



# Crop Report

8-Oct-2024

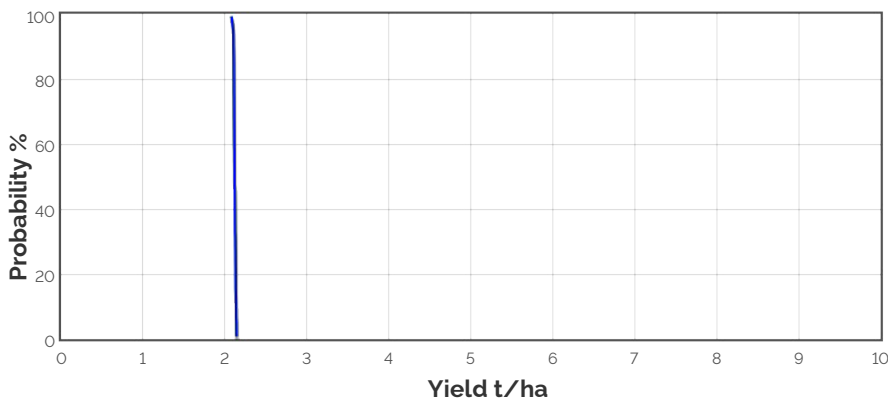
Andrew H Ware: Lock

Crop: Wheat  
 Cultivar: Calibre  
 Sowing details: 150 plants/m<sup>2</sup> on 1-Jun  
 Expected maturity date: 23-Nov

Paddock Details  
 Initial conditions date: 24-Apr  
 Soil: Grey Calcareous Loamy Sand (Lock No318)  
 800 mm max rooting depth  
 Stubble: 1000 kg/ha of Canola  
 No till

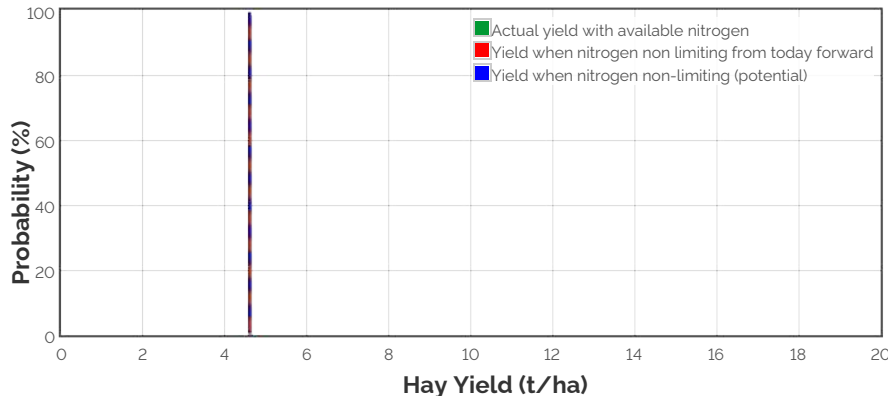
## Grain Yield Outcome

- 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.

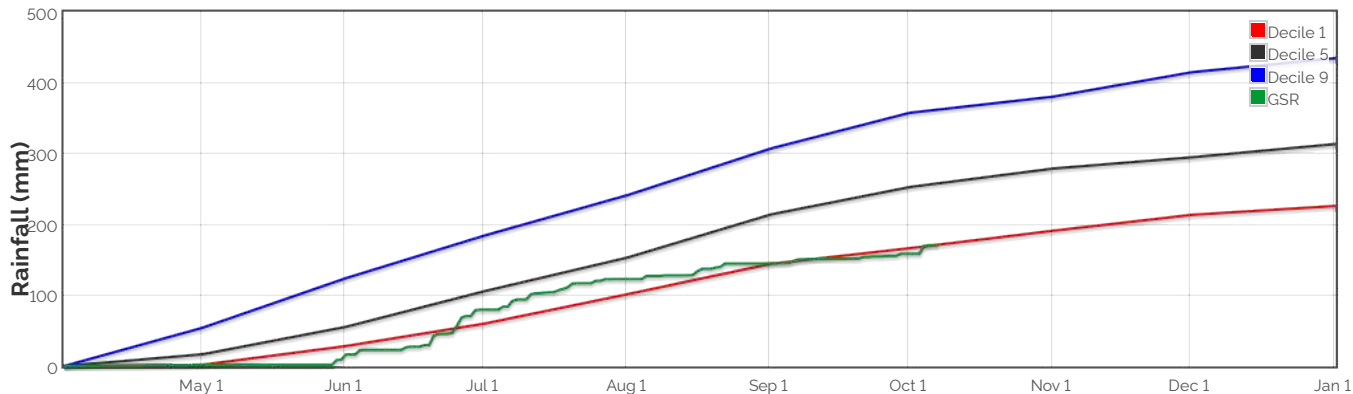
## Hay Yield Outcome



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: 5569.888354069115kg/ha

## The Season So Far - Growing Season Rainfall Deciles



# Simulated and Predicted Crop Growth Stage



## Predicted

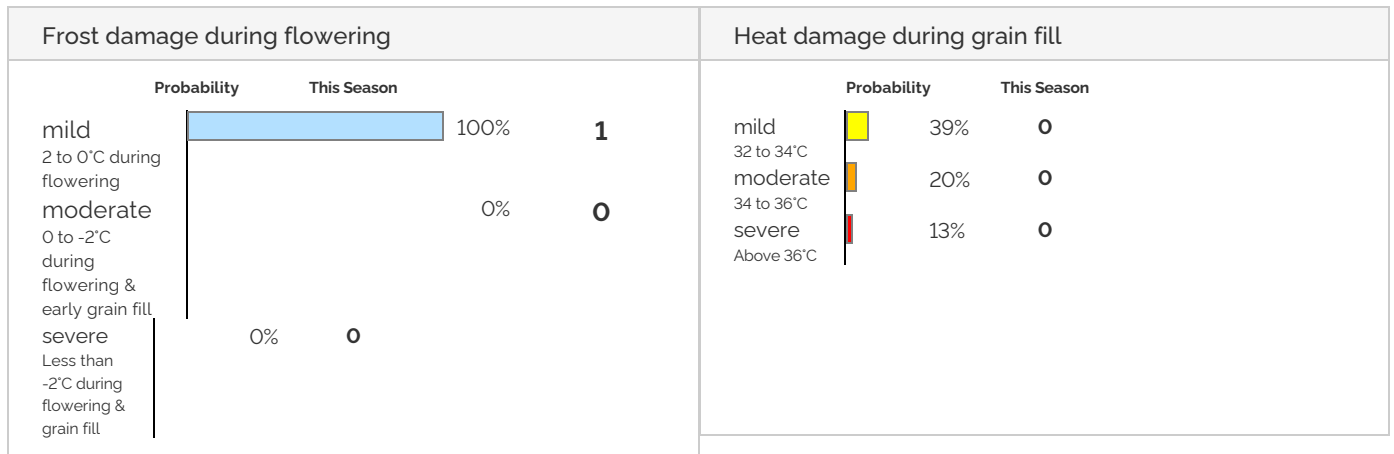
Earliest	18-Jun	25-Jun	7-Jul	16-Jul	26-Jul	6-Aug
Median	18-Jun	25-Jun	7-Jul	16-Jul	26-Jul	6-Aug
Latest	18-Jun	25-Jun	7-Jul	16-Jul	26-Jul	6-Aug



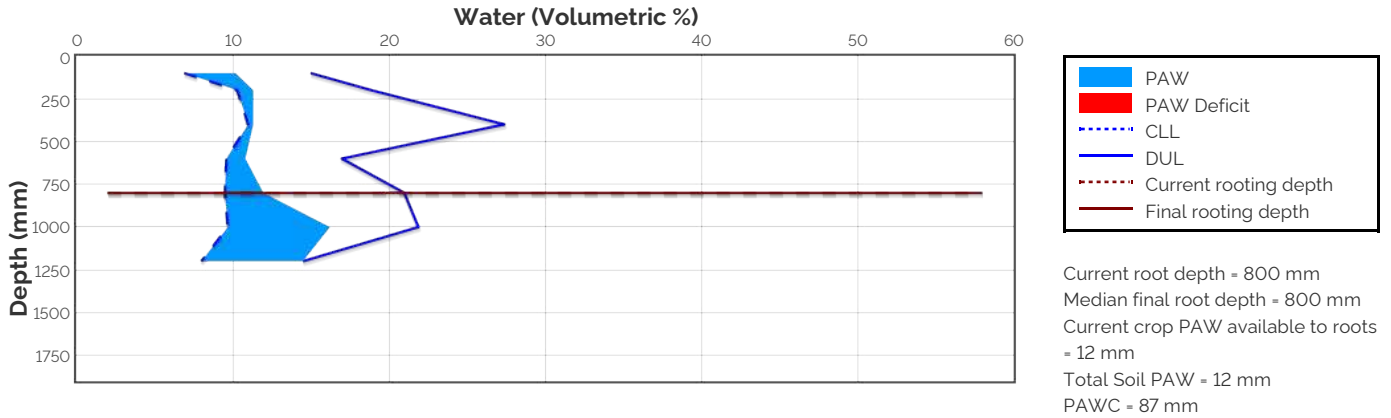
## Predicted

Earliest	12-Aug	17-Aug	21-Aug	28-Aug	29-Aug	4-Sep	14-Sep	20-Sep	7-Oct
Median	12-Aug	17-Aug	21-Aug	28-Aug	29-Aug	4-Sep	14-Sep	20-Sep	7-Oct
Latest	12-Aug	17-Aug	21-Aug	28-Aug	29-Aug	4-Sep	14-Sep	20-Sep	7-Oct

## Probability and Incidence of Frost and Heat Shock



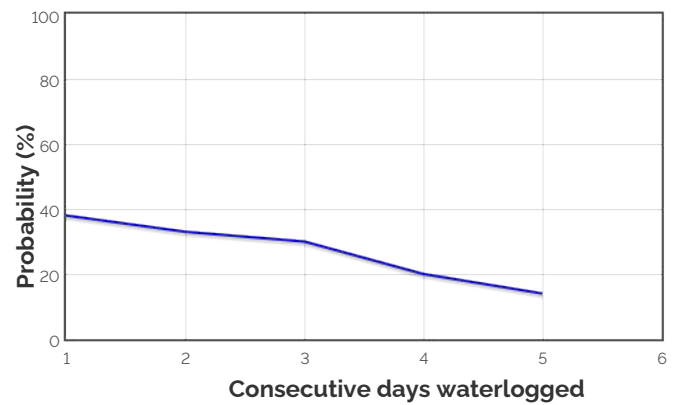
## Current Distribution of PAW



## Water Budget

Initial PAW status @ 24-Apr	70 mm
Rainfall since 24-Apr	169.3 mm
Irrigations	
Evaporation since 24-Apr	111 mm
Transpiration since 24-Apr	174 mm
Deep drainage since 24-Apr	15 mm
Run-off since 24-Apr	0 mm
<b>Current PAW status:</b>	<b>12 mm</b>

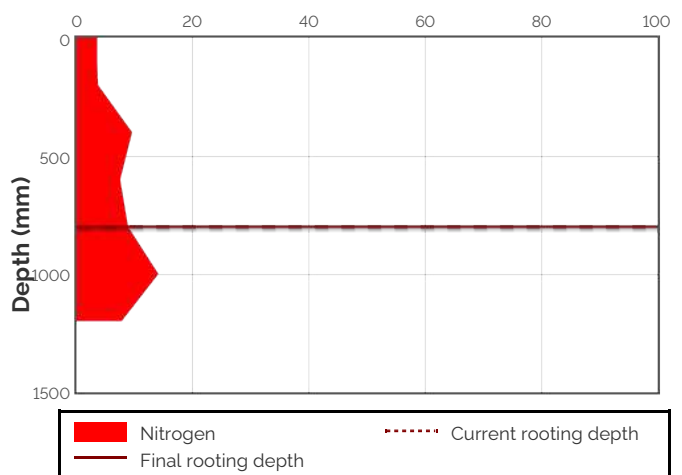
## Probability of Future Waterlogging Events



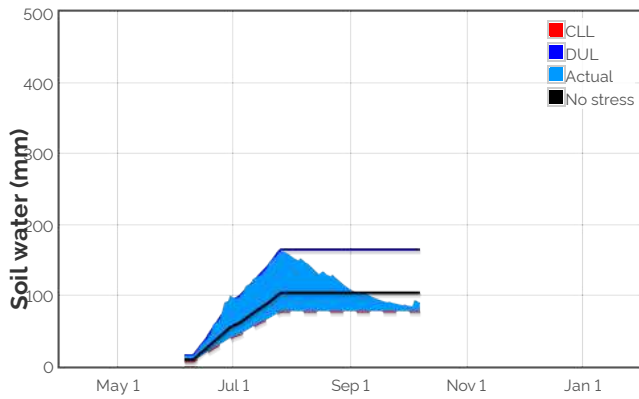
## Nitrogen Budget

Initial N status @ 24-Apr	144 kg/ha
N mineralisation since 24-Apr	58 kg/ha
N tie up since 24-Apr	0 kg/ha
N applications	
	5-May : 20 kg/ha
	12-Jun : 41.4 kg/ha
Total N in plant	146 kg/ha
De-nitrification since 24-Apr	0 kg/ha
Leaching since 24-Apr	3 kg/ha
<b>Current N status:</b>	<b>57 kg/ha</b>
Median N mineralisation to maturity = 60.4206732125758 kg/ha	
Median N tie up to maturity = 0 kg/ha	

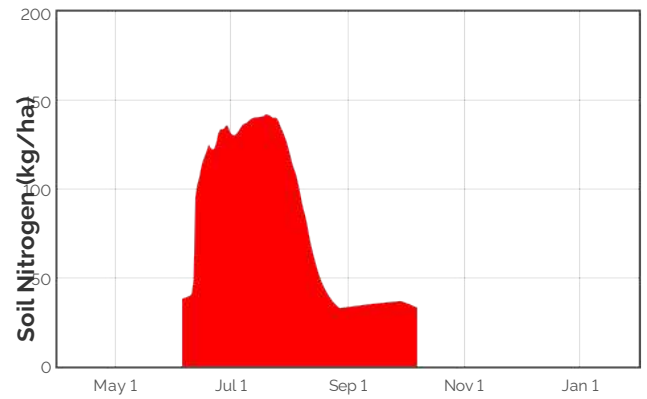
## Current distribution of soil nitrogen (kg/ha)



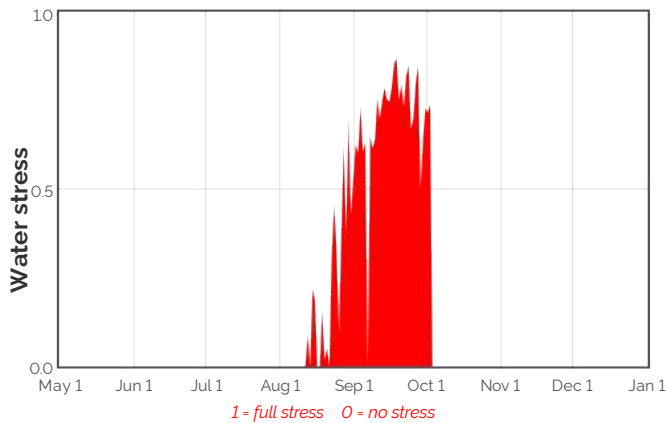
## Availability of Water to Growing Roots



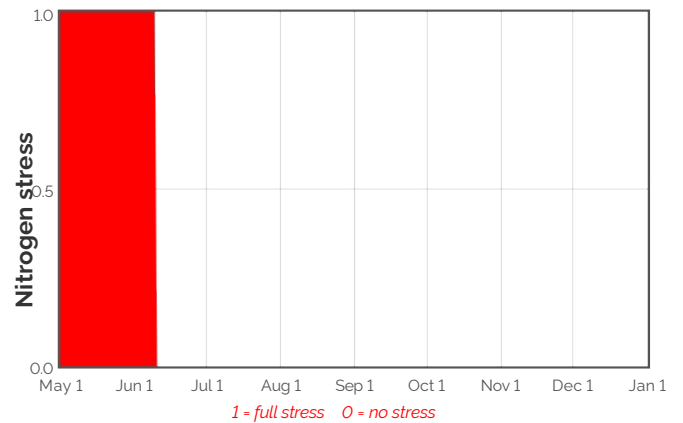
## Availability of Soil Nitrogen to Growing Roots



## 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.

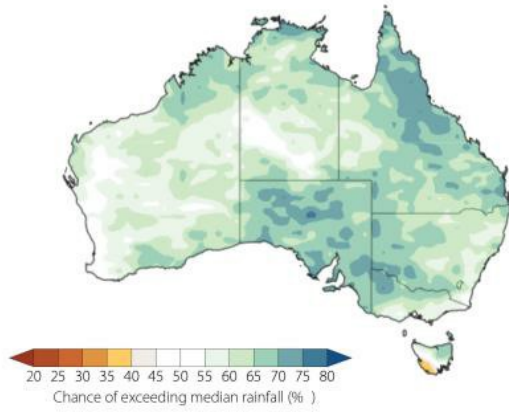
## Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
9-Oct	75.9	0.6	0.0	-0.5	-14.5	11.7	32.7	0.4	0.0
10-Oct	76.4	0.5	0.0	-0.5	-15.0	11.2	32.4	0.4	0.0
11-Oct	76.8	0.5	0.0	-0.5	-15.4	10.8	32.0	0.4	0.0
12-Oct	77.2	0.4	0.0	-0.4	-15.8	10.4	31.7	0.4	0.0
13-Oct	77.7	0.4	0.0	-0.4	-16.2	10.0	31.4	0.4	0.0
14-Oct	78.1	0.4	0.0	-0.4	-16.5	9.7	31.1	0.4	0.0
15-Oct	78.6	0.3	0.0	-0.4	-16.8	9.4	30.8	0.4	0.0
16-Oct	79.0	0.3	0.0	-0.4	-17.1	9.1	30.5	0.4	0.0
17-Oct	79.5	0.3	0.0	-0.2	-17.4	8.8	30.5	0.4	0.0
18-Oct	79.9	0.3	0.0	-0.1	-17.6	8.5	30.5	0.4	0.0

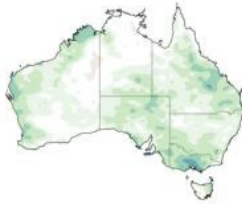
The water available to roots above the stress threshold is the amount of PAW (mm) above one third of the total water holding capacity of this soil. If the water values are below this stress threshold the water available to roots above the stress threshold will be negative.

# Bureau of Meteorology Seasonal and Monthly Outlooks

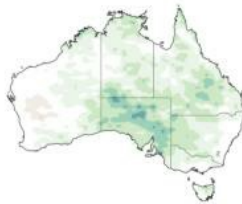
### 3 MONTH RAINFALL OUTLOOK FOR OCTOBER TO DECEMBER



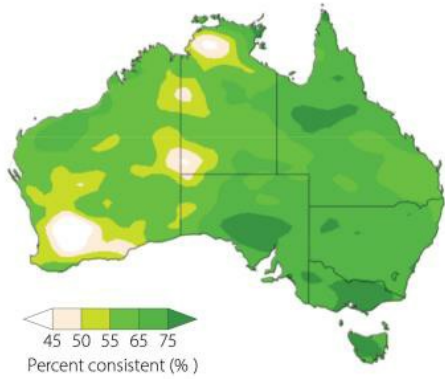
### OCTOBER RAINFALL OUTLOOK



### NOVEMBER RAINFALL OUTLOOK



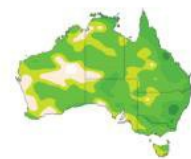
### PAST ACCURACY FOR OCTOBER TO DECEMBER



### PAST ACCURACY FOR OCTOBER



### PAST ACCURACY FOR NOVEMBER



  
Australian Government  
Bureau of Meteorology

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