

# Crop Report

13-Jul-2023

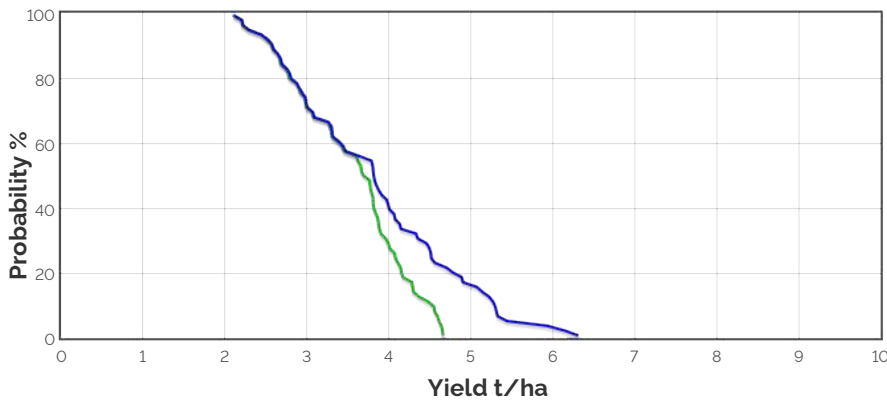
Andrew H Ware: Lock

**Crop: Wheat**  
**Cultivar: Scepter**  
 Sowing details: 150 plants/m<sup>2</sup> on 6-May  
 Expected maturity date: 10-Nov

**Paddock Details**  
 Initial conditions date: 8-Jun  
 Soil: Sandy Loam (Tuckey No348)  
 800 mm max rooting depth  
 Stubble: 3000 kg/ha of Wheat  
 No till

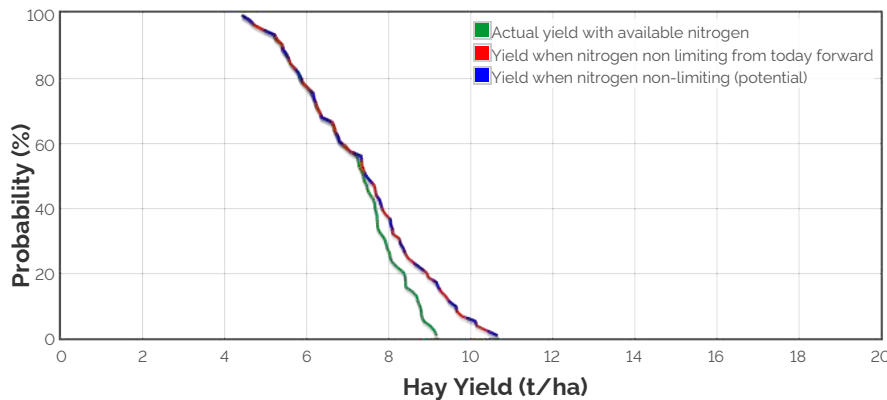
## Grain Yield Outcome

- 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.

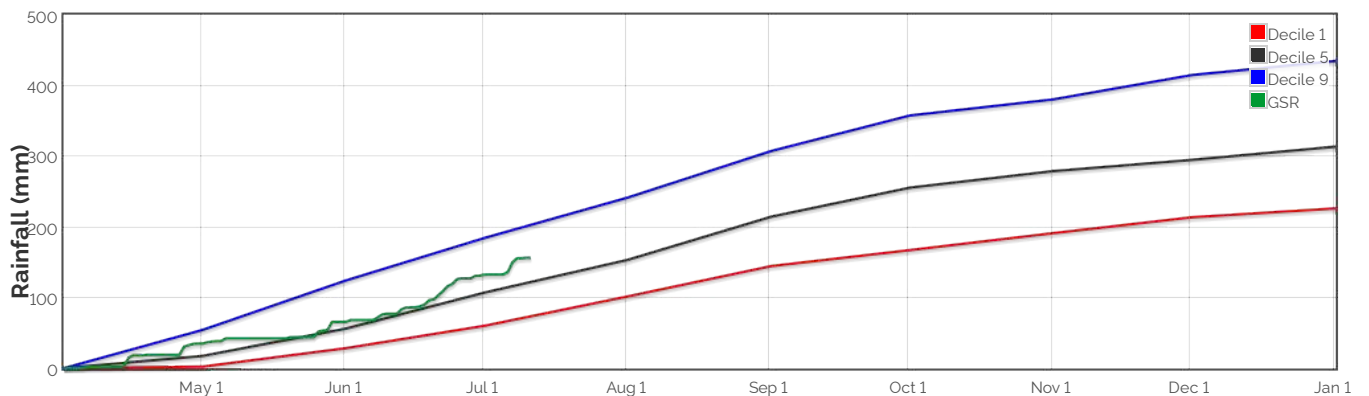
## Hay Yield Outcome



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: 2232.0477371886445kg/ha

## The Season So Far - Growing Season Rainfall Deciles



# Simulated and Predicted Crop Growth Stage



**Predicted**

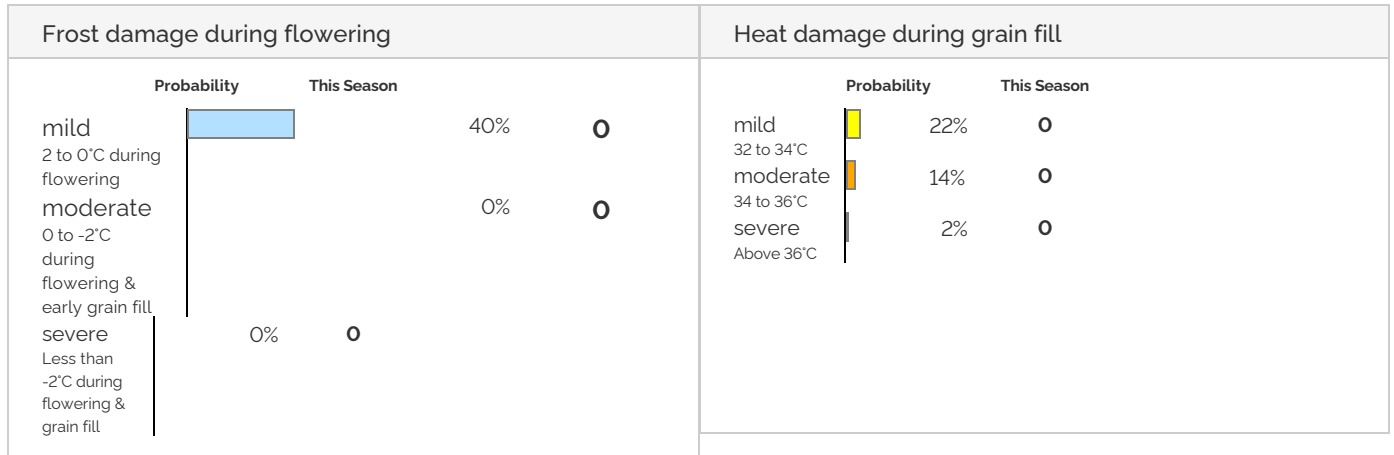
Earliest	23-May	30-May	5-Jun	13-Jun	22-Jun	3-Jul
Median	23-May	30-May	5-Jun	13-Jun	22-Jun	3-Jul
Latest	23-May	30-May	5-Jun	13-Jun	22-Jun	3-Jul



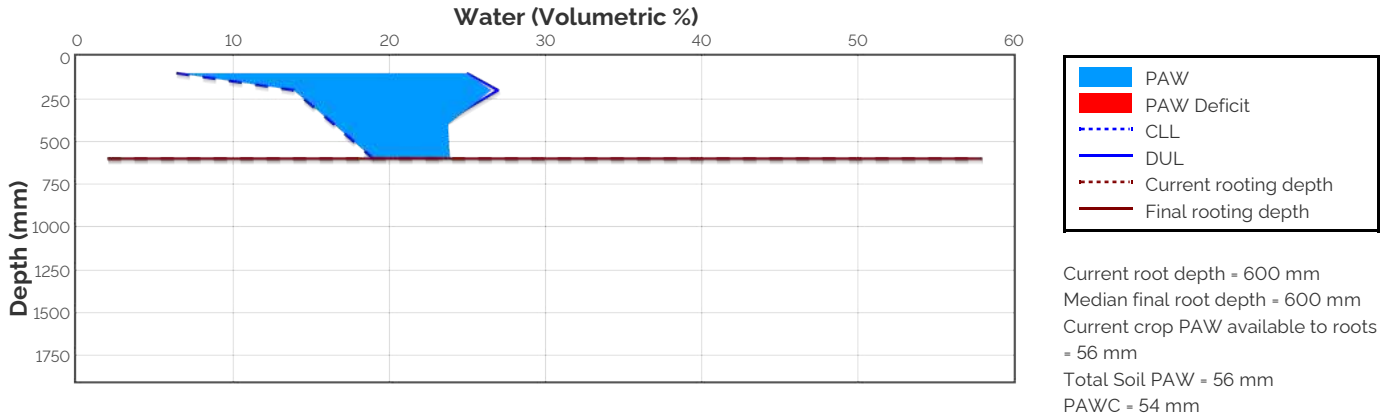
**Predicted**

Earliest	14-Jul	18-Jul	29-Jul	1-Aug	3-Aug	12-Aug	24-Aug	30-Aug	15-Sep
Median	14-Jul	19-Jul	2-Aug	6-Aug	8-Aug	16-Aug	28-Aug	4-Sep	23-Sep
Latest	14-Jul	21-Jul	5-Aug	10-Aug	12-Aug	22-Aug	4-Sep	10-Sep	30-Sep

## Probability and Incidence of Frost and Heat Shock



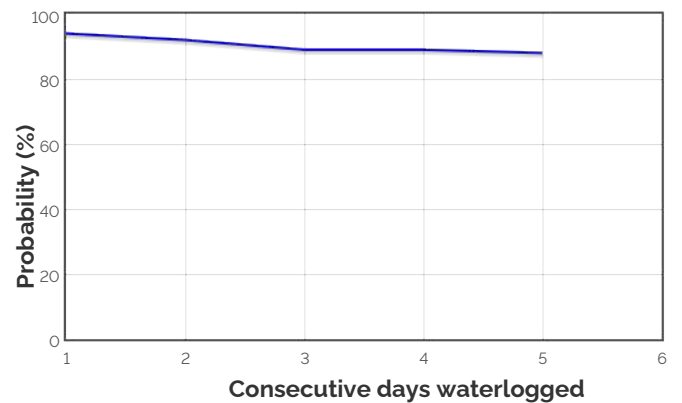
## Current Distribution of PAW



## Water Budget

Initial PAW status @ 8-Jun	43 mm
Rainfall since 8-Jun	88.2 mm
Irrigations	
Evaporation since 8-Jun	31 mm
Transpiration since 8-Jun	26 mm
Deep drainage since 8-Jun	26 mm
Run-off since 8-Jun	0 mm
<b>Current PAW status:</b>	<b>56 mm</b>

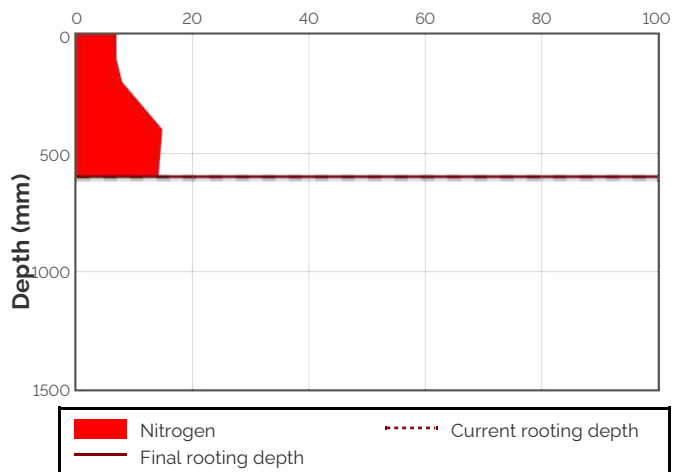
## Probability of Future Waterlogging Events



## Nitrogen Budget

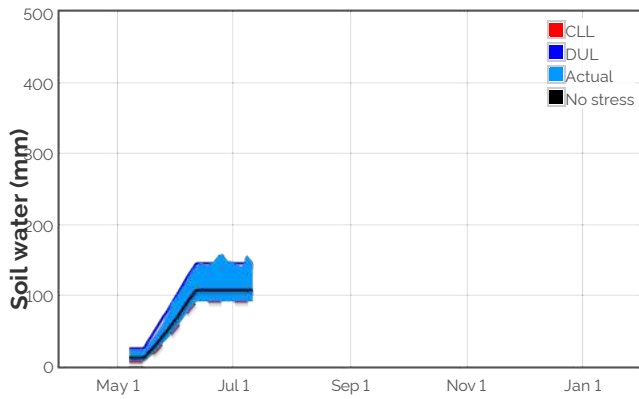
Initial N status @ 8-Jun	78 kg/ha
N mineralisation since 8-Jun	6 kg/ha
N tie up since 8-Jun	0 kg/ha
N applications	
4-May : 17 kg/ha	
9-Jun : 55.2 kg/ha	
29-Jun : 19 kg/ha	
Total N in plant	11 kg/ha
De-nitrification since 8-Jun	0 kg/ha
Leaching since 8-Jun	10 kg/ha
<b>Current N status:</b>	<b>46 kg/ha</b>
Median N mineralisation to maturity = 40.7071520070688 kg/ha	
Median N tie up to maturity = 0 kg/ha	

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

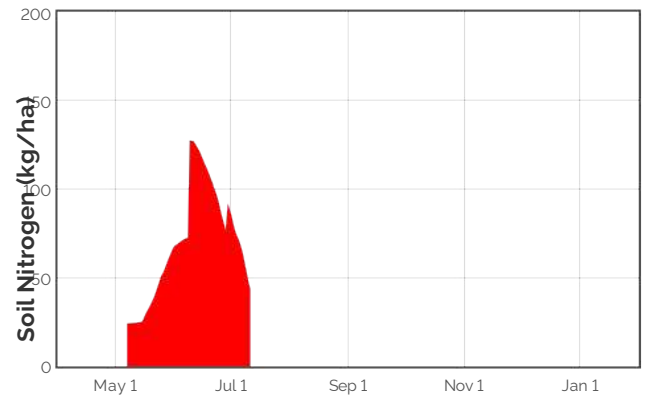


Current Crop Available N = 44 kg/ha  
 Total Soil N = 46 kg/ha

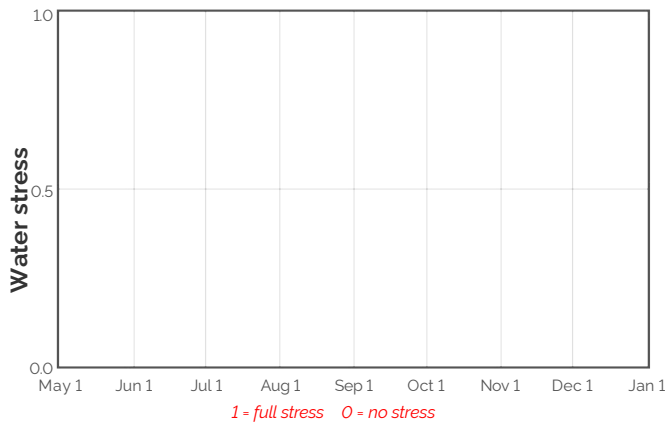
## Availability of Water to Growing Roots



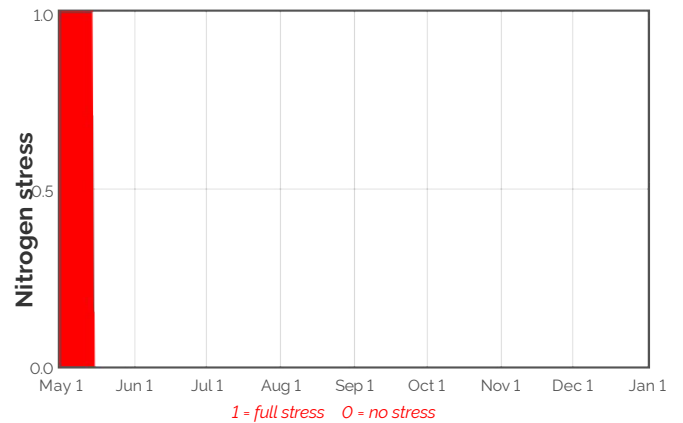
## Availability of Soil Nitrogen to Growing Roots



## 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.

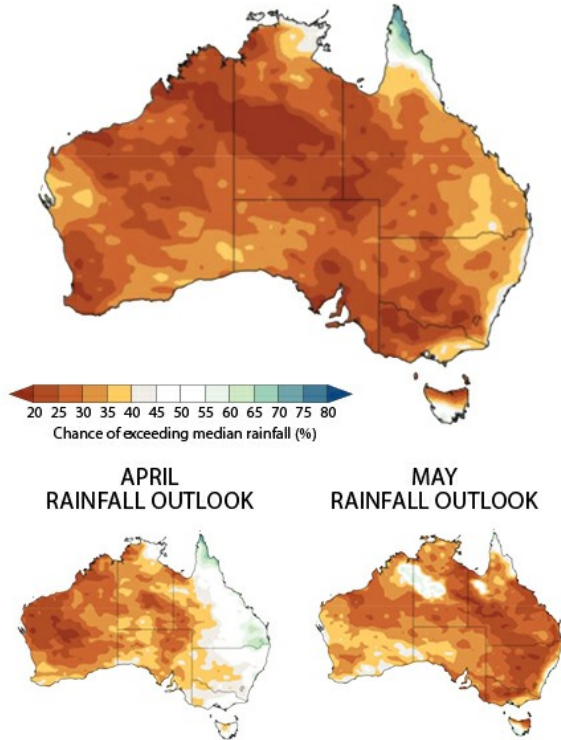
## Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
14-Jul	30.1	0.4	1.2	-3.2	36.3	52.4	36.2	0.2	0.0
15-Jul	30.3	0.4	1.2	-2.7	34.8	50.9	33.6	0.2	0.0
16-Jul	30.4	0.4	1.2	-2.3	33.4	49.6	31.3	0.2	0.0
17-Jul	30.8	0.4	1.2	-2.0	31.4	47.6	29.4	0.2	0.0
18-Jul	30.9	0.4	1.3	-1.7	30.0	46.1	27.8	0.2	0.0
19-Jul	31.0	0.4	1.3	-1.5	28.4	44.6	26.3	0.2	0.0
20-Jul	31.1	0.4	1.3	-1.3	26.6	42.8	25.0	0.2	0.0
21-Jul	31.2	0.4	1.5	-1.2	24.5	40.7	23.9	0.2	0.0
22-Jul	31.3	0.4	1.5	-1.0	22.7	38.9	22.9	0.2	0.0
23-Jul	31.4	0.4	1.6	-0.9	21.6	37.8	22.1	0.2	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 APRIL TO JUNE



## PAST ACCURACY FOR APRIL TO JUNE

