

# Crop Report

2-Jul-2024

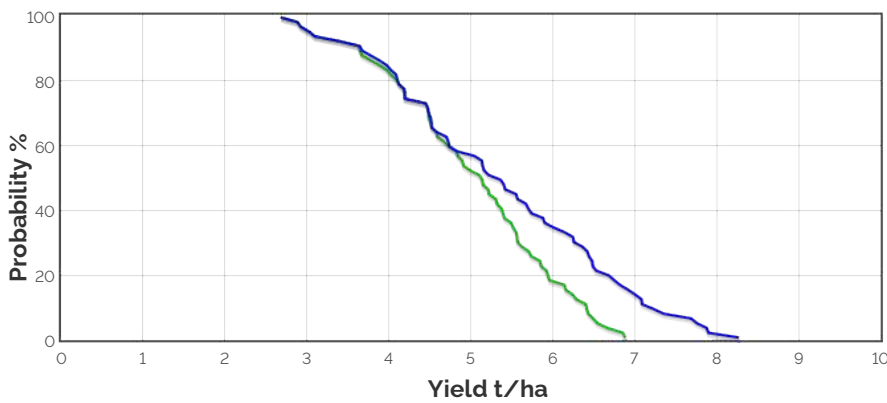
Andrew H Ware:  
Cockaleecheie

Crop: Wheat  
Cultivar: Vixen  
Sowing details: 200 plants/m<sup>2</sup> on 1-Jun  
Expected maturity date: 5-Dec

**Paddock Details**  
Initial conditions date: 26-Feb  
Soil: Clay Loam over Loamy Medium Clay (Yeelanna No590)  
1200 mm max rooting depth  
Stubble: 1500 kg/ha of Canola  
No till

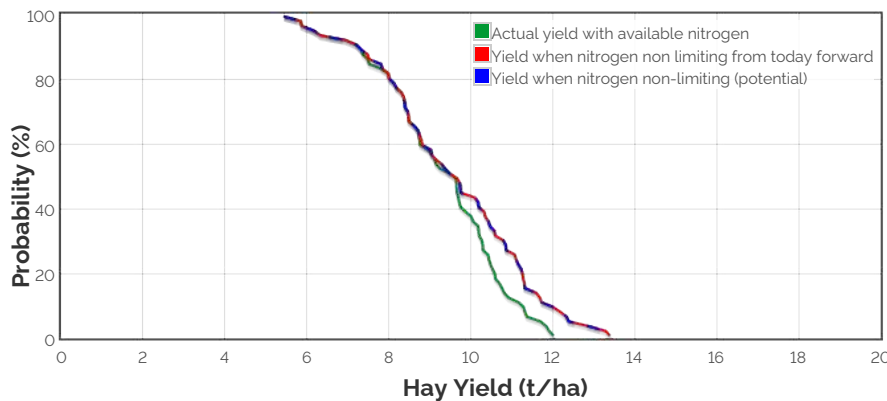
## Grain Yield Outcome

- 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.

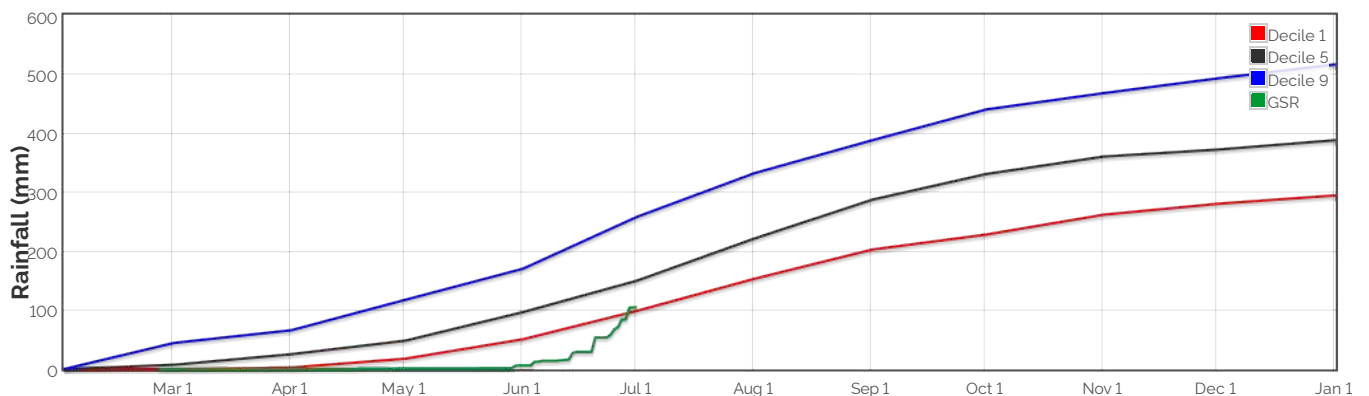
## Hay Yield Outcome



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: 139.00233500504893kg/ha

## The Season So Far - Growing Season Rainfall Deciles



# Simulated and Predicted Crop Growth Stage



Predicted

Earliest	14-Jun	22-Jun	2-Jul	11-Jul	21-Jul	29-Jul
Median	14-Jun	22-Jun	3-Jul	13-Jul	23-Jul	2-Aug
Latest	15-Jun	22-Jun	3-Jul	15-Jul	27-Jul	6-Aug



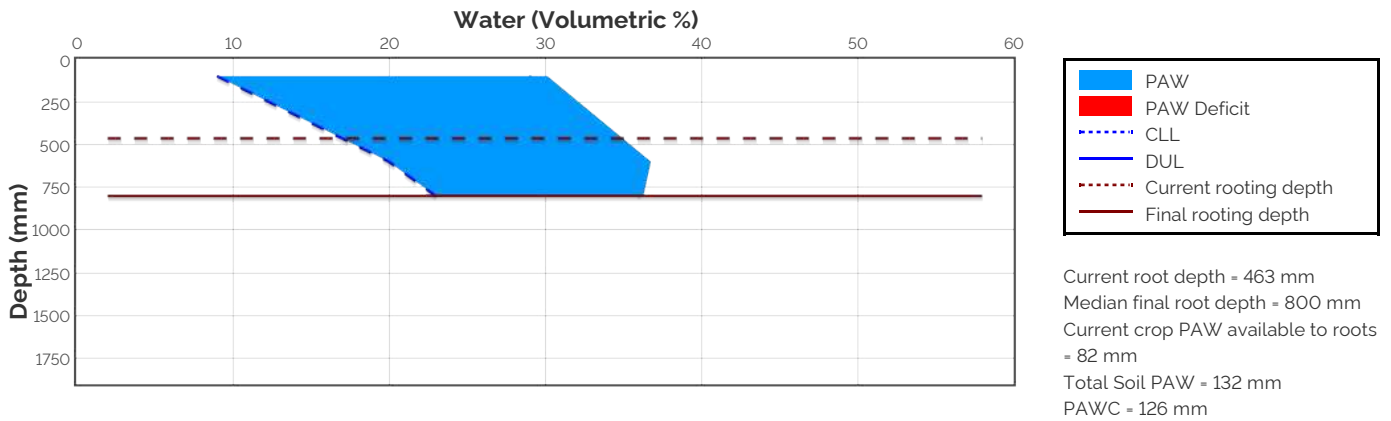
Predicted

Earliest	1-Aug	6-Aug	11-Aug	19-Aug	20-Aug	3-Sep	22-Sep	27-Sep	14-Oct
Median	6-Aug	12-Aug	15-Aug	25-Aug	26-Aug	9-Sep	28-Sep	3-Oct	21-Oct
Latest	11-Aug	19-Aug	21-Aug	1-Sep	3-Sep	17-Sep	5-Oct	11-Oct	29-Oct

## Probability and Incidence of Frost and Heat Shock

Frost damage during flowering				Heat damage during grain fill			
	Probability	This Season			Probability	This Season	
mild 2 to 0°C during flowering		1%	<b>0</b>	mild 32 to 34°C		41%	<b>0</b>
moderate 0 to -2°C during flowering & early grain fill		1%	<b>0</b>	moderate 34 to 36°C		29%	<b>0</b>
severe Less than -2°C during flowering & grain fill		0%	<b>0</b>	severe Above 36°C		13%	<b>0</b>

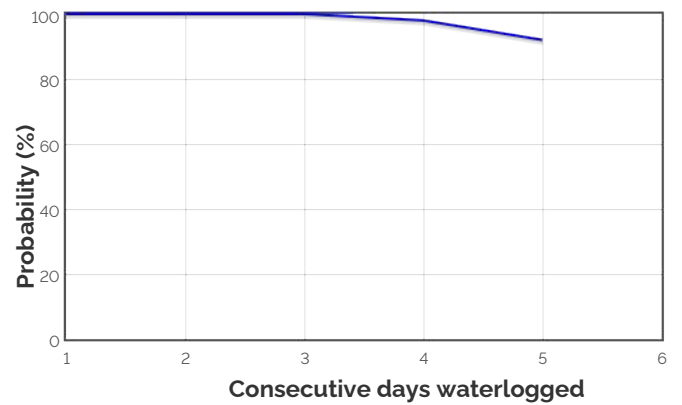
## Current Distribution of PAW



## Water Budget

Initial PAW status @ 26-Feb	98 mm
Rainfall since 26-Feb	105 mm
Irrigations	
Evaporation since 26-Feb	41 mm
Transpiration since 26-Feb	1 mm
Deep drainage since 26-Feb	27 mm
Run-off since 26-Feb	2 mm
<b>Current PAW status:</b>	<b>132 mm</b>

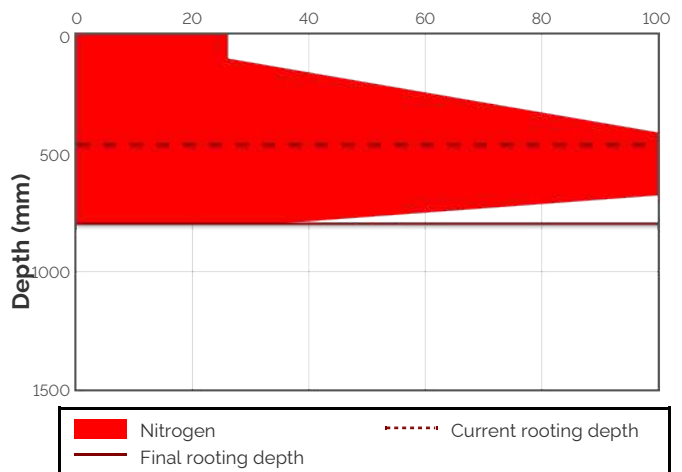
## Probability of Future Waterlogging Events



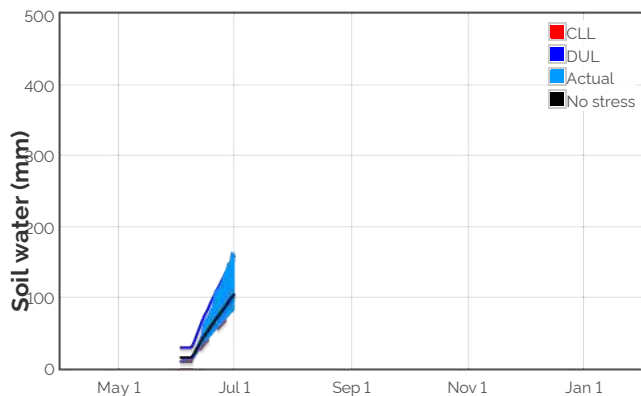
## Nitrogen Budget

Initial N status @ 26-Feb	104 kg/ha
N mineralisation since 26-Feb	38 kg/ha
N tie up since 26-Feb	0 kg/ha
N applications	
7-May : 22 kg/ha	
25-Jun : 42 kg/ha	
Total N in plant	7 kg/ha
De-nitrification since 26-Feb	0 kg/ha
Leaching since 26-Feb	12 kg/ha
<b>Current N status:</b>	<b>208 kg/ha</b>
Median N mineralisation to maturity = 47.3401219284591 kg/ha	
Median N tie up to maturity = 0 kg/ha	

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



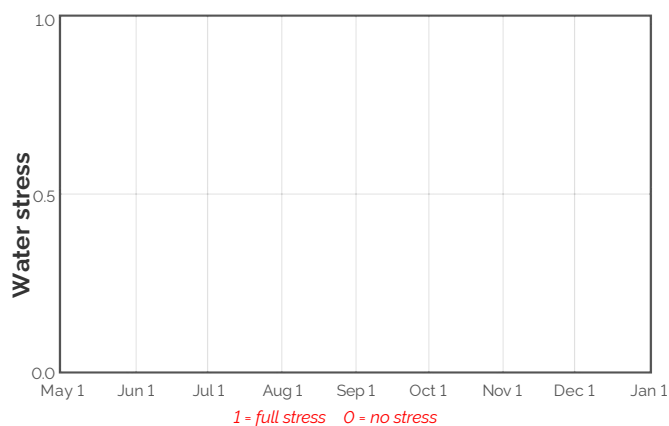
## Availability of Water to Growing Roots



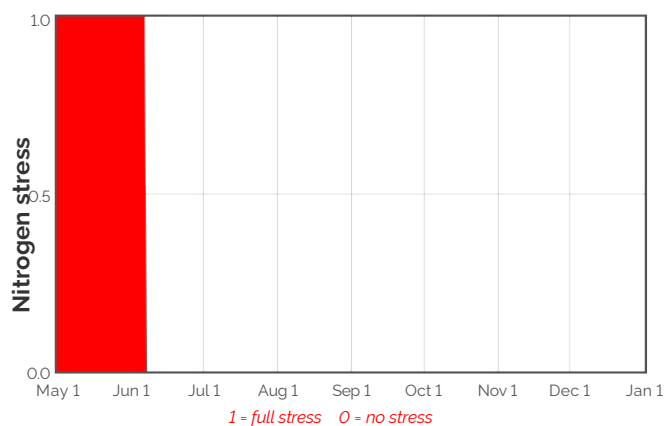
## Availability of Soil Nitrogen to Growing Roots



## Water Stress



## Nitrogen Stress



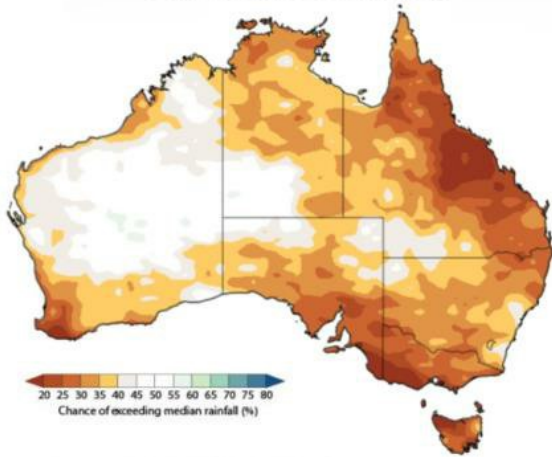
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

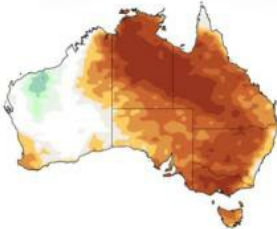
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
3-Jul	13.1	1.1	0.1	-0.6	57.5	81.7	133.0	0.3	0.0
4-Jul	13.2	0.9	0.2	-0.7	57.5	82.6	136.2	0.3	0.0
5-Jul	13.3	0.7	0.2	-0.8	58.1	83.8	139.8	0.3	0.0
6-Jul	13.4	0.6	0.2	-0.8	59.0	85.5	143.3	0.3	0.0
7-Jul	13.5	0.5	0.2	-0.9	59.9	87.2	146.6	0.3	0.0
8-Jul	13.6	0.4	0.2	-0.9	61.0	89.0	149.5	0.3	0.0
9-Jul	13.7	0.4	0.2	-0.9	61.9	90.6	153.0	0.3	0.0
10-Jul	13.7	0.4	0.2	-1.0	63.0	92.2	156.5	0.3	0.0
11-Jul	13.8	0.4	0.3	-1.1	63.8	94.0	159.4	0.3	0.0
12-Jul	13.9	0.3	0.3	-1.2	64.7	95.5	161.5	0.3	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.

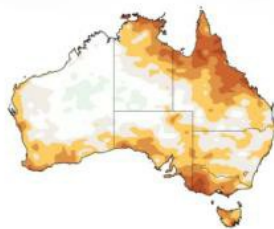
### 3 MONTH RAINFALL OUTLOOK FOR OCTOBER TO DECEMBER



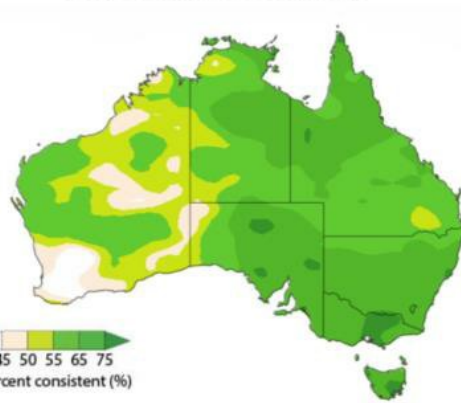
OCTOBER RAINFALL OUTLOOK



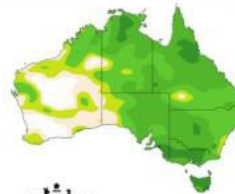
NOVEMBER RAINFALL OUTLOOK



### PAST ACCURACY FOR OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER



PAST ACCURACY FOR NOVEMBER

