# Northern Territory Pastoral Feed Outlook December 2022 to April 2023

The purpose of this quarterly outlook is to summarise information relevant to the pastoral industry such as current feed supplies, seasonal conditions, the development of drought conditions and relative fire risk. This edition summarises modelled pasture growth at the end of March 2023.
You can subscribe to receive the Outlook here.

You can see the entire document and all districts by continuing to scroll through this file. If you are interested in selected sections you can click on the links below.


Summary of current situation & trends - all districts

Northern Territory Seasonal Outlook – as at April 2023

Individual District Summaries:

Darwin District

Katherine District

Victoria River District

Sturt Plateau District

Roper District

Gulf District

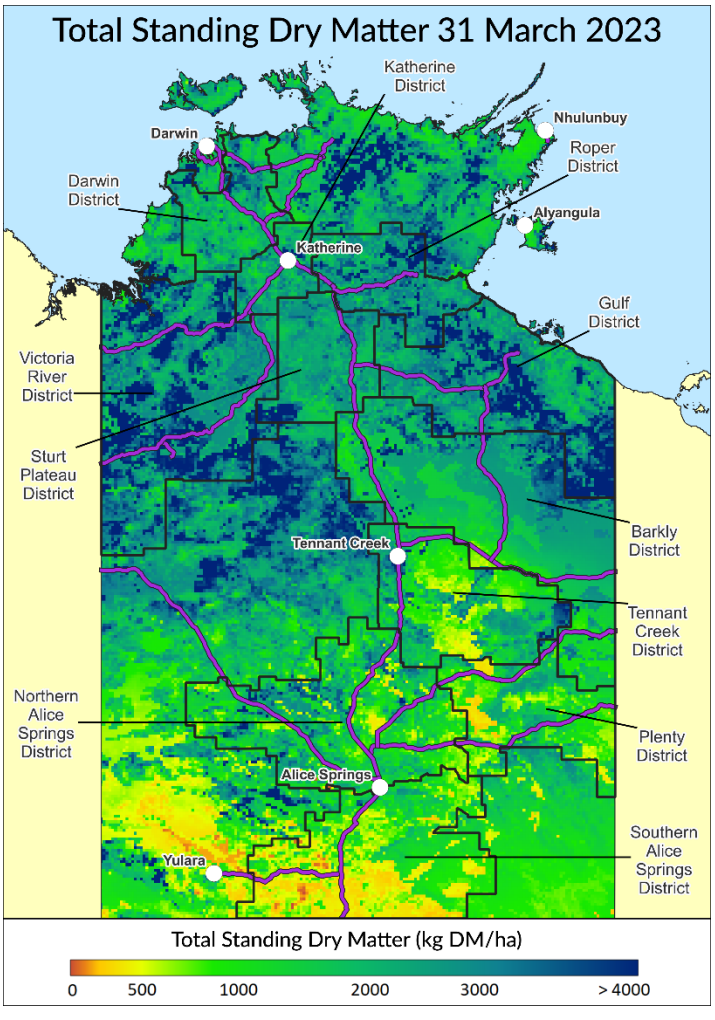
Barkly District

Tennant Creek District

Northern Alice Springs District

Plenty District

Southern Alice Springs District


For further information about this Outlook, please contact Chris Materne on 08 8951 8135

# Summary of current situation and trends – all districts – April 2023

Most of the NT had an **early** start to the 2022/23 wet season. While rainfall totals in the Darwin and Katherine Districts are slightly **above average**, many other districts have seen **well above average** rainfall including major flood events. This has resulted in **extremely high** pasture growth especially in the Barkly, Tennant Creek, Plenty and Northern Alice Springs districts.

Favourable wet season conditions have also led to **higher than average** pasture biomass across much of the NT particularly in the Barkly, Tennant Creek, Northern Alice Springs and Plenty districts.

However, modelled pasture growth predictions over the next 3 months suggest that growth will be limited by seasonal conditions over much of the NT and the chances of exceeding median growth is **average** to **extremely low**, especially in the northerly districts.

The ENSO climate driver indicates a possible return to **El Niño** conditions in the second half of 2023, compounded by a strengthening IOD leading to warmer, drier conditions. This is likely to have an impact on long the term pasture growth outlook.

The fire risk throughout the NT has fallen due to the early wet season onset and consistent rainfall across most districts and is generally low to moderate.

| KEY | Green = low risk | Orange = watch | Red = high risk |
|---|---|---|---|
| KEY | ↑ = increasing trend | ↓ = decreasing trend | ↔ = steady |

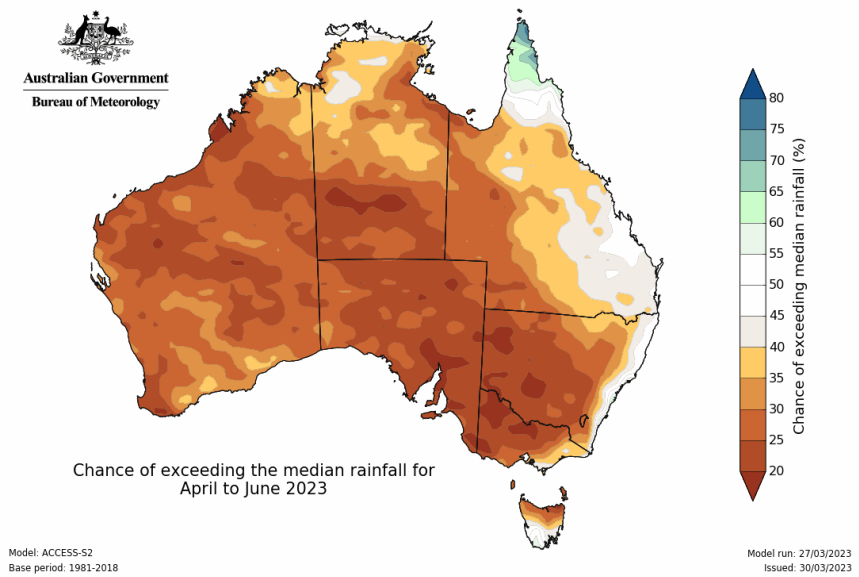
| | Northern Territory Pastoral Districts | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Indicator** | **Darwin** | **Katherine** | **VRD** | **Sturt Plateau** | **Roper** | **Gulf** | **Barkly** | **Tennant Creek** | **Northern Alice Springs** | **Plenty** | **Southern Alice Springs** | **Comments** |
| 2022/23 total pasture growth | ↔ | ↑ | ↑ | ↓ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | Arrows indicate trend compared to the long-term median (for this time of year) |
| Current estimated standing biomass | ↓ | ↓ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↔ | Arrows indicate trend since previous quarter |
| Current fire risk | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↑ | ↑ | ↑ | Arrows indicate the trend since previous quarter |
| Current seasonal outlook | ↔ | ↔ | ↓ | ↓ | ↓ | ↓ | ↔ | ↔ | ↔ | ↔ | ↔ | Arrows indicate the trend since previous quarter and taking into account the forecasted model predictions |

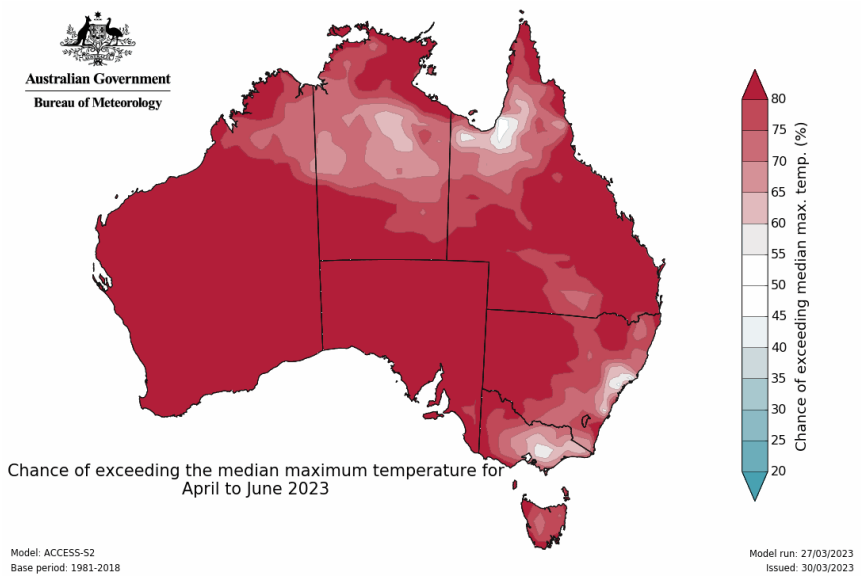
# Northern Territory Seasonal Outlook as at 28th March 2023*

Sourced from the Australian Bureau of Meteorology (BoM)
*This seasonal outlook was correct at the time of publication. For the most up-to-date seasonal outlook, please go to the Climate Outlook section of the BoM website.

The BoM outlook for January to March 2023 indicates that:

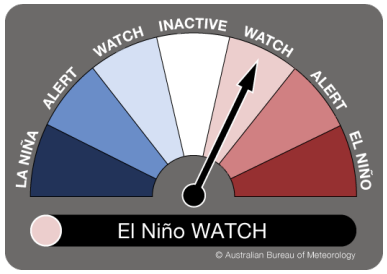
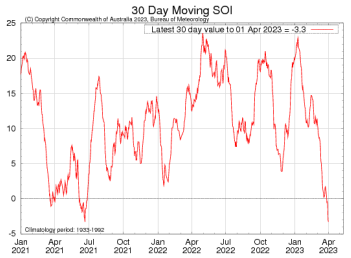
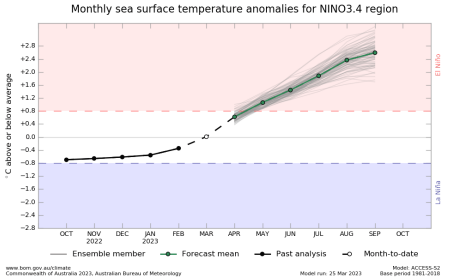
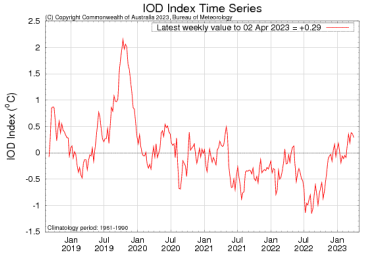
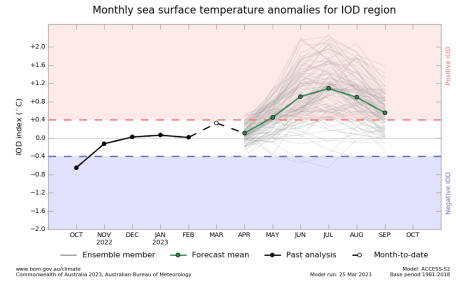
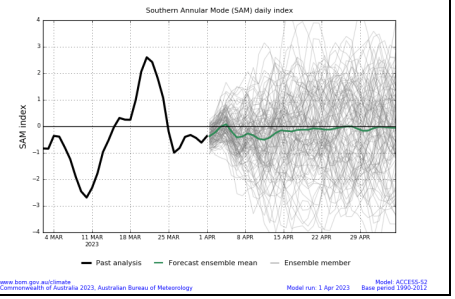
- Most of the NT is forecast to experience **below average** rainfall over the next 3 months, particularly across the central region stretching from the southern VRD to Northern Alice Springs District, as well as parts of the Gulf District. Past outlook accuracy is moderate to high (55-100%).
- **Warmer** than average days are likely across most of the NT, especially in the south west, with moderate to high past accuracy (55-100%).
- Most of the NT has an average chance of **warmer** nights with moderate to high past accuracy (55-100%). While the chance of exceeding median minimum temperatures is lower in the south, northern coastal areas have a higher likelihood of **warmer** than average nights.

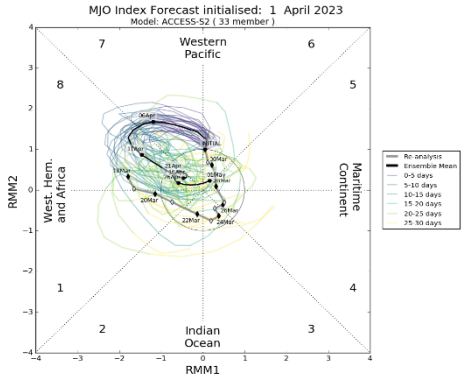
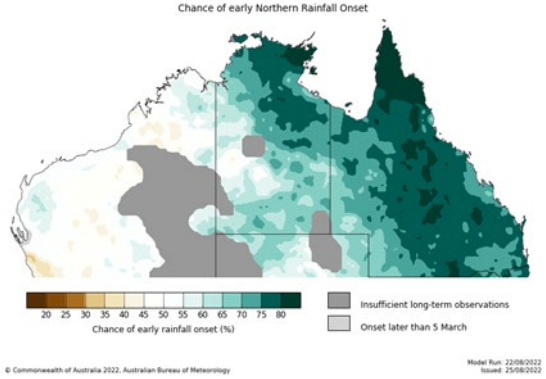
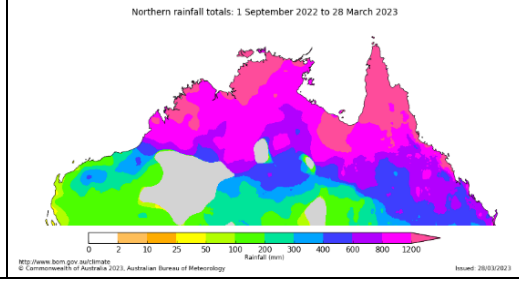
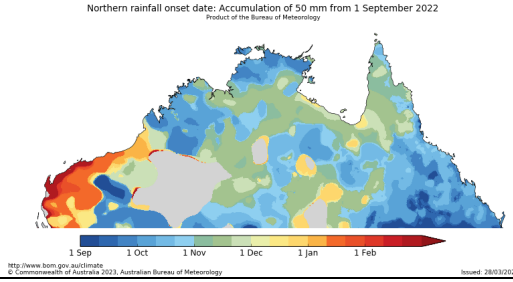
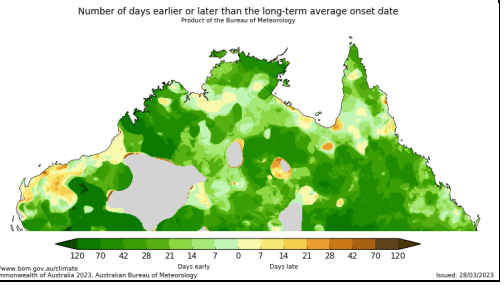



## Influencing Climate drivers

- This forecast reflects the status and forecasts for several climate drivers, including increased chance of return to **El Niño** conditions and **neutral** Indian Ocean Dipole.

| Climate Influences | **Comments** (sourced from the Australian Bureau of Meteorology) |
|---|---|
| **El Niño Southern Oscillation (ENSO)**<br>ENSO status: **El Niño WATCH**<br>  <br><br>Pacific Ocean Update<br>(As at 28 March 2023)<br>Next Update: 11 April 2023 | **The El Niño–Southern Oscillation (ENSO) is neutral**, with the Bureau's ENSO outlook currently at **El Niño** WATCH.<br>There is approximately a 50% chance (twice the normal likelihood) of **El Niño** occurring in 2023.<br>All models surveyed anticipate continued Pacific warming during autumn leading to possible development of **El Niño** later in the year, however model forecast accuracy through autumn is typically lower than at other times of the year.<br>  <br><br>  <br><br>**El Niño** events typically lead to reduced rainfall and warmer temperatures across much of northern and eastern Australia.<br>To see larger versions of these images, go to the Outlook and SOI tabs at Pacific Ocean Update |
| **Indian Ocean Dipole (IOD)**<br>Current outlook: **Neutral**<br>Indian Ocean Update<br>(As at 28 March 2023)<br>Next Update: 11 April 2023 | **The Indian Ocean Dipole (IOD) continues to be neutral.**<br>Weekly values of the IOD index, while still in the **neutral** range (between −0.4 °C and +0.4 °C), have been close to the positive threshold for two consecutive weeks with the most recent value being +0.36°C.<br>Most of the international climate models surveyed by the Bureau suggest a **positive** event may emerge in coming months, though accuracy of forecast at this time of year are typically low. A **positive** IOD can supress winter/ spring rainfall, compounding the drying effect of **El Niño**.<br>  <br><br>  <br><br>To see larger versions of these images, go to the Outlook tab and IOD Time Series |
| **Southern Annular Mode (SAM)**<br>Current outlook: **Neutral**<br>Southern Ocean Update<br>(As at 28 March 2023)<br>Next Update: 11 April 2023 | **The SAM is currently neutral.**<br>The Southern Annular Mode (SAM) is expected to remain **neutral** in coming weeks.<br>**Neutral** SAM has little influence on Australian rainfall, while a **positive** SAM during winter typically results in more rainfall in the east, drier in parts of the south, while a **negative** SAM during winter means reduced rainfall in eastern Australia but increased in parts of the south.<br>To see larger versions of these images, go to the Outlook tab and Southern Ocean Update<br>  <br> |

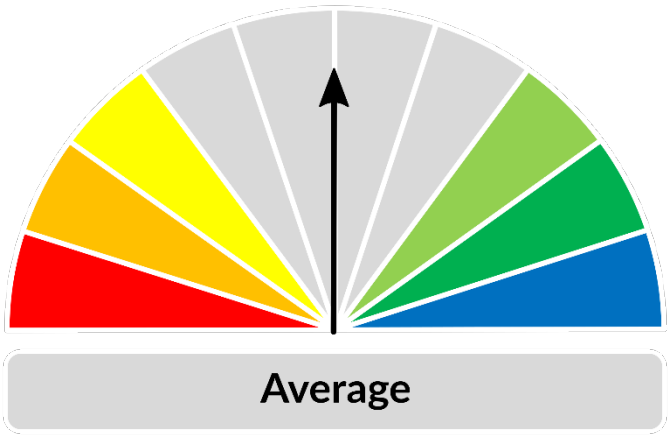
| Seasonal Indicator | Comments (sourced from the Australian Bureau of Meteorology & the NT Department of Industry, Tourism & Trade) |
|---|---|
| **Madden–Julian Oscillation (MJO)**<br>Outlook: **Weak**<br>Tropics Update<br>(As at 28 March 2023)<br>Next Update: 11 April 2023 | **The MJO is currently indiscernible.**<br><br>The Madden–Julian Oscillation (MJO) is currently extremely weak, but most models indicate that it will **re-strengthen** over the Western Pacific region in early April.<br>This could lead to **above average** rainfall for parts of northern Australia and an increased chance of tropical low or cyclone activity across the south-west Pacific during this time.<br>  |
| **Wet Season Onset**<br>Outlook 2022/23: **Early**<br>Northern Rainfall Onset Outlook<br>(As at 20 December 2022)<br>Next Update: 29 June 2023 | **Most of the NT had an early start to the 2022/23 wet season as predicted.**<br>Most districts had an **early** rainfall onset with the exception of parts of the Tennant Creek & Barkly Districts.<br>January saw **above average** rainfall in the southern NT, while a monsoon trough brought rainfall to the Top End in late December-early January.<br>A second burst of monsoon activity associated with a tropical low in late February-early March brought widespread heavy rain & flooding to parts of the NT & QLD including the VRD, Barkly & Gulf districts.<br>The northern rainfall onset date occurs when the rainfall total reaches 50 mm since the 1st of September. It is considered approximately the amount of rainfall required to stimulate plant growth.<br>  |
| **Wet Season Onset**<br>Observations 2022/23: **Early** | The onset observations can be found here<br>  <br>  <br>  |

# Darwin District

- The 2022/23 pasture growth across the district has reached the long-term annual average, and although soil moisture is still available, any additional growth this season will be minimal due to limited available nitrogen.
- Biomass levels are generally **low** to **average** across the district.
- Over the next three months, the chance of exceeding the median growth across most of the district is **extremely low**.
- There have been no fires in the district since 1 January 2023.
- In a typical wet season, pasture growth in the Darwin region tends to be limited by available soil nitrogen rather than soil moisture. This means that the annual variation in growth and relative pasture biomass on upland country is quite low.

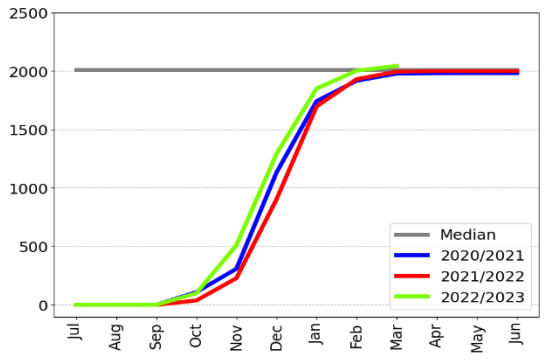
## 2022/23 Pasture Growth

2044 kg/ha

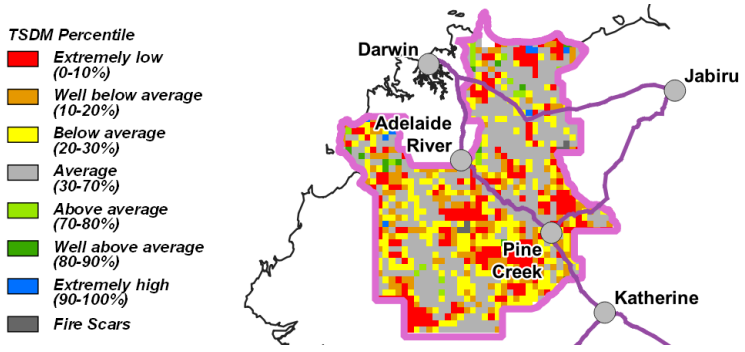



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <1,000kg/ha | 1,000 - 2,000kg/ha | 2,000 - 3,000kg/ha | >3,000kg/ha |
| 2022/23 Pasture Growth | 0% | 47% | 49% | 4% |
| Total Standing Dry Matter | 0% | 41% | 47% | 12% |

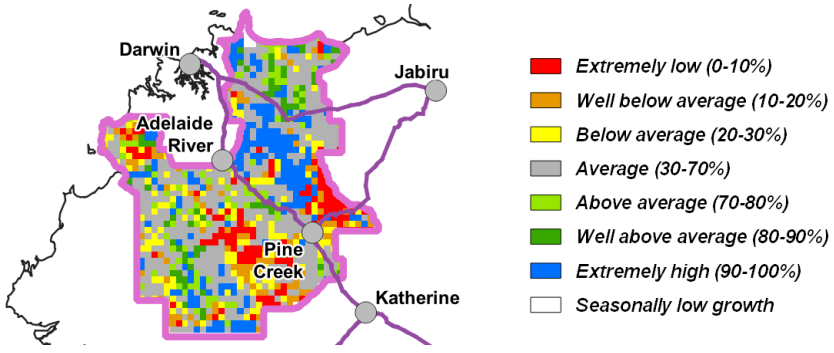
**Median Pasture Growth (kg/ha) (Running Total)**



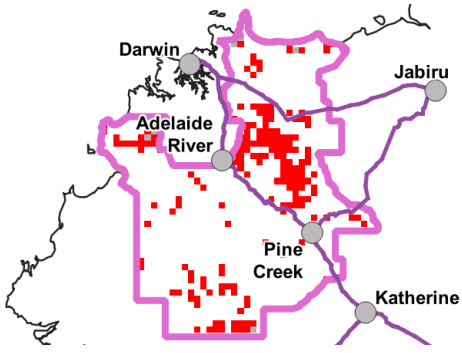

**Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)**




**6-month Pasture Growth at -1 April 2023 Relative to Historical Records (1957-now)**



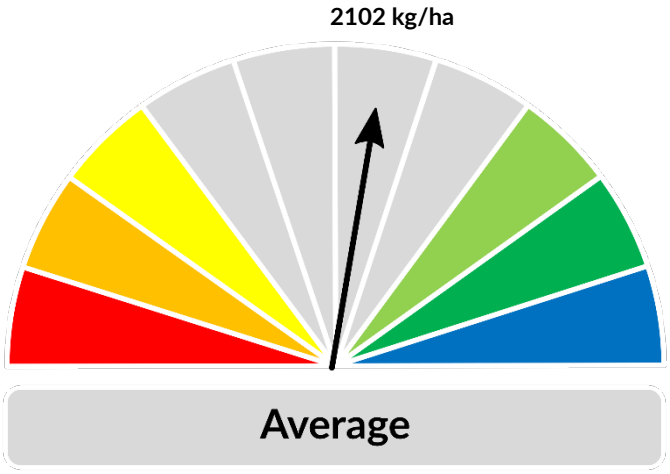

**Chance of Exceeding Median Pasture Growth April 2023 –June 2023**



# Katherine District

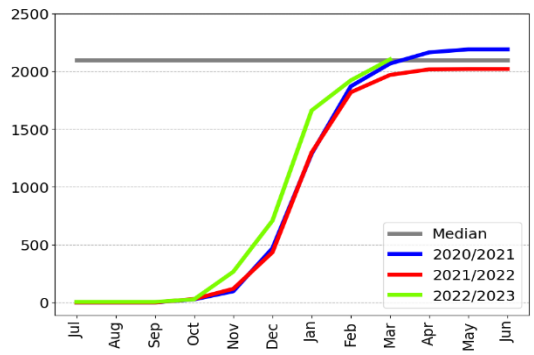
- The 2022/23 Katherine district pasture growth is mixed, ranging from **extremely low** to **extremely high**.
- Biomass levels are generally **low** to **average,** with isolated higher levels in the south.
- Over the next three months, the chance of exceeding the median growth across most of the district is likely to be limited by seasonal nitrogen deficiency.
- Less than 1% of the district has burnt since 1 January 2023.
- In a typical wet season, pasture growth in the Katherine region tends to be limited by available soil nitrogen rather than soil moisture. This means that the annual variation in growth and relative pasture biomass is quite low.

## 2022/23 Pasture Growth

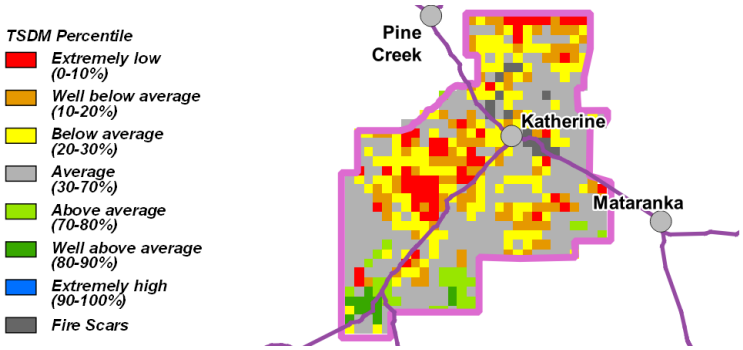



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <1,000kg/ha | 1,000 - 2,000kg/ha | 2,000 - 3,000kg/ha | >3,000kg/ha |
| 2022/23 Pasture Growth | 0% | 38% | 61% | 1% |
| Total Standing Dry Matter | 0% | 26% | 61% | 13% |

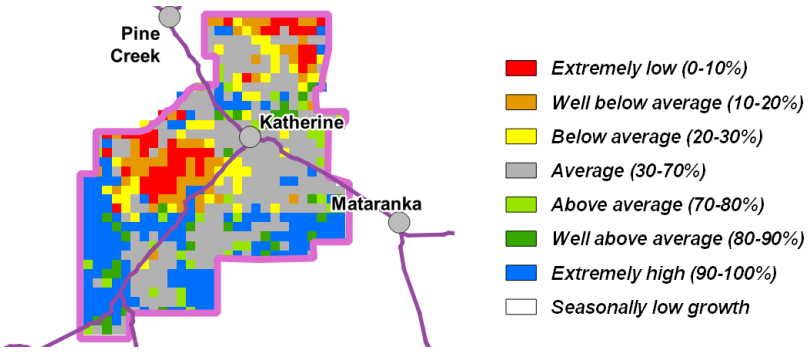
### Median Pasture Growth (kg/ha) (Running Total)



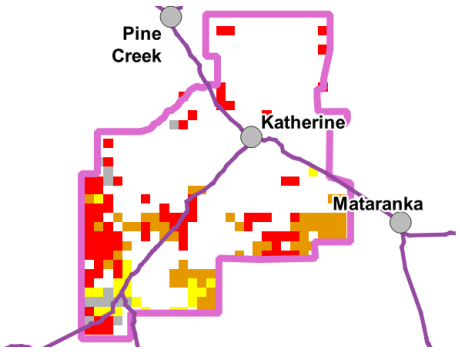

### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)




### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)



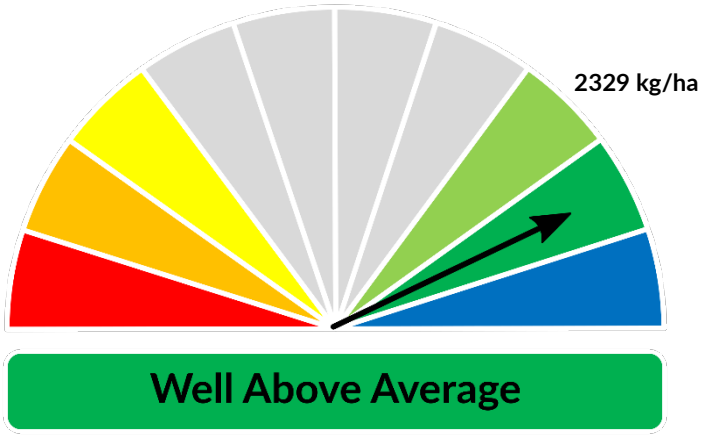

### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Victoria River District

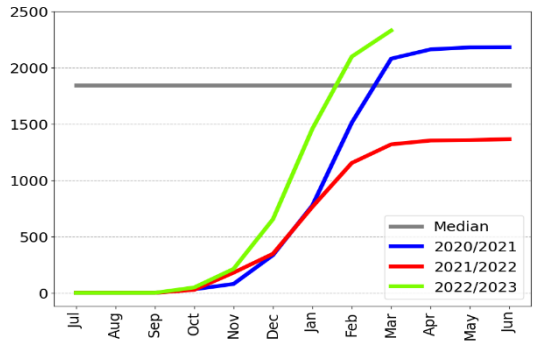
- The 2022/23 VRD pasture growth is well **above average** for this time of the year, reflecting consistent rainfall through January-February.
- Pasture biomass levels across the district are mixed, ranging from **extremely low** to **extremely high**.
- Over the next three months the chances of exceeding median growth is **very low**.
- Less than 1% of the district has burnt since 1 January 2023.

## 2022/23 Pasture Growth

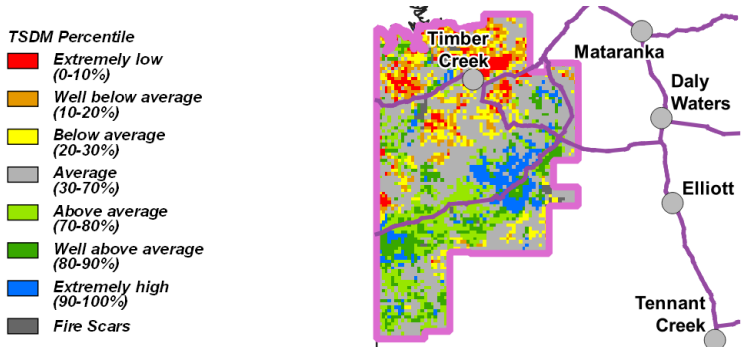



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <1,000kg/ha | 1,000 - 2,000kg/ha | 2,000 - 3,000kg/ha | >3,000kg/ha |
| 2022/23 Pasture Growth | <1% | 28% | 64% | 8% |
| Total Standing Dry Matter | <1% | 6% | 52% | 42% |

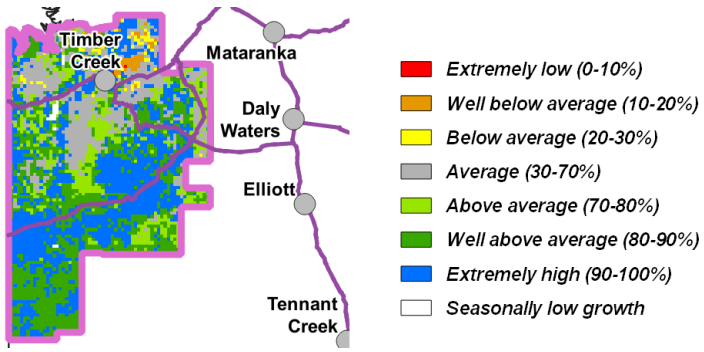
### Median Pasture Growth (kg/ha) (Running Total)



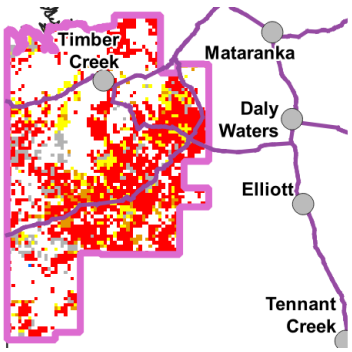

### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)




### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)



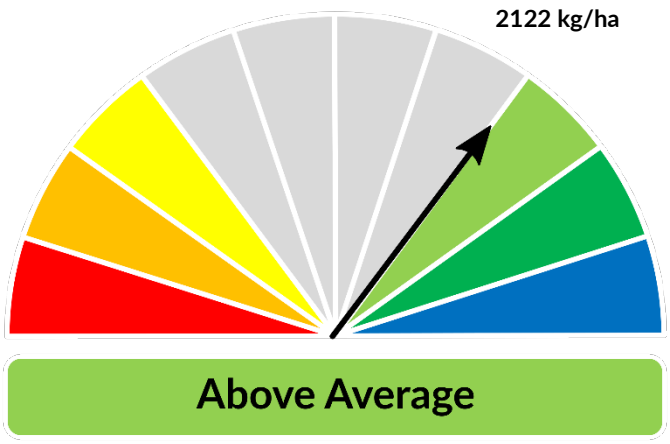

### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Sturt Plateau District

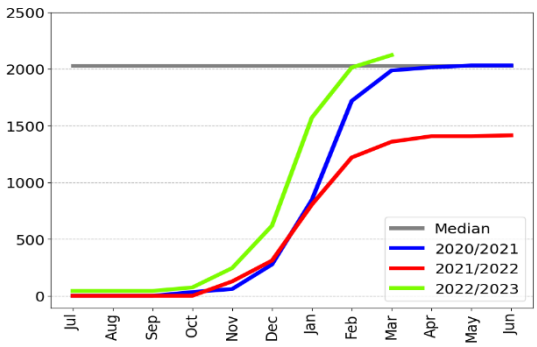
- The 2022/23 relative pasture growth for this time of year remains **above average**. Total growth levels have also exceeded the long term annual median.
- Pasture biomass levels are generally **average** across the district.
- Over the next three months the chance of exceeding median growth is generally **very low** due to seasonal growth limitations.
- Less than 1% of the district has burnt since 1 January 2023.

## 2022/23 Pasture Growth

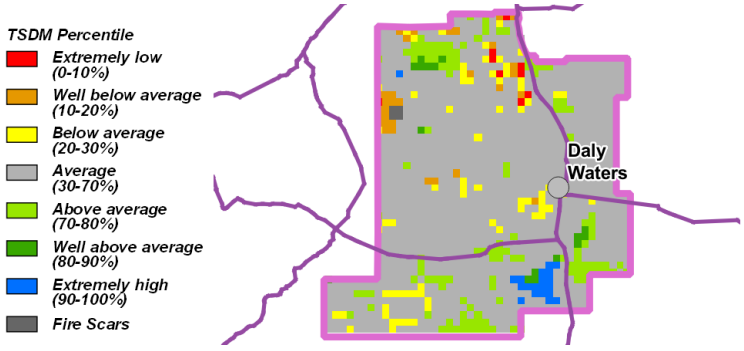



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <1,000kg/ha | 1,000 - 2,000kg/ha | 2,000 - 3,000kg/ha | >3,000kg/ha |
| 2022/23 Pasture Growth | 0% | 34% | 65% | 1% |
| Total Standing Dry Matter | 0% | 16% | 72% | 12% |

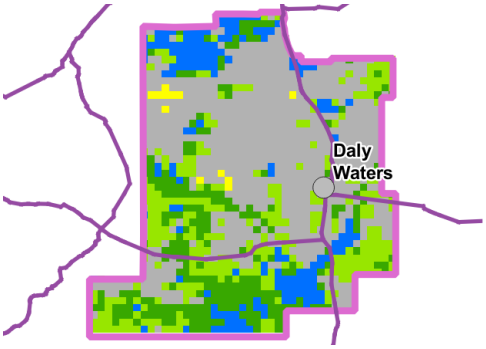
**Median Pasture Growth (kg/ha) (Running Total)**

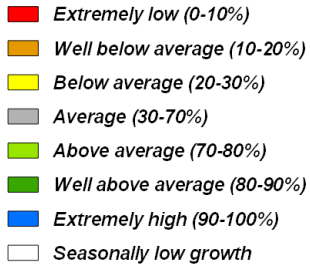



**Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)**

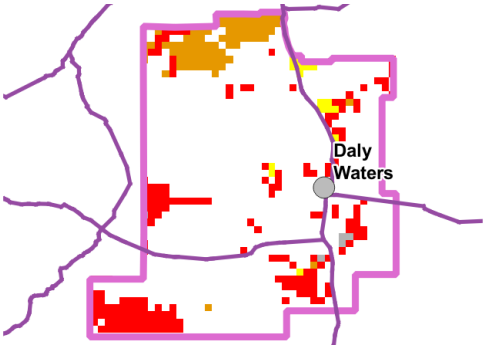



**6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)**



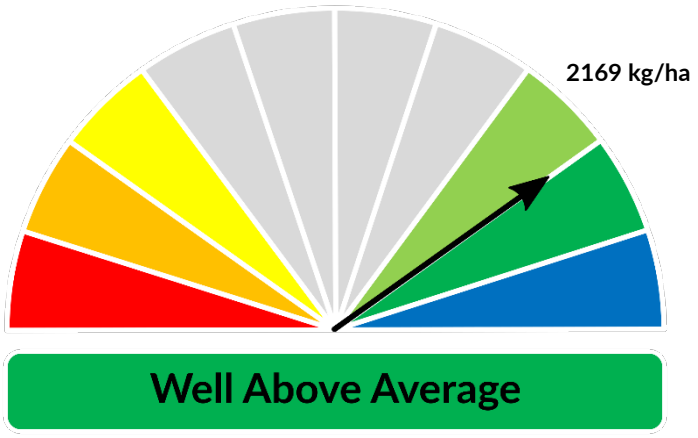

**Chance of Exceeding Median Pasture Growth April 2023 – June 2023**



# Roper District

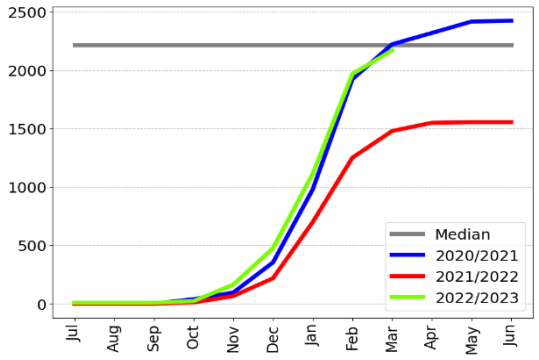
- The 2022/23 Roper district pasture growth is **well above average** for this time of the year, reflecting good rainfall across the district in February.
- Pasture biomass levels are generally **average** across the district.
- Over the next three months the chances of exceeding median growth is **extremely low** across much of the district.
- There have been no fires in the district since 1 January 2023.

## 2022/23 Pasture Growth

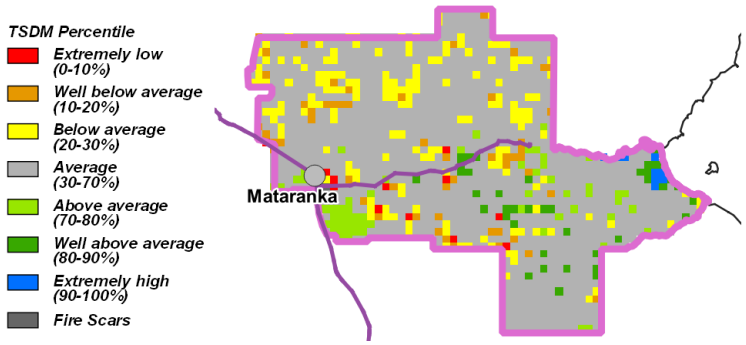



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <1,000kg/ha | 1,000 - 2,000kg/ha | 2,000 - 3,000kg/ha | >3,000kg/ha |
| 2022/23 Pasture Growth | 1% | 32% | 63% | 4% |
| Total Standing Dry Matter | 0% | 8% | 63% | 29% |

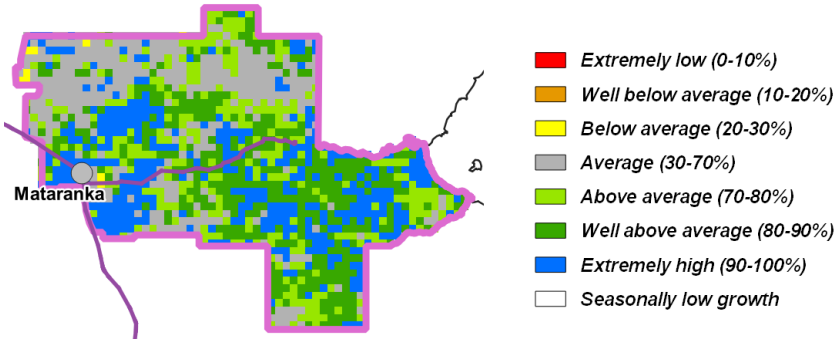
### Median Pasture Growth (kg/ha) (Running Total)



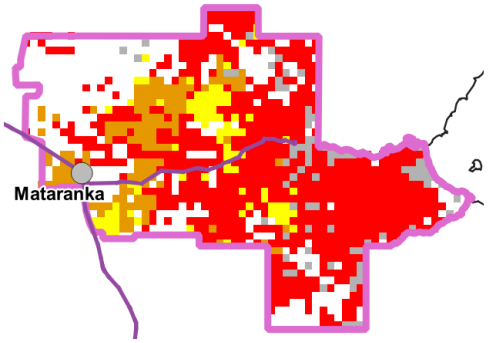

### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)




### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)



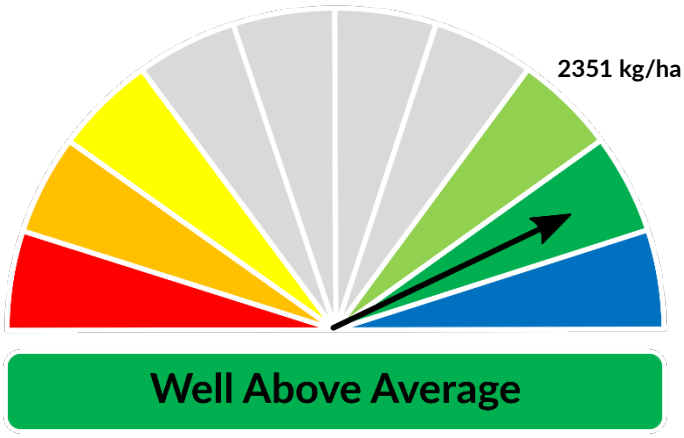

### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Gulf District

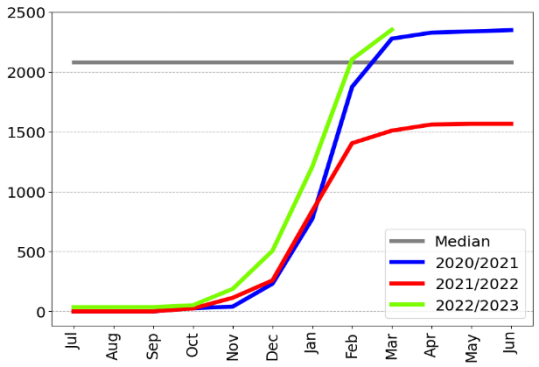
- The 2022/23 Gulf district pasture growth for this time of the year is **low** to **average** in the north-east to **extremely high** in the south, reflecting the high rainfall events in February-March.
- Pasture biomass levels are **average** across much of the district, with some **extremely low** levels in the north-east to **well above average** in the south.
- Over the next three months the chances of exceeding median growth is **extremely low** across much of the district.
- There have been no fires in the district since 1 January 2023.

## 2022/23 Pasture Growth

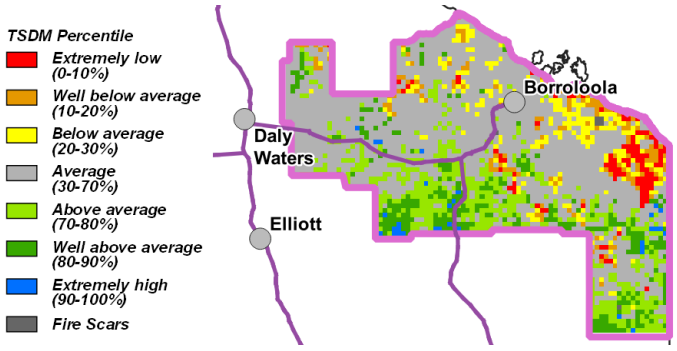



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <1,000kg/ha | 1,000 - 2,000kg/ha | 2,000 - 3,000kg/ha | >3,000kg/ha |
| 2022/23 Pasture Growth | <1% | 23% | 68% | 9% |
| Total Standing Dry Matter | <1% | 10% | 51% | 39% |

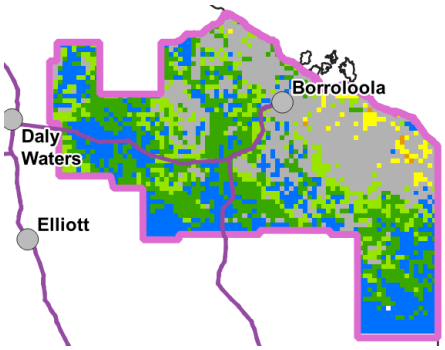
### Median Pasture Growth (kg/ha) (Running Total)

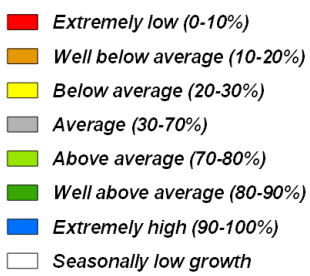



### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)

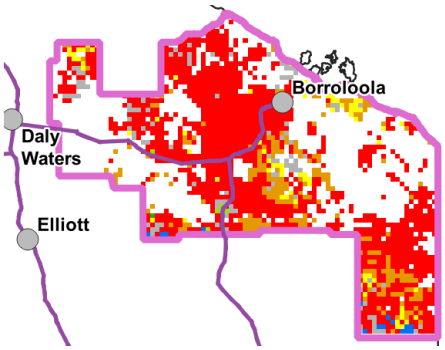



### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)



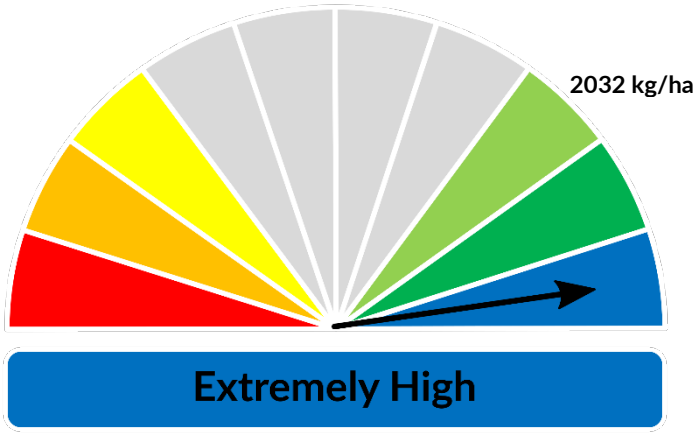

### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Barkly District

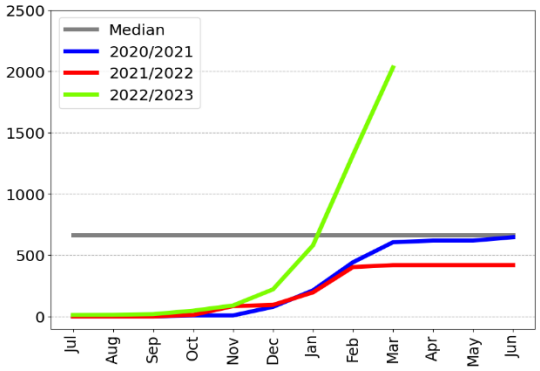
- The 2022/23 Barkly district pasture growth is **extremely high** for this time of the year, reflecting the early start to the wet season, and high rainfall through February-March. Total growth is already 3 times the long-term annual median.
- Pasture biomass levels are also **extremely high** across most of the district.
- Over the next three months, pasture growth over much of the district is likely to be restricted by seasonal limitations, while likelihood in isolated areas ranges from **extremely low** to **extremely high**.
- There have been no fires in the district since 1 January 2023.

## 2022/23 Pasture Growth

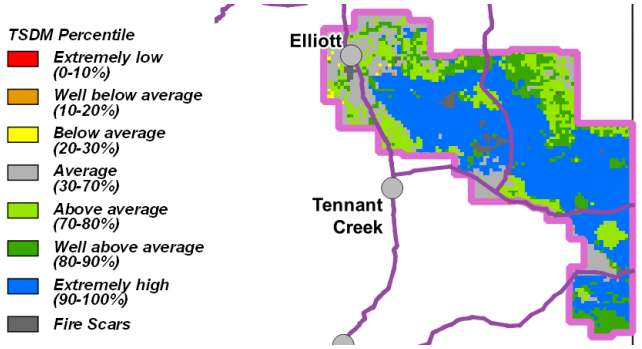



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <250kg/ha | 250 - 500kg/ha | 500 - 1,000kg/ha | >1,000kg/ha |
| 2022/23 Pasture Growth | 0% | 0% | 5% | 95% |
| Total Standing Dry Matter | 0% | 0% | 3% | 97% |

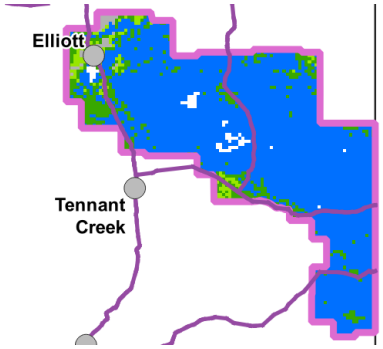
### Median Pasture Growth (kg/ha) (Running Total)

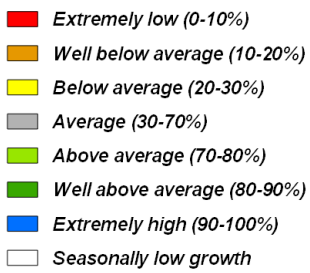



### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)

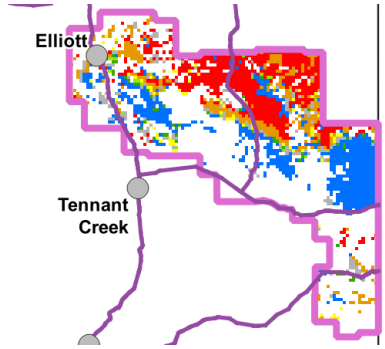



### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)



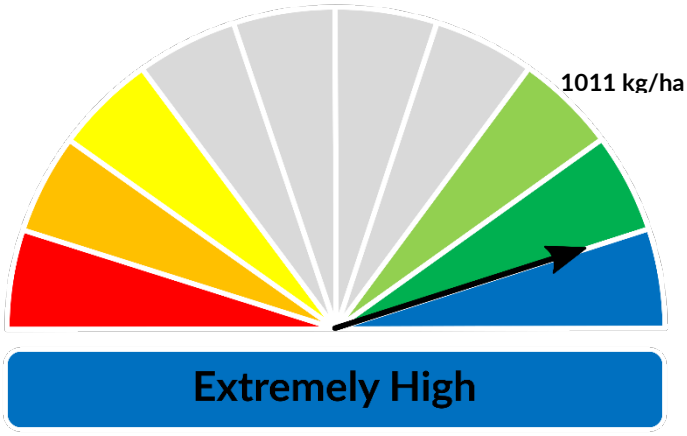

### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Tennant Creek District

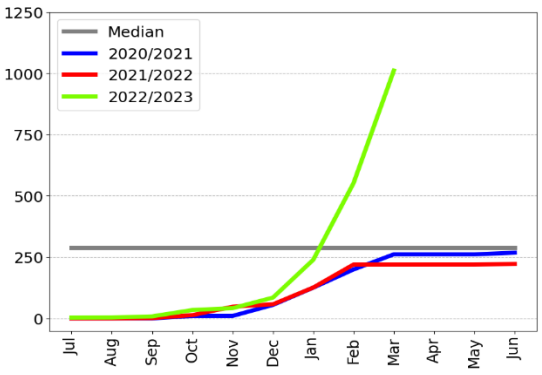
- The 2022/23 Tennant Creek district pasture growth is **above average** to **extremely high** for this time of year. Total growth is already 3 times the long-term annual median.
- Pasture biomass levels are varied but generally **average** when compared with long-term records.
- Over the next three months, pasture growth over much of the district is likely to be restricted by seasonal limitations, with isolated areas ranging from **extremely low** to **extremely high**. Predicted growth is higher in the southern half of the district.
- There have been no fires in the district since 1 January 2023.

## 2022/23 Pasture Growth

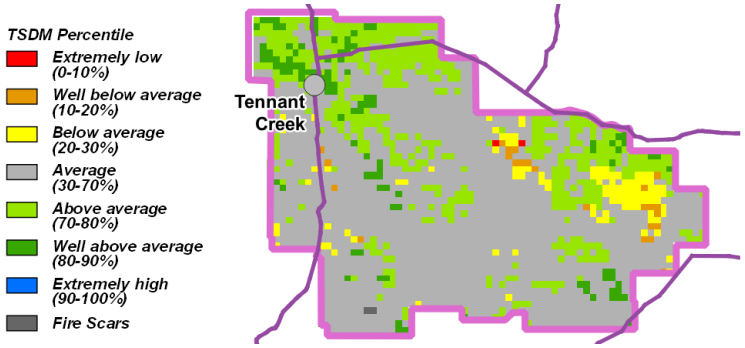



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <250kg/ha | 250 - 500kg/ha | 500 - 1,000kg/ha | >1,000kg/ha |
| 2022/23 Pasture Growth | 0% | 4% | 45% | 51% |
| Total Standing Dry Matter | 0% | 2% | 24% | 74% |

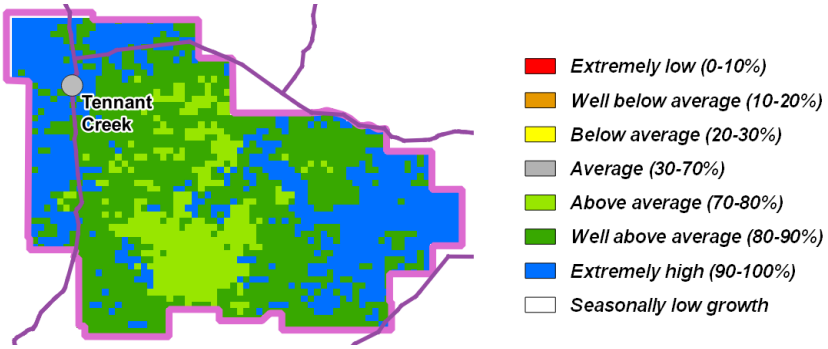
### Median Pasture Growth (kg/ha) (Running Total)



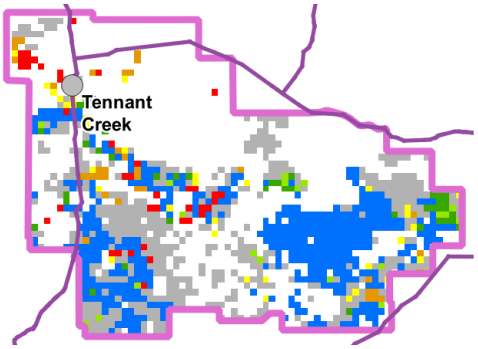

### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)




### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)



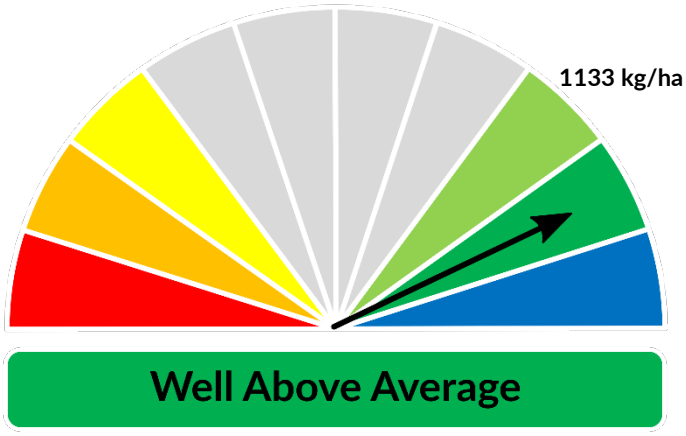

### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Northern Alice Springs District

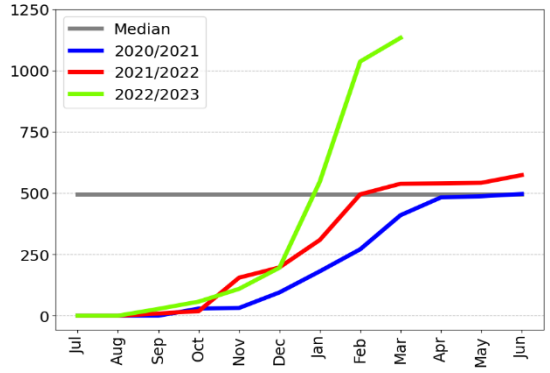
- The 2022/23 pasture growth for the Northern Alice Springs district is **average** to **extremely high** for this time of the year. Total growth for the current financial year is more than twice the long term median.
- Pasture biomass is generally **average** to **well above average.** Biomass levels are slightly lower in the western part of the district.
- Over the next three months the chances of exceeding the median pasture growth is generally **average** but varied; ranging from **extremely low** to **extremely high**.
- 1.4% of the district has burnt since 1 January 2023.

## 2022/23 Pasture Growth

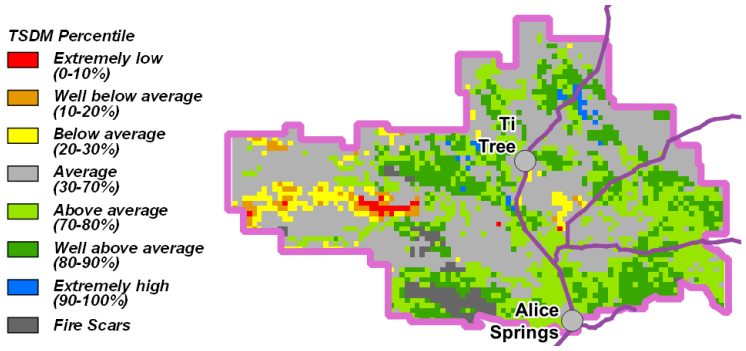



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <250kg/ha | 250 - 500kg/ha | 500 - 1,000kg/ha | >1,000kg/ha |
| 2022/23 Pasture Growth | <1% | 12% | 31% | 57% |
| Total Standing Dry Matter | <1% | 2% | 15% | 83% |

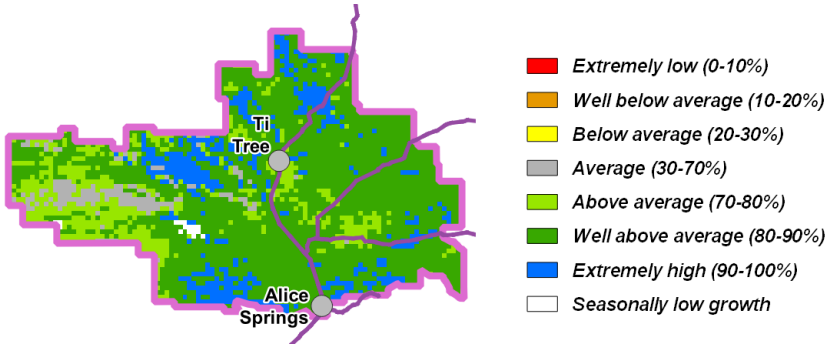
### Median Pasture Growth (kg/ha) (Running Total)



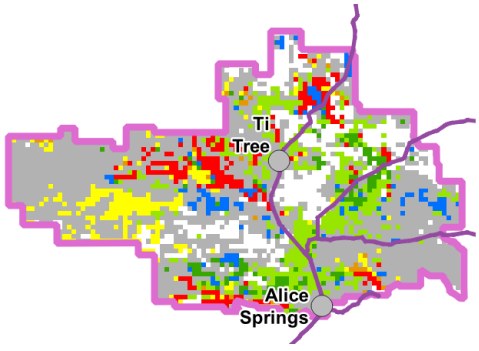

### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)




### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)



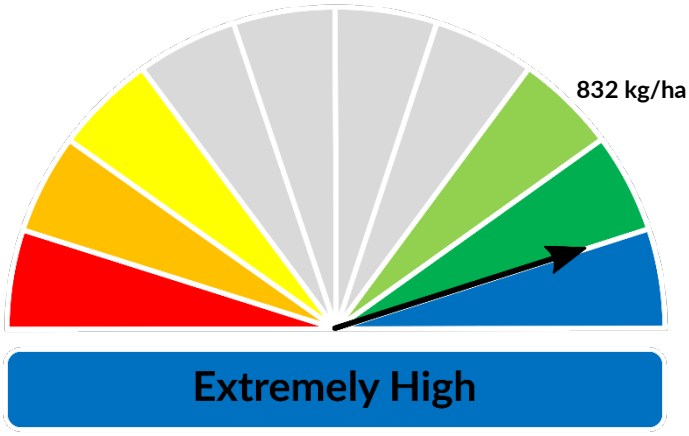

### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Plenty District

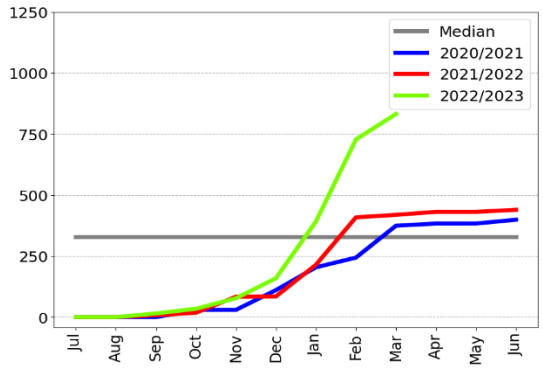
- The 2022/23 Plenty district pasture growth is **average** to **extremely high** for this time of year. Total growth for the current financial year is more than twice the long term median.
- Pasture biomass levels are **average** to **well above average** across the district.
- Over the next three months pasture growth is predicted to be limited by seasonal conditions over much of the district, with the remainder varying from **below average** to **extremely high**.
- There have been no fires in the district since 1 January 2023.

## 2022/23 Pasture Growth

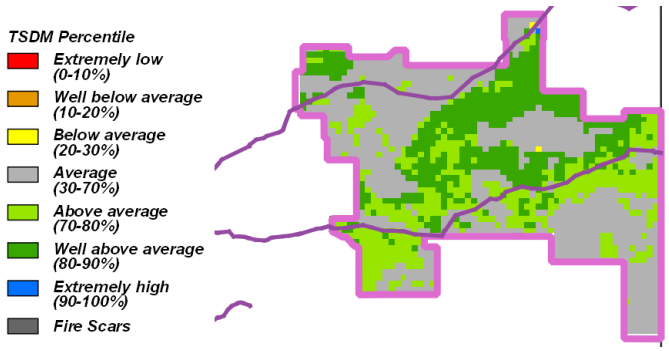



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <250kg/ha | 250 - 500kg/ha | 500 - 1,000kg/ha | >1,000kg/ha |
| 2022/23 Pasture Growth | 3% | 19% | 42% | 36% |
| Total Standing Dry Matter | 1% | 7% | 28% | 64% |

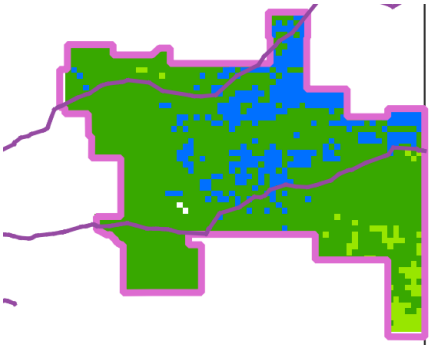
**Median Pasture Growth (kg/ha) (Running Total)**

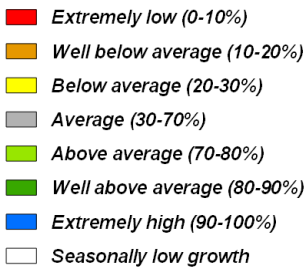



**Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)**

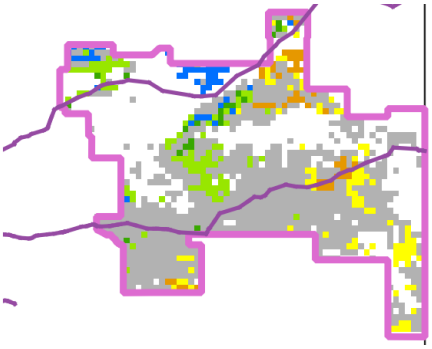



**6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)**





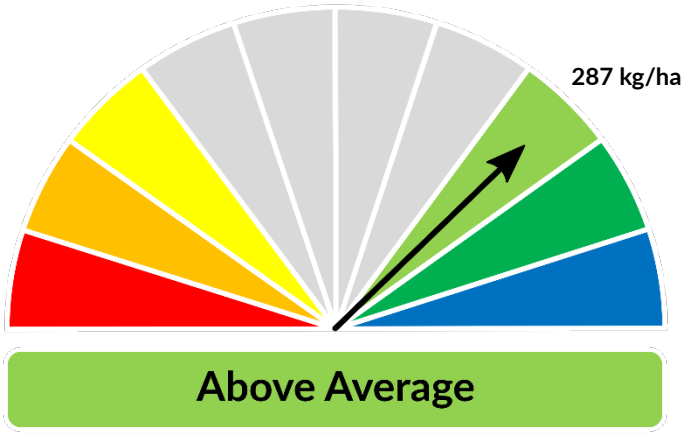

**Chance of Exceeding Median Pasture Growth April 2023 – June 2023**



# Southern Alice Springs District

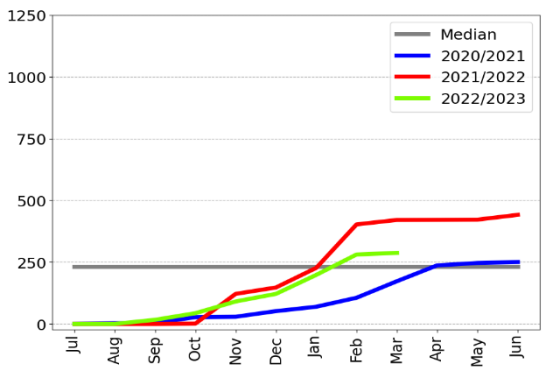
- The 2022/23 growth for the Southern Alice Springs district relative to long-term records is **average** in the south-west and **above average** to **extremely high** in the north-east due to good rainfall during January.
- Pasture biomass is generally **average** to **extremely low** across the south-west part of the district with **higher than average** relative levels in the north-east.
- Over the next three months pasture growth is predicted to be generally **average** or limited by seasonal conditions over much of the district.
- Less than 1% of the district has burnt since 1 January 2023.

## 2022/23 Pasture Growth

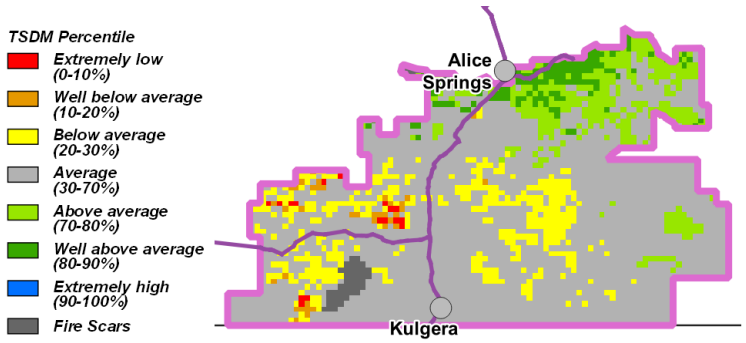



| As at 1 April 2023 | | | | |
|---|---|---|---|---|
| (% of district) | <250kg/ha | 250 - 500kg/ha | 500 - 1,000kg/ha | >1,000kg/ha |
| 2022/23 Pasture Growth | 43% | 31% | 18% | 8% |
| Total Standing Dry Matter | 4% | 26% | 31% | 39% |

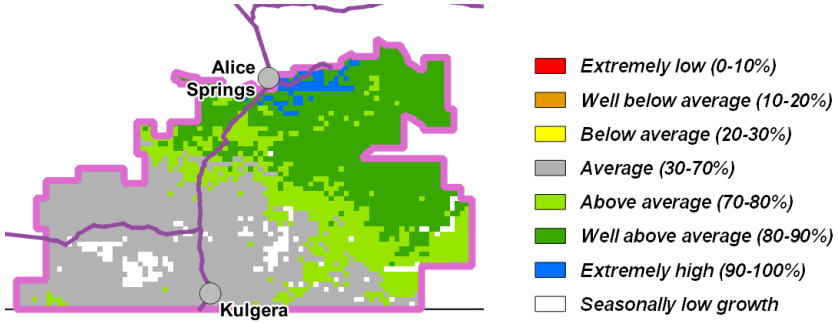
### Median Pasture Growth (kg/ha) (Running Total)



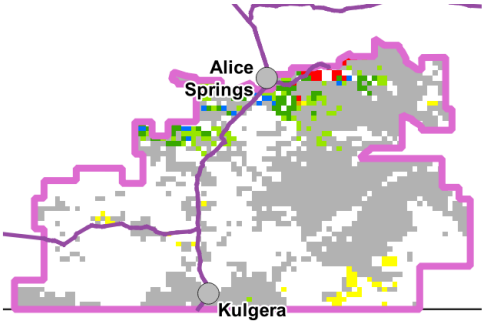

### Total Standing Dry Matter at 1 April 2023 Relative to Historical Records (1957-now)




### 6-month Pasture Growth at 1 April 2023 Relative to Historical Records (1957-now)




### Chance of Exceeding Median Pasture Growth April 2023 – June 2023



# Pasture information

The pasture and fire information in this document is derived from AussieGRASS. AussieGRASS is a model that simulates pasture growth and standing biomass using climate data, vegetation mapping, fire history and regional estimates of grazing pressure. The model can be used to track simulated pasture growth and total standing pasture biomass at the landscape scale.

Note that the model does not use stocking rate data for individual properties. Where stock numbers are significantly higher or lower than typical for a district, model estimates of total standing dry matter may be erroneous.

**Disclaimer**