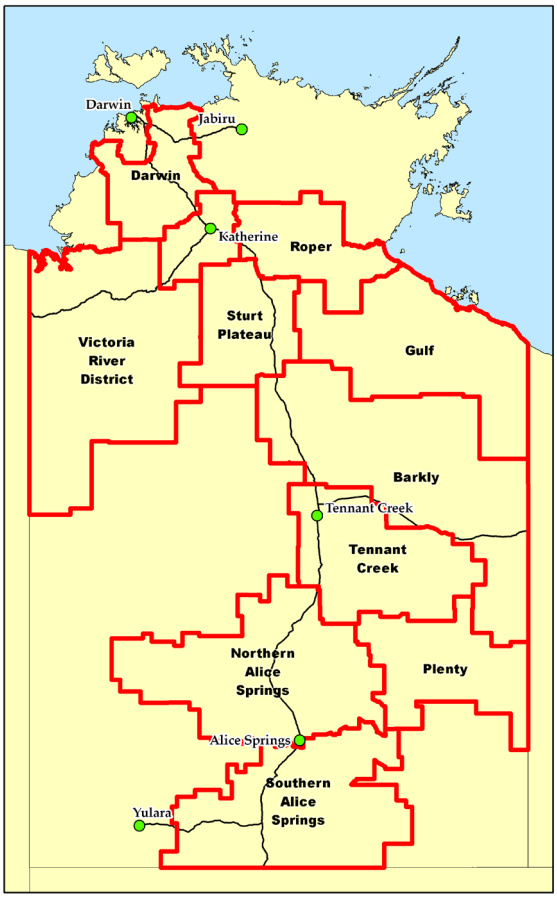
Northern Territory Pastoral Feed Outlook December 2020 to February 2021

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. 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.



For further information about this Outlook,
please contact Chris Materne on 08 8951 8135 or Dionne Walsh on 08 8999 2178

Summary of current situation and trends – all districts – December 2020

With the exception of the Darwin and Katherine districts, the majority of the NT has experienced a second consecutive year of **below-average** rainfall. Consequently, most districts have experienced **below-average** to **extremely low** pasture growth. Of concern is the lack of response from perennial grasses across large areas of the Alice Springs and Barkly regions where early rainfall in 2020 should have stimulated pasture growth. Widespread death of perennial grass tussocks has been observed as a result of the recent prolonged dry period, which will take at least two years of better seasonal conditions to recover. The last time there were consecutive low rainfall years over such a large area of the NT was 30 years ago (in 1989 and 1990). There has been considerable turnover in station ownership and management since then.

The majority of the NT currently has **very low** levels (<500 kg/ha) of pasture biomass. **Critically low** pasture levels (<200 kg/ha) are now widespread in the Victoria River, Sturt Plateau, Barkly, Tennant Creek, Northern Alice Springs, Plenty and Southern Alice Springs districts. Large areas of the Tennant Creek, Northern and Southern Alice Springs districts currently have less than 100 kg/ha of pasture biomass.

Useful December 2020 rain has been recorded across the Northern Alice Springs, Plenty and Southern Alice Springs districts and north of Katherine. Although totals vary widely, pasture growth is likely to occur, but follow-up rainfall is needed to sustain the response.

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**
2020/21 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

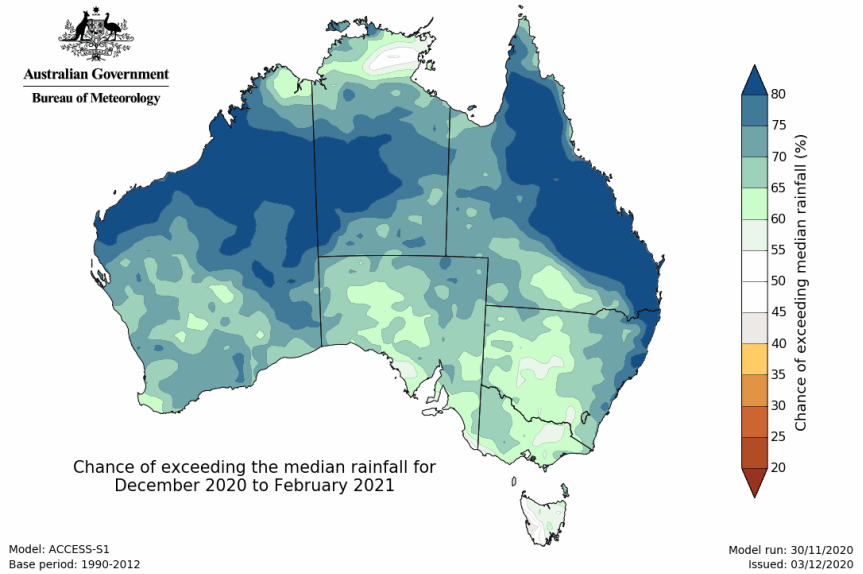
Northern Territory Seasonal Outlook as at December 2020*

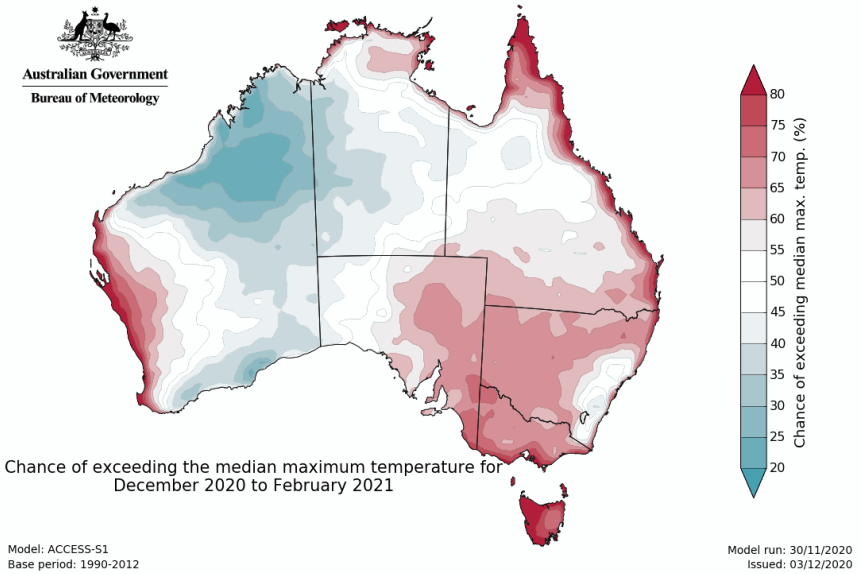
Sourced from the Australian Bureau of Meteorology (BoM)

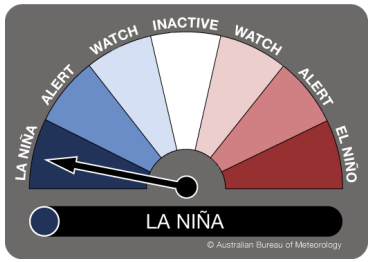
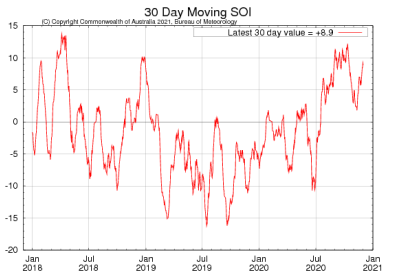
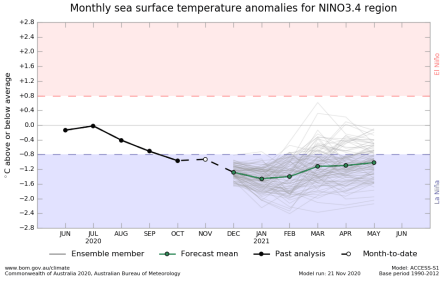
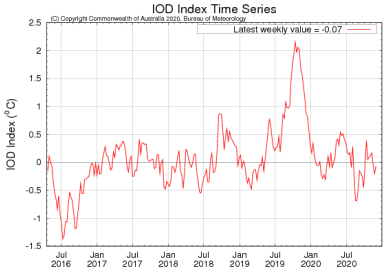
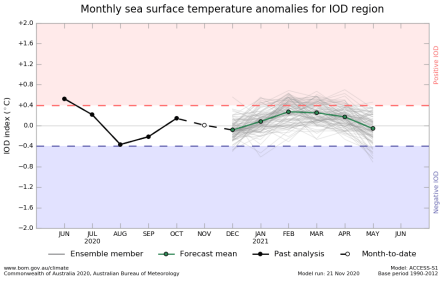
*This seasonal outlook was correct at the time of publication. For the most up-to-date seasonal outlook, please go to the "climate outlook" section of the BoM website.

The BoM outlook for December 2020 to February 2021 indicates that:

- **Wetter** than average conditions are predicted across the majority of the NT, however past accuracy is generally less than 50% for this time of year
- **Cooler** than average days are likely across the western NT
- **Warmer** than average days are likely for coastal areas and Arnhem Land
- **Warmer** than average nights are very likely over the entire NT





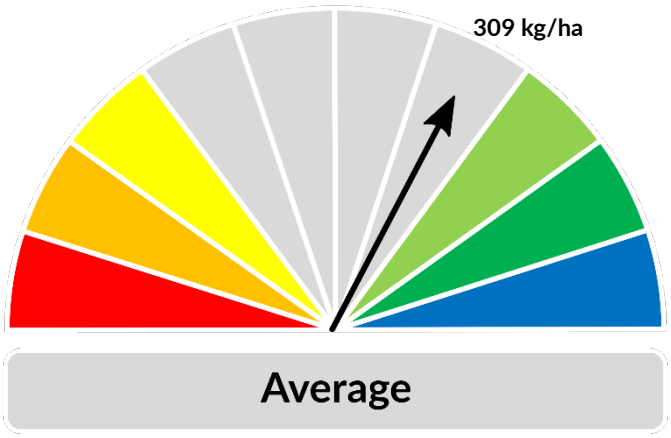
Seasonal Indicator	**Comments** (sourced from the Australian Bureau of Meteorology)
El Niño Southern Oscillation (ENSO) ENSO status: **La Niña**  Pacific Ocean Update	**La Niña continues in the tropical Pacific.** All international climate models suggest La Niña is likely to continue to at least February 2021. While some models indicate that the current La Niña could possibly reach similar strength to the La Niña of 2010–12, La Niña conditions are currently weaker than at the same point in 2010. La Niña increases the likelihood of above-average rainfall across much of Australia during spring, and across much of eastern Australia during summer. La Niña increases the chance of cooler than average daytime temperatures for large areas. It also increases the chance of tropical cyclones, and earlier first rains of the northern wet season.   To see larger versions of these images, go to the Outlook and SOI tabs at Pacific Ocean Update
Indian Ocean Dipole (IOD) Current outlook: **Neutral** Indian Ocean Update	**Large parts of the Indian Ocean are warmer than average, but the Indian Ocean Dipole (IOD) is neutral.** All but one of the six surveyed climate models expect the IOD to remain **neutral** through summer. To see larger versions of these images, go to the Outlook tab and IOD Time Series  
Southern Annular Mode (SAM) Current outlook: **Neutral** Southern Ocean Update	**The Southern Annual Mode (SAM) is currently neutral,** but is expected to be generally positive into at least early 2021. La Niña tends to favour positive SAM during the spring to summer months, which typically enhances the La Niña wet signal in eastern Australia.

Seasonal Indicator	Comments (sourced from the Australian Bureau of Meteorology)
Wet Season Onset Outlook: **Early** Northern Rainfall Onset Forecast	**Early rainfall onset likely for most of northern Australia.** The chance of the first rains arriving early in 2020-21 is higher than average over most of northern Australia. The highest likelihood is across the southern Northern Territory and Barkly regions. **La Niña** usually results in an earlier-than-normal monsoon onset date. This forecast is updated regularly until the end of August and can be sourced from Northern Rainfall Onset Forecast. The northern rainfall onset date occurs when the rainfall total reaches 50 mm since the 1st of September. This is considered to be approximately the amount of rainfall required to stimulate plant growth. These thresholds have been met in some districts. The latest onset observations can be found here.
Madden–Julian Oscillation (MJO) Tropics Update	The MJO moved into the Australian region during early December, which led to an increase in moisture over northern Australia and favourable conditions for monsoon onset at Darwin. Historically, even weak pulses of the MJO, in a favourable location, are associated with monsoon onset at Darwin. The average date of monsoon onset during La Niña years is mid-December. Recent tropical pressure and wind patterns are also indicative of broadscale changes conducive to the development of monsoonal conditions across the Australian region in the coming weeks. Apart from the impact a monsoon would have on northern Australia, it could potentially transport significant amounts of moisture to parts of Australia further south, and contribute to the forecast wetter conditions expected across much of the continent during December.

Darwin District

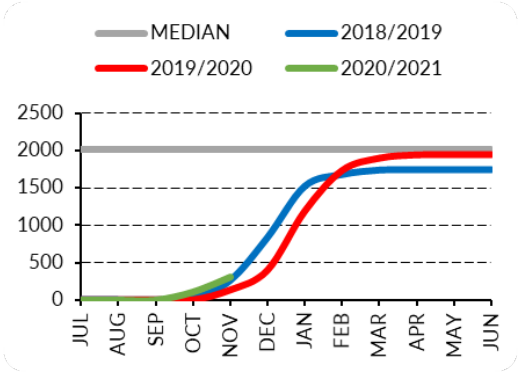
- The 2020/21 district pasture growth is considered **average** thus far, however this growth varies considerably from **extremely high** in the south-west to **below-average** in eastern parts of the district.
- Although the 2019/20 pasture growth for the district was **below-average**, this growth was only 3% lower than the long-term median and highlights that pasture growth tends to be limited by available soil nitrogen rather than soil moisture in this region.
- 21% of the district has burnt since 1 July 2020.
- Over the next three months pasture growth is likely to be patchy across the district, varying from **extremely low** in the west to **above-average** in some southern and eastern parts.

2020/21 Pasture Growth

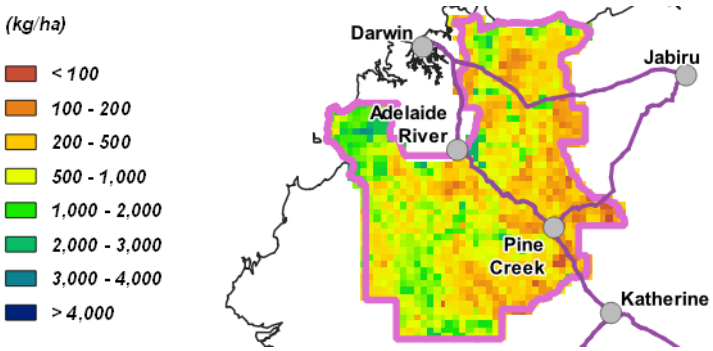


As at 1 December 2020				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	66%	27%	6%	1%

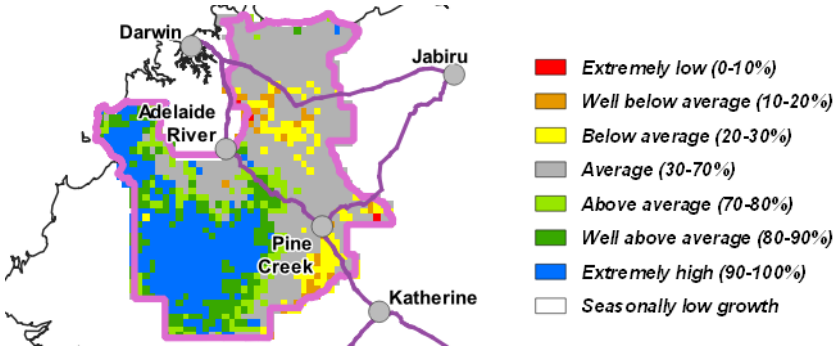
Median Pasture Growth (kg/ha) (Running Total)



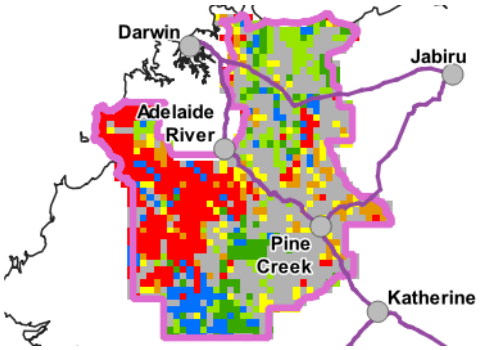
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



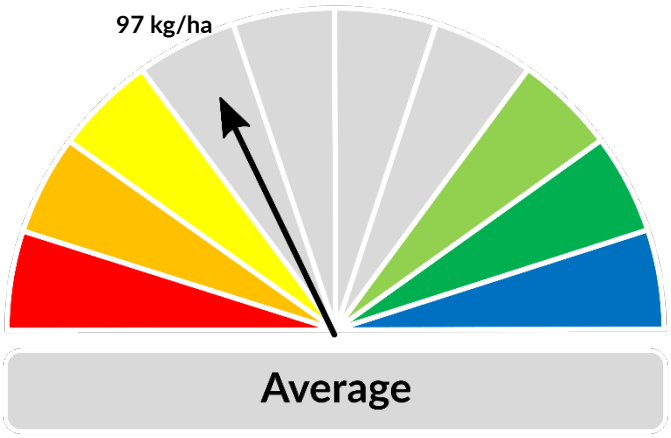
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Katherine District

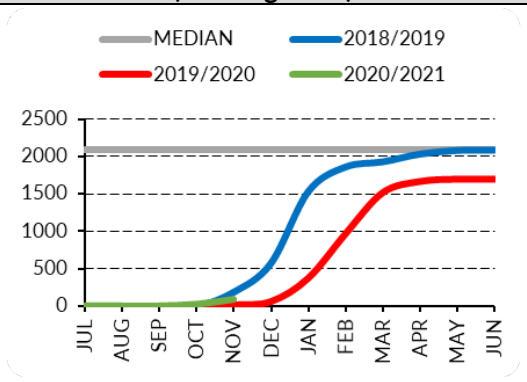
- The 2020/21 pasture growth across the district is considered **average** thus far, however it varies considerably from **well below-average** to **average** depending on location.
- The 2019/20 pasture growth for the district was patchy and **extremely low**. That said, the district's pasture growth was only 20% lower than the long-term median which highlights that pasture growth tends to be limited by available soil nitrogen rather than soil moisture in this region.
- 9% of the district has burnt since 1 July 2020.
- Over the next three months pasture growth is likely to remain patchy and range from **average** to **below-average**.

2020/21 Pasture Growth

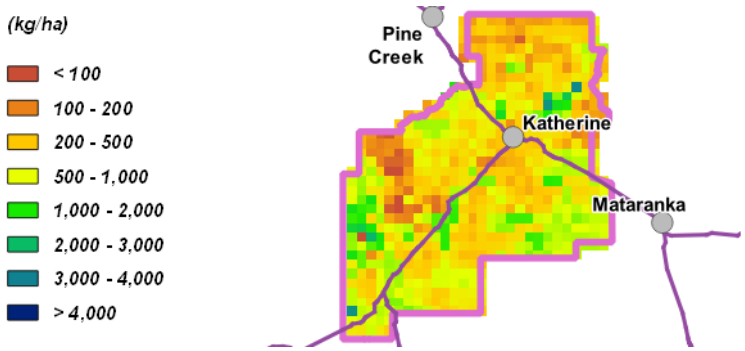


As at 1 December 2020				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	67%	30%	2%	1%

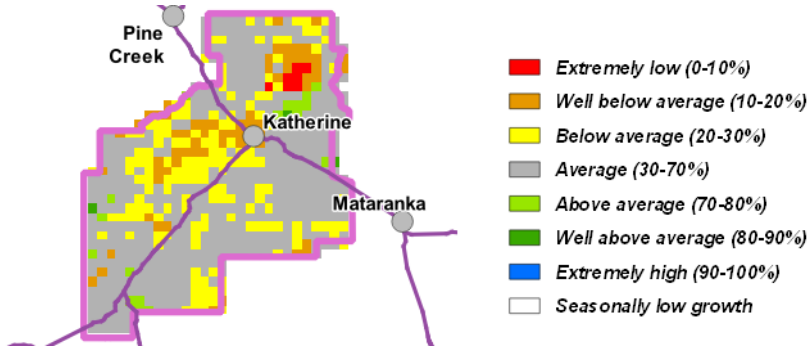
Median Pasture Growth (kg/ha) (Running Total)



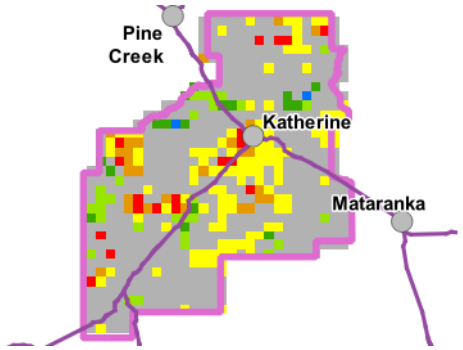
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



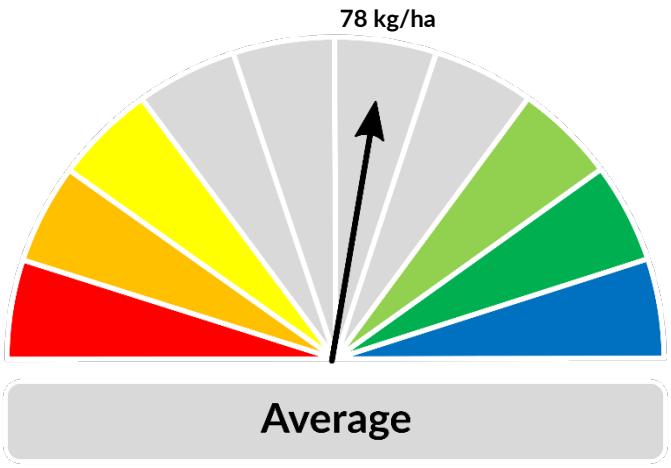
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Victoria River District

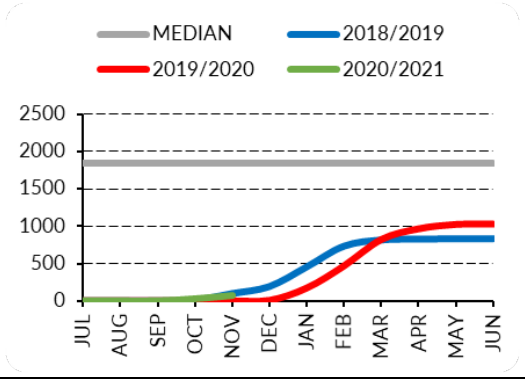
- The 2020/21 district pasture growth is considered **average** thus far. However, this growth varies considerably across the district from **below-average** in the south to **well above-average** in parts to the north.
- Two consecutive poor wet seasons have resulted in areas of the district having **very low** levels of pasture biomass (<500 kg/ha), with some now at **critically low** levels (<200 kg/ha).
- 4% of the district has burnt since 1 July 2020.
- Over the next three months the northern half of the district is expected to experience **average** to **above-average** pasture growth, and the southern half is likely to experience **average** to **extremely low** growth.

2020/21 Pasture Growth

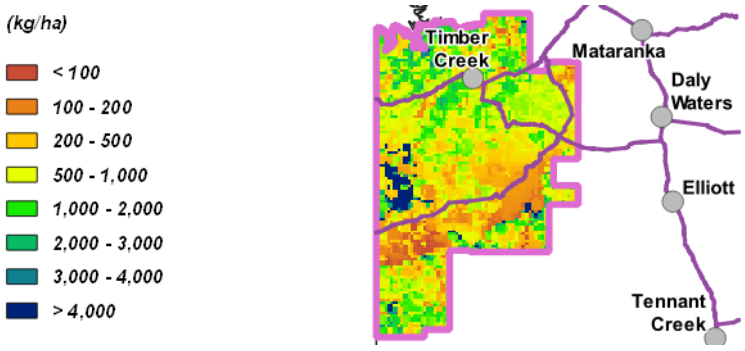


As at 1 December 2020				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	52%	34%	9%	5%

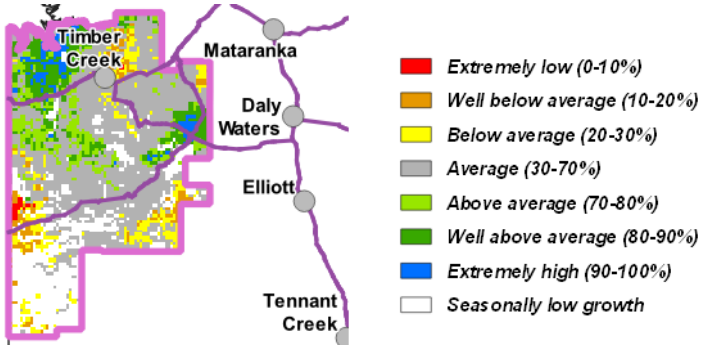
Median Pasture Growth (kg/ha) (Running Total)



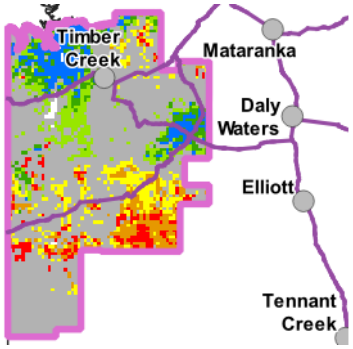
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



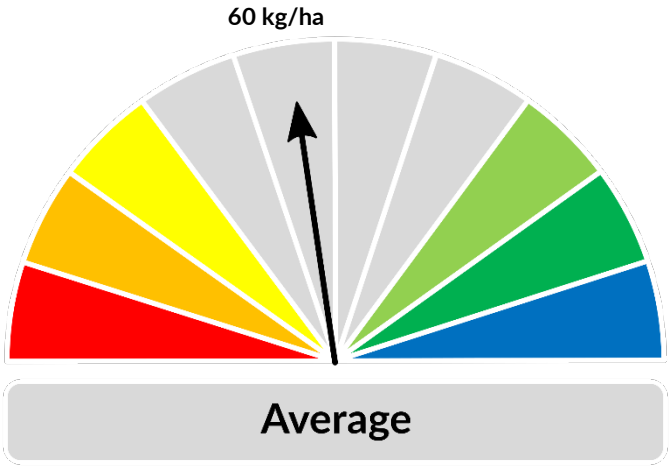
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Sturt Plateau District

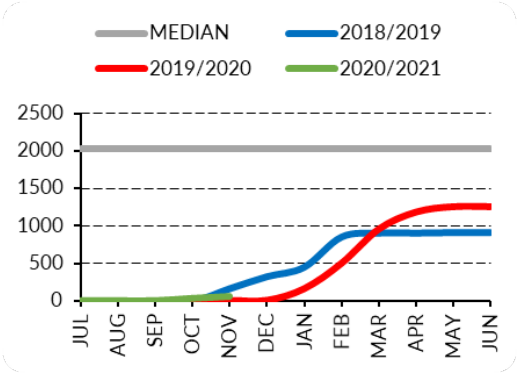
- The 2020/21 district pasture growth is considered **average** thus far, although this growth is patchy and varies from **well below-average** near Daly Waters to **above-average** in small parts of the south.
- The previous two wet seasons had **extremely low** pasture growth. Large areas across the district now have **very low** levels of pasture biomass (<500 kg/ha), with some areas in the south now experiencing **critically low** levels (<200 kg/ha).
- Over the next three months pasture growth is likely to be patchy but most of the district is expected to experience **average** to **above-average** pasture growth.

2020/21 Pasture Growth

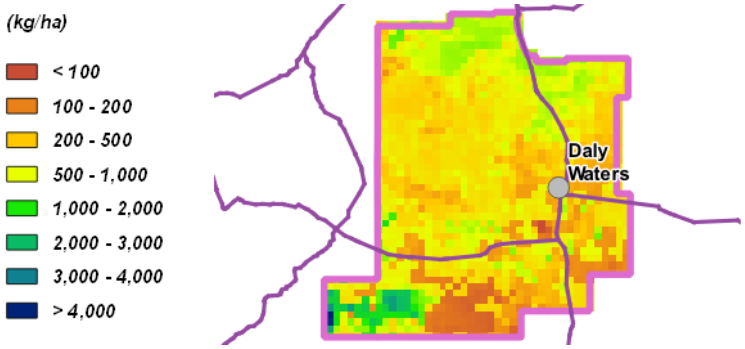


As at 1 December 2020				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	77%	19%	3%	1%

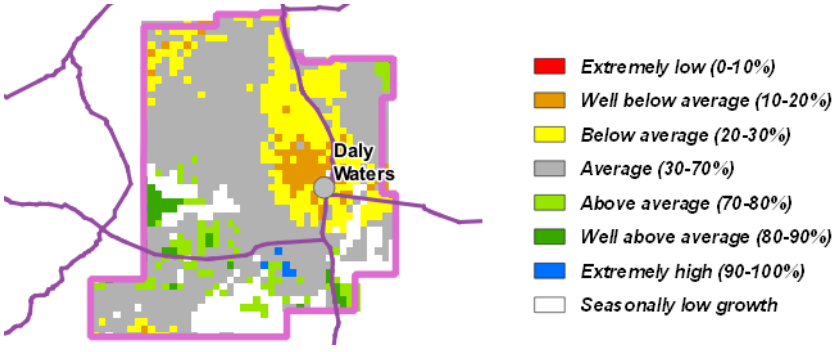
Median Pasture Growth (kg/ha) (Running Total)



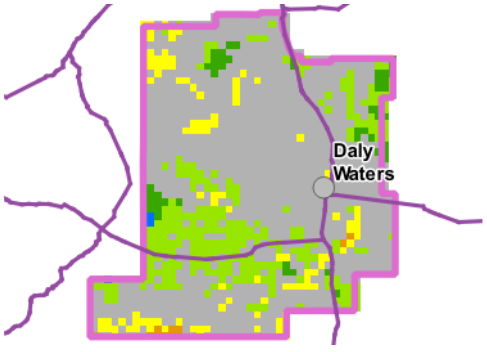
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



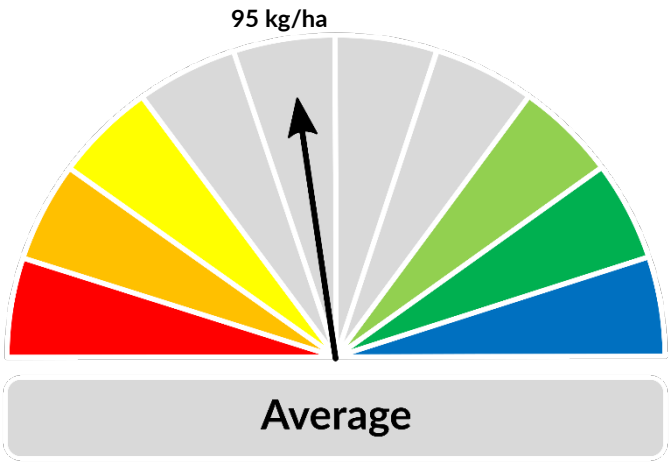
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Roper District

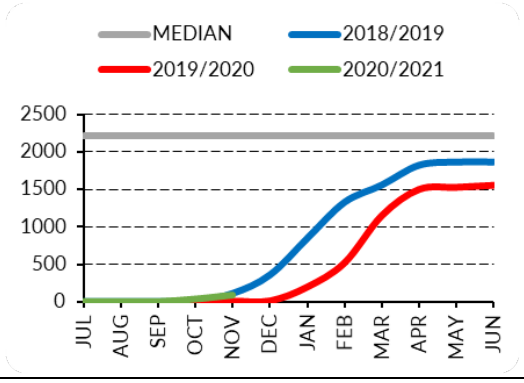
- The 2020/21 pasture growth for the district is **average** thus far, however growth is patchy and varies from **well below-average** in the west to **extremely high** in some areas of the east.
- Pasture growth last wet season was **extremely low** and followed a **below-average** year in 2018/19. As a result, areas of **very low** pasture biomass (<500 kg/ha) are present throughout the district.
- 8% of the district has burnt since 1 July 2020.
- Over the next three months the western half of the district is expected to experience **average** pasture growth, while the eastern half is likely to experience **above-average** to **extremely high** pasture growth.

2020/21 Pasture Growth

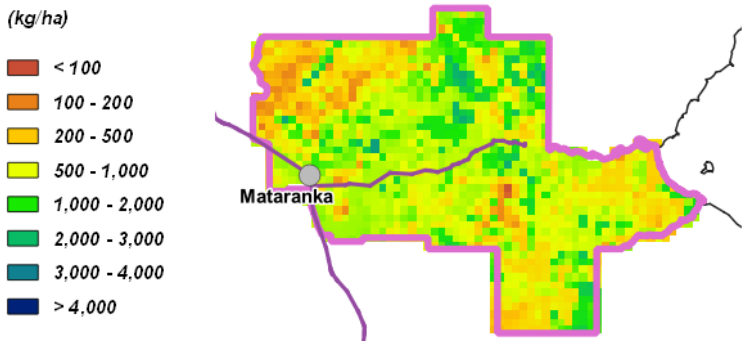


As at 1 December 2020				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	41%	48%	10%	1%

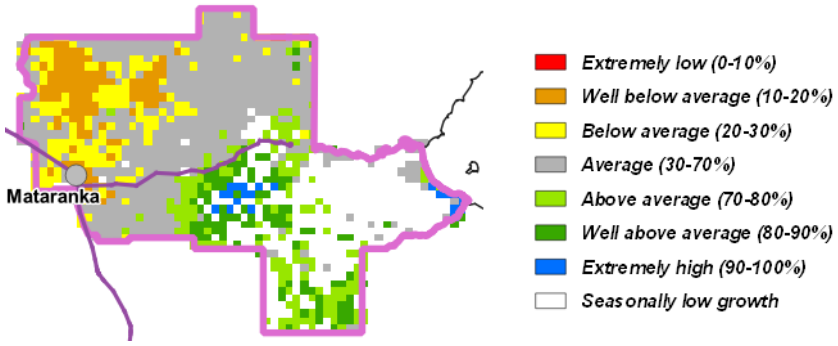
Median Pasture Growth (kg/ha) (Running Total)



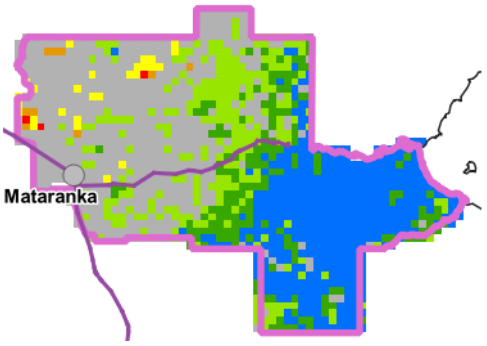
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



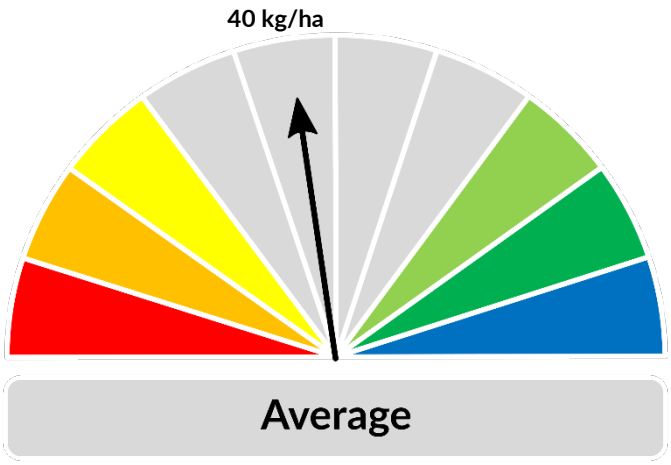
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Gulf District

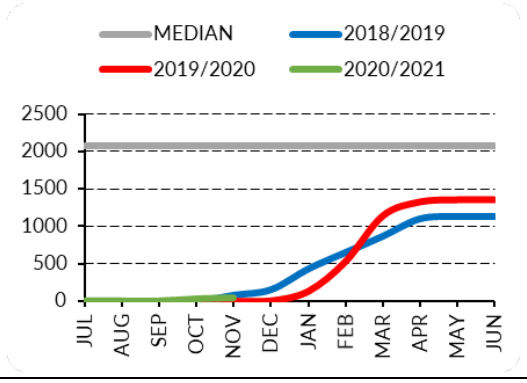
- The 2020/21 district pasture growth is considered to be **average** thus far. However, growth varies considerably from **well above-average** in the north to **well below-average** in the centre of the district.
- **Well below-average** pasture growth in 2019/20 and **extremely low** growth in 2018/19 has resulted in large areas of the district showing **very low** levels of pasture biomass (<500 kg/ha).
- 2% of the district has burnt since 1 July 2020.
- Over the next three months much of the district is expected to experience **average** to **above-average** pasture growth.

2020/21 Pasture Growth

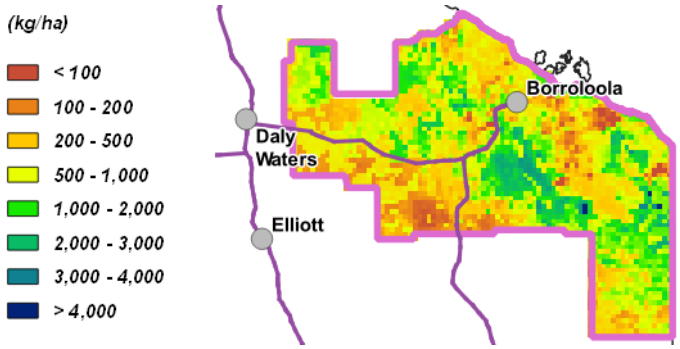


As at 1 December 2020				
(% of district)	<1,000kg/ha	1,000 - 2,000kg/ha	2,000 - 3,000kg/ha	>3,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	56%	30%	11%	3%

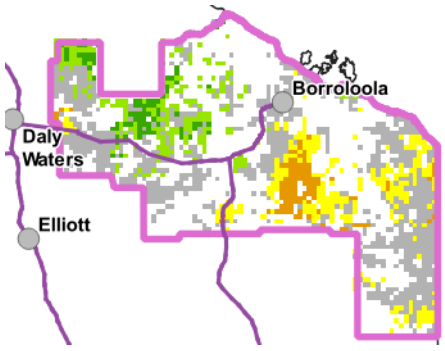
Median Pasture Growth (kg/ha) (Running Total)

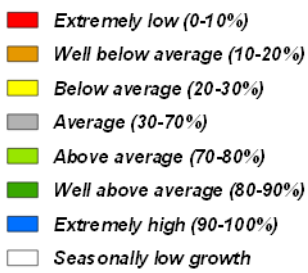


Current Estimated Total Standing Dry Matter

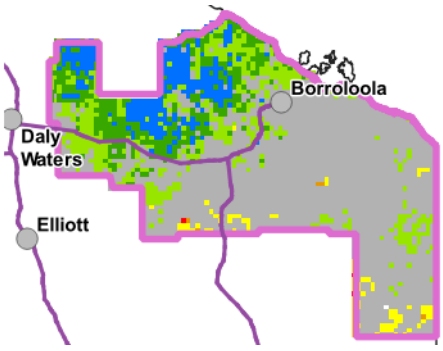


Pasture Growth Relative to Long Term (September - December 2020)





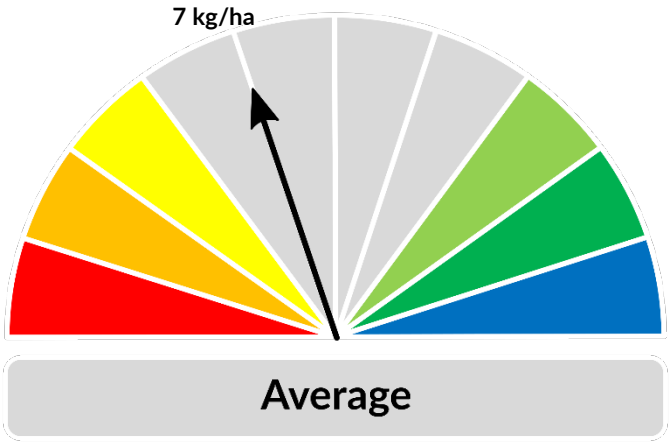
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Barkly District

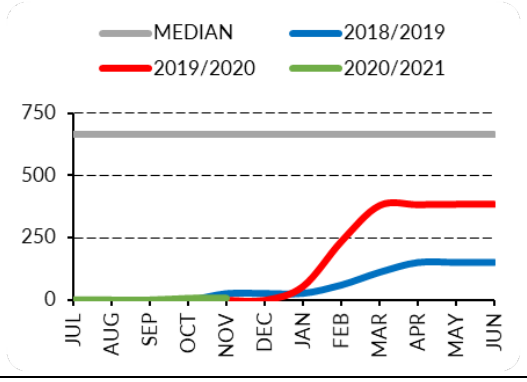
- The 2020/21 pasture growth is considered **average** for this time of year. However, in reality, minimal growth has been experienced to date. **The forecast of an early start to the wet has not eventuated.**
- The 2019/20 pasture growth for the district as a whole was **below-average**, and the 2018/19 growth was **extremely low** (lowest 3% of years on record).
- The majority of the district is experiencing **critically low** levels of pasture biomass (<200 kg/ha).
- Over the next three months the majority of the district is expected to experience **average** to **below-average** pasture growth.

2020/21 Pasture Growth

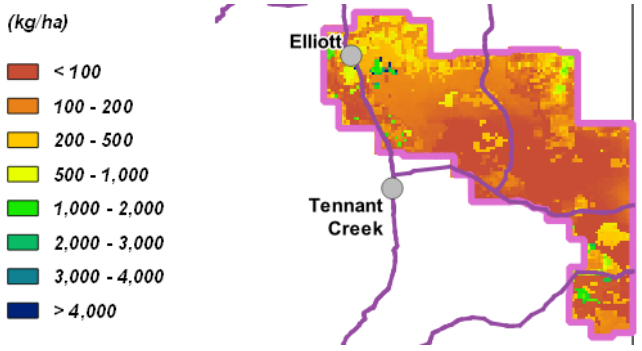


As at 1 December 2020				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	69%	17%	10%	4%

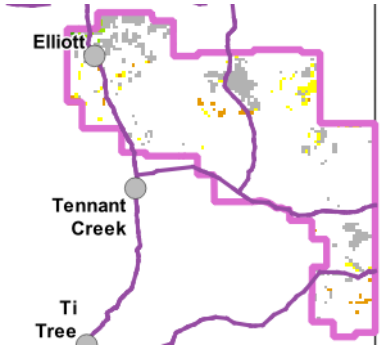
Median Pasture Growth (kg/ha) (Running Total)

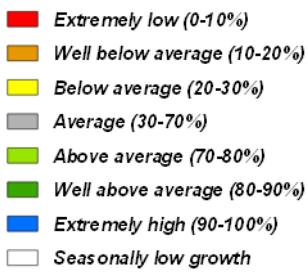


Current Estimated Total Standing Dry Matter

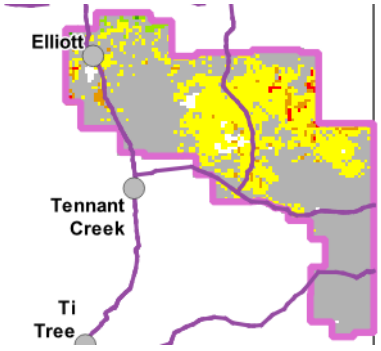


Pasture Growth Relative to Long Term (September - December 2020)





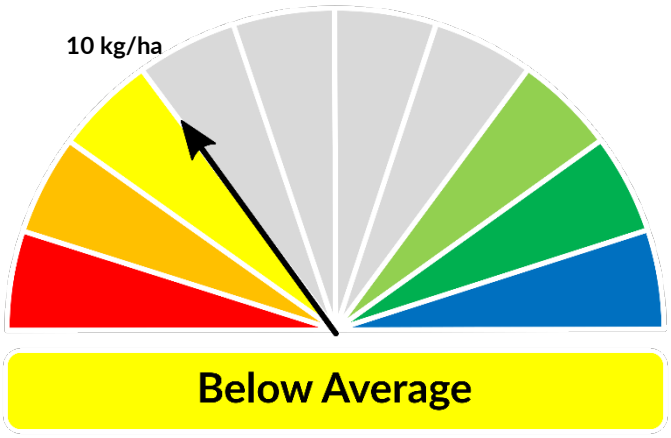
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Tennant Creek District

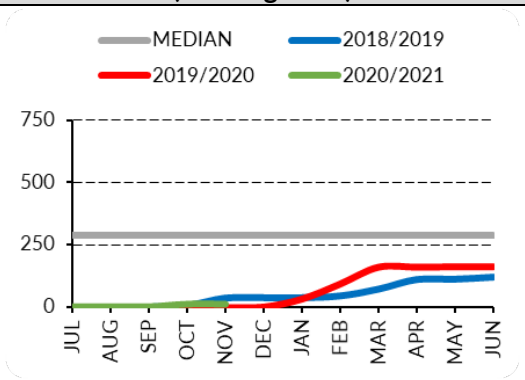
- The 2020/21 pasture growth for the district is **below-average** thus far, with minimal growth from patchy storms.
- Pasture growth in 2019/20 and 2018/19 was **below-average**, and has resulted in **very low** levels of pasture biomass (<200 kg/ha) across large areas. Significant areas are now showing **critically low** levels of pasture biomass (<100 kg/ha).
- Over the next three months the majority of the district is expected to experience **average** to **below-average** pasture growth.

2020/21 Pasture Growth

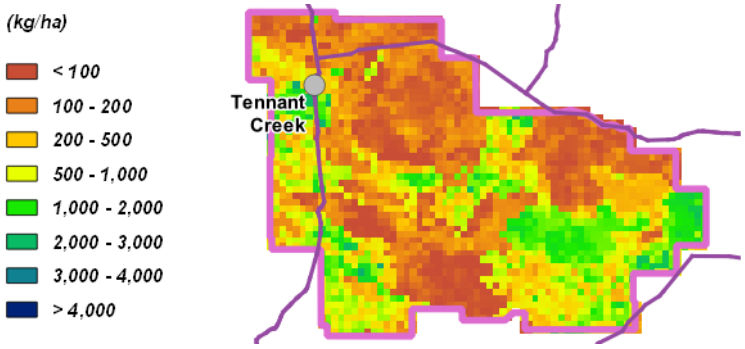


As at 1 December 2020				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	38%	18%	17%	27%

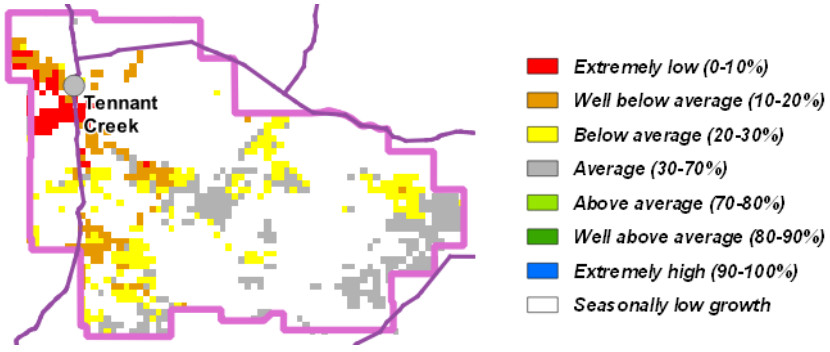
Median Pasture Growth (kg/ha) (Running Total)



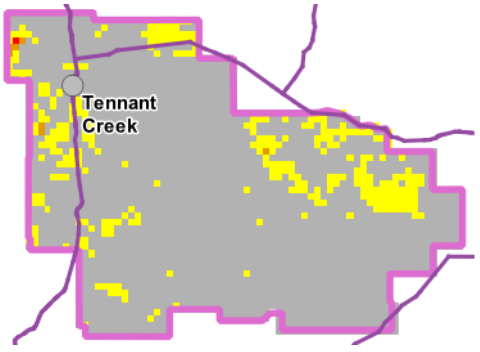
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



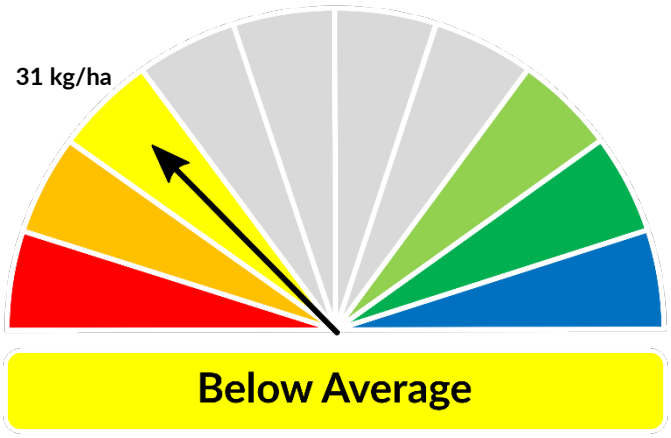
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Northern Alice Springs District

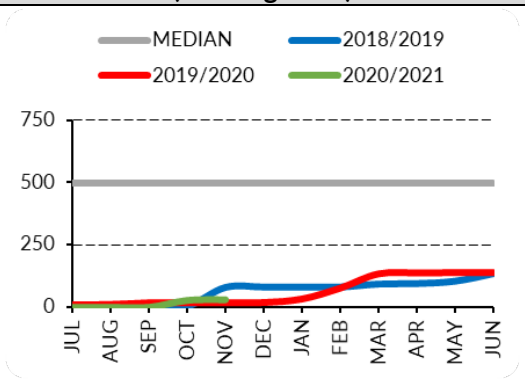
- The 2020/21 pasture growth for the district as a whole is considered **below-average** thus far. Whilst some growth has occurred from patchy storms in the eastern part of the district, the majority of the western half is experiencing **well below-average** pasture growth.
- The 2019/20 district pasture growth was **well below-average** and followed **extremely low** growth in 2018/19.
- Most of the district now has **very low** levels of pasture biomass (<200 kg/ha), with large areas experiencing **critically low** levels (<100 kg/ha).
- Over the next three months the entire district is expected to experience **average** to **well below-average** pasture growth.

2020/21 Pasture Growth

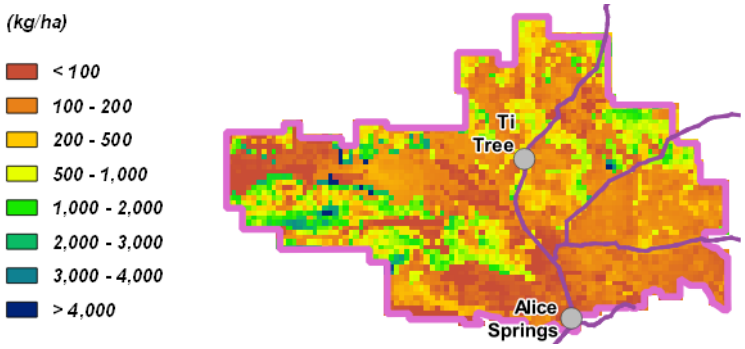


As at 1 December 2020				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	50%	19%	13%	18%

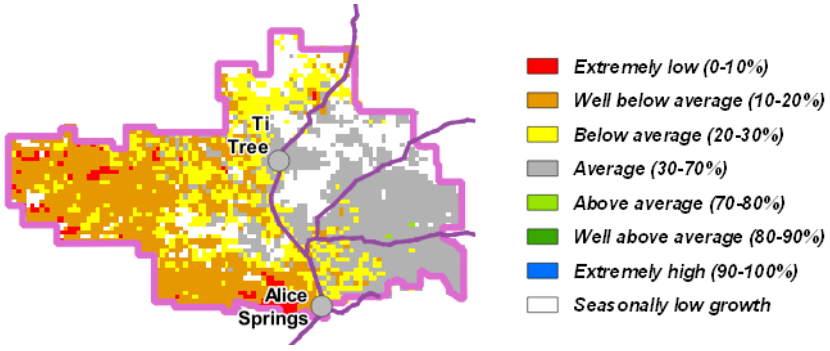
Median Pasture Growth (kg/ha) (Running Total)



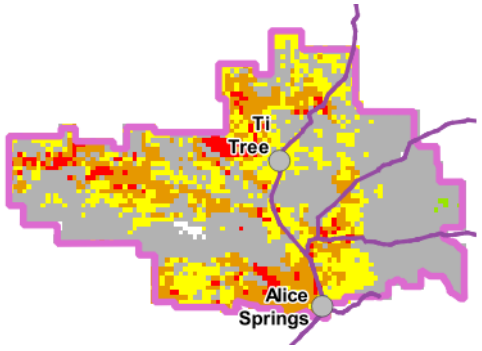
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



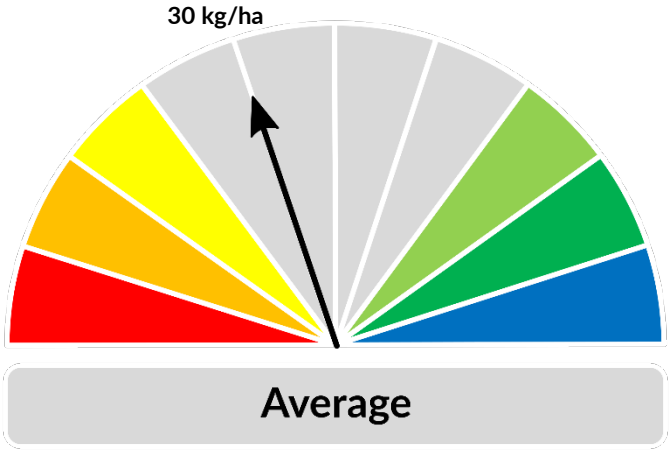
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Plenty District

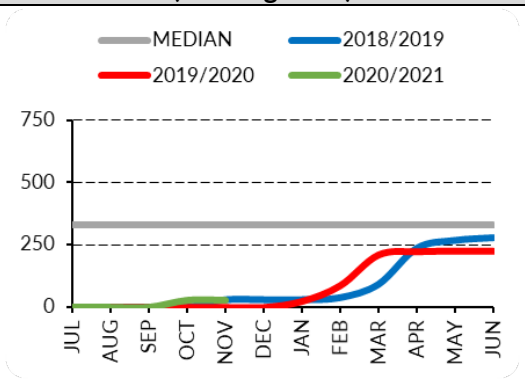
- The 2020/21 pasture growth for the district is **average** for this time of the year, however growth has been patchy. Areas in the south-eastern corner of the district are experiencing **below-average** growth.
- Although the district as a whole received **average** growth in 2019/20 and 2018/19, areas in the far western and eastern parts of the district now have **very low** levels of pasture biomass (<200 kg/ha).
- Over the next three months pasture growth is expected to be **average** across the majority of the district.

2020/21 Pasture Growth

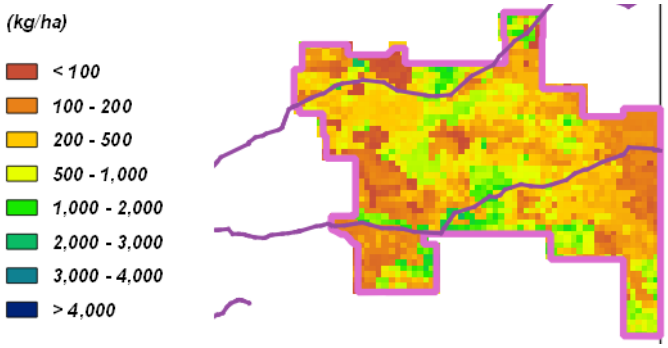


As at 1 December 2020				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	25%	26%	27%	22%

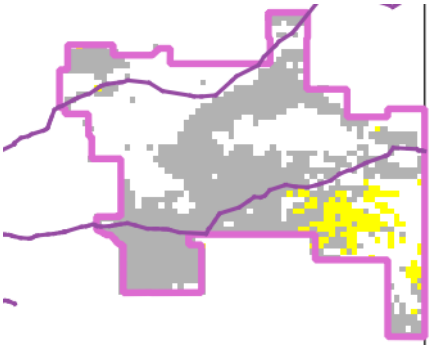
Median Pasture Growth (kg/ha) (Running Total)



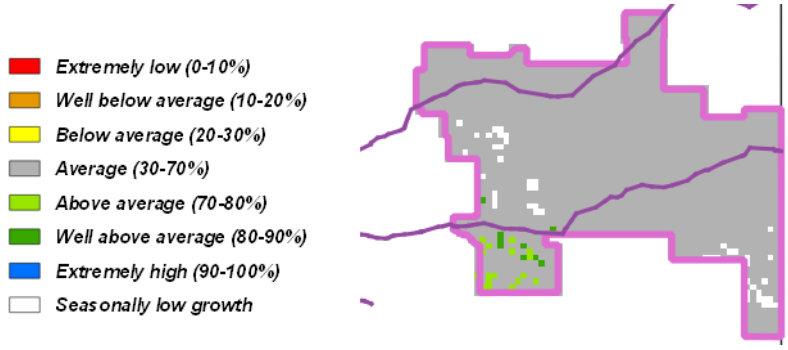
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



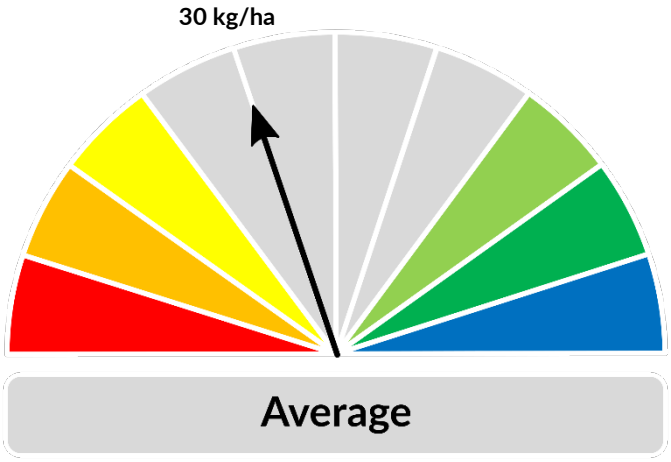
Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



Southern Alice Springs District

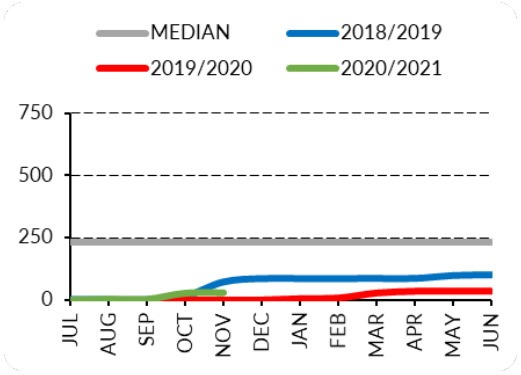
- The 2020/21 pasture growth for the district is **average** for this time of the year. This is largely due to patchy scattered storms that were restricted to the eastern side of the district.
- Pasture growth for the district in 2019/20 and 2018/19 was **well below-average** (a 1 in 10 year event) to **extremely low** growth (a 1 in 20 year event).
- As a result, large areas of the district are now experiencing **critically low** pasture biomass (<100 kg/ha).
- Over the next three months, **average** to **above-average** pasture growth is expected in the eastern half of the district. The western half is expected to experience **average** to **below-average** pasture growth.

2020/21 Pasture Growth

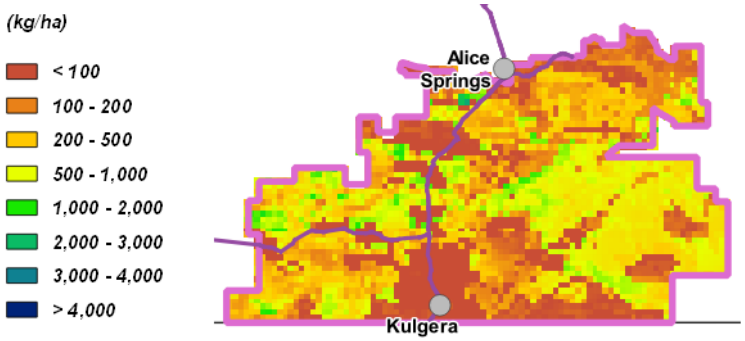


As at 1 December 2020				
(% of district)	<250kg/ha	250 - 500kg/ha	500 - 1,000kg/ha	>1,000kg/ha
2020/21 Pasture Growth	100%	0%	0%	0%
Total Standing Dry Matter	36%	17%	34%	13%

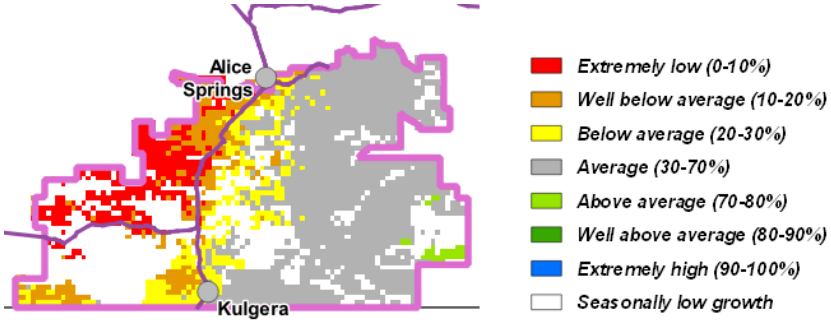
Median Pasture Growth (kg/ha) (Running Total)



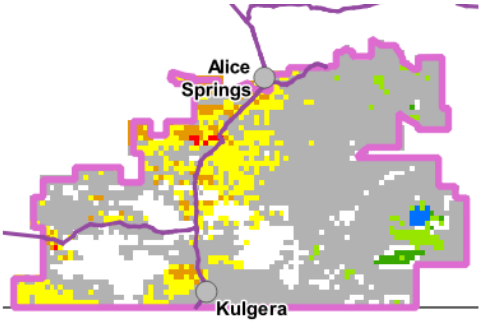
Current Estimated Total Standing Dry Matter



Pasture Growth Relative to Long Term (September - December 2020)



Chance of Exceeding Median Pasture Growth (December 2020 - February 2021)



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