

# Northern Territory Pastoral Feed Outlook September to December 2022

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 November 2022.

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 December 2022](#)

Individual District Summaries:

[Darwin District](#)

[Katherine District](#)

[Victoria River District](#)

[Sturt Plateau District](#)

[Roper District](#)

[Gulf District](#)

[Barkly District](#)

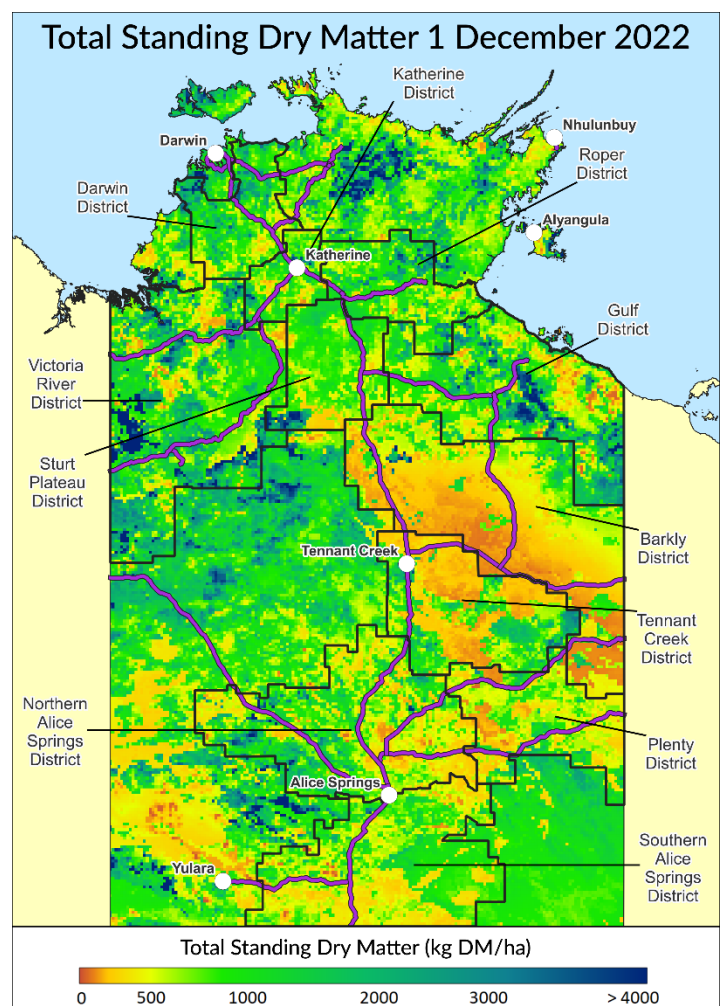
[Tennant Creek District](#)

[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 – December 2022

Most of the NT had an **early** start to the 2022/23 wet season as predicted by BoM partly due to the continuation of the 2021-2022 **La Niña**. The 'northern rainfall onset' is defined as 50 mm of accumulated rainfall from the 1 September 2022. Although the pasture growth since September 2022 is still generally quite low, it is **above average** to **extremely high** for this time of year, due to the earlier than usual start. However, all climate models surveyed anticipate that in February 2023 ENSO will return to **neutral** conditions.

**Below average** pasture biomass continues to be experienced across much of the NT due to **below average** 2021/22 pasture growth, especially between Ti-Tree and Katherine. Much of the Barkly and Tennant Creek districts continue to show large areas of **very low** levels (>500kg/ha) and **critically low** levels (>200kg/ha) of pasture biomass. Current rainfall and pasture growth forecasts for these districts may point to a continuation of these conditions into 2023.

The fire risk across the NT has fallen due to the early start to the wet season however **high** risk levels continue for the VRD, Roper and Gulf districts.

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

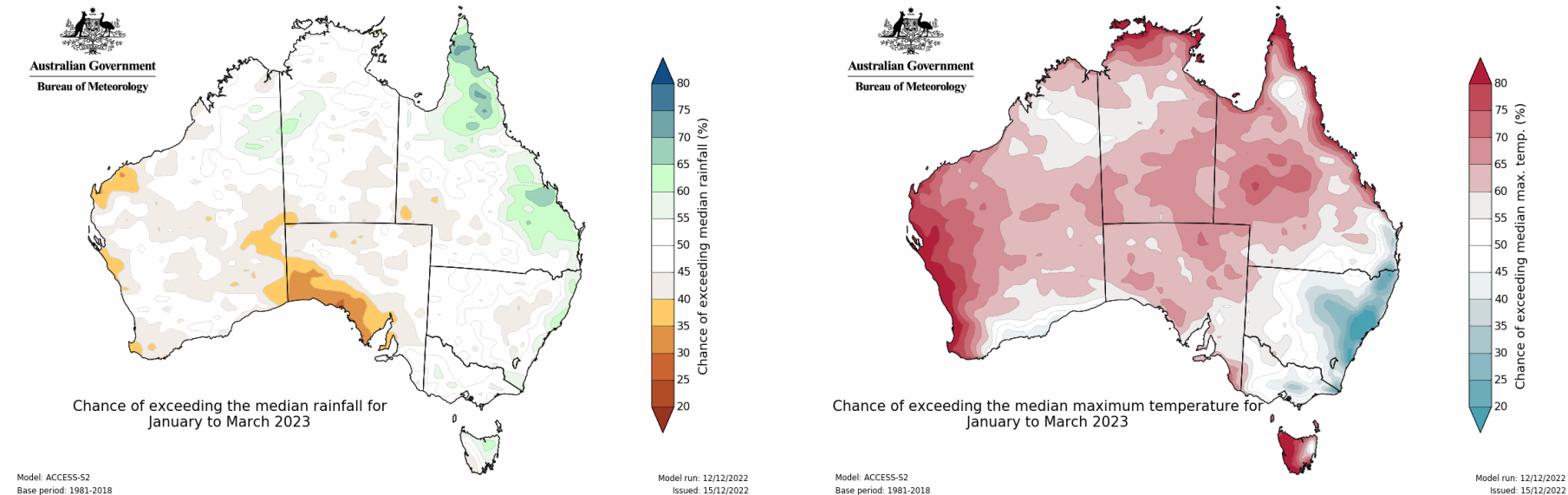
# Northern Territory Seasonal Outlook as at 21<sup>st</sup> December 2022\*

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.

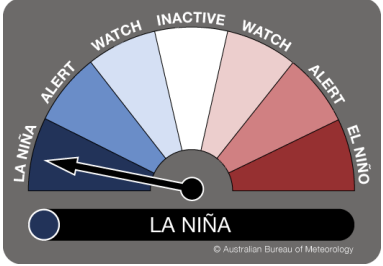
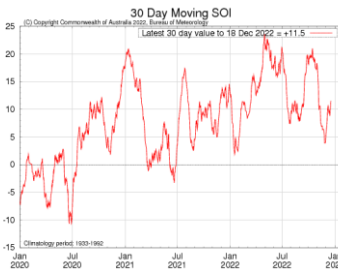
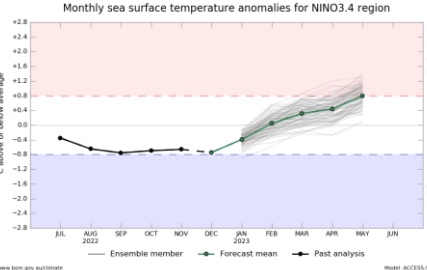
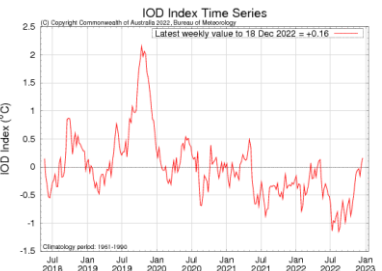
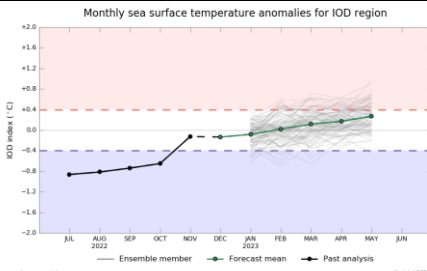
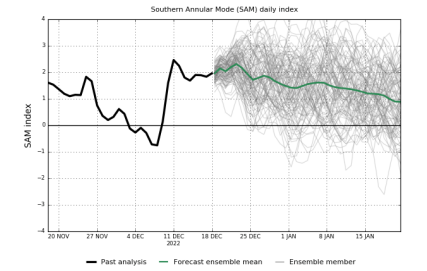
The BoM outlook for January to March 2023 indicates that:

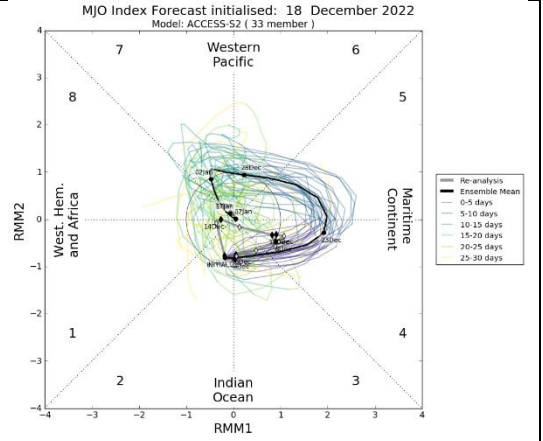
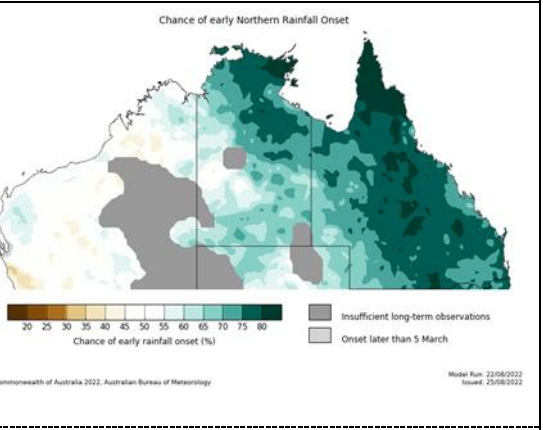
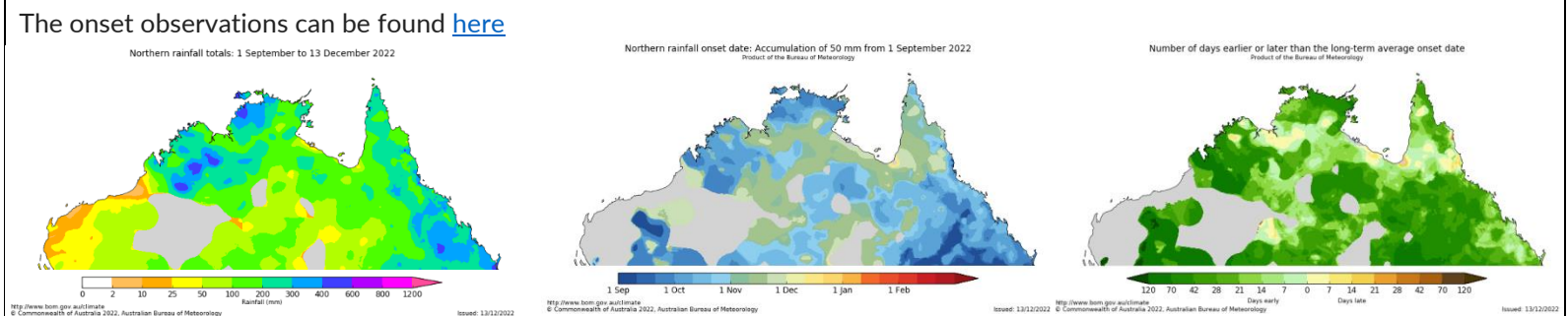
- **Average** rainfall is likely across much of the NT, with moderate past accuracy (>55%). Parts of the VRD are showing a 55% chance of **wetter** than average conditions while some areas south of Elliott have a lower chance (40%) of higher than median rainfall.
- **Warmer** than average days are likely across most of the NT, especially in February 2023, with moderate past accuracy (50-75%). Large areas of the VRD, Katherine and Sturt Plateau are showing an **average** chance of experiencing above median temperatures.
- **Warmer** than average nights are very likely across the entire NT with moderate to good past accuracy (>55%).



## Influencing Climate drivers

- This forecast reflects the status and forecasts for several climate drivers, including La Niña, positive SAM and warm ocean temperatures around northern Australia.

<p><b>Climate Influences</b></p> <p><b>El Niño Southern Oscillation (ENSO)</b></p> <p>ENSO status: <b>La Niña</b></p>  <p><a href="#">Pacific Ocean Update</a></p> <p>(As at 20 December 2022)</p> <p>Next Update: 4 January 2023</p>	<p><b>Comments</b> (sourced from the Australian Bureau of Meteorology)</p> <p><b>La Niña continues.</b></p> <p>La Niña continues in the tropical Pacific. Atmospheric and oceanic indicators of the El Niño–Southern Oscillation (ENSO) reflect a mature <b>La Niña</b>.</p> <p>All models surveyed anticipate a return to neutral ENSO in February 2023.</p> <p>La Niña events increase the chance of <b>above average</b> summer rainfall across much of northern and eastern Australia.</p> <p>ENSO events typically decay during the southern hemisphere autumn.</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 20 December 2022)</p> <p>Next Update: 4 January 2023</p>	<p><b>The Indian Ocean Dipole (IOD) has returned to neutral.</b></p> <p>Weekly values of the IOD index have been in the neutral range (between <math>-0.4^{\circ}\text{C}</math> and <math>+0.4^{\circ}\text{C}</math>) for five consecutive weeks with the most recent value being <math>-0.16^{\circ}\text{C}</math>. The ending of the 2022 <b>negative</b> IOD event is consistent with the seasonal cycle of the IOD.</p> <p>All five international climate models surveyed by the Bureau anticipate a neutral IOD will persist through summer and into autumn.</p> <p>The IOD has little influence on Australian climate while the monsoon trough is in the southern hemisphere.</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 20 December 2022)</p> <p>Next Update: 4 January 2023</p>	<p><b>The SAM is currently neutral.</b></p> <p>The Southern Annular Mode (SAM) is in a weakly <b>positive</b> phase and is likely to be <b>neutral to positive</b> through December.</p> <p><b>Neutral</b> SAM has little influence on Australian rainfall, while a <b>positive</b> SAM during summer increases the chance of <b>above average</b> rainfall for parts of eastern Australia. To see larger versions of these images, go to the <a href="#">Outlook tab</a> and <a href="#">Southern Ocean Update</a></p> 

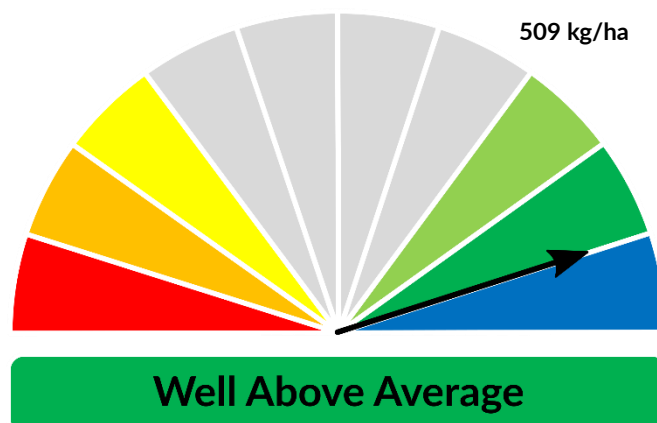
Seasonal Indicator	Comments (sourced from the Australian Bureau of Meteorology & the NT Department of Industry, Tourism & Trade)
<p><b>Madden–Julian Oscillation (MJO)</b></p> <p>Outlook: <b>Weak</b></p> <p><a href="#">Tropics Update</a></p> <p>(As at 20 December 2022)</p> <p>Next Update: 4 January 2023</p>	<p>The MJO is currently <b>weak</b>.</p> <p>The Madden–Julian Oscillation (MJO) is currently weak, but most models indicate it may <b>strengthen</b> over late December while crossing the Maritime Continent as it tracks from the Indian Ocean toward northern Australia.</p> <p>If the MJO strengthens, it may lead to monsoonal westerly flow and increased rainfall across parts of northern Australia in late December-early January. There is also an increased risk of tropical low or cyclone activity during this time.</p> 
<p><b>Wet Season Onset</b></p> <p>Outlook 2022/23: <b>Early</b></p> <p><a href="#">Northern Rainfall Onset Outlook</a></p> <p>(As at 20 December 2022)</p> <p>Next Update: 29 June 2023</p>	<p><b>Most of the NT had an <b>early</b> start to the 2022/23 wet season as predicted.</b></p> <p>Most districts had an <b>early</b> rainfall onset with the exception of parts of the Gulf &amp; VRD Districts.</p> <p>While northern Australia recorded its 7th wettest November on record in 2022, rainfall across northern Australia in December has so far been below average. However, forecasts indicate conditions will likely become more favourable for rainfall across northern Australia in early January. There are indications that monsoonal conditions, widespread rainfall and cooler weather may develop near northern Australia.</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>Observations: <b>Early</b></p>	<p>The onset observations can be found <a href="#">here</a></p> 



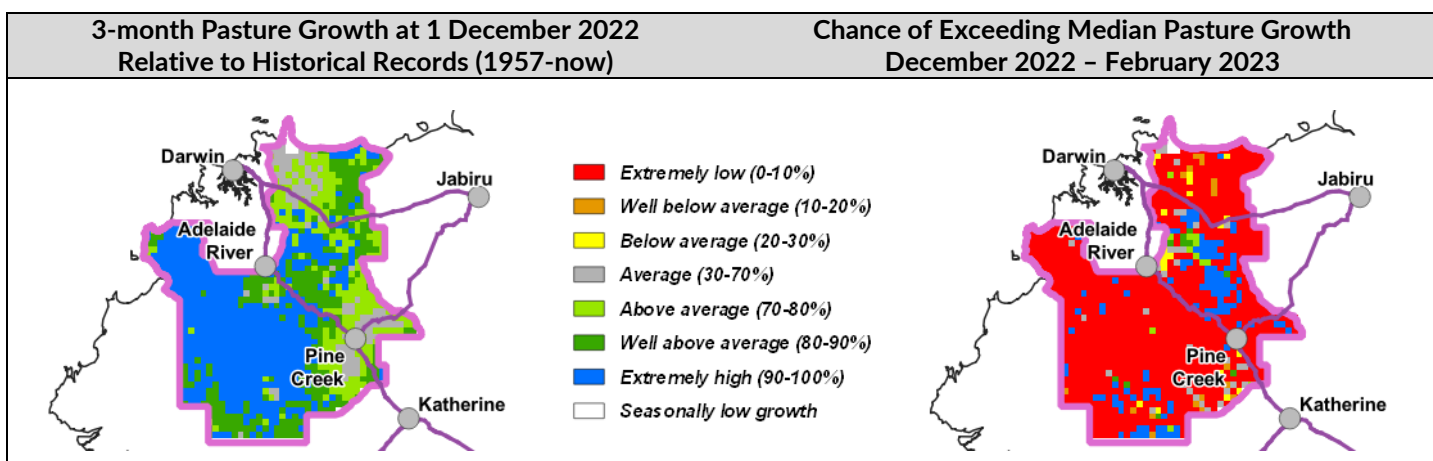
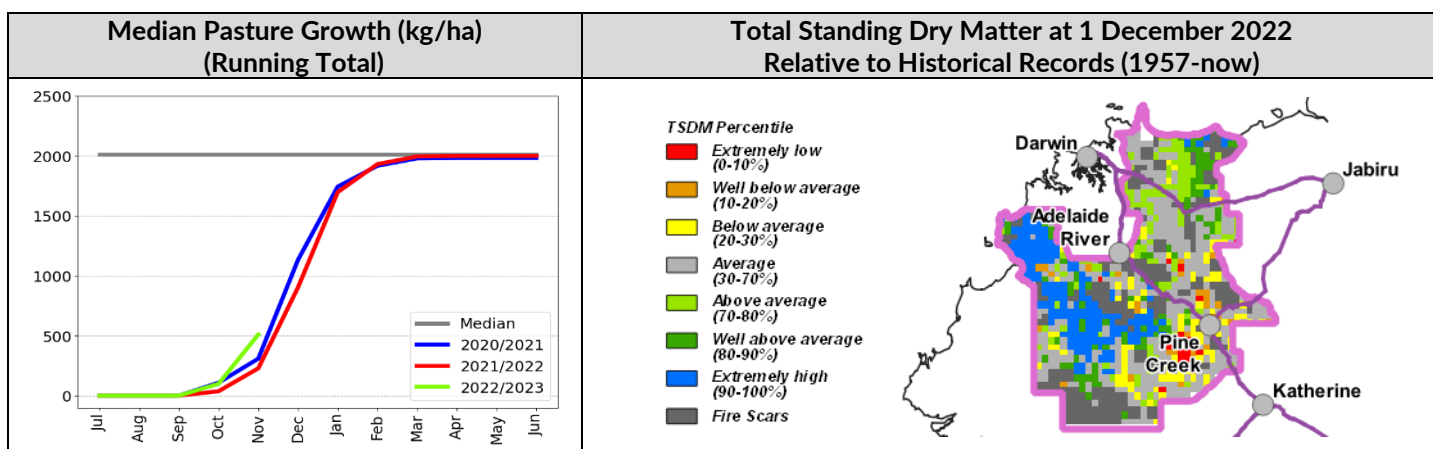
## Darwin District

- The 2022/23 Darwin district pasture growth is **well above average** for this time of the year, reflecting the early wet season start.
- Biomass levels are **average** to **extremely high** across much of the district.
- Over the next three months, the chance of exceeding the median growth across most of the district is **extremely low** due to seasonal nitrogen limitations for pasture growth.
- 55% of the district has burnt since 1 January 2022. 18% has burnt since 1<sup>st</sup> July 2022.
- 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



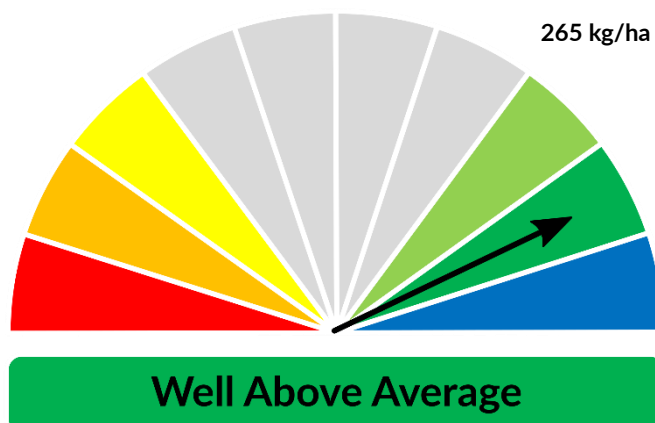
As at 1 December 2022				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	86%	13%	1%	0%
Total Standing Dry Matter	42%	43%	12%	3%



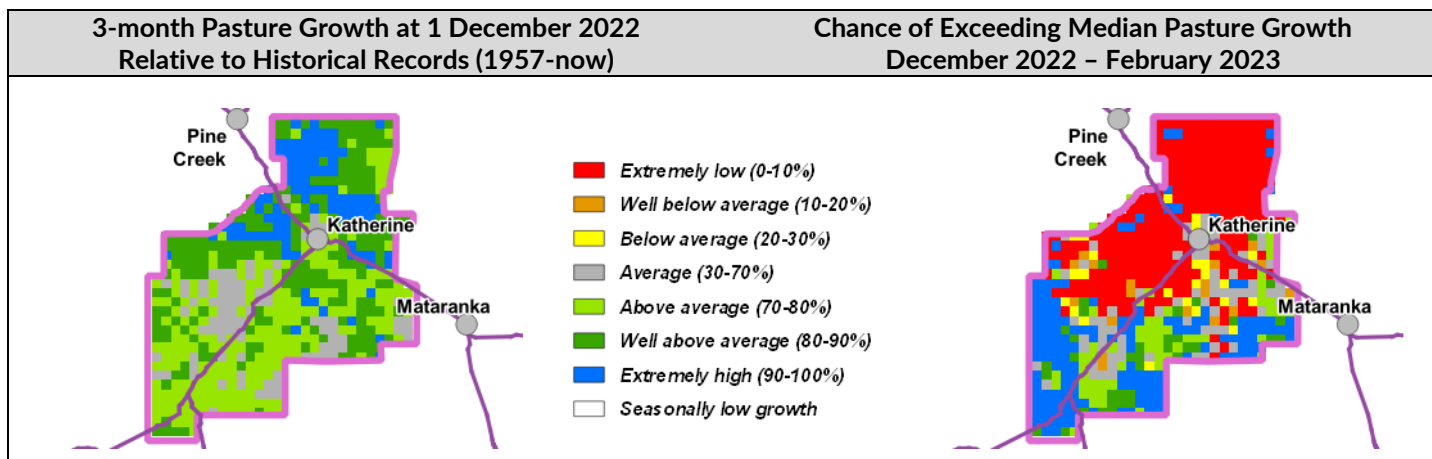
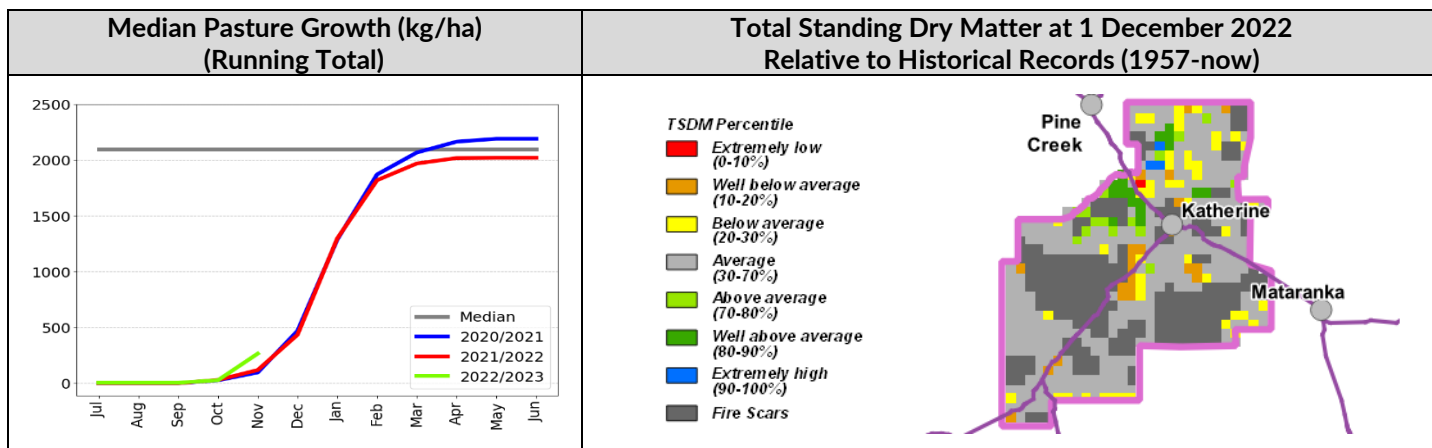
## Katherine District

- The 2022/23 Katherine district pasture growth is **well above average** for this time of the year, reflecting the early start to the wet season. However actual growth is usually relatively low this time of year.
- Biomass levels are generally average.
- Over the next three months the chances of exceeding median pasture growth is **above average** to **extremely high** across the southern half of the district, but **extremely low** due to nitrogen limitation across the northern half.
- 37% of the district has burnt since the 1 January 2022. 21% has burnt since 1 July 2022.
- 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



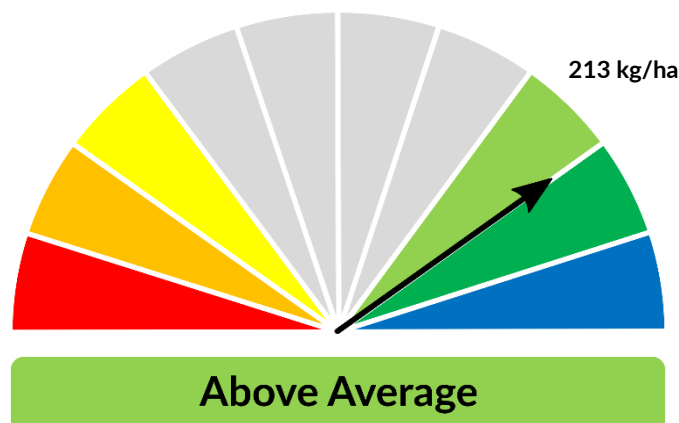
As at 1 December 2022				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	54%	39%	4%	3%



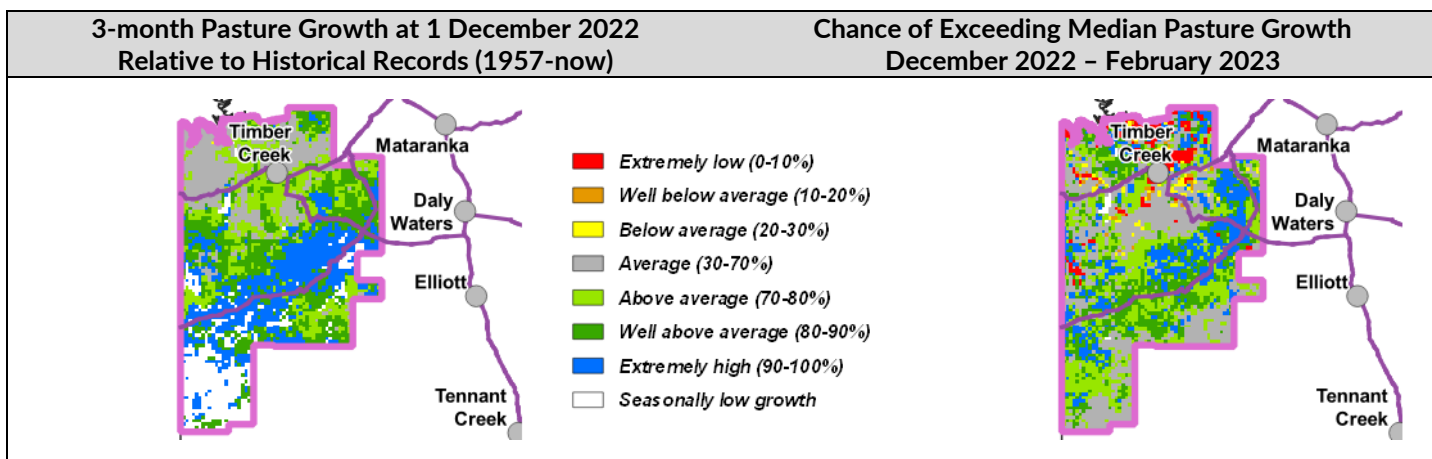
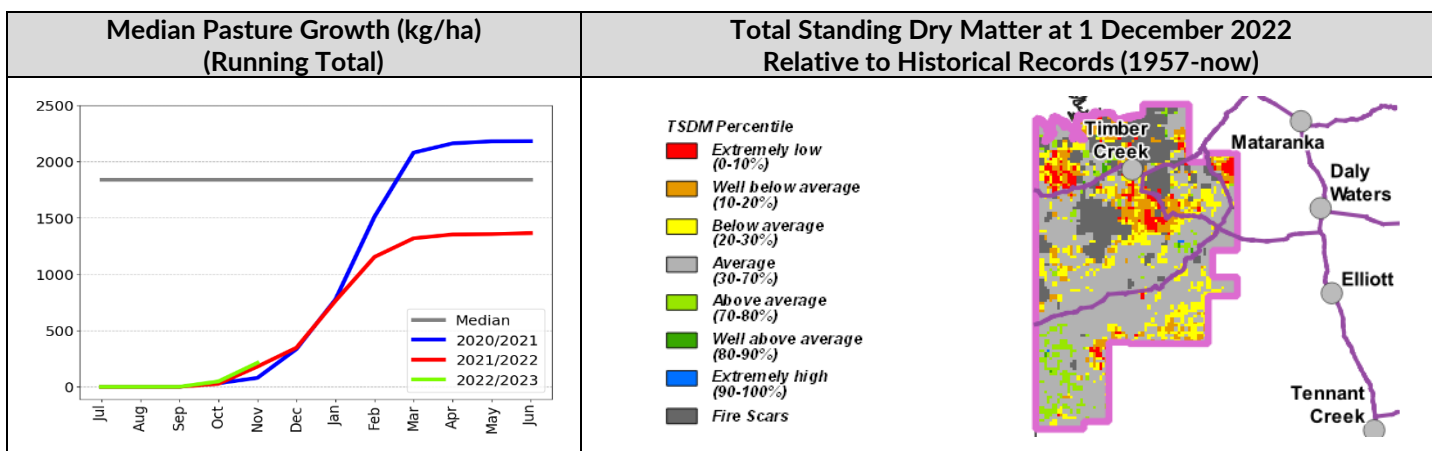
## Victoria River District

- The 2022/23 VRD pasture growth is **above average** for this time of the year, reflecting the early start to the wet season across much of the district, although actual growth so far has been modest at around 200kg/ha.
- The 2021/22 pasture growth was **below average**, hence large areas of **below average** to **extremely low** pasture biomass are still showing across the district.
- Over the next three months the chances of exceeding median growth varies across the district between **average** to **extremely high**.
- 22% of the district burnt since 1 January 2022.  
12% has burnt since 1 July 2022.

### 2022/23 Pasture Growth



As at 1 December 2022				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	100%	<1%	0%	0%
Total Standing Dry Matter	36%	39%	17%	8%

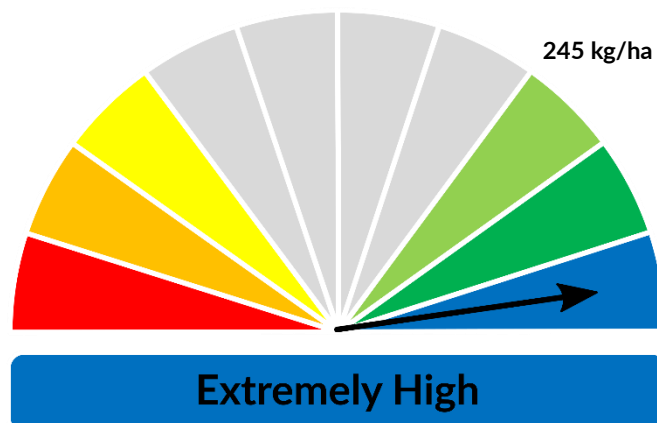




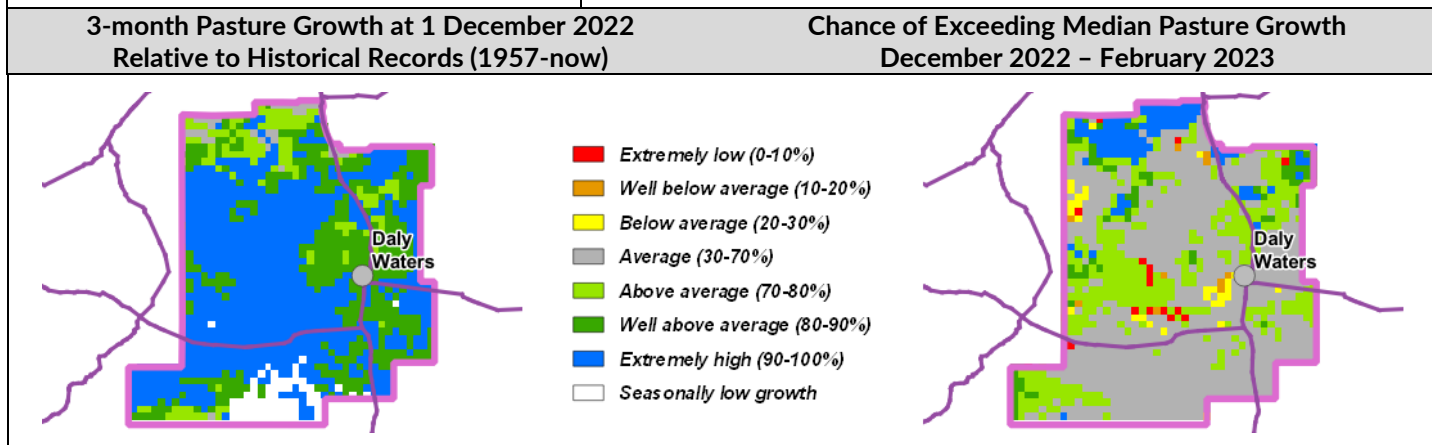
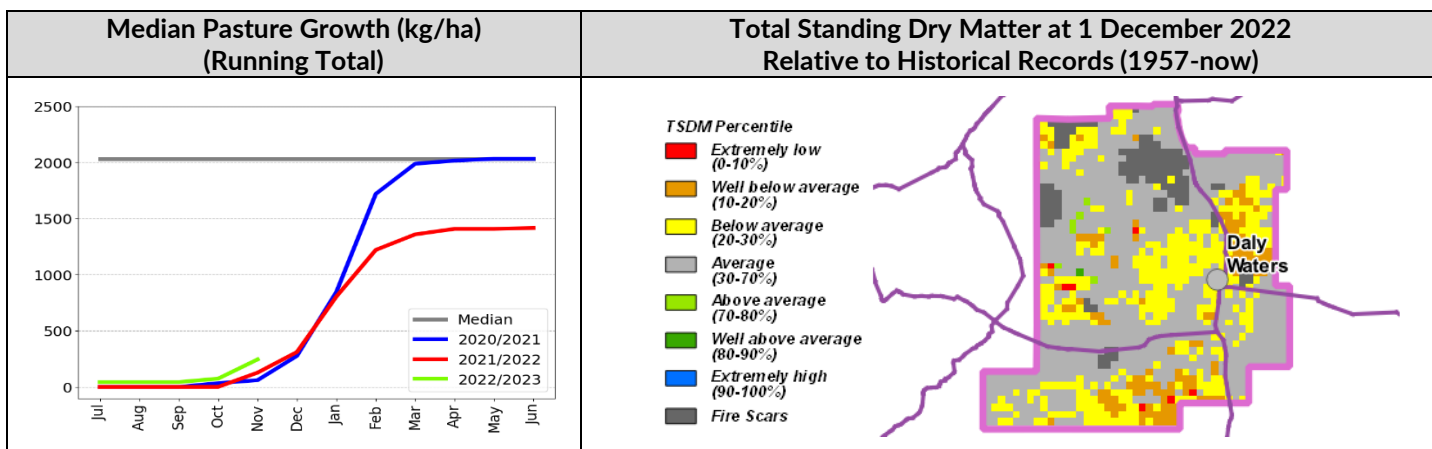
## Sturt Plateau District

- The 2022/23 Sturt Plateau district pasture growth is **extremely high** for this time of the year, reflecting the early start to the wet season, although total growth so far is still low.
- The 2021/22 district pasture growth finished **well below average**, hence large areas of **below average** pasture biomass is still showing across the district.
- Areas with **critically low** biomass (<500kg/ha) still remain across the southern parts of the district.
- Over the next three months the majority of the district has an **average** to **extremely high** chance of exceeding median growth.
- 6% of the district has burnt since 1 January 2022. 4% has burnt since 1 July 2022.

### 2022/23 Pasture Growth



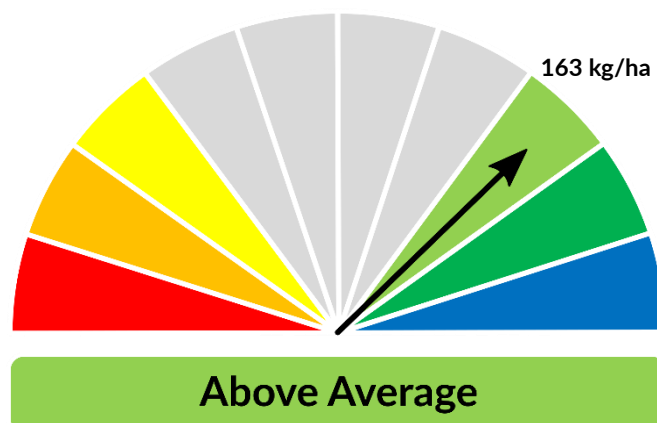
As at 1 December 2022				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	59%	36%	2%	3%



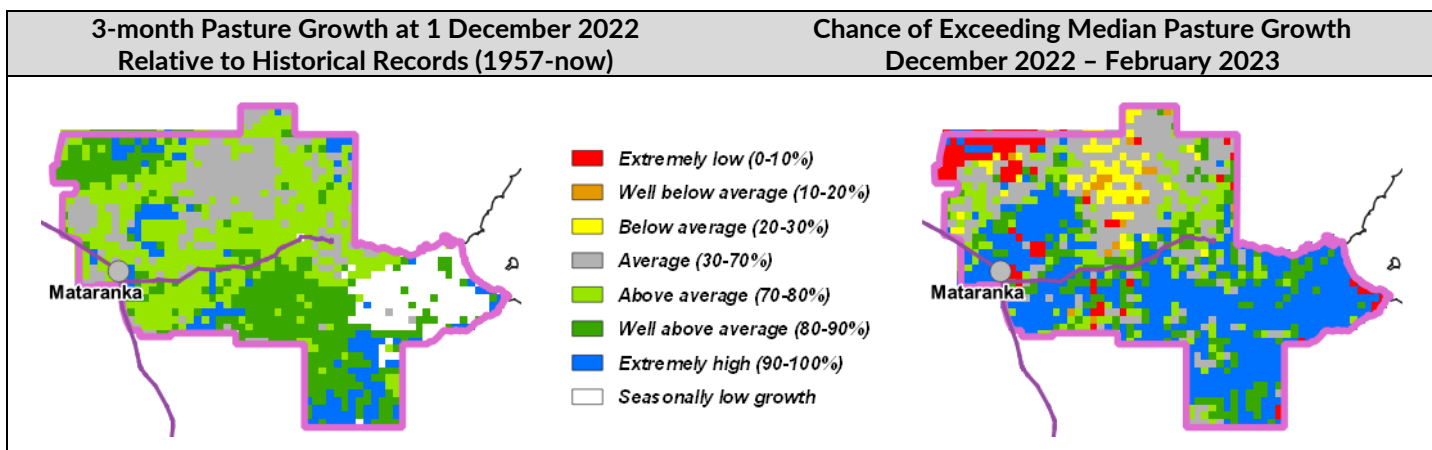
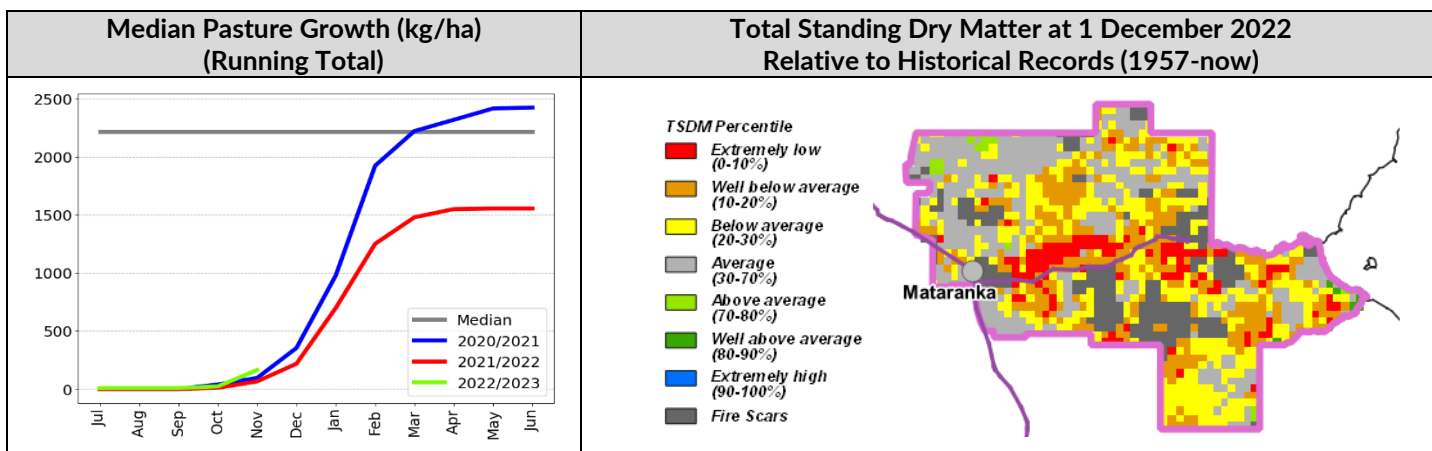
## Roper District

- The 2022/23 Roper district pasture growth is **above average** for this time of the year, reflecting the early start to the wet season across much of the district.
- The 2021/22 district pasture growth was **extremely low**, hence areas of **below average** to **extremely low** pasture biomass are still showing across the district.
- Small scattered patches of **critically low** pasture biomass (<500kg/ha) are showing throughout the district.
- Over the next three months the chances of exceeding median growth varies across the district between **average** to **extremely high**.
- 21% of the district has burnt since 1 January 2022. 8% has burnt since 1 July 2022.

### 2022/23 Pasture Growth



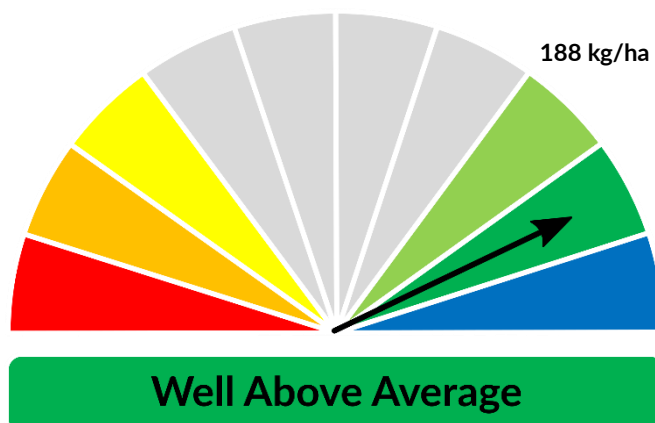
As at 1 December 2022				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	45%	42%	10%	3%



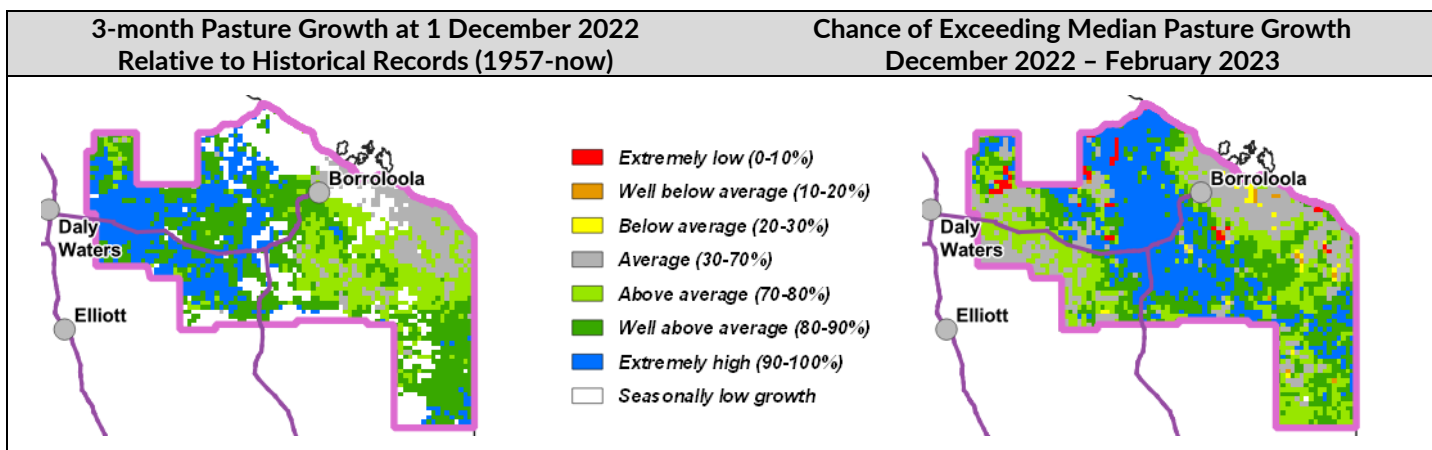
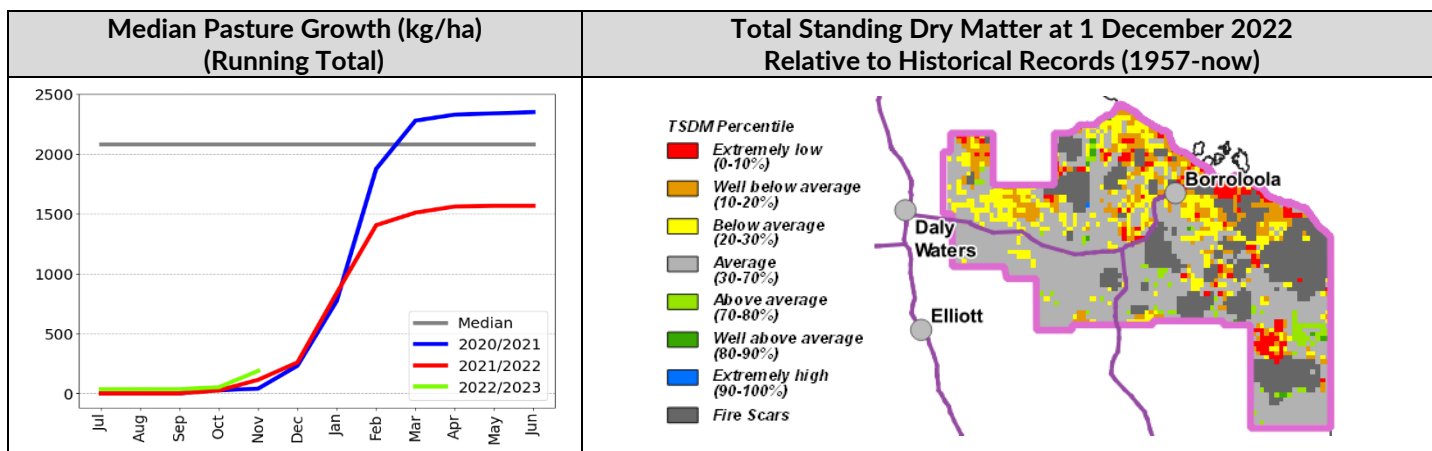
## Gulf District

- The 2022/23 Gulf district pasture growth is **well above average** for this time of the year, reflecting the early start to the wet season with relatively low levels of growth so far.
- The 2021/22 district pasture growth was **below average**, and large areas in the northern half of the district and along the coast still have **extremely low** (<500kg/ha) pasture biomass.
- Over the next three months the chances of exceeding median growth varies across the district between **average** along the coast to **extremely high** in the west.
- 22% of the district has burnt since 1 January 2022. 13% has burnt since 1 July 2022.

### 2022/23 Pasture Growth



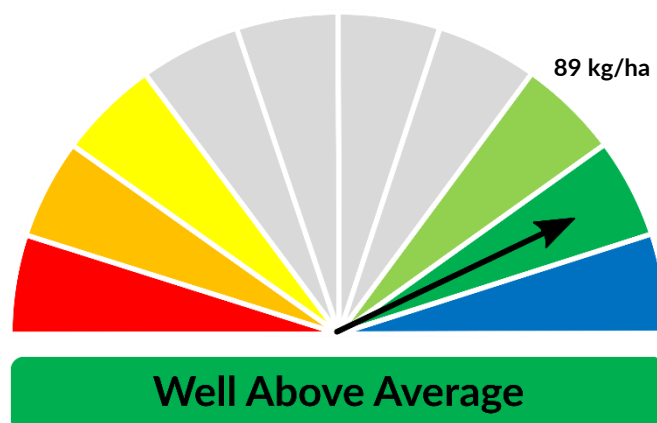
As at 1 December 2022				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2022/23 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	46%	33%	14%	7%



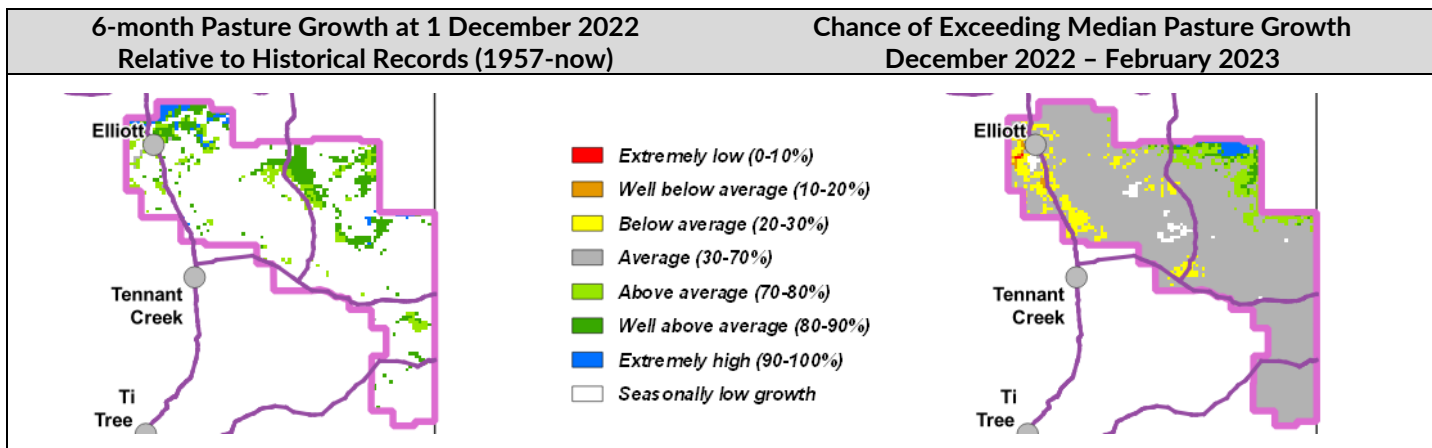
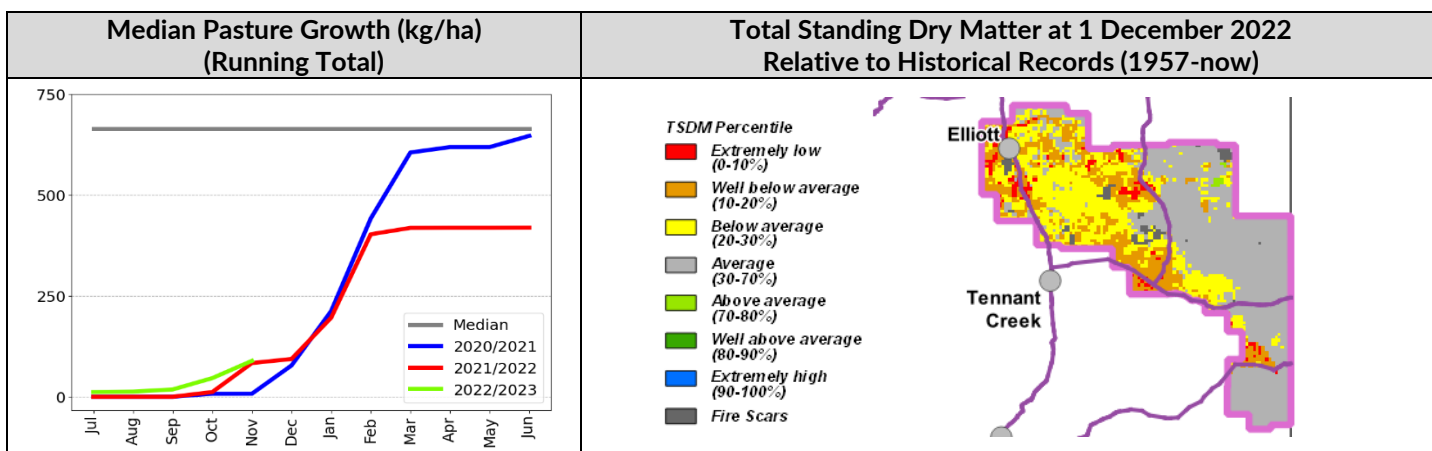
## Barkly District

- The 2022/23 Barkly district pasture growth is **well above average** for this time of the year, reflecting the early start to the wet season, with limited total growth so far.
- As a result of the **low** 2021/22 pasture growth across the district, **below average** and **very-low** pasture biomass (<500kg/ha) is still showing over the western half of the district, with **critically low** levels (<200kg/ha) remaining in the southern and western portions.
- Over the next three months the chances of exceeding the median pasture growth is generally **average**, hence low biomass levels are likely to remain into 2023.
- Less than 1% of the district has burnt since 1 January 2022.

### 2022/23 Pasture Growth



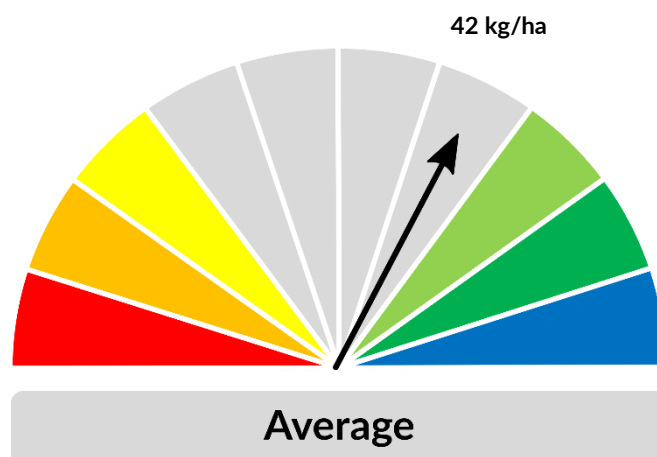
As at 1 December 2022				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	90%	8%	2%	0%
Total Standing Dry Matter	43%	27%	19%	11%



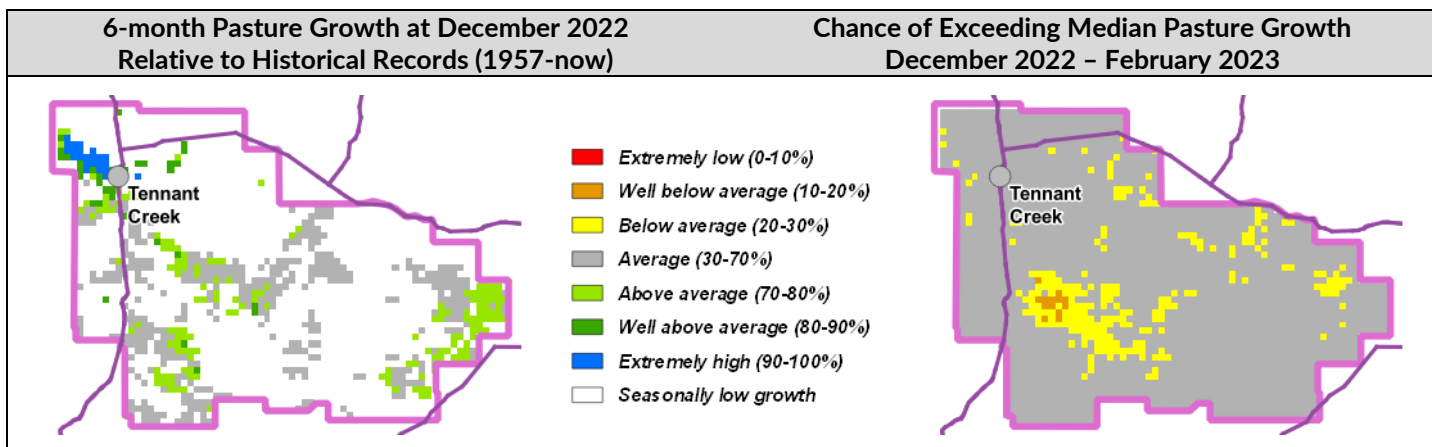
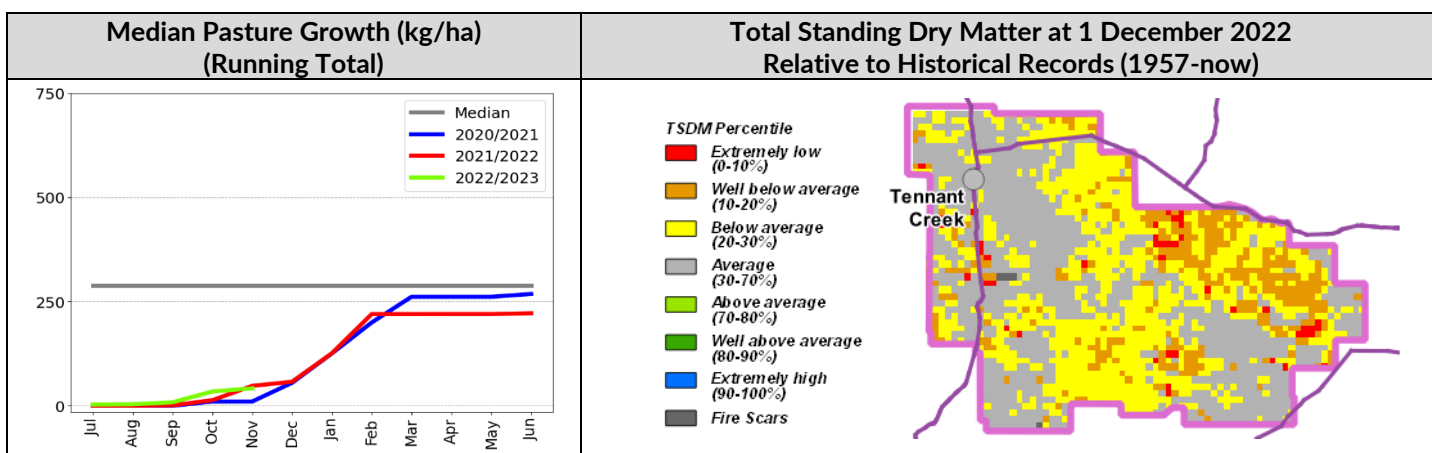
## Tennant Creek District

- The 2022/23 Tennant Creek district pasture growth is **average** for this time of year, with only small patches with **above average** growth across the district over the past 3-months.
- Although the 2021/22 pasture growth for the district was **average**, large areas across the eastern portion experienced **below average** growth. As a result much of the district continues to show **below** to **well below average** pasture biomass.
- Over the next three months the chances of exceeding the median pasture growth is generally **average** to **below average**, which may lead to continued low biomass levels in 2023.
- Less than 1% of the district has burnt since 1 January 2022.

### 2022/23 Pasture Growth



As at 1 December 2022				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	97%	3%	<1%	0%
Total Standing Dry Matter	37%	13%	20%	30%

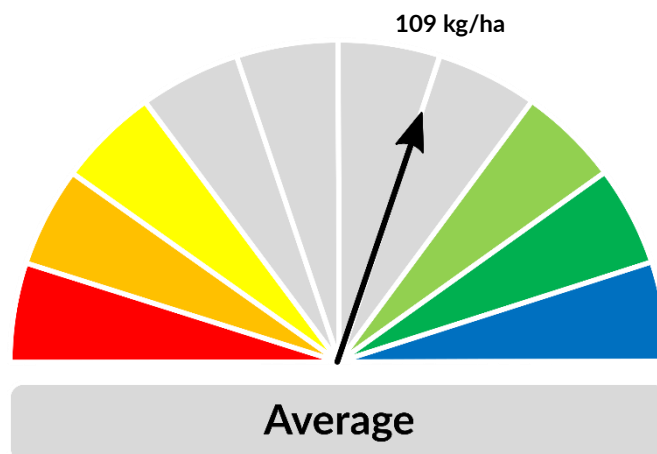




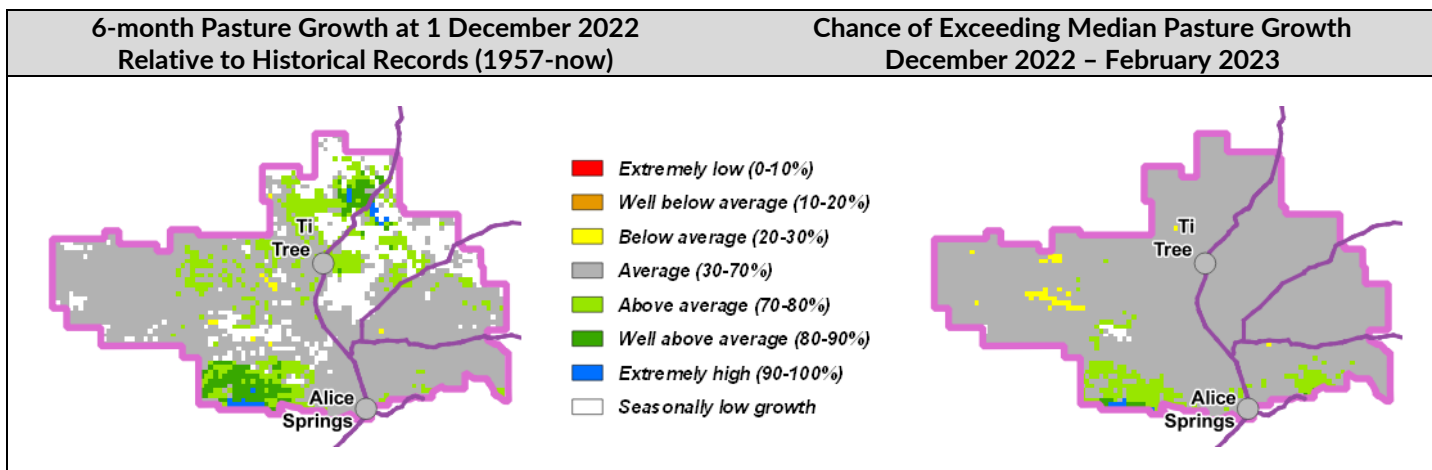
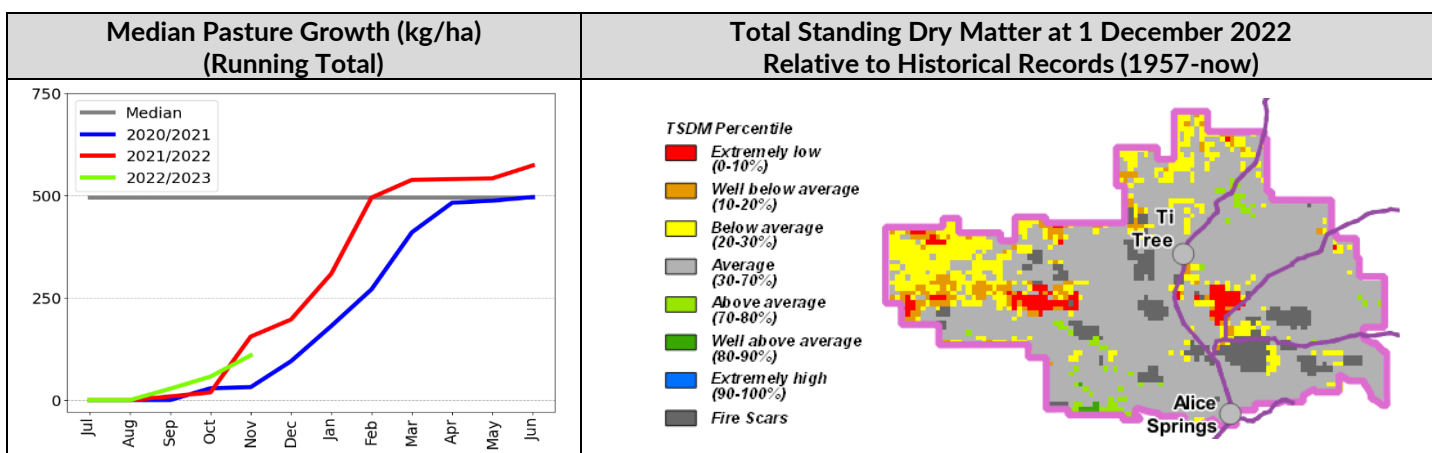
## Northern Alice Springs District

- The 2022/23 pasture growth for the Northern Alice Springs district is **average** for this time of the year. However this varies across the district with some areas experiencing **above average** growth over the past 3-months.
- The 2021/22 pasture growth for the district was **average**. However, growth varied across the district from **above average** through the central portion to patches of **below average** growth in the west. As a result areas of **below average** pasture biomass still exist across the district, especially in the west.
- Over the next three months the chances of exceeding the median pasture growth is generally **average**.
- 7% of the district has burnt since 1 January 2022. 4% has burnt since 1 July 2022.

### 2022/23 Pasture Growth



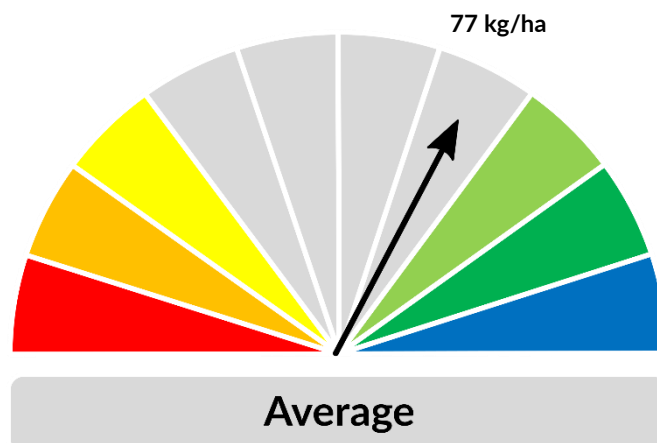
As at 1 December 2022				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	85%	11%	4%	<1%
Total Standing Dry Matter	7%	24%	34%	35%



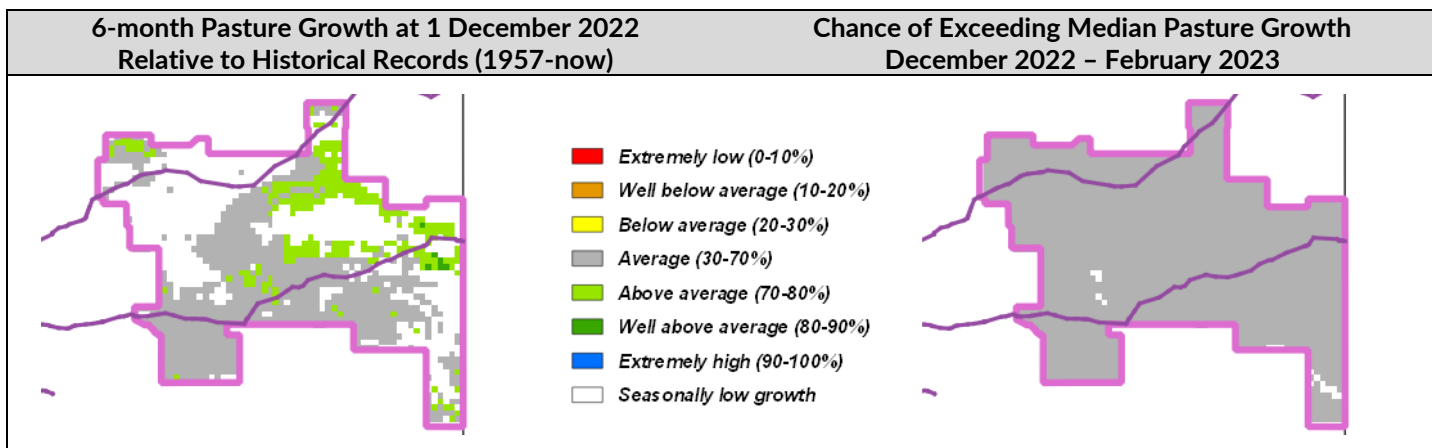
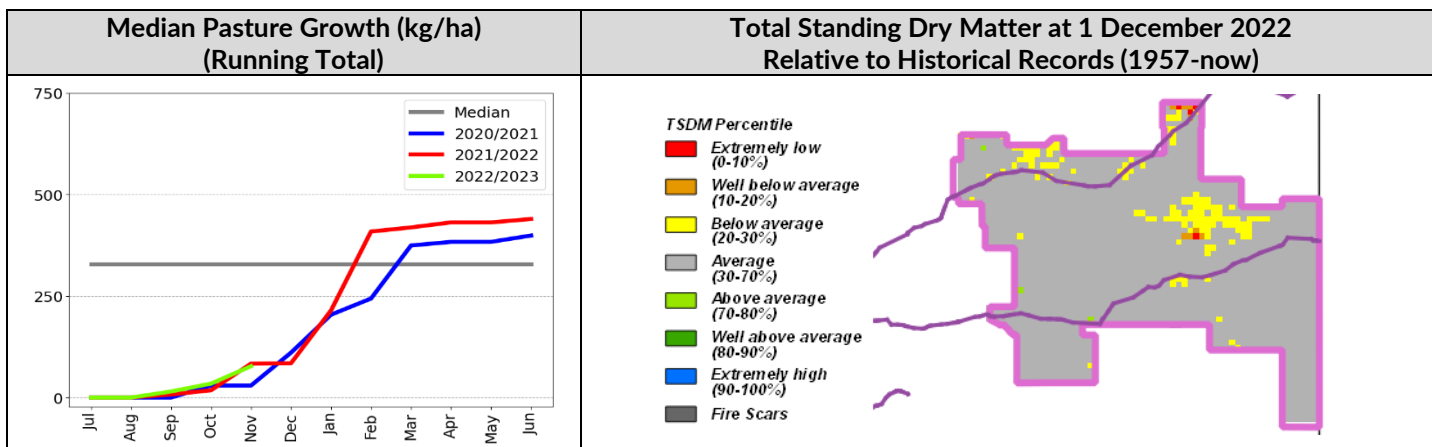
## Plenty District

- The 2022/23 Plenty district pasture growth is **average** for this time of the year. However this varied spatially with small areas experiencing **above average** growth over the past 3-months.
- The 2021/22 pasture growth for the district was **average** and most of the district currently has average levels of pasture biomass.
- Over the next three months there is an **average** chance of exceeding the median pasture growth.
- Less than 1% of the district has burnt since 1 January 2022. None has burnt since 1 July 2022.

### 2022/23 Pasture Growth



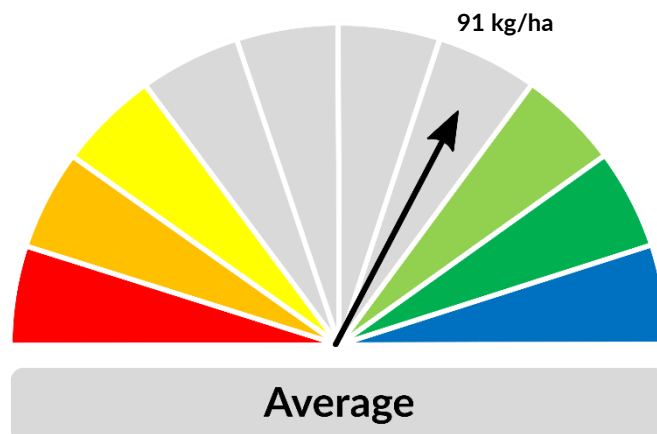
As at 1 December 2022				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	96%	4%	0%	0%
Total Standing Dry Matter	13%	29%	36%	22%



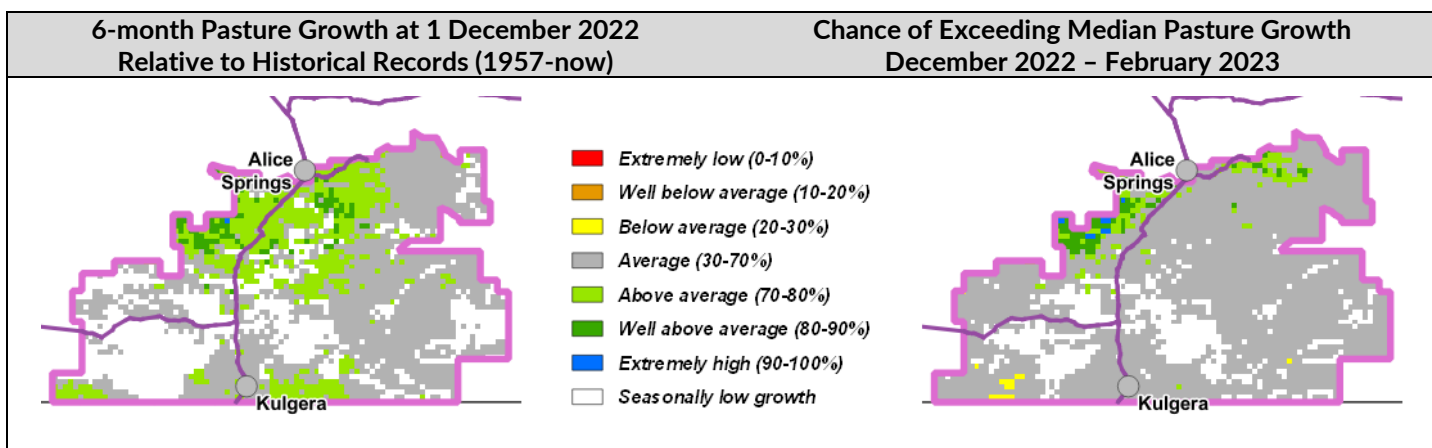
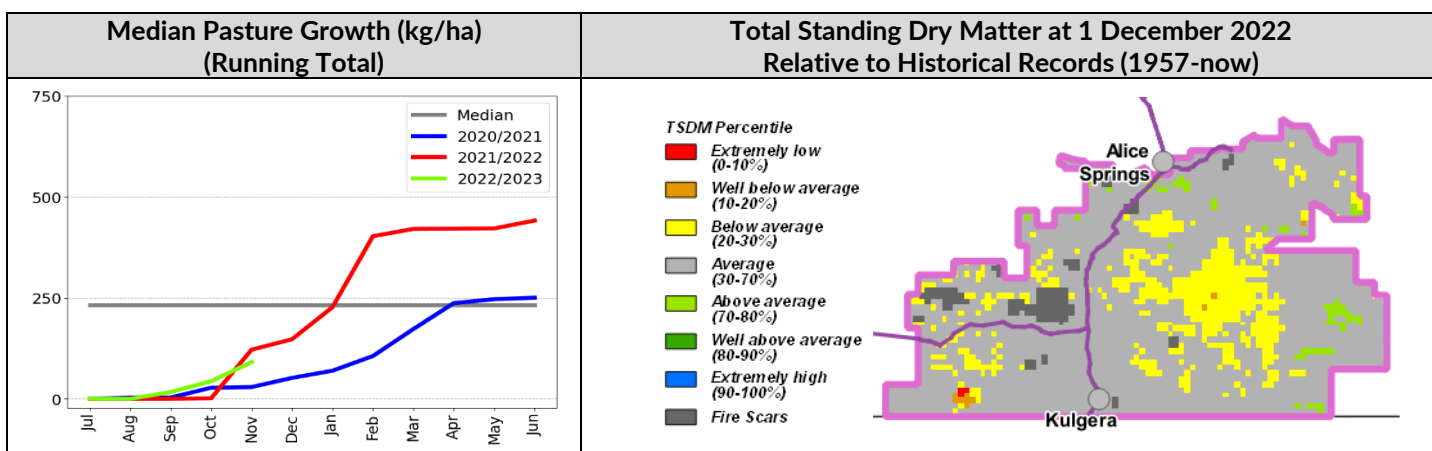
## Southern Alice Springs District

- The 2022/23 growth for the Southern Alice Springs district is **average** for this time of the year. However growth varied across the district with some areas experiencing **above average** to **well above average** growth around Alice Springs over the past 3-months.
- The 2021/22 pasture growth for the district was **average**. However, due to two out of three prior **below average** seasons, areas of **below average** pasture biomass remain throughout the district.
- Over the next three months the majority of the district has an **average** chance of exceeding median pasture growth.
- 1.6% of the district has burnt since 1 January 2022. 1.3% has burnt since 1 July 2022.

### 2022/23 Pasture Growth



As at 1 December 2022				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2022/23 Pasture Growth	90%	9%	1%	0%
Total Standing Dry Matter	4%	30%	39%	27%



## 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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