

# Crop Report

13-Oct-2022

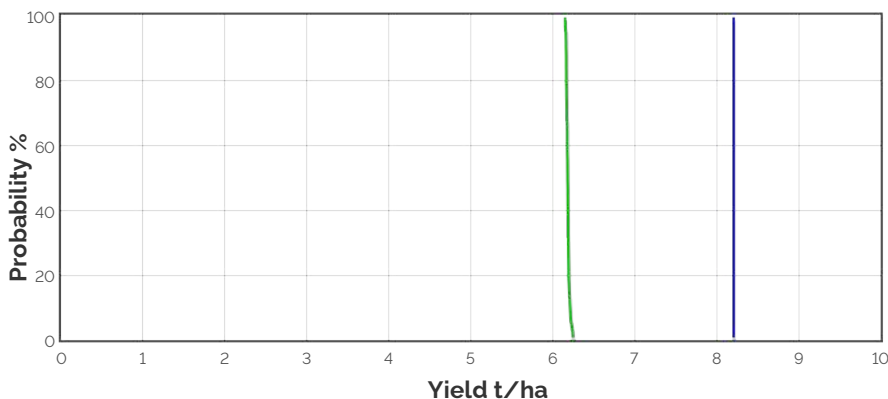
Nicole Baty: Lock

**Crop: Wheat**  
**Cultivar: Scepter**  
 Sowing details: 180 plants/m<sup>2</sup> on 9-May  
 Expected maturity date: 27-Oct

**Paddock Details**  
 Initial conditions date: 21-Mar  
 Soil: ResEP\_sandy loam\_Lock  
 1000 mm max rooting depth  
 Stubble: 1000 kg/ha of Canola  
 No till

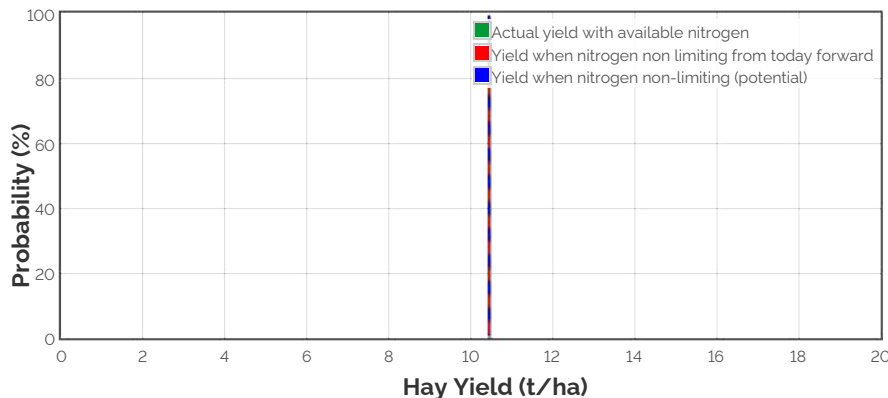
## Grain Yield Outcome

- 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.

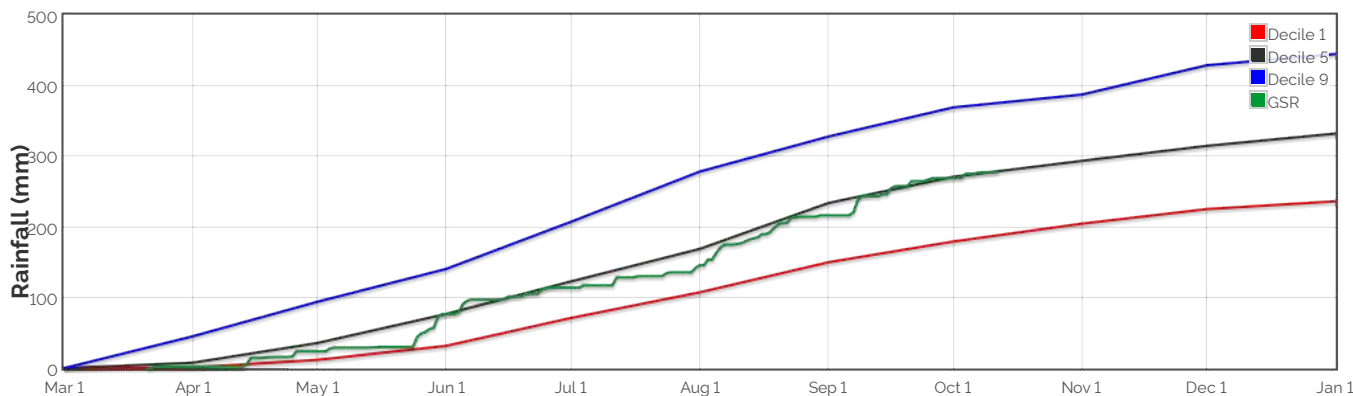
## Hay Yield Outcome



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: 16253.5kg/ha

## The Season So Far - Growing Season Rainfall Deciles



# Simulated and Predicted Crop Growth Stage



## Predicted

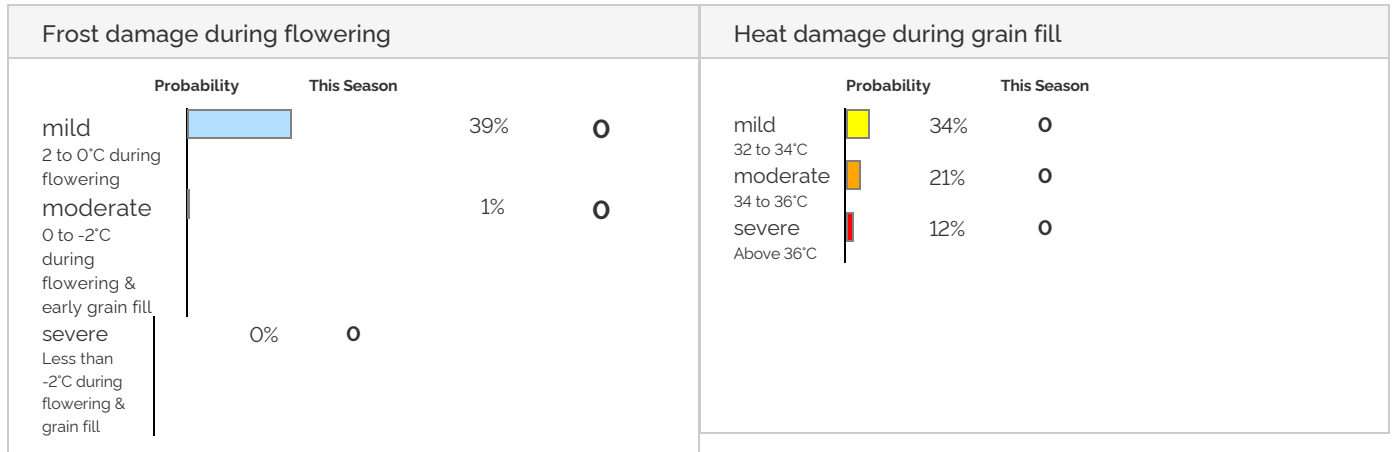
Earliest	18-May	28-May	5-Jun	14-Jun	21-Jun	29-Jun
Median	18-May	28-May	5-Jun	14-Jun	21-Jun	29-Jun
Latest	18-May	28-May	5-Jun	14-Jun	21-Jun	29-Jun



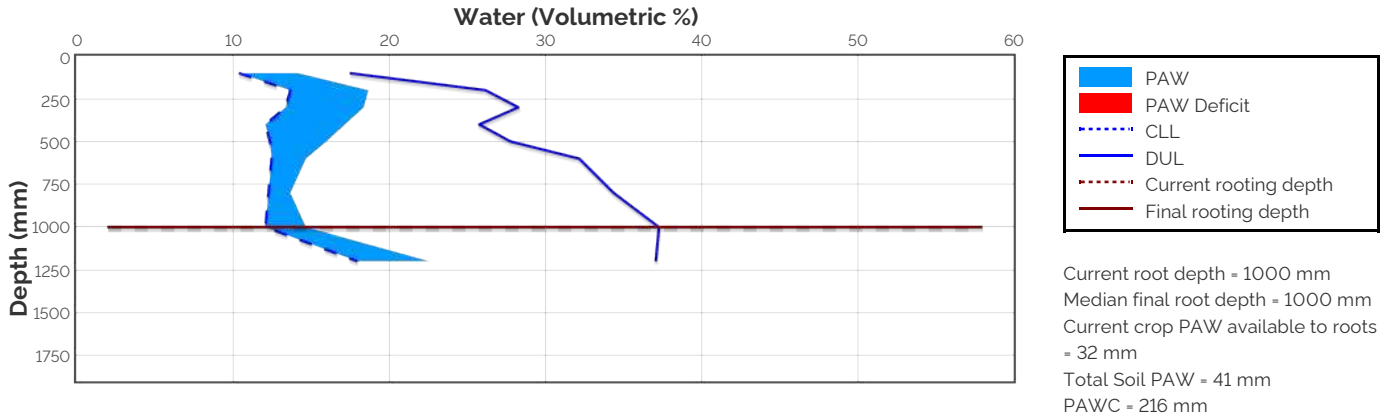
## Predicted

Earliest	17-Jul	21-Jul	26-Jul	6-Aug	11-Aug	19-Aug	31-Aug	12-Sep	1-Oct
Median	17-Jul	21-Jul	26-Jul	6-Aug	11-Aug	19-Aug	31-Aug	12-Sep	1-Oct
Latest	17-Jul	21-Jul	26-Jul	6-Aug	11-Aug	19-Aug	31-Aug	12-Sep	1-Oct

# Probability and Incidence of Frost and Heat Shock



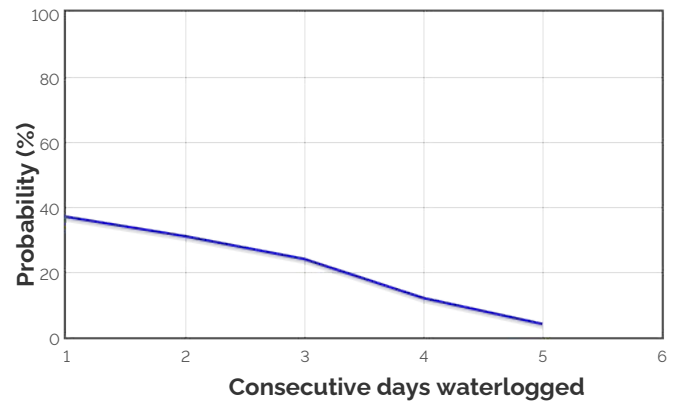
## Current Distribution of PAW



## Water Budget

Initial PAW status @ 21-Mar	93 mm
Rainfall since 21-Mar	279.7 mm
Irrigations	
Evaporation since 21-Mar	125 mm
Transpiration since 21-Mar	205 mm
Deep drainage since 21-Mar	0 mm
Run-off since 21-Mar	0 mm
<b>Current PAW status:</b>	<b>41 mm</b>

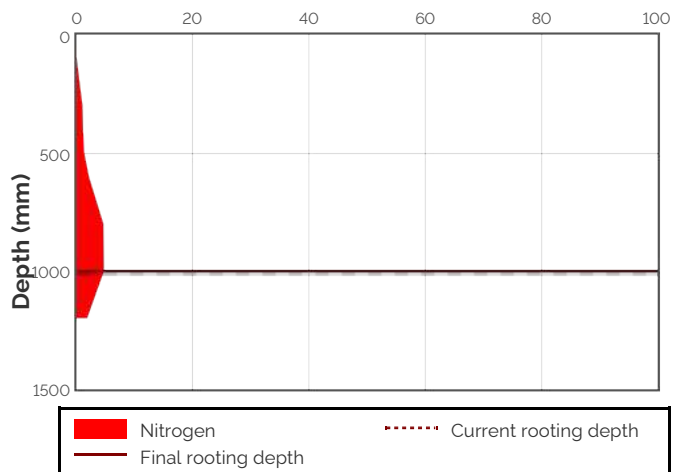
## Probability of Future Waterlogging Events



## Nitrogen Budget

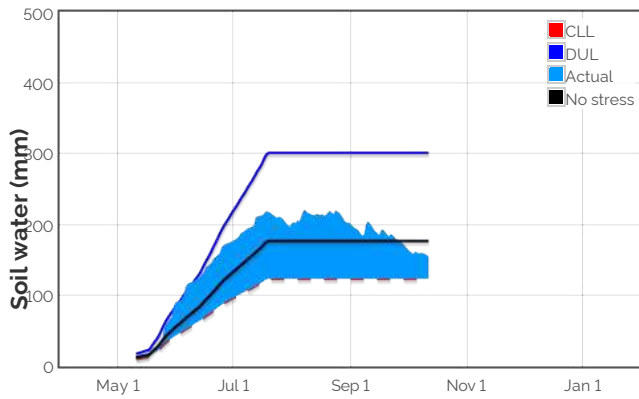
Initial N status @ 21-Mar	154 kg/ha
N mineralisation since 21-Mar	4 kg/ha
N tie up since 21-Mar	7 kg/ha
N applications	
9-May : 9 kg/ha	
23-Jun : 32 kg/ha	
13-Jul : 20.7 kg/ha	
Total N in plant	190 kg/ha
De-nitrification since 21-Mar	0 kg/ha
Leaching since 21-Mar	0 kg/ha
<b>Current N status:</b>	<b>17 kg/ha</b>

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

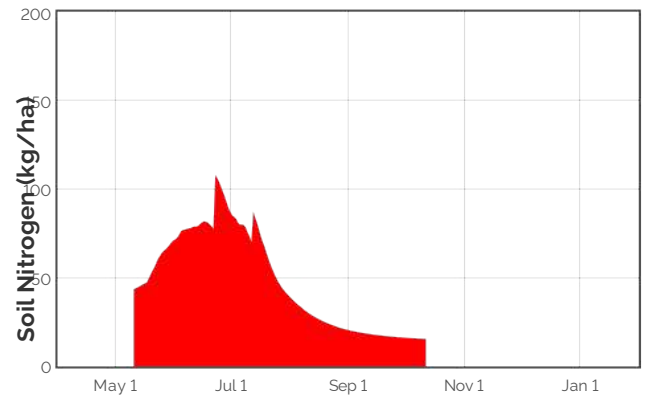


Median N mineralisation to maturity = 0.0765 kg/ha  
 Median N tie up to maturity = 0.1155 kg/ha

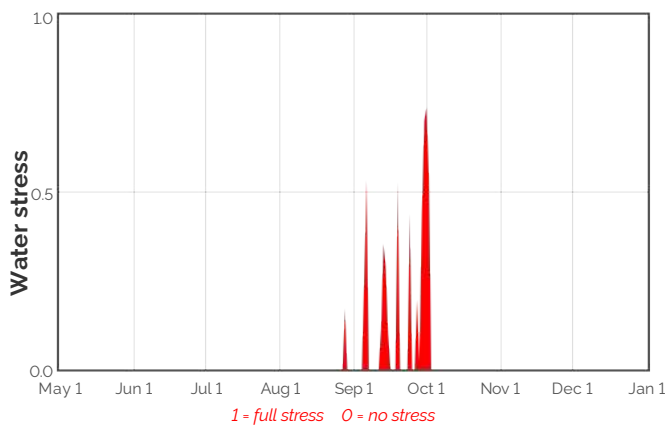
## Availability of Water to Growing Roots



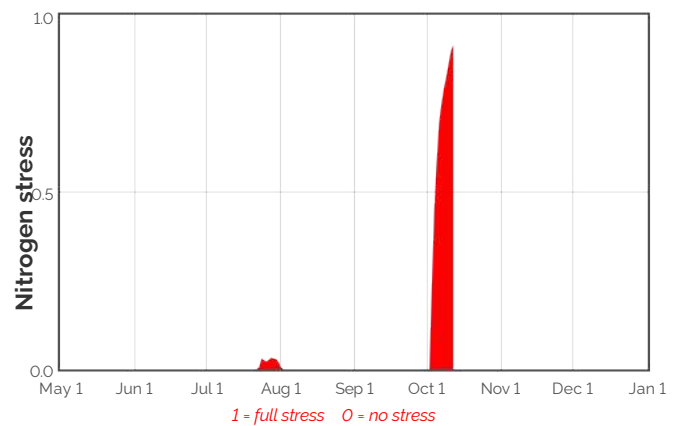
## Availability of Soil Nitrogen to Growing Roots



## Water Stress



## Nitrogen Stress



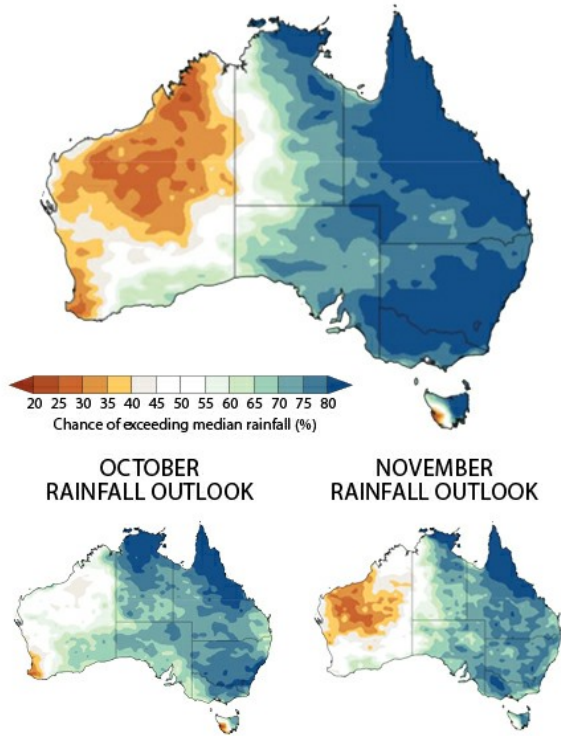
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

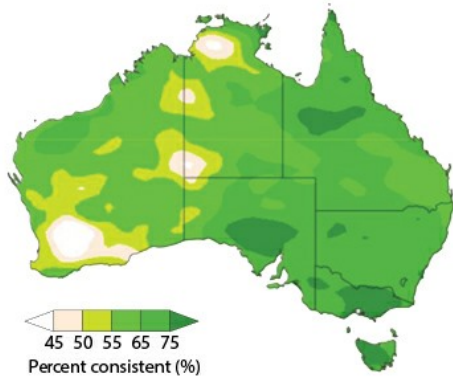
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
13-Oct	81.8	0.9	0.2	0.1	-22.6	30.8	15.3	0.0	0.0
14-Oct	82.3	0.7	0.2	0.1	-23.7	29.7	15.2	0.0	0.0
15-Oct	82.7	0.6	0.1	0.1	-24.4	28.9	15.2	0.0	0.0
16-Oct	83.2	0.5	0.2	0.1	-25.2	28.2	15.1	0.0	0.0
17-Oct	83.7	0.5	0.1	0.0	-25.7	27.6	15.0	0.0	0.0
18-Oct	84.2	0.4	0.1	0.0	-26.2	27.2	15.0	0.0	0.0
19-Oct	84.6	0.4	0.1	0.0	-26.6	26.8	14.9	0.0	0.0
20-Oct	85.1	0.4	0.1	0.0	-27.1	26.3	14.9	0.0	0.0
21-Oct	85.6	0.3	0.1	0.0	-27.6	25.8	14.8	0.0	0.0
22-Oct	86.2	0.3	0.1	0.0	-27.9	25.4	14.8	0.0	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.

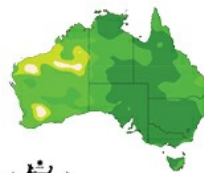
3 MONTH RAINFALL OUTLOOK FOR OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER



PAST ACCURACY FOR NOVEMBER

