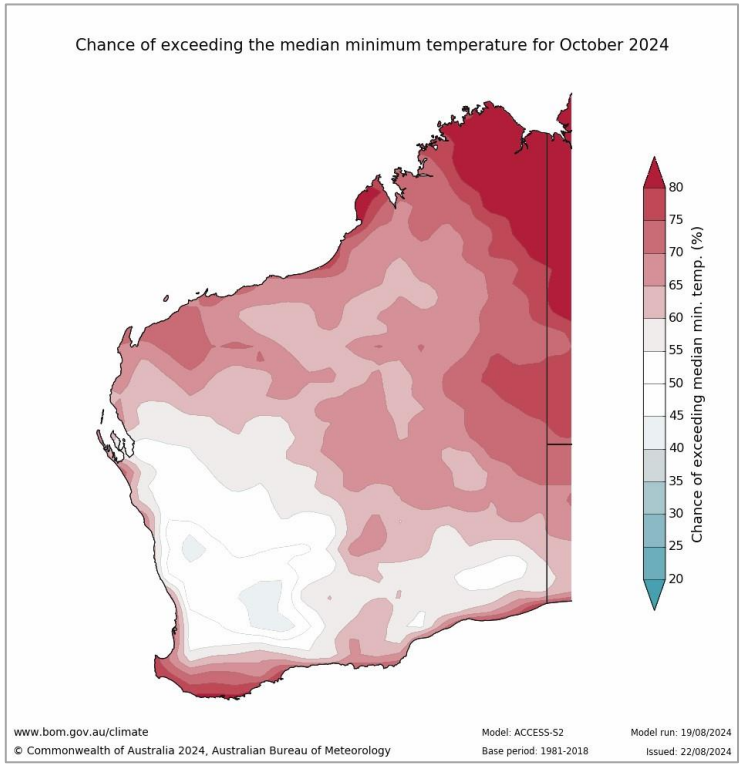
Chances of exceeding median

Issued 22 Aug 2024

Oct rain and temperature outlook



Rain



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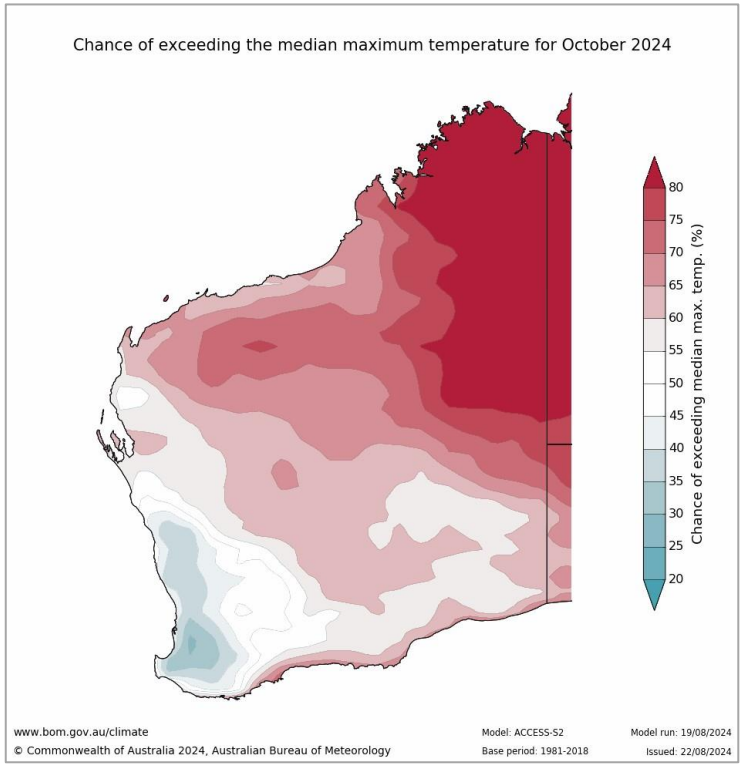

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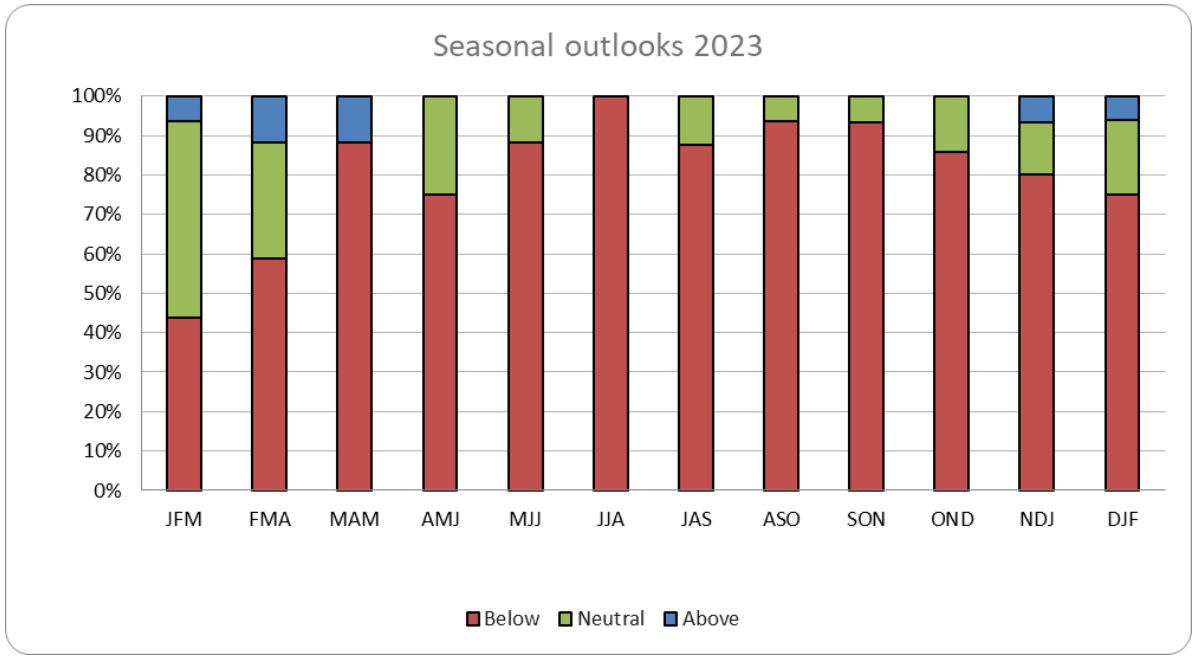
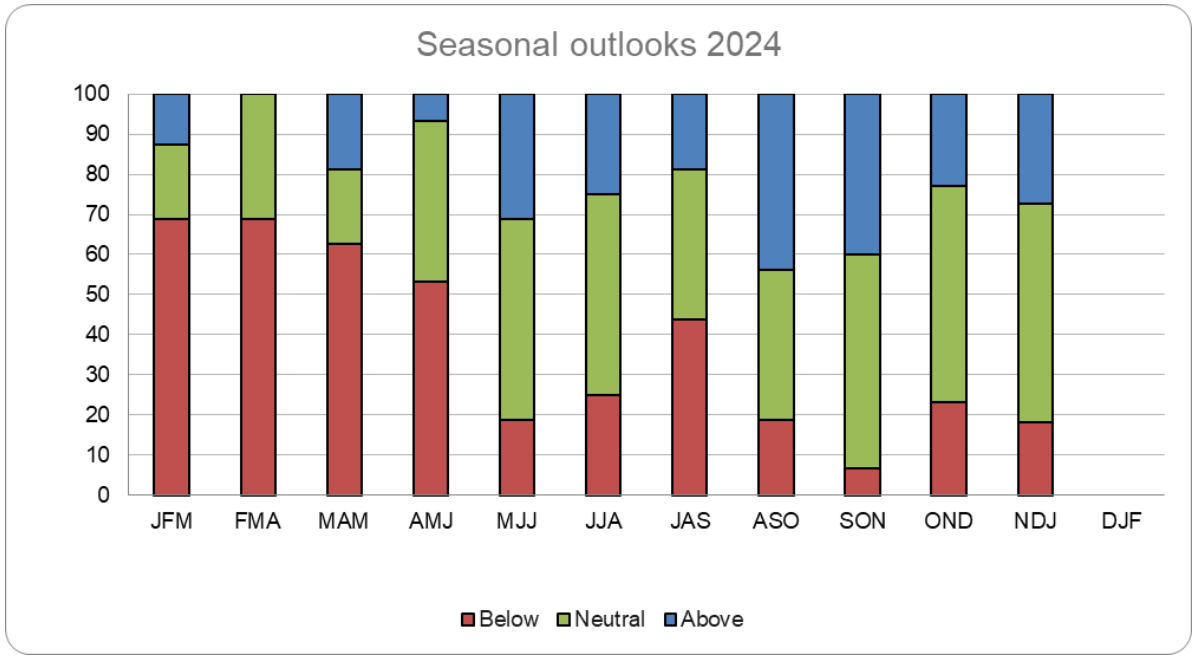
Chances of exceeding median

Issued 22 Aug 2024

Seasonal rain outlook 2024

Multi-model summary





Take home messages

Seasonal rain to July has been below normal for the south, but much wetter for the north.

Season to date has been warm as well.

August rain has been welcomed in the south.

Rain outlooks look OK for September, maybe winding back from October.

Temperatures in September are warmer at night but cooler during the day.

October temperatures look normal or cooler.

Foliar diseases seen so far - South

Barley diseases

Photo credit: Kith Jayasena

Foliar diseases seen so far - South

Barley diseases

Photo credit: Kith Jayasena

Foliar diseases seen so far - South

Wheat diseases

Photo credit: Kith Jayasena

Foliar diseases seen so far - South

Canola diseases

Photo credit : Kith Jayasena

Photo credit : Andrea Hills

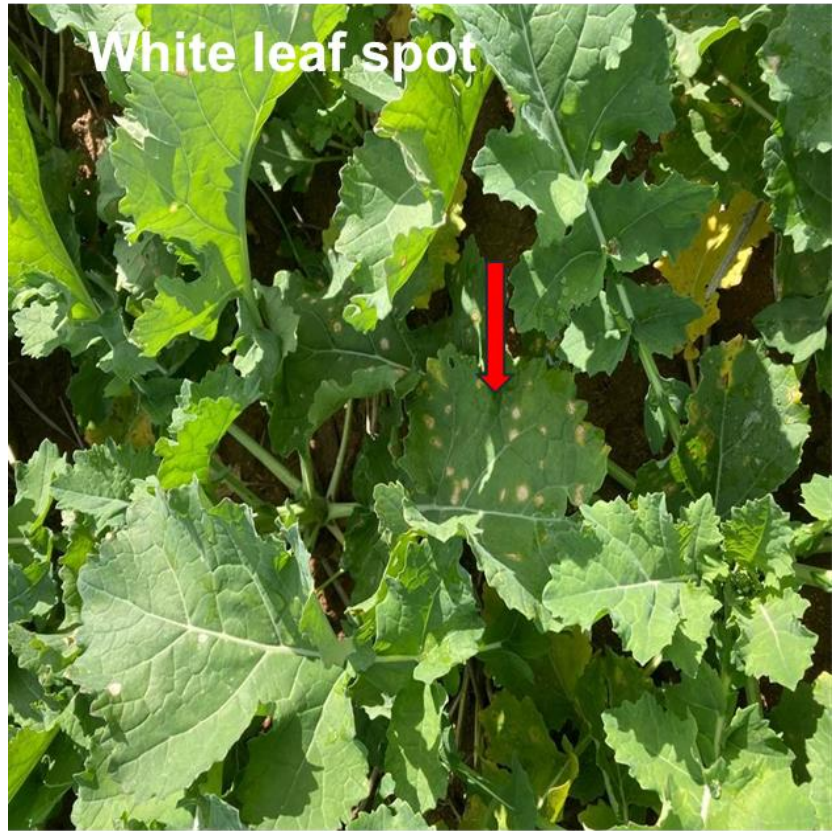


Photo credit : Geoff Thomas

Foliar diseases seen so far - North

Wheat

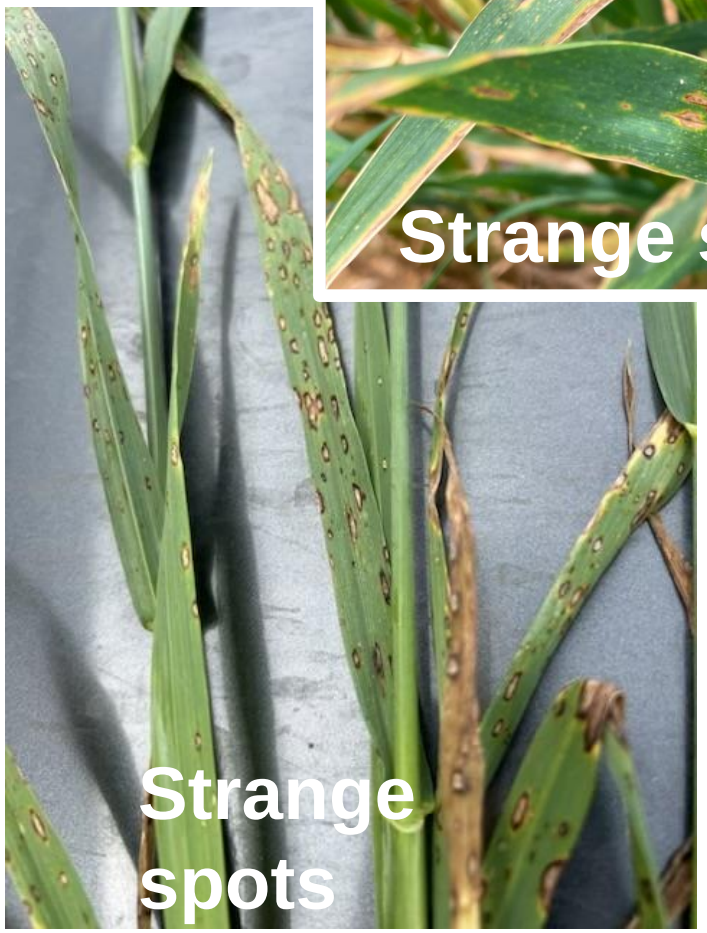
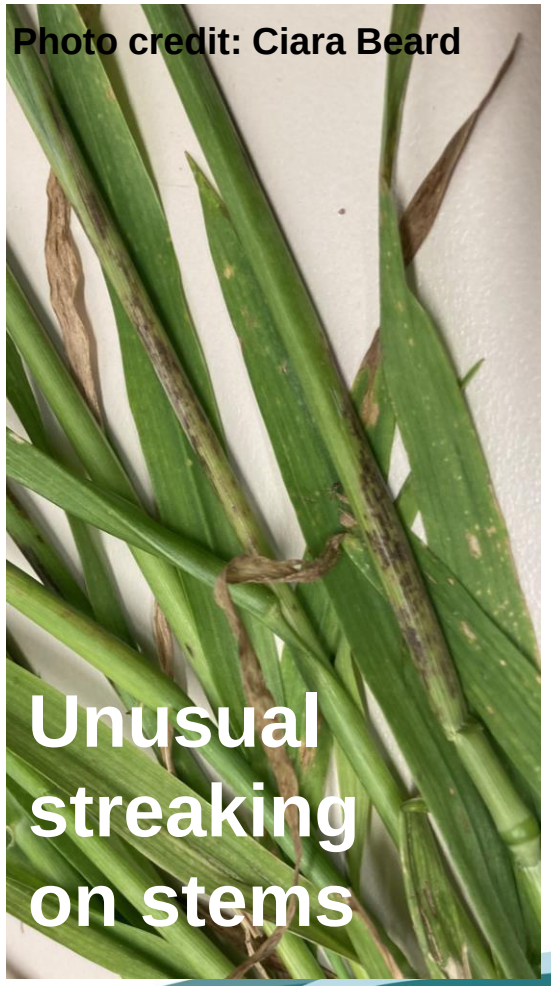


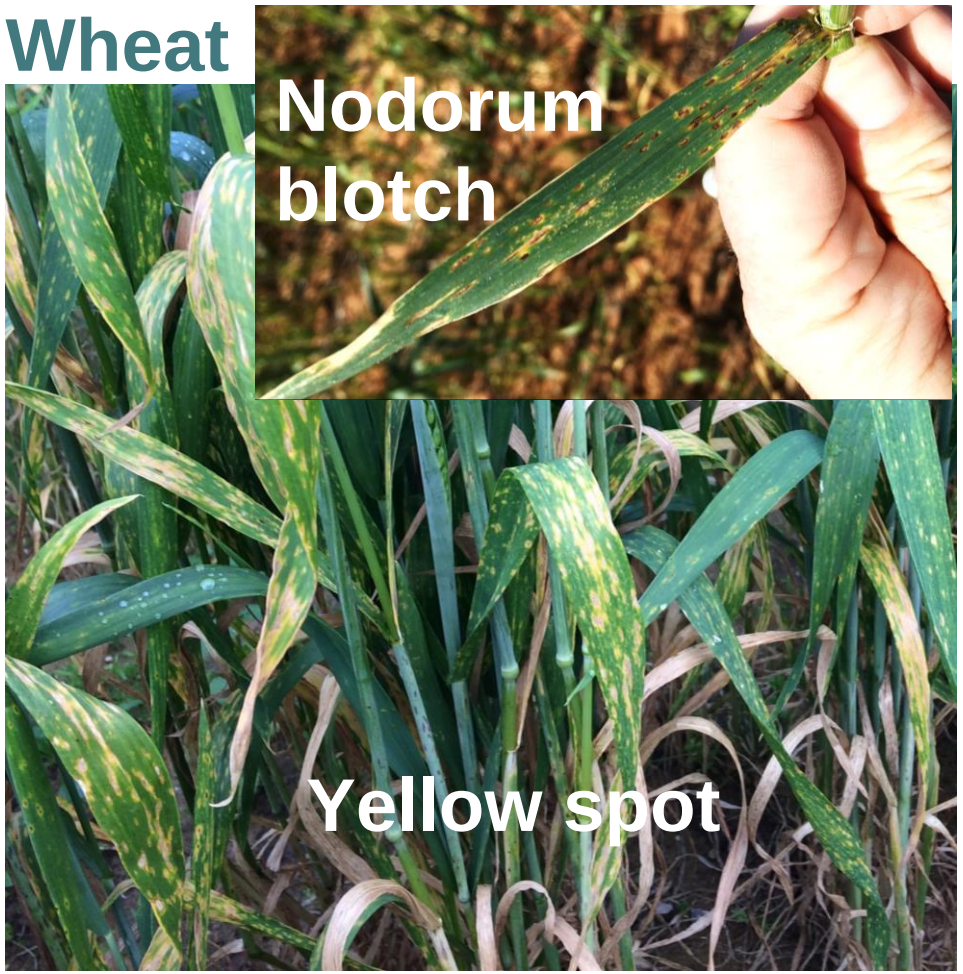
Photo credit: Belinda Eastough, Elders

Photo credit: DPIRD.



Foliar diseases seen so far - North

Wheat



Photos credit: Ciara Beard

Foliar diseases seen so far - North

- Mildew of wheat
  - Reports since late July but cool wet weather may have limited its development to date
- Barley spot form net blotch
- Sclerotinia of canola and lupin
  - Wet conditions and large lupin canopies favour disease, canola late to establish - range of yield potentials
- Canola:
  - Downy mildew, White leaf spot, Blackleg leaf symptoms, Turnip yellows virus
- Lupin
  - Brown leaf spot in most crops, Anthracnose in some. Phomopsis likely to be an issue if wet spring

Photo credit: Ciara Beard

Photo credit: Peter Norris

Foliar diseases seen so far - Central

- Sclerotinia of canola and lupin
  - Wet soil, damp canopy, rain outlook favours these diseases
- Blackleg of canola
- Loose smut of barley
  - Choose best seed paddock and protect seed in 2025
- Scald of barley
  - Increasing incidence, keep an eye on "S" varieties but also Maximus / Spartacus
- Net blotches of barley
  - Slow start, will they reach damaging levels?
- Mildew of wheat
  - Late start might limit its impact or allow strategic timing of control

Photo credit: Geoff Thomas

Disease Management

- At this point in season – foliar fungicide is remaining integrated disease management (IDM) choice
- **To apply foliar fungicides or not?....** consider:
  - Spring weather outlook (wet and warm)
  - Diseases present (monitor)
    (confirm diagnosis - reports of physiological/ false black chaff / nutritional symptoms)
  - Crop yield potential (season started late)
  - Current growth stage and how long is left of the growing season
  - Prioritise crops to manage first by being aware of high disease risk scenarios
    (eg stubble borne diseases in wheat on wheat)
  - Follow IDM strategies and use fungicides when necessary.

Fungicide application for wheat

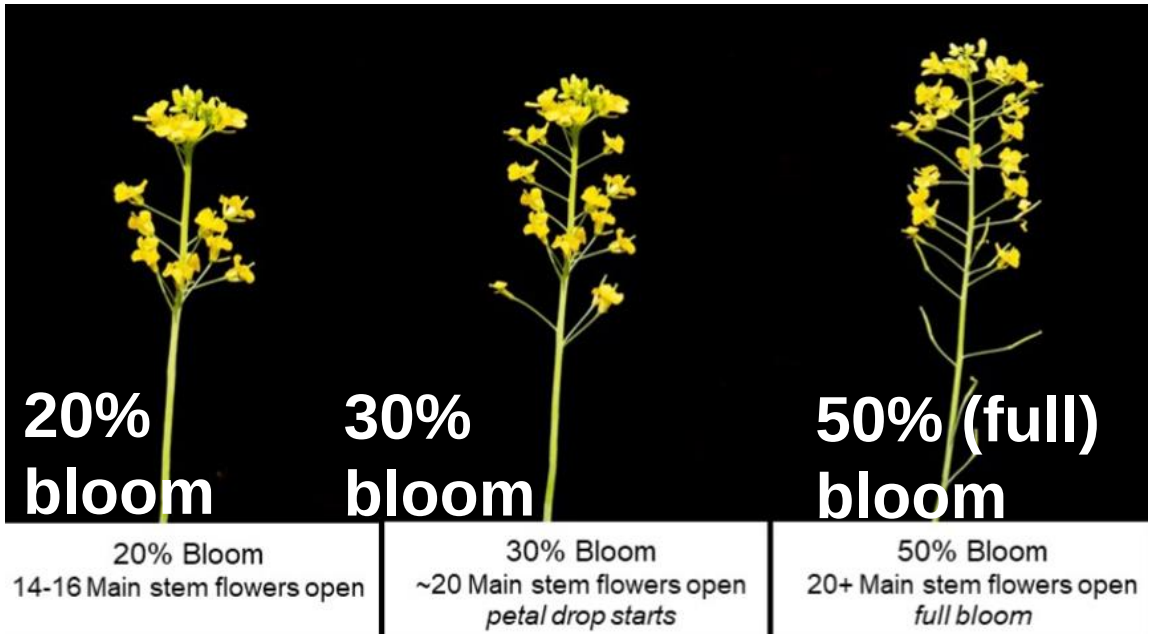
- Target is protecting the top 3 leaves (upper canopy)
- Application timing:
  - Best timing is Z39 (flag leaf emergence) to Z55 (ear emergence) as required (depending on disease presence).
  - Z55 (ear emergence) spray can be important to reduce glume blotch
  - Read label
- Use YellowspotWM tool to determine likely economic outcome.
- Leaf rust and powdery mildew: monitor and be ready to apply fungicide if epidemic develops (up until flowering) and conducive weather conditions likely to continue

Fungicide application for barley

- Target is protecting the upper canopy (flag-1 and flag-2)
- Application timing:
  - Best single application timing is around Z37 (Z33-39) through to booting/ early head emergence (depending on disease pressure)
  - In longer season with high disease pressure environments and susceptible variety, may need two-spray strategy
  - Read label.
- Leaf rust and powdery mildew: monitor and be ready to apply fungicide if an epidemic develops (up until flowering) and conducive weather conditions are likely to continue.

Fungicide application for Canola

Crops are said to be at a particular point once half of the plants have reached that growth stage



Prepared by GRDC Project *Disease Epidemiology and Management Tools for Australian grain growers*

- Target for sclerotinia is protecting main stem from falling infected petals, Target for upper canopy infection (UCI) blackleg is protecting flowers/branches/pods.
- Application timing: research has found best timing is 20-30% bloom, with 50% bloom at latest. Read labels.
- Use SclerotiniaCM tool and UCI BlacklegCM to determine likely economic outcome.

Fungicide application for Sclerotinia in Lupin

- Target is protecting emerging main spike pods from petals that fall or stay in-situ.
- Application timing: research has found best timing is early pod emergence on main spike
- Yield response more likely with wet spring and other diseases present (eg Phomopsis, anthracnose)
- Further info available in GRDC Factsheet Lupin Sclerotinia Disease Risk Assessment Guide

Take home messages

- Outlook for average rainfall and mild temperatures in most areas in September means a fungicide response could be possible in crops of good yield potential.
- Use decision support tools (SclerotiniaCM, UCI BlacklegCM, YellowspotWM).
- Plan now for 2025 based on diseases you observe this year.
- Long term - Selecting better varieties with good disease resistance profile to range of diseases will reduce pathogen build up and need for fungicide.

PestFacts WA service

- Check out what is being reported in your area -

PestFacts WA map

- Report diseases or request a free diagnosis via the PestFacts WA Reporter app.

Question and Answers session

- Use the “Q&A” or "Chat" tool to ask your question.

- You can email us after today’s session at: pestfactswa@dpird.wa.gov.au

- Webinar recording will be put on DPIRD’s YouTube channel.

- Follow @DPIRDbroadacre on X (formerly Twitter) for #PestFactsWA posts.

Thank you

dpird.wa.gov.au

Important disclaimer

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