

# Northern Territory Pastoral Feed Outlook

## April 2023 to July 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 June 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 July 2023](#)

Individual District Summaries:

[Darwin District](#)

[Katherine District](#)

[Victoria River District](#)

[Sturt Plateau District](#)

[Roper District](#)

[Gulf District](#)

[Barkly District](#)

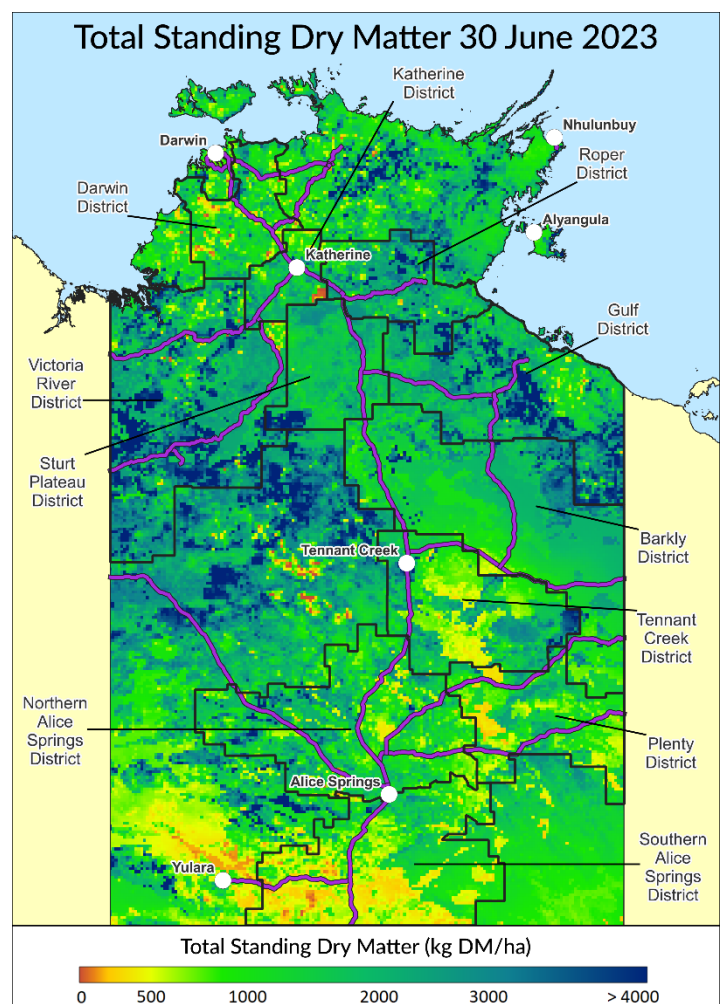
[Tennant Creek District](#)

[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 – July 2023

Early onset of the 2022/23 wet season and **La Niña** conditions persisting until the end of March 2023 saw **well above average** rainfall throughout large inland areas of the NT which resulted in **extremely high** pasture growth especially in the Barkly, Tennant Creek, Plenty and Northern Alice Springs districts. These districts in particular have also seen well above average levels of standing pasture biomass.

Modelled pasture growth predictions over the next 3 months suggest that growth will be limited over much of the NT and the chances of exceeding median growth is **average to extremely low**, especially in the northerly districts. This is not unusual as seasonal conditions and nitrogen availability prevent significant growth events during these months. However, the data used in this report is up until the 30<sup>th</sup> of June and does not include the widespread rainfall event that occurred at the beginning of July which recorded falls between 10mm and 150mm across the southern VRD, Roper/Gulf, Barkly and Alice Springs regions. A special condensed edition of the Pastoral Feed Outlook will be published next month to include any updates to predicted pasture growth as a result of this recent weather event.

Long range climate drivers and models suggest warmer and drier than usual conditions are likely for much of Australia from August to October. The ENSO Outlook is currently at **El Niño Alert** and a positive Indian Ocean Dipole (IOD) appears likely to develop in the coming months which typically suppresses winter/ spring rainfall and, when occurring with El Niño, can exacerbate El Niño's drying effect.

The fire risk has increased across much of the NT in the previous quarter and is currently moderate to high in all districts with the exception of the Southern Alice Springs district.

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

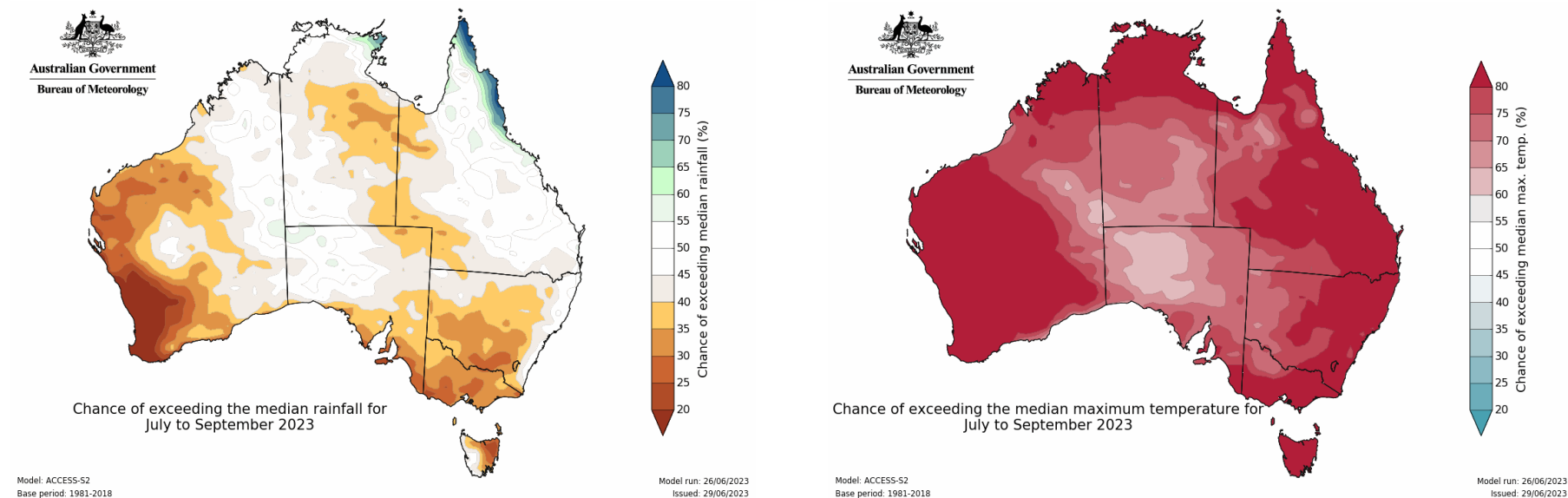
# Northern Territory Seasonal Outlook as at 29th June 2023\*

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.

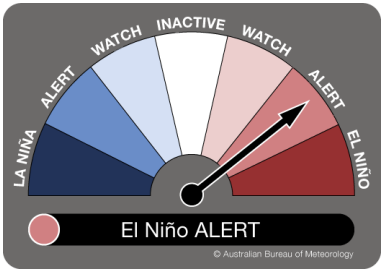
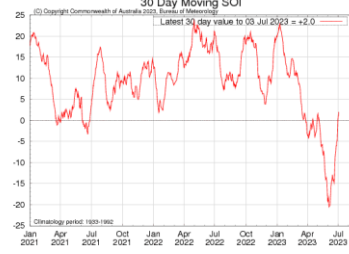
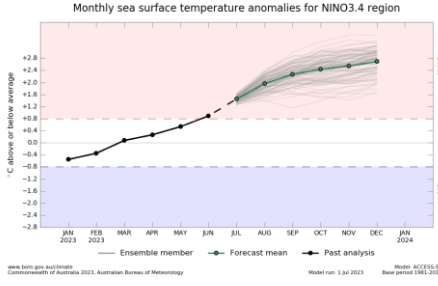
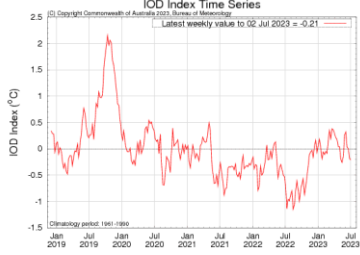
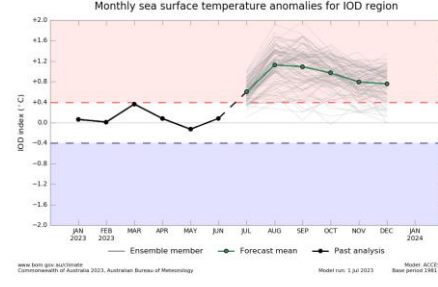
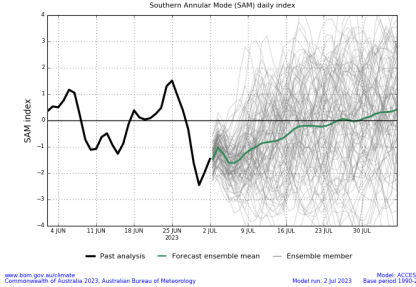
The BoM outlook for July to September 2023 indicates that:

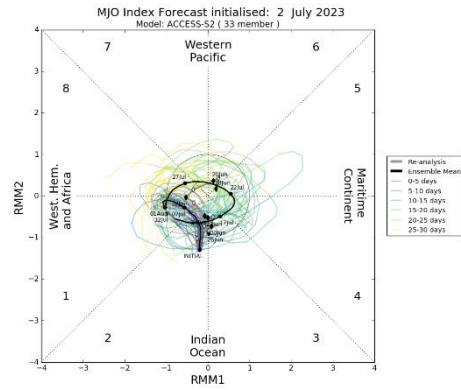
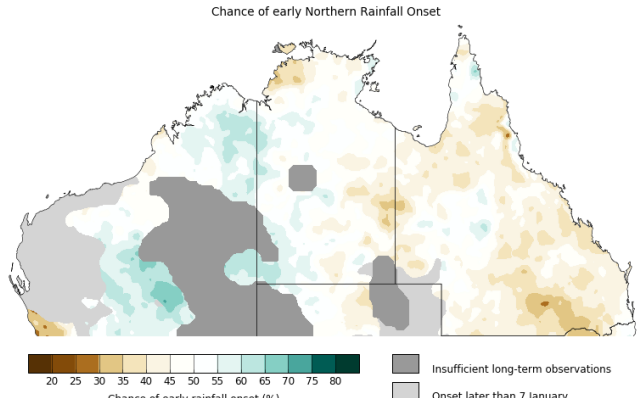
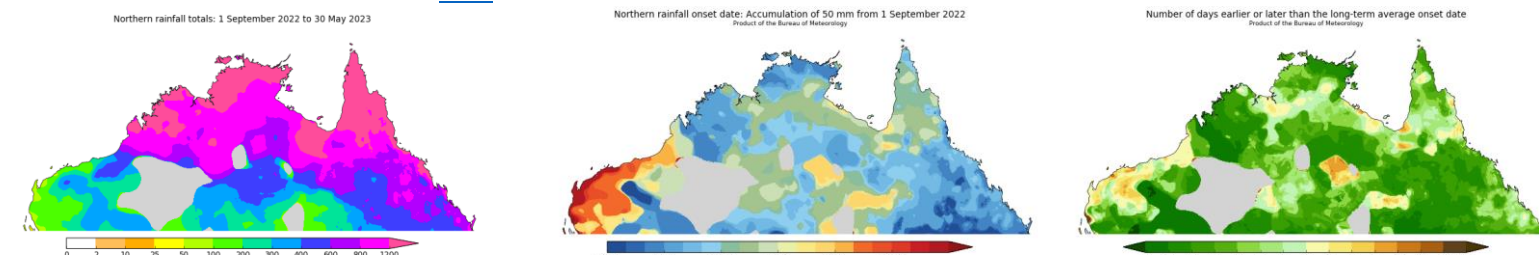
- The chance of exceeding the median rainfall is average to low over most of the NT with the lowest likelihood being in the Gulf and Barkly districts. Past outlook accuracy is moderate to high (55-100%).
- **Warmer** than average days are likely across the NT, especially in the Darwin, VRD & Gulf districts, with moderate to high past accuracy (55-100%).
- Most of the NT has an above average chance of **warmer** nights with moderate to high past accuracy (55-100%). While the chance of exceeding median minimum temperatures is higher in the Darwin & VRD districts, the likelihood of **warmer** than average nights is slightly lower in the Barkly & Southern Alice Springs districts.



## Influencing Climate drivers

- This forecast reflects the status and forecasts for several climate drivers, including increased chance of El Niño conditions developing and climate model predictions of a positive Indian Ocean Dipole in coming months.

<p><b>Climate Influences</b></p> <p><b>El Niño Southern Oscillation (ENSO)</b></p> <p>ENSO status: <b>El Niño Alert</b></p>  <p><a href="#">Pacific Ocean Update</a></p> <p>(As at 4 July 2023)</p> <p>Next Update: 18 July 2023</p>	<p><b>Comments (sourced from the Australian Bureau of Meteorology)</b></p> <p><b>The El Niño–Southern Oscillation (ENSO) has returned to neutral</b>, however the Bureau’s ENSO outlook is currently at <b>El Niño Alert</b>.</p> <p>Central and eastern Pacific sea surface temperatures (SSTs) are exceeding <b>El Niño</b> thresholds. Models indicate a high likelihood of further warming, with SSTs predicted to exceed El Niño thresholds until at least the beginning of the southern hemisphere summer.</p>   <p><b>El Niño</b> events typically lead to reduced rainfall and warmer temperatures across much of northern and eastern Australia.</p> <p>To see larger versions of these images, go to the Outlook and SOI tabs at <a href="#">Pacific Ocean Update</a></p>
<p><b>Indian Ocean Dipole (IOD)</b></p> <p>Current outlook: <b>Neutral</b></p> <p><a href="#">Indian Ocean Update</a></p> <p>(As at 4 July 2023)</p> <p>Next Update: 18 July 2023</p>	<p><b>The Indian Ocean Dipole (IOD) is currently neutral.</b></p> <p>The IOD index for the week ending 2 July 2023 was <math>-0.21^{\circ}\text{C}</math>, which is within neutral bounds (between <math>-0.40^{\circ}\text{C}</math> and <math>+0.40^{\circ}\text{C}</math>). All international climate models surveyed by the Bureau suggest a <b>positive</b> event may emerge in coming months. A <b>positive</b> IOD can suppress winter/spring rainfall, compounding the drying effect of <b>El Niño</b>.</p>   <p>To see larger versions of these images, go to the <a href="#">Outlook tab</a> and <a href="#">IOD Time Series</a></p>
<p><b>Southern Annular Mode (SAM)</b></p> <p>Current outlook: <b>Neutral</b></p> <p><a href="#">Southern Ocean Update</a></p> <p>(As at 4 July 2023)</p> <p>Next Update: 18 July 2023</p>	<p><b>The SAM is currently neutral.</b></p> <p>The Southern Annular Mode (SAM) index is currently negative and is expected to remain negative for a week before returning to neutral values for at least the next two weeks.</p> <p><b>Neutral</b> SAM has little influence on Australian rainfall, while a <b>positive</b> SAM during winter typically results in more rainfall in the east, drier in parts of the south, while a <b>negative</b> SAM during winter means reduced rainfall in eastern Australia but increased in parts of the south.</p>  <p>To see larger versions of these images, go to the <a href="#">Outlook tab</a> and <a href="#">Southern Ocean Update</a></p>

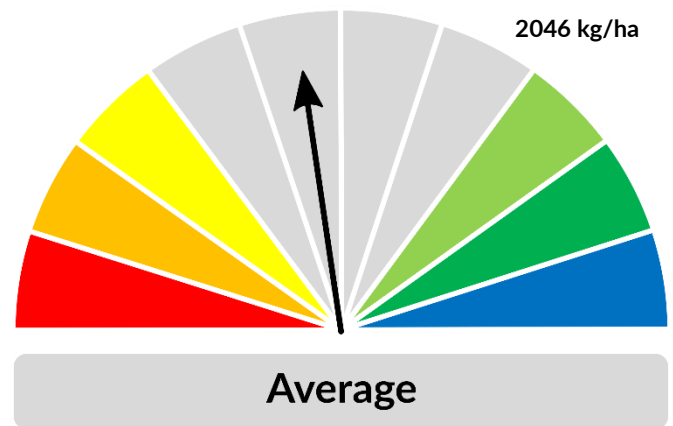
Seasonal Indicator	Comments (sourced from the Australian Bureau of Meteorology & the NT Department of Industry, Tourism & Trade)
<p><b>Madden–Julian Oscillation (MJO)</b></p> <p>Outlook: <b>Weak</b></p> <p><a href="#">Tropics Update</a></p> <p>(As at 4 July 2023)</p> <p>Next Update: 18 July 2023</p>	<p>The MJO is currently <b>weak or indiscernible</b>.</p> <p>According to most climate models, the Madden–Julian Oscillation (MJO) pulse is expected to remain weak in the coming weeks.</p> <p>The MJO has little influence on Australian rainfall at this time of the year.</p> 
<p><b>Wet Season Onset</b></p> <p>Outlook 2023/24: <b>Late</b></p> <p><a href="#">Northern Rainfall Onset Outlook</a></p> <p>(As at 4 July 2023)</p> <p>Next Update: 18 July 2023</p>	<p>A <b>later</b> than normal start to the 2023/24 wet season is forecast for most of the NT.</p> <p>The first issue of the northern rainfall onset outlook for the 2023–24 season indicates a 60%-70% chance of a <b>later</b> than usual rainfall onset for northern and eastern parts of the NT, influenced largely by the increased chance of <b>El Niño</b> conditions. However, there is a slightly above average (60%-70%) chance of an <b>earlier</b> than usual onset for western parts of the NT including the VRD.</p> <p>The northern rainfall onset date occurs when the rainfall total reaches 50 mm since the 1<sup>st</sup> of September. It is considered approximately the amount of rainfall required to stimulate plant growth.</p>  <p>© Commonwealth of Australia 2023, Australian Bureau of Meteorology</p> <p>Model Run: 26/06/2023 Issued: 29/06/2023</p>
<p><b>Observations 2022/23: <b>Early</b></b></p> <p>(As at 31 May 2023)</p> <p>Next Update: October 2023</p>	<p>The onset observations can be found <a href="#">here</a></p>  <p>http://www.bom.gov.au/northern-territory/</p> <p>© Commonwealth of Australia 2023, Australian Bureau of Meteorology</p> <p>Issued: 30/05/2023</p>



## Darwin District

- The 2022/23 Darwin district pasture growth was varied across the district but **average** overall. Relative growth was slightly lower in the south-east.
- Biomass levels are generally **low** to slightly **above average** across the district.
- Over the next three months, the chance of exceeding the median growth across most of the district is limited by seasonal nitrogen deficiency and low soil moisture.
- 29% of the district has burnt 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.

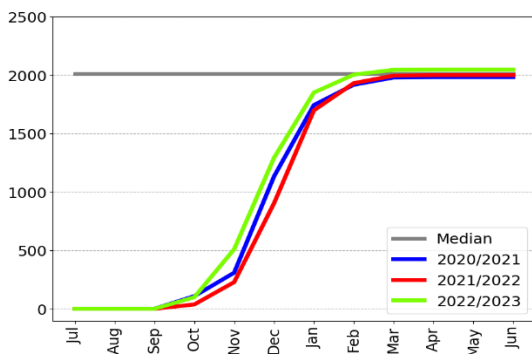
### 2022/23 Pasture Growth



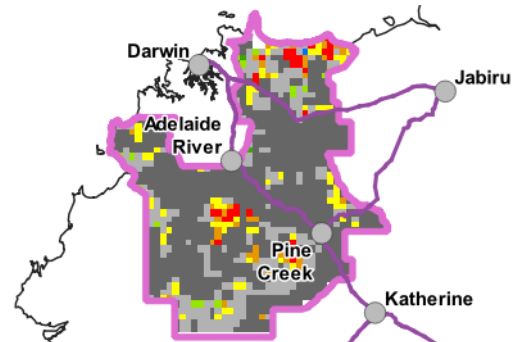
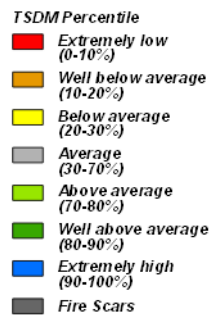
#### As at 30 June 2023

(% 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	26%	60%	11%	3%

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

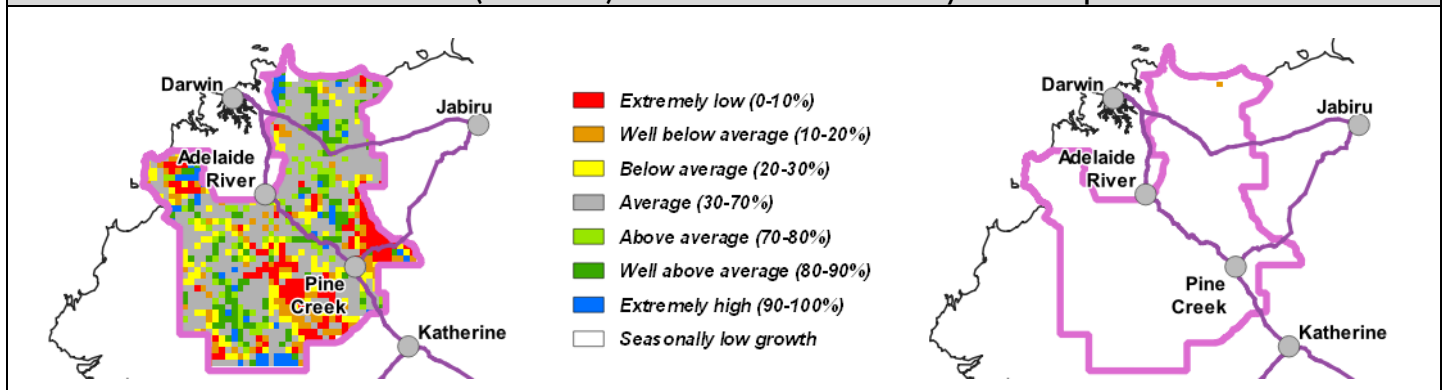


#### Total Standing Dry Matter at 30 June 2023 Relative to Historical Records (1957-now)



#### 12-month Pasture Growth at 30 June 2023 Relative to Historical Records (1957-now)

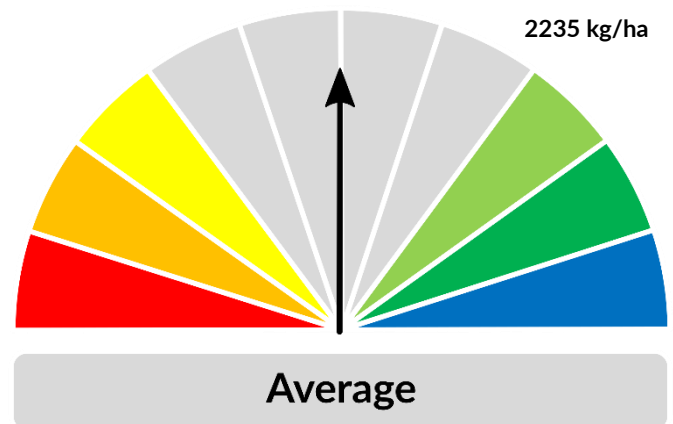
#### Chance of Exceeding Median Pasture Growth July 2023 – September 2023



## Katherine District

- The 2022/23 Katherine district pasture growth was varied across the district but **average** overall. Relative growth was slightly lower in the north-east.
- Biomass levels are generally **low** to slightly **above average** across the district.
- Over the next three months, the chance of exceeding the median growth across most of the district is limited by seasonal nitrogen deficiency and low soil moisture.
- 17% 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.

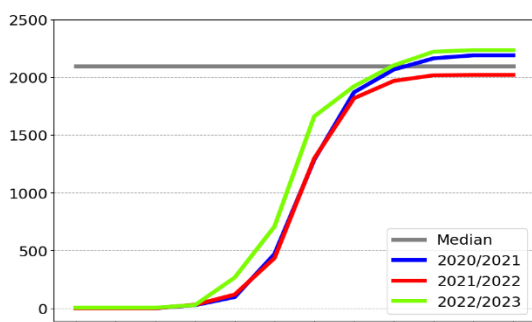
### 2022/23 Pasture Growth



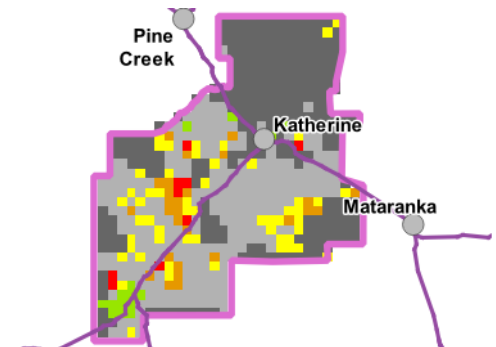
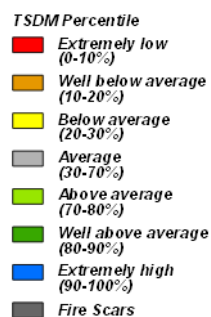
#### As at 30 June 2023

(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	0%	32%	64%	4%
Total Standing Dry Matter	13%	52%	33%	2%

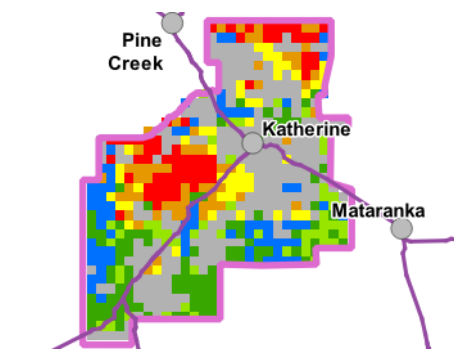
#### Median Pasture Growth (kg/ha) (Running Total)



#### Total Standing Dry Matter at 30 June 2023 Relative to Historical Records (1957-now)



#### 12-month Pasture Growth at 30 June 2023 Relative to Historical Records (1957-now)



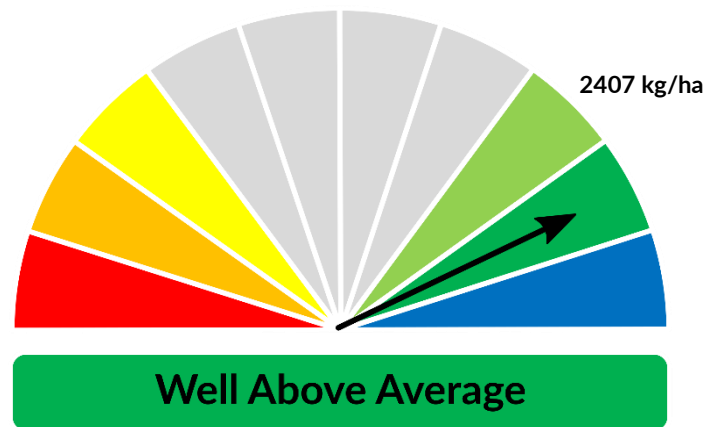
#### Chance of Exceeding Median Pasture Growth July 2023 – September 2023



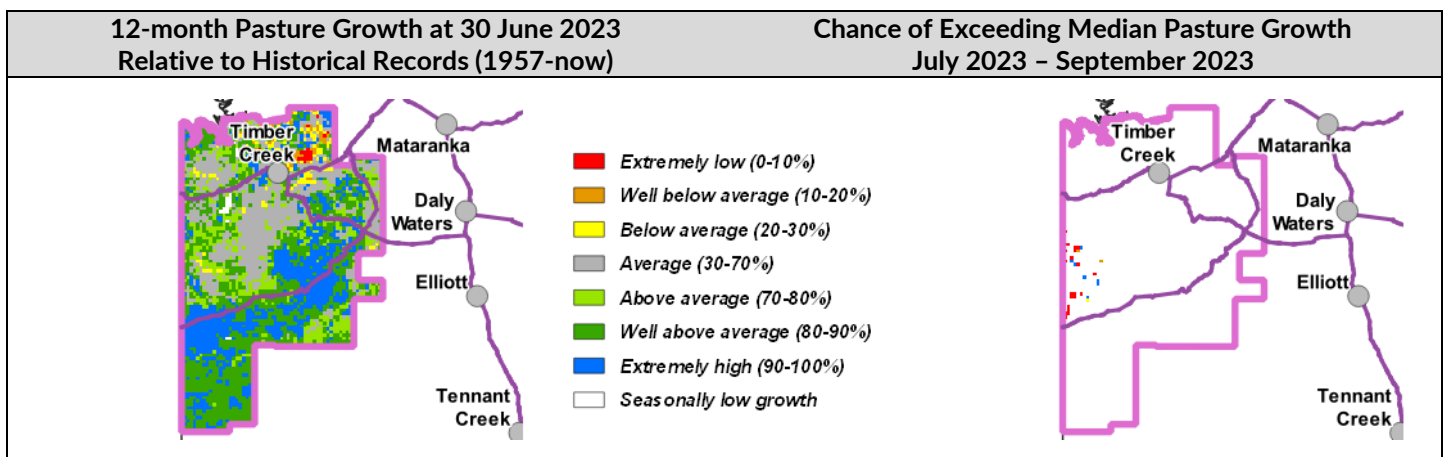
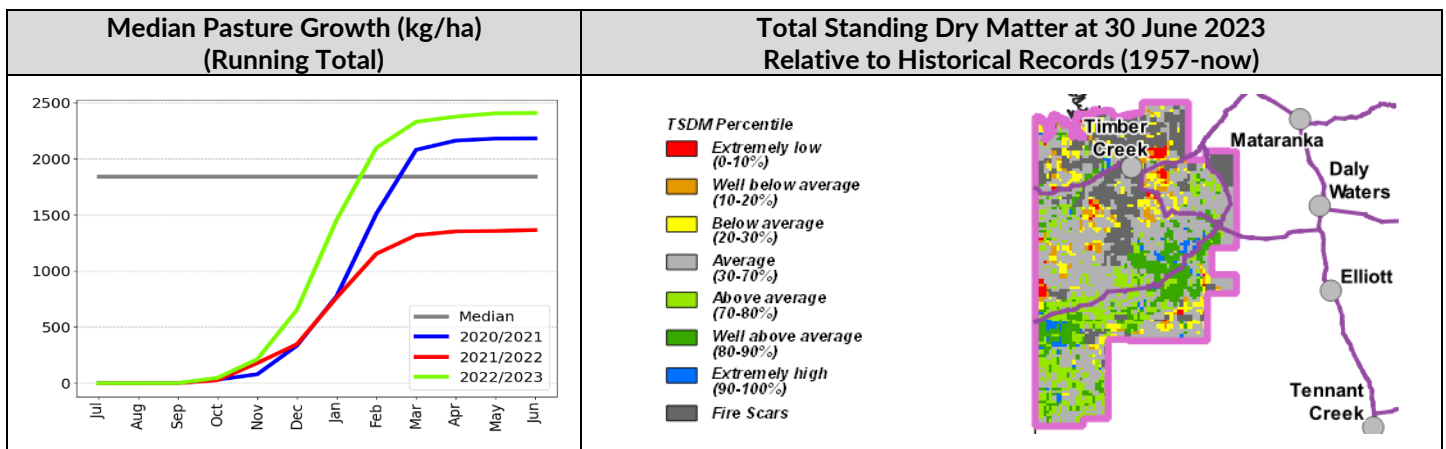
## Victoria River District

- The 2022/23 VRD pasture growth season was **well above average** particularly in the southern and eastern parts of the district.
- Relative pasture biomass levels across the district are mixed, with generally **above average** biomass levels in the southern part of the district.
- Over the next three months pasture growth is seasonally low and useful growth is not expected.
- 7% of the district has burnt since 1 January 2023.

### 2022/23 Pasture Growth



As at 30 June 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%	64%	13%
Total Standing Dry Matter	3%	23%	46%	28%

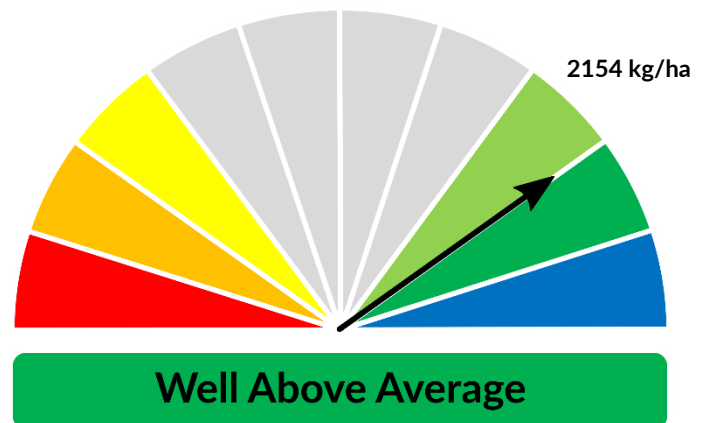




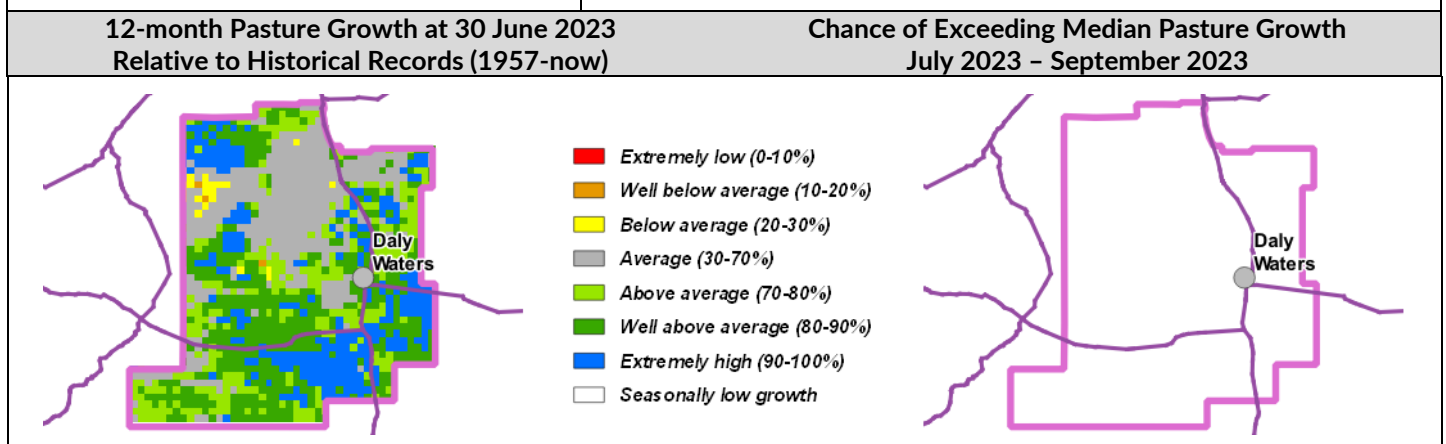
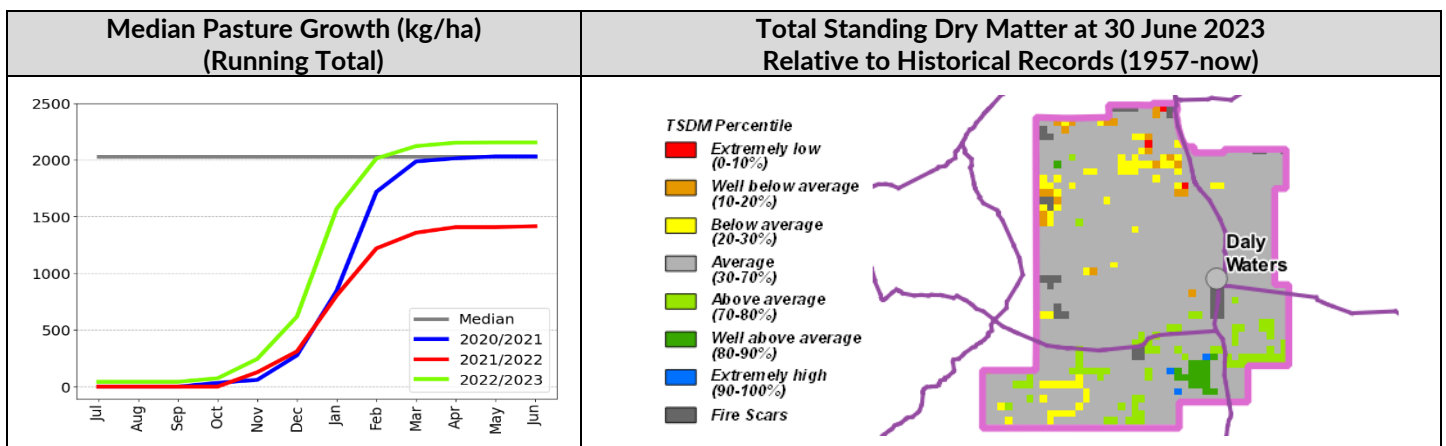
## Sturt Plateau District

- The 2022/23 district relative pasture growth finished **well above average** with total growth levels exceeding 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



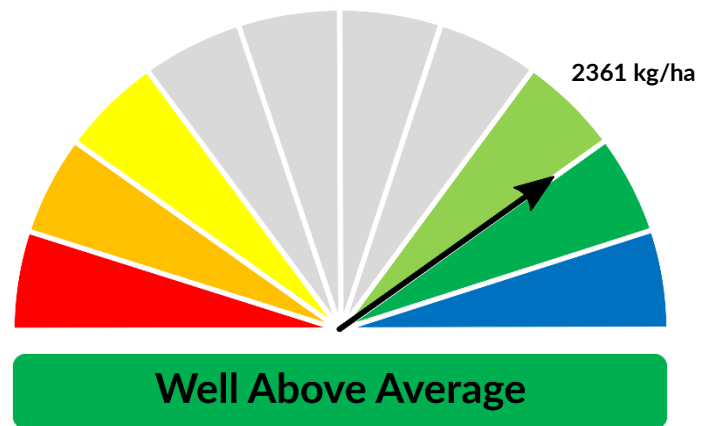
As at 30 June 2023				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	0%	30%	69%	1%
Total Standing Dry Matter	<1%	62%	33%	5%



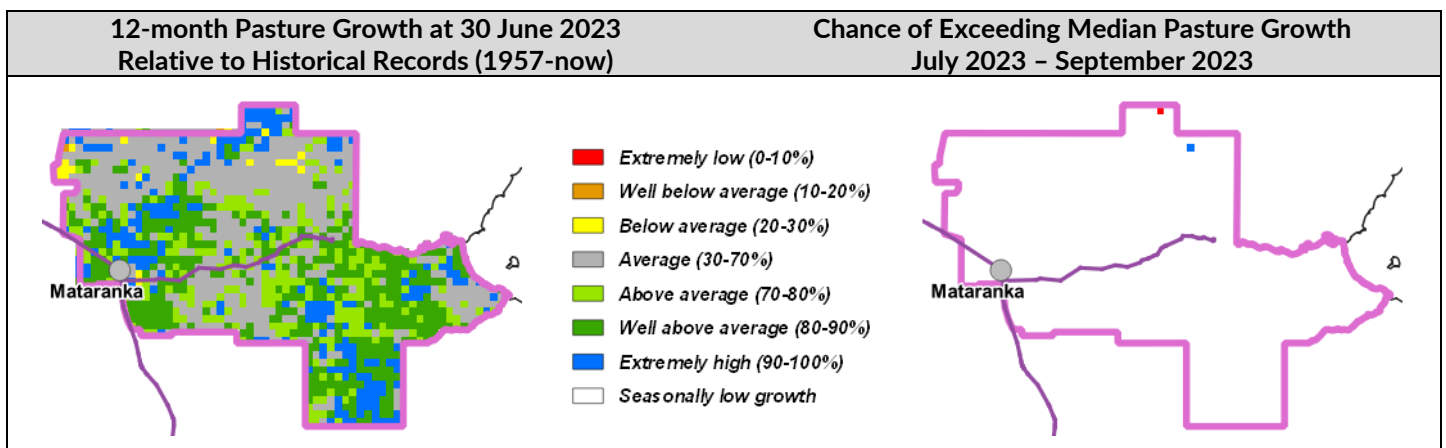
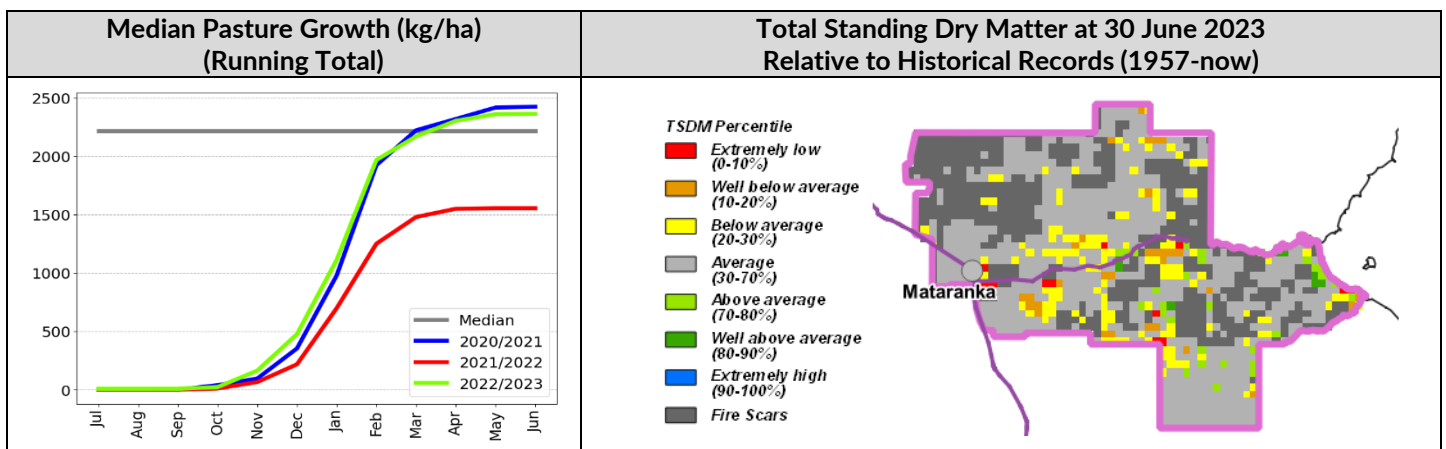
## Roper District

- The 2022/23 Roper district pasture growth was **well above average**.
- Pasture biomass levels are generally **low** to slightly **above average** across the district.
- Over the next three months pasture growth is seasonally low and useful growth is not expected.
- 10% of the district has burnt since 1 January 2023.

### 2022/23 Pasture Growth



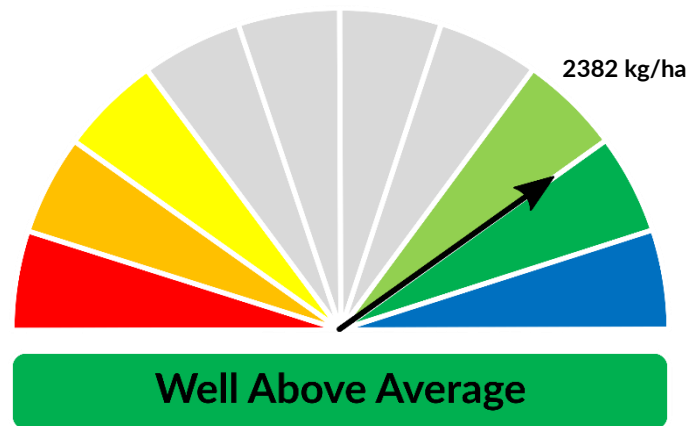
As at 30 June 2023				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	0%	14%	76%	10%
Total Standing Dry Matter	4%	30%	51%	15%



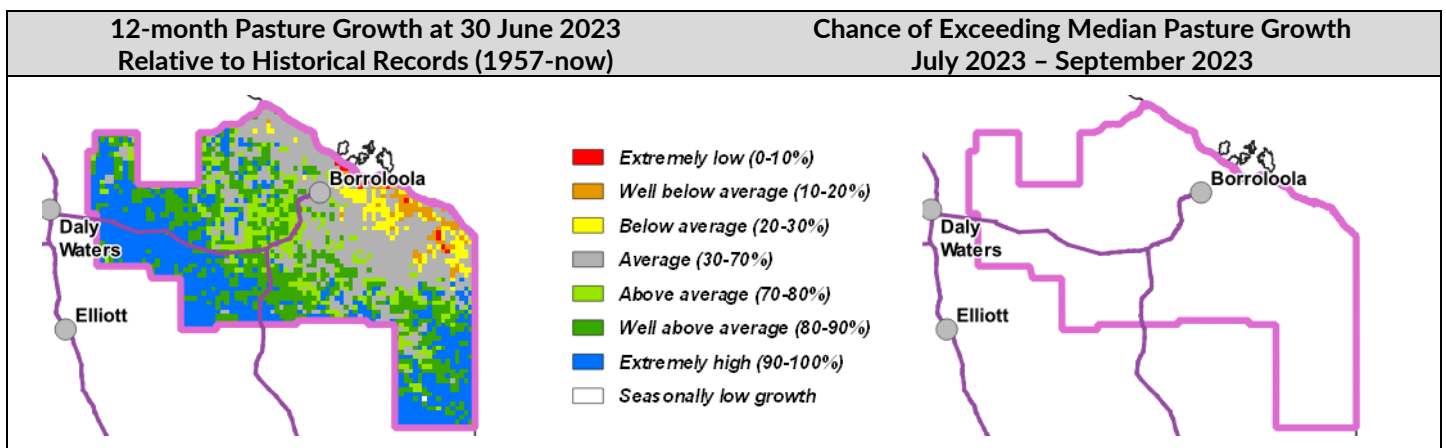
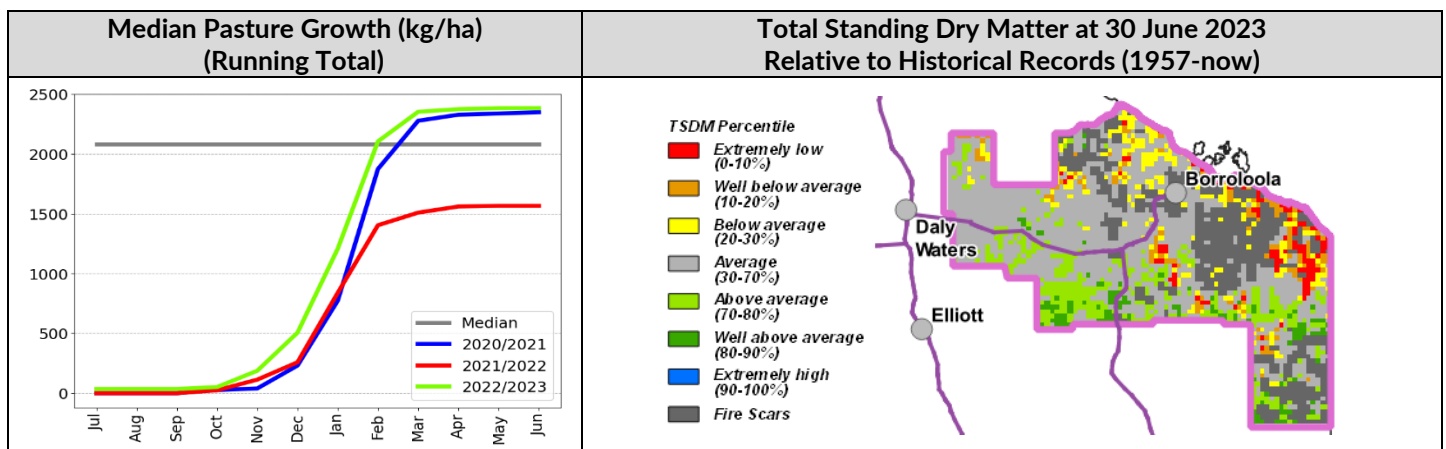
## Gulf District

- The 2022/23 Gulf district overall total pasture growth finished **well above average**. Growth was particularly high in the south, reflecting the high wet season rainfall.
- 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 pasture growth is seasonally low and useful growth is not expected.
- 4% of the district has burnt since 1 January 2023.

### 2022/23 Pasture Growth



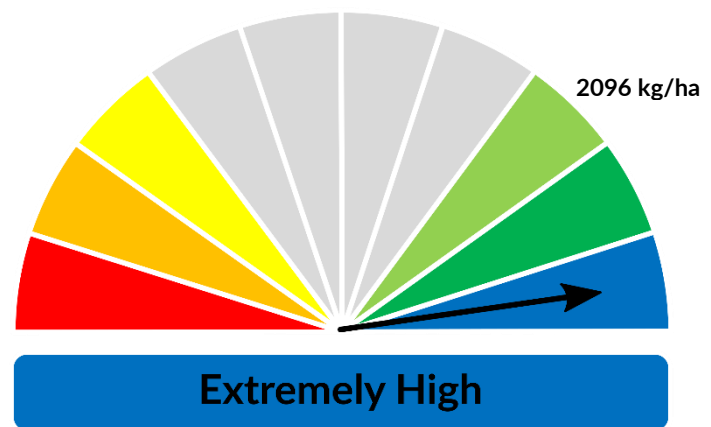
As at 30 June 2023				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	<1%	20%	66%	14%
Total Standing Dry Matter	3%	34%	38%	25%



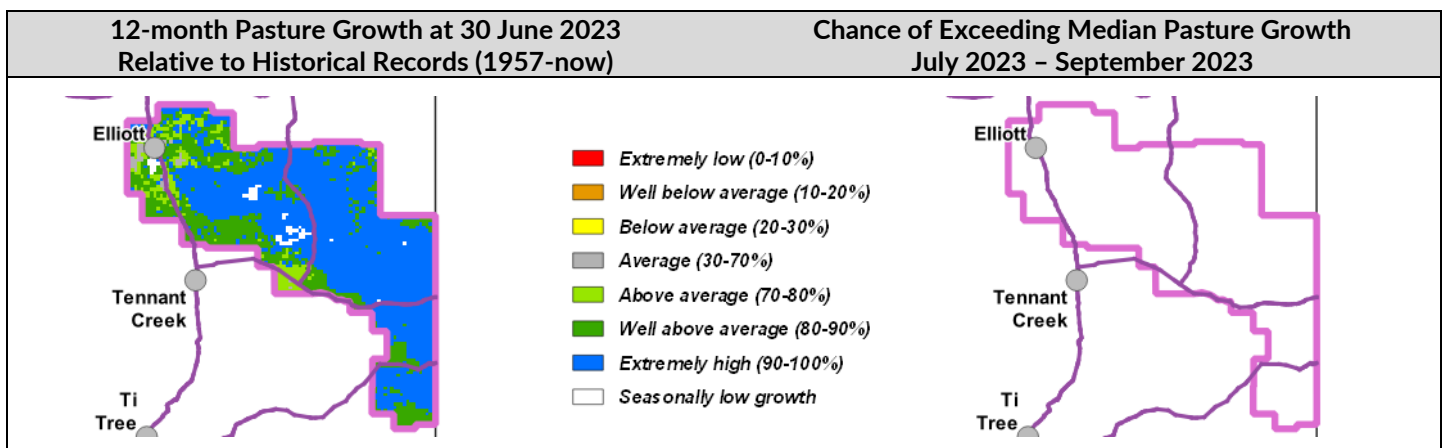
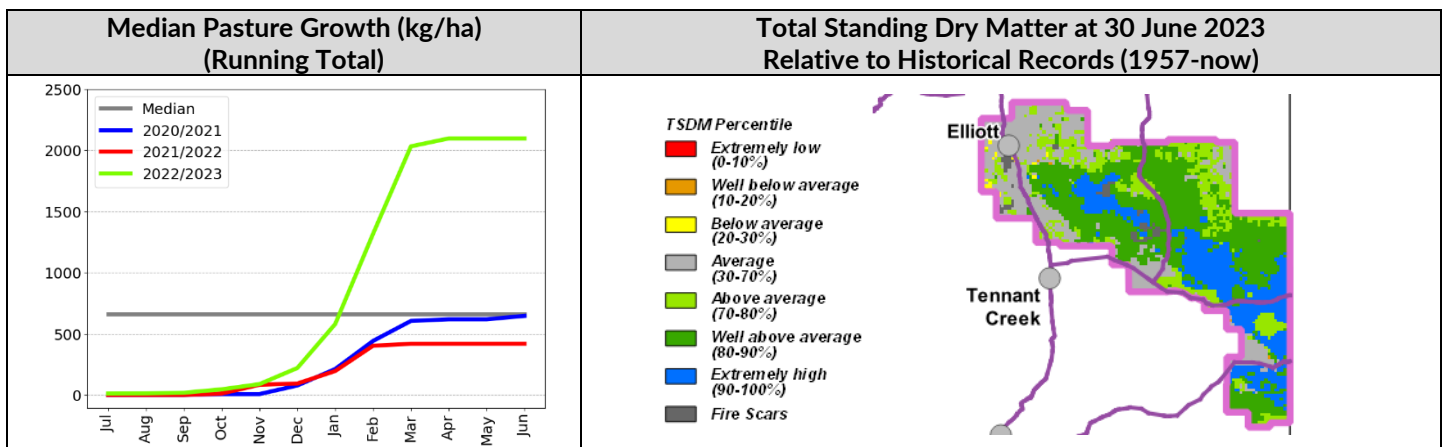
## Barkly District

- District pasture growth for the 2022/23 season was **extremely high** compared to historical records. Total growth was more than 3 times the long-term annual median.
- Pasture biomass levels are also **above average** to **extremely high** across most of the district.
- Over the next three months pasture growth is predicted to be seasonally low but there may be a small growth response from early July rainfall in perennial pastures.
- Less than 1% of the district has burnt since 1 January 2023.

### 2022/23 Pasture Growth



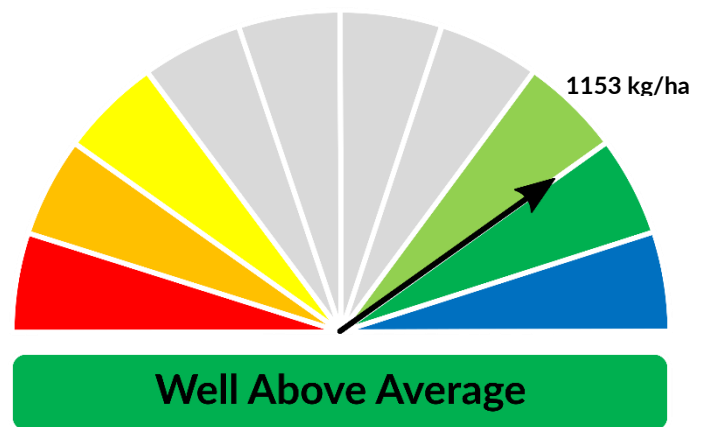
As at 30 June 2023				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	0%	<1%	4%	96%
Total Standing Dry Matter	0%	<1%	6%	94%



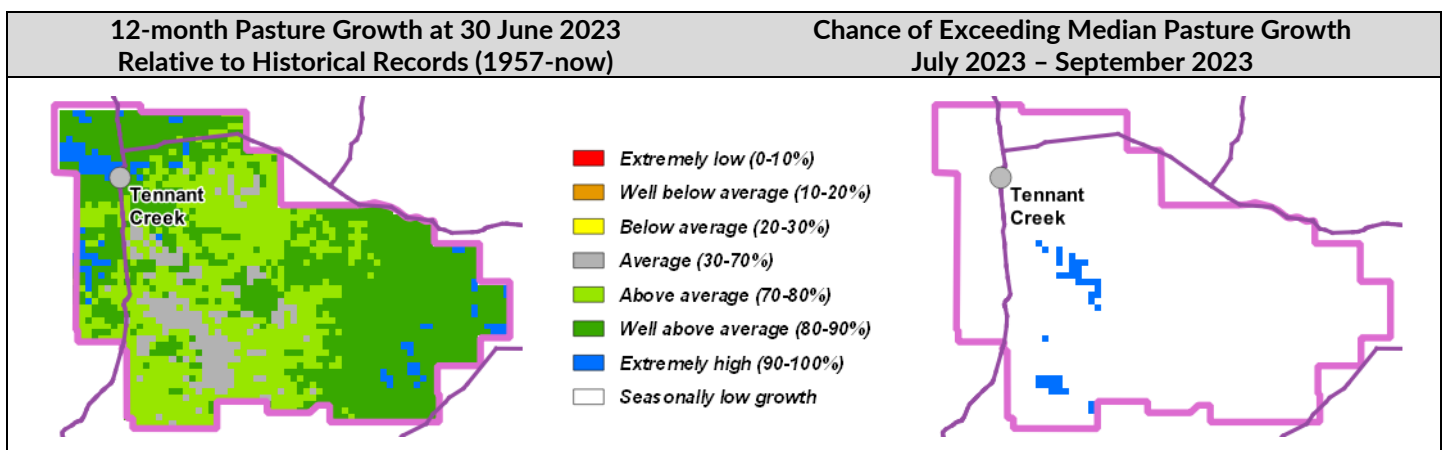
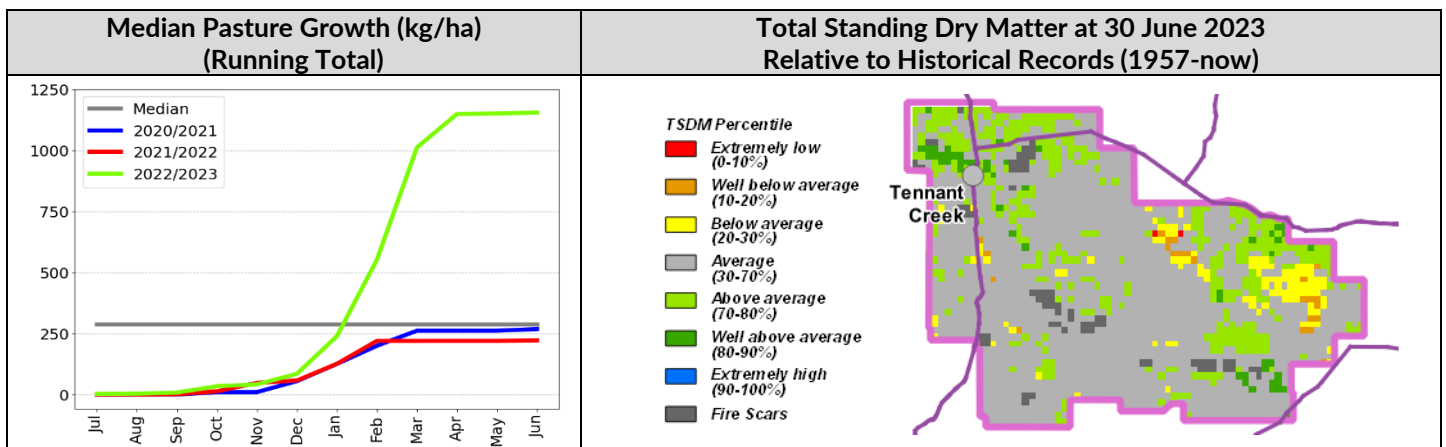
## Tennant Creek District

- The 2022/23 season district pasture growth finished **extremely high**. Total growth was 4 times the long-term annual median.
- Pasture biomass levels are varied but generally **average** when compared with long-term records.
- Small isolated areas were predicted to produce **extremely high** growth up until June 30th. This area may expand after the early July rainfall event.
- Less than 1% of the district has burnt since 1 January 2023.

### 2022/23 Pasture Growth



As at 30 June 2023				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	0%	4%	32%	64%
Total Standing Dry Matter	<1%	5%	28%	67%

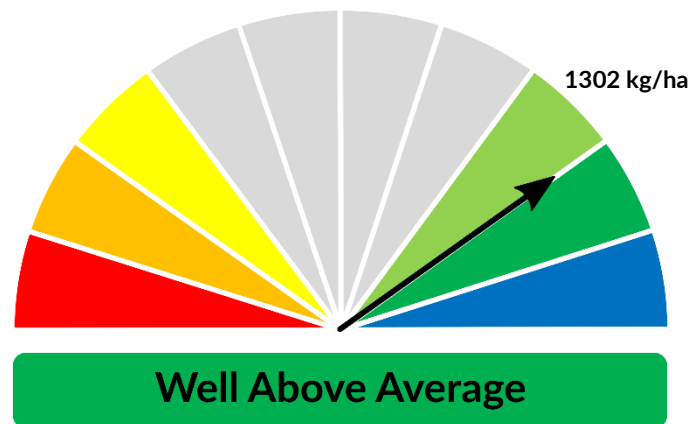




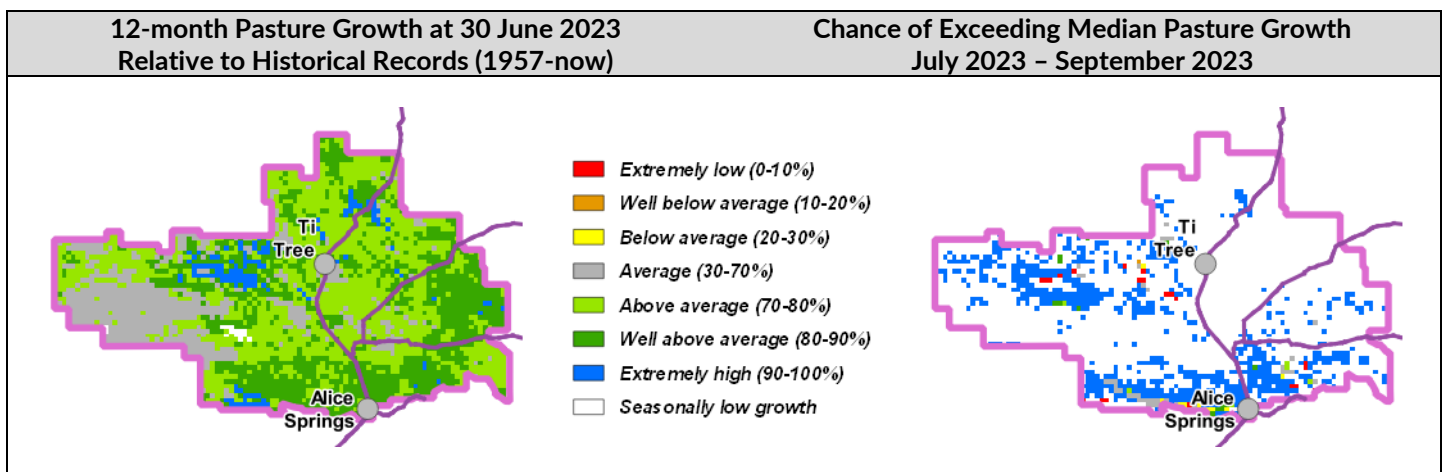
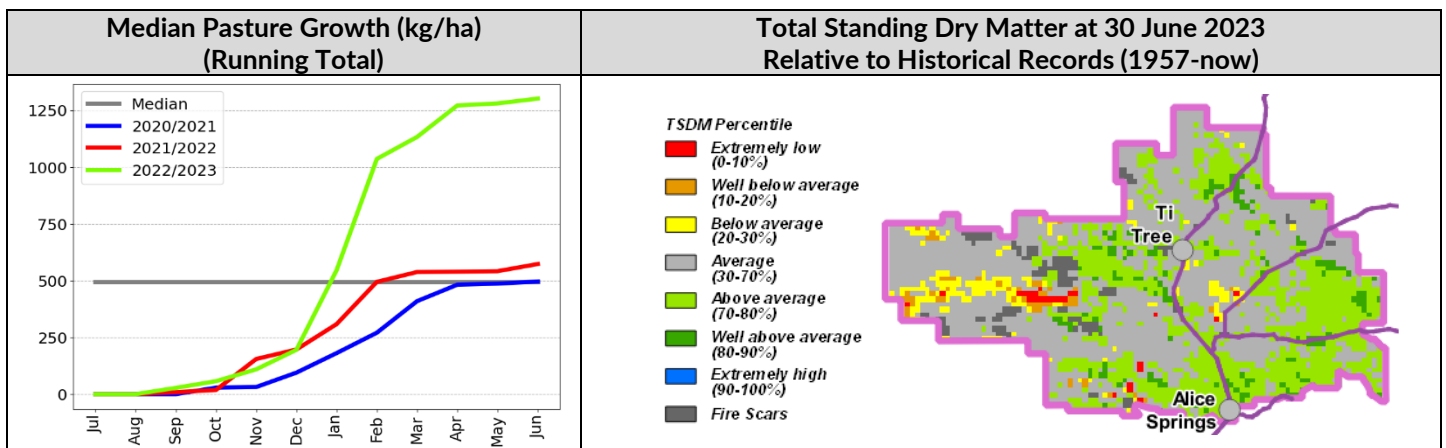
## Northern Alice Springs District

- District pasture growth for the 2022/23 season finished **well above average**. Total growth for the financial year was more than twice the long term median.
- Pasture biomass is generally **average** to **well above average**, although areas of lower biomass levels are seen in western parts of the district.
- Over the next three months, pasture growth across most of the district was predicted to be **low** due to limited rainfall up until June 30<sup>th</sup>. Scattered areas are still predicted to produce **extremely high** growth and this may expand due to the early July rainfall event.
- 1.7% of the district has burnt since 1 January 2023.

### 2022/23 Pasture Growth



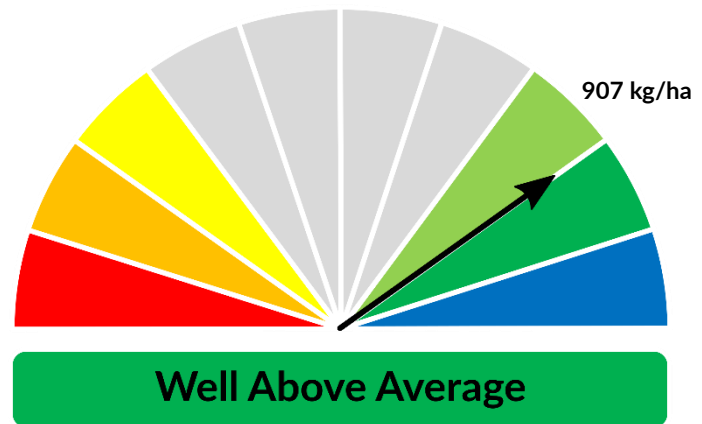
As at 30 June 2023				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	<1%	9%	28%	63%
Total Standing Dry Matter	<1%	3%	17%	80%



## Plenty District

- District pasture growth for the 2022/23 season finished **well above average**. Total growth for the financial year was almost 3 times the long term median.
- Pasture biomass levels are **average** to **well above average** across the district.
- Over the next three months, pasture growth across most of the district was predicted to be **low** due to limited rainfall up until June 30<sup>th</sup>. Scattered areas are still predicted to produce **extremely high** growth and this may expand due to the early July rainfall event.
- Less than 1% of the district has burnt since 1 January 2023.

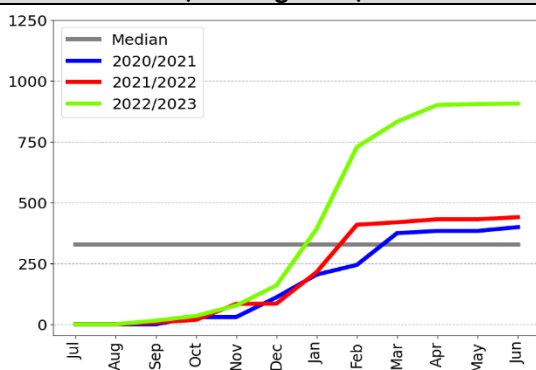
### 2022/23 Pasture Growth



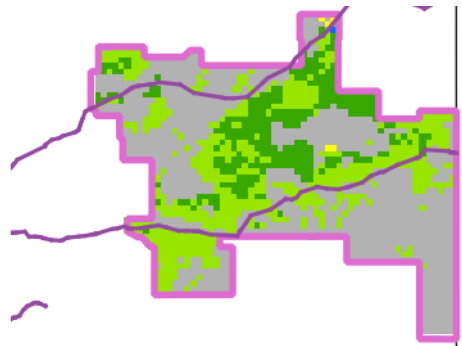
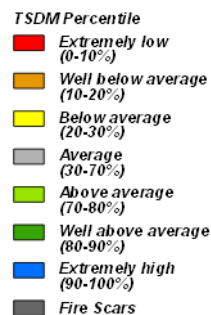
#### As at 30 June 2023

(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	2%	17%	37%	44%
Total Standing Dry Matter	1%	8%	31%	60%

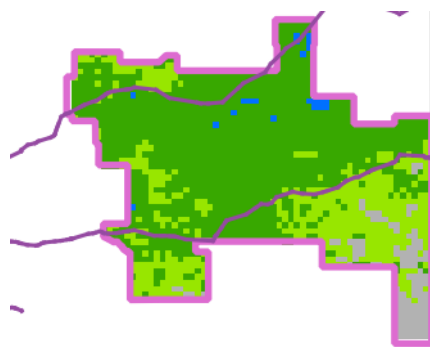
#### Median Pasture Growth (kg/ha) (Running Total)



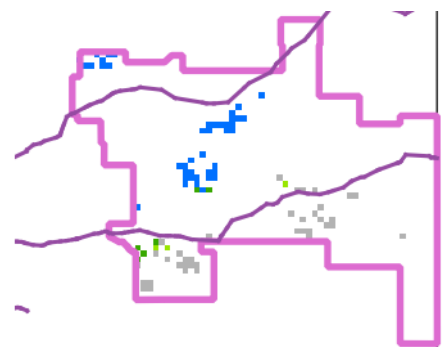
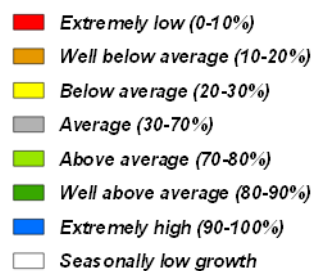
#### Total Standing Dry Matter at 30 June 2023 Relative to Historical Records (1957-now)



#### 12-month Pasture Growth at 30 June 2023 Relative to Historical Records (1957-now)



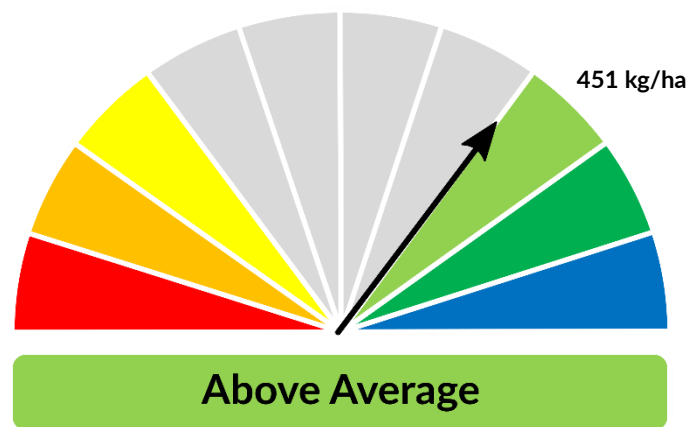
#### Chance of Exceeding Median Pasture Growth July 2023 – September 2023



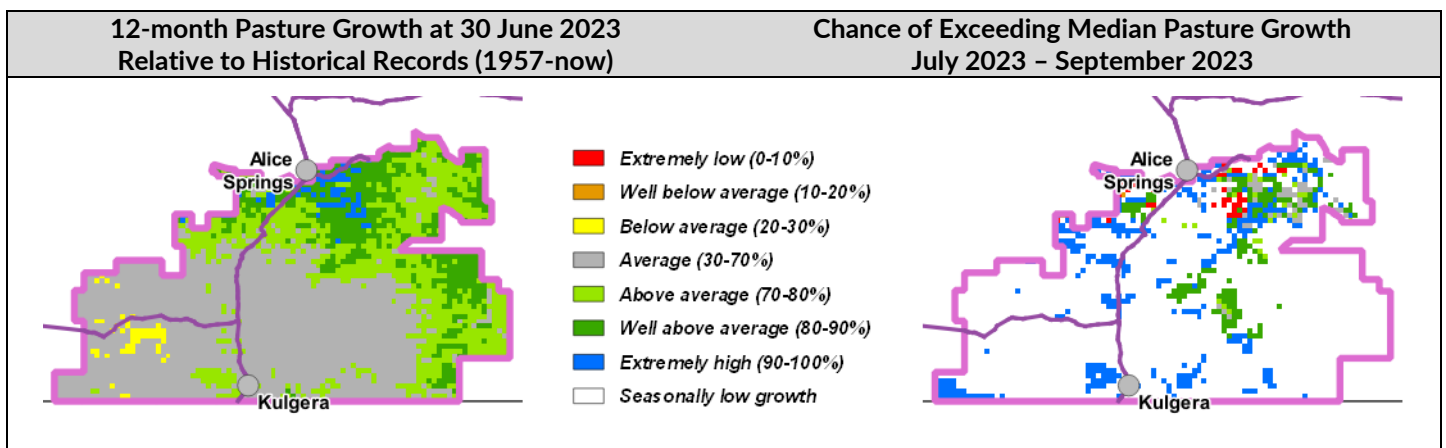
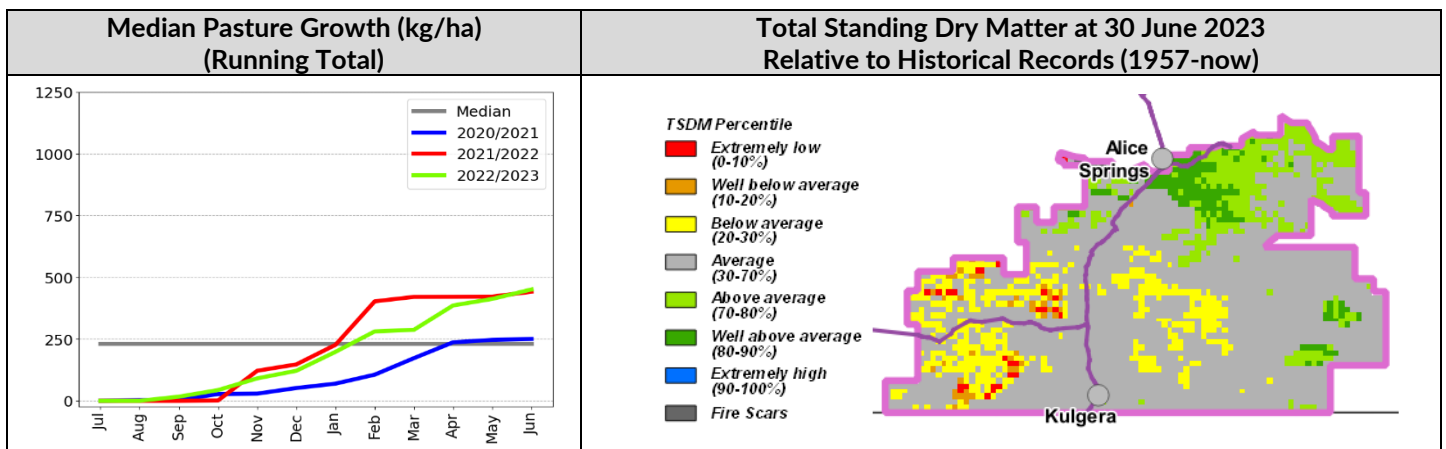
## Southern Alice Springs District

- The 2022/23 total pasture growth for the Southern Alice Springs district finished **above average** compared to long-term records.
- 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, scattered areas are predicted to produce **high** growth. This area is likely to expand after the early July rainfall event.
- Less than 1% of the district has burnt since 1 January 2023.

### 2022/23 Pasture Growth



As at 30 June 2023				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	30%	26%	29%	15%
Total Standing Dry Matter	4%	22%	32%	42%



## 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

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