



# Crop Report

20-Jun-2024

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Matthews Cootra

Crop: Wheat

Cultivar: Calibre

Sowing details: 150 plants/m<sup>2</sup> on 1-Jun

Expected maturity date: 27-Nov

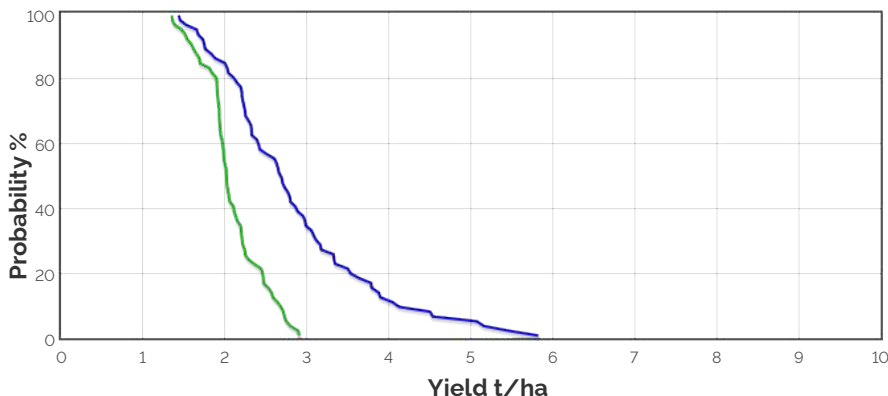
Paddock Details

Initial conditions date: 6-Mar

Soil: Sand (Tuckey No366)  
1000 mm max rooting depth  
Stubble: 500 kg/ha of Lentil  
No till

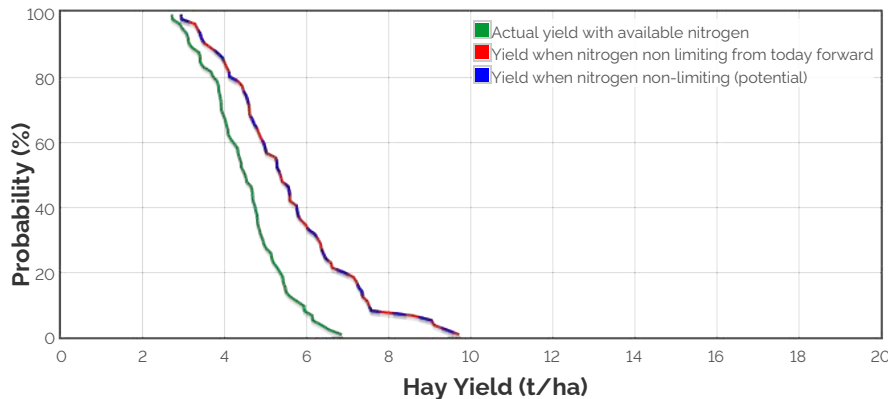
## Grain Yield Outcome

- Nitrogen limited Yield
- Water limited Yield
- Nitrogen limited Yield with Frost and heat Effects
- Water limited Yield with Frost and heat Effects



This graph shows the probability of exceeding a range of yield outcomes this season. It takes into account your pre-season soil moisture, the weather conditions so far, soil N and agronomic inputs. The long term record from your nominated weather station is then used to simulate what would have happened from this date on in each year of the climate record. The yield results are used to produce this graph.

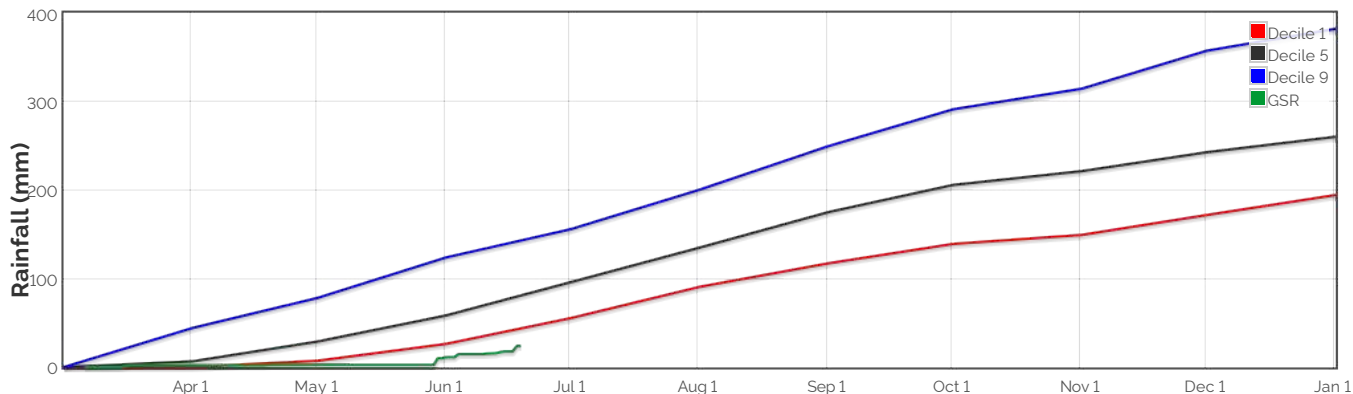
## Hay Yield Outcome



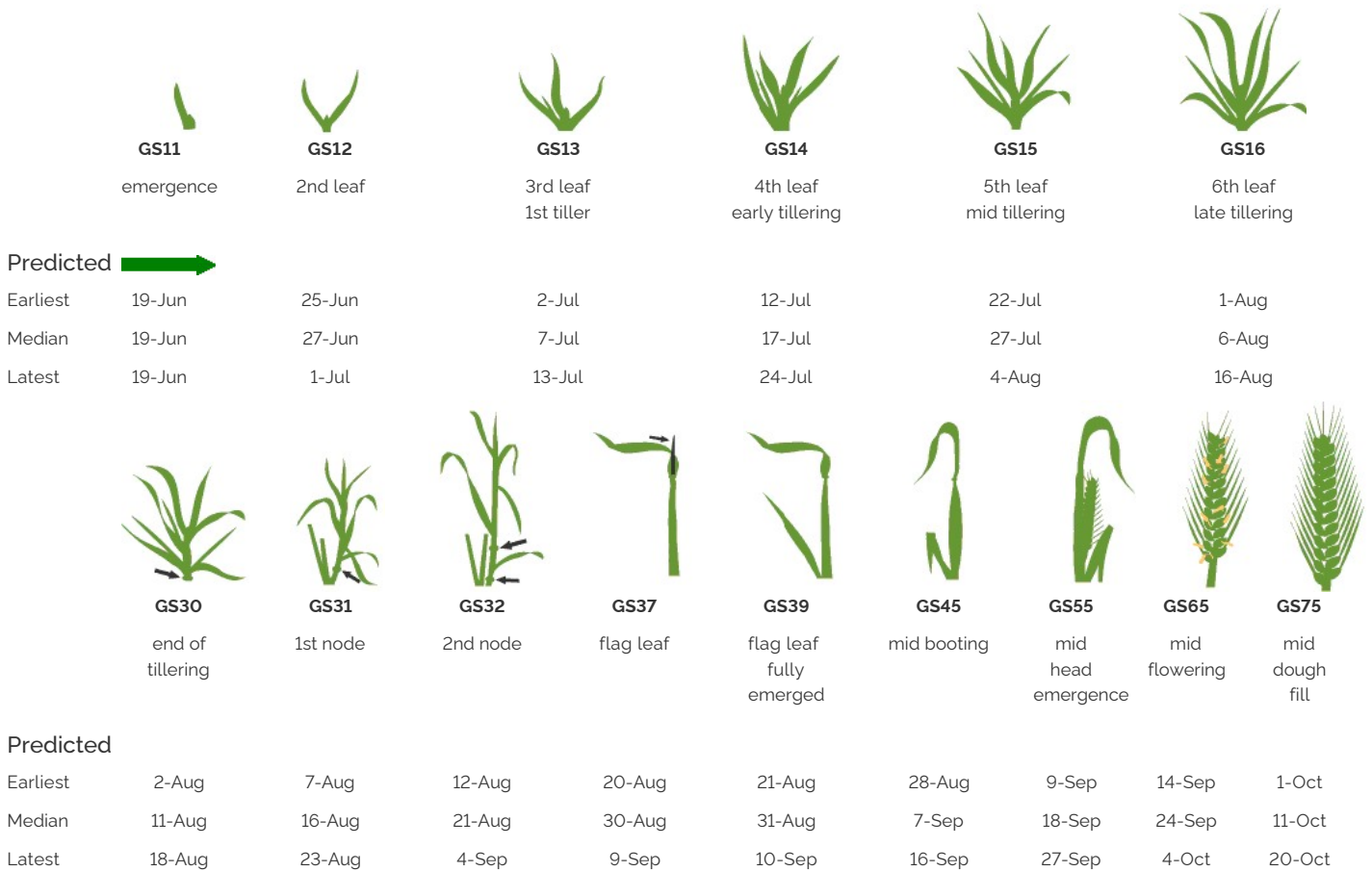
This graph shows the probability of exceeding a range of hay yield outcomes this season. It takes into account the same factors as the grain yield graph above. When above ground dry matter is below 2t/ha, hay yield is assumed to be 70% of dry matter, with a moisture content of 13%. When dry matter is between 2 and 12t/ha, hay yield is assumed to be between 70 and 75% of dry matter (sliding scale). When dry matter is above 12t/ha, hay yield is assumed to be between 75 and 80% (sliding scale).

Current dry matter: 28.940991835682404kg/ha

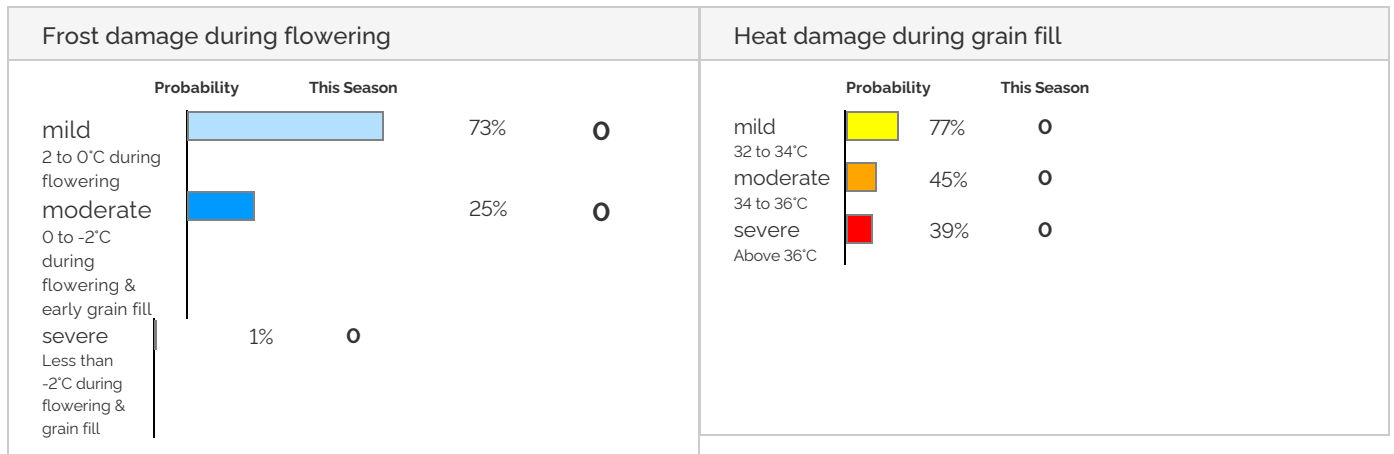
## The Season So Far - Growing Season Rainfall Deciles



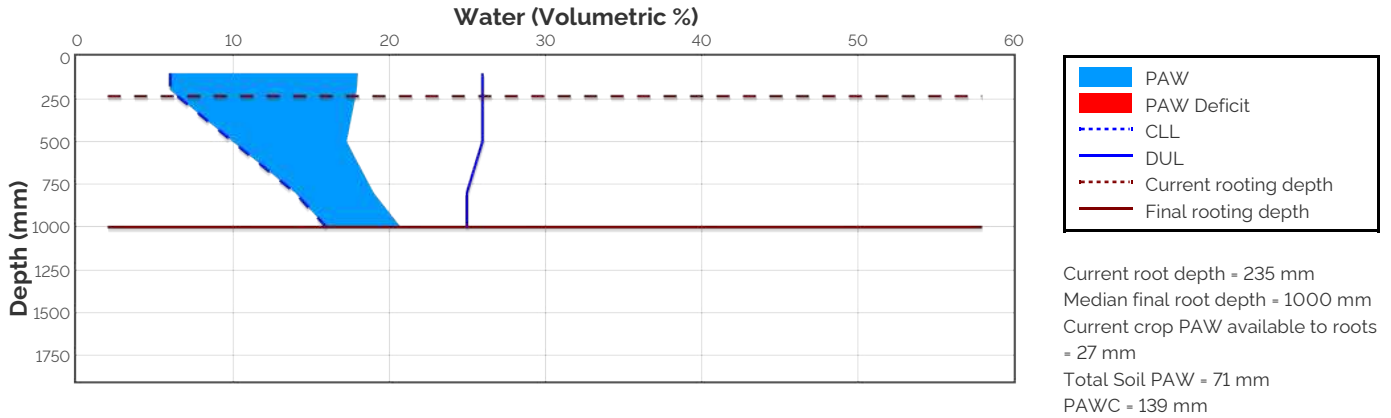
## Simulated and Predicted Crop Growth Stage



## Probability and Incidence of Frost and Heat Shock



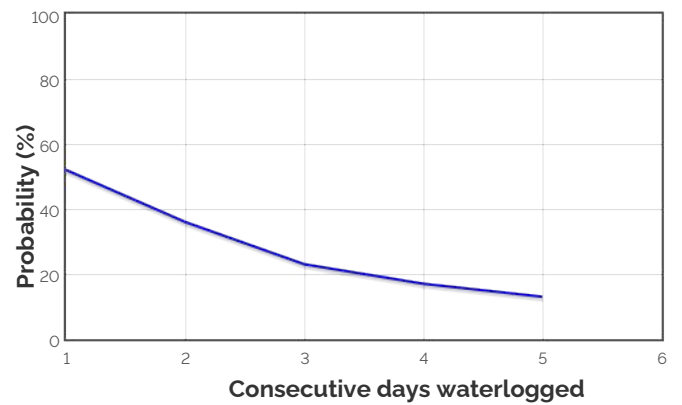
## Current Distribution of PAW



## Water Budget

Initial PAW status @ 6-Mar	73 mm
Rainfall since 6-Mar	24 mm
Irrigations	
Evaporation since 6-Mar	25 mm
Transpiration since 6-Mar	0 mm
Deep drainage since 6-Mar	0 mm
Run-off since 6-Mar	0 mm
<b>Current PAW status:</b>	<b>71 mm</b>

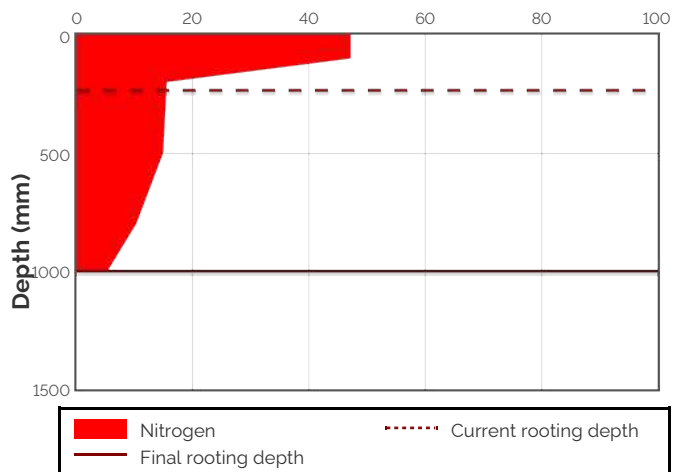
## Probability of Future Waterlogging Events



## Nitrogen Budget

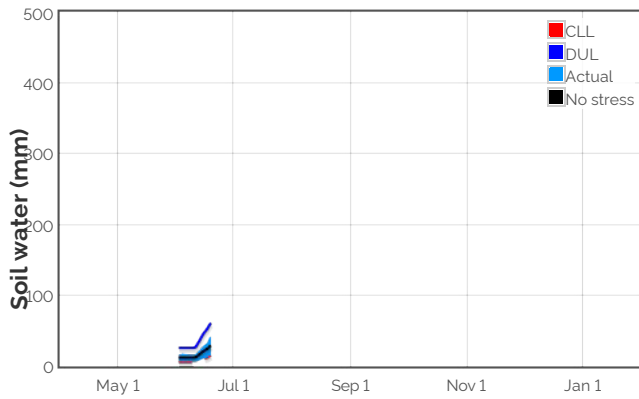
Initial N status @ 6-Mar	51 kg/ha
N mineralisation since 6-Mar	112 kg/ha
N tie up since 6-Mar	0 kg/ha
N applications	
1-May : 24 kg/ha	
17-Jun : 22 kg/ha	
Total N in plant	2 kg/ha
De-nitrification since 6-Mar	0 kg/ha
Leaching since 6-Mar	0 kg/ha
<b>Current N status:</b>	<b>93 kg/ha</b>
Median N mineralisation to maturity = 108.066728755348 kg/ha	
Median N tie up to maturity = 0 kg/ha	

## Current distribution of soil nitrogen (kg/ha)

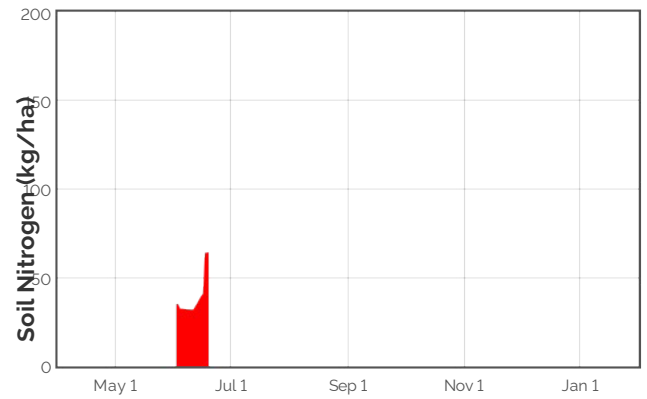


Current Crop Available N = 64 kg/ha  
 Total Soil N = 93 kg/ha

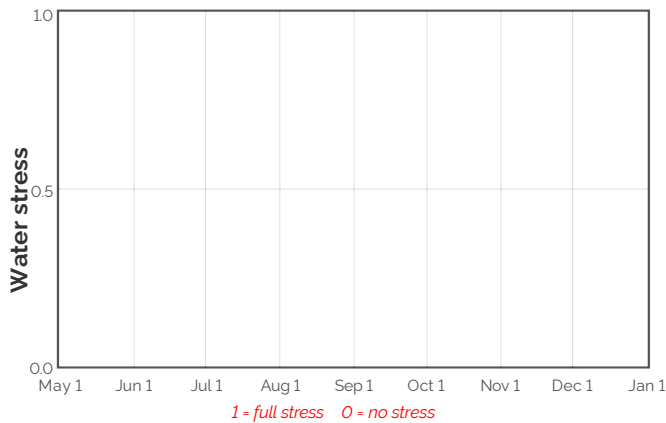
## Availability of Water to Growing Roots



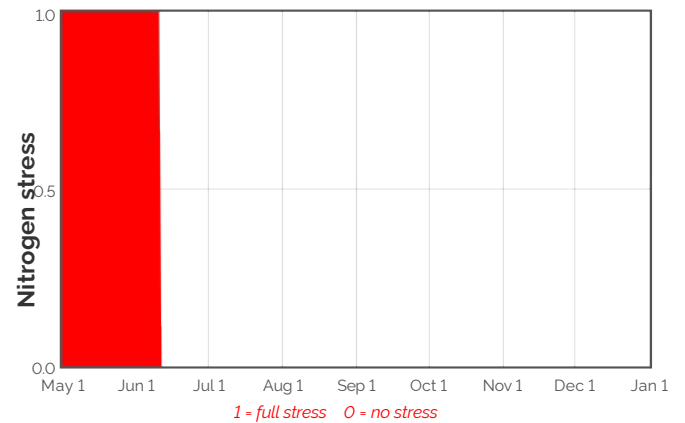
## Availability of Soil Nitrogen to Growing Roots



## Water Stress



## Nitrogen Stress



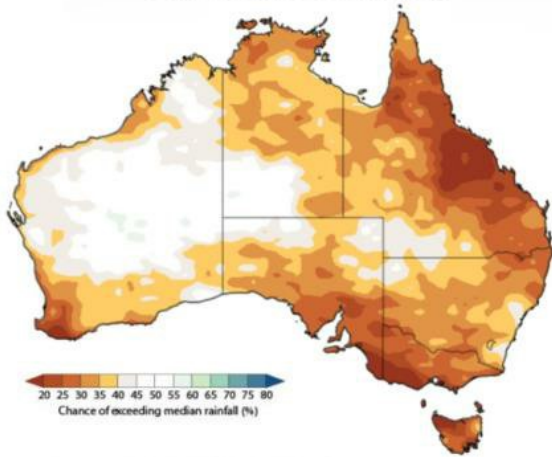
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

## Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

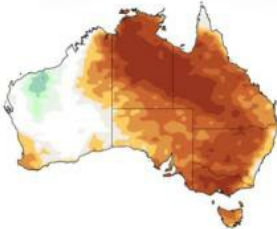
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
21-Jun	11.3	0.1	0.0	-0.1	13.0	27.4	64.8	0.8	0.0
22-Jun	11.4	0.1	0.0	-0.1	13.1	28.3	65.2	0.7	0.0
23-Jun	11.5	0.1	0.0	-0.1	13.2	29.1	65.6	0.7	0.0
24-Jun	11.7	0.1	0.0	-0.1	13.4	30.0	66.1	0.7	0.0
25-Jun	11.8	0.1	0.0	-0.1	13.7	31.0	66.6	0.7	0.0
26-Jun	11.9	0.1	0.1	-0.2	14.0	32.0	67.2	0.7	0.0
27-Jun	12.1	0.1	0.1	-0.2	14.3	33.0	67.7	0.7	0.0
28-Jun	12.1	0.1	0.1	-0.2	14.6	34.2	68.2	0.7	0.0
29-Jun	12.2	0.1	0.1	-0.3	14.8	35.0	68.8	0.7	0.0
30-Jun	12.3	0.1	0.1	-0.3	15.1	35.9	69.3	0.7	0.0

The water available to roots above the stress threshold is the amount of PAW (mm) above one third of the total water holding capacity of this soil. If the water values are below this stress threshold the water available to roots above the stress threshold will be negative.

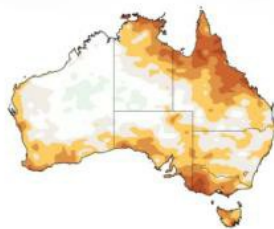
### 3 MONTH RAINFALL OUTLOOK FOR OCTOBER TO DECEMBER



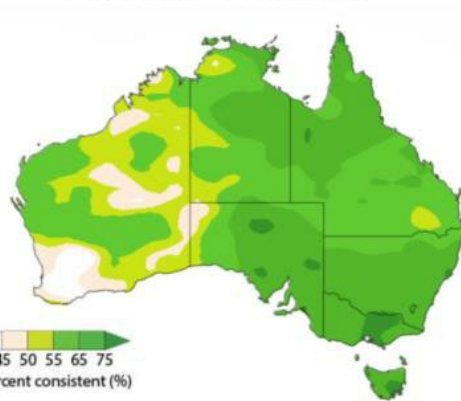
OCTOBER RAINFALL OUTLOOK



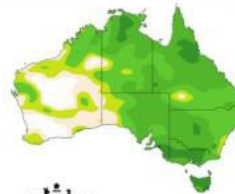
NOVEMBER RAINFALL OUTLOOK



### PAST ACCURACY FOR OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER



PAST ACCURACY FOR NOVEMBER

