

Crop Report

20-Jun-2024

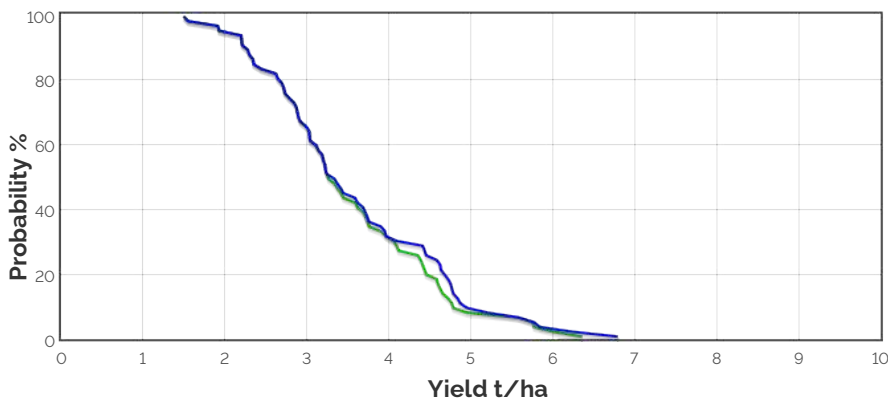
Andrew H Ware: Lock

Crop: Wheat
Cultivar: Calibre
Sowing details: 150 plants/m² on 1-Jun
Expected maturity date: 26-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

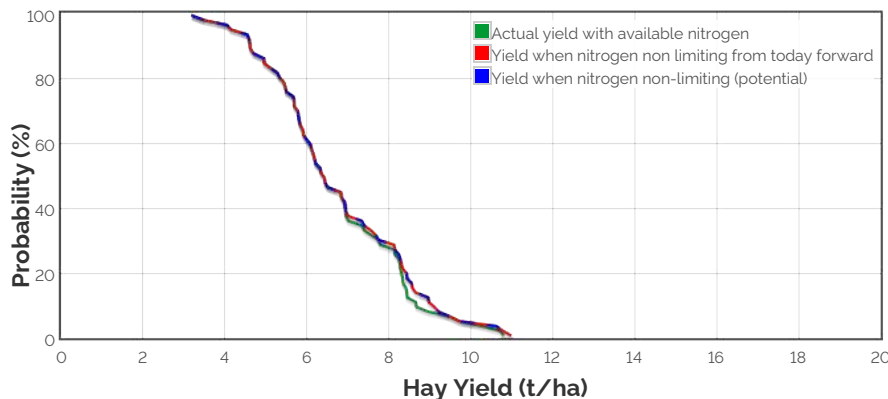
Grain Yield Outcome

- 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.

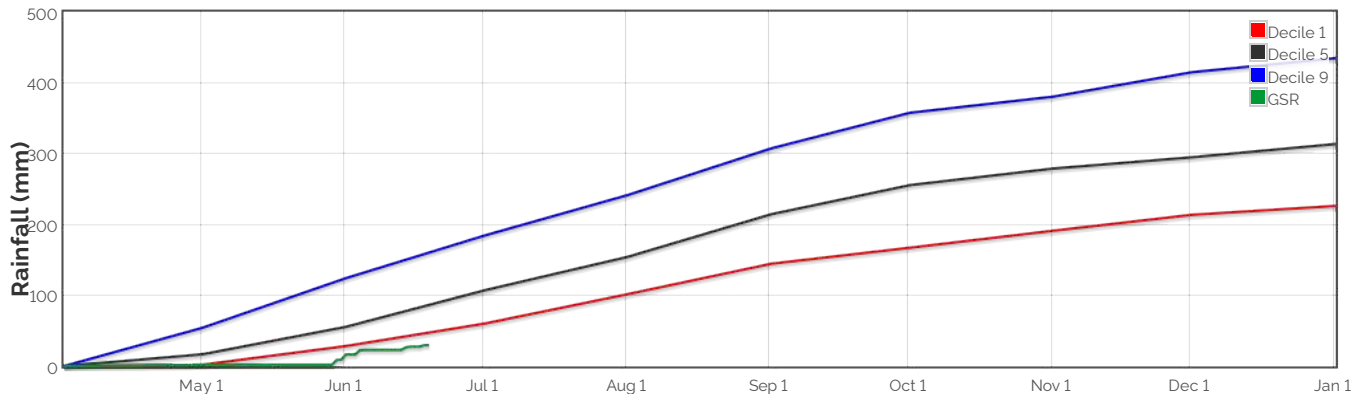
Hay Yield Outcome



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: 25.939130752150877kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

Earliest	21-Jun	27-Jun	5-Jul	16-Jul	26-Jul	4-Aug
Median	22-Jun	30-Jun	10-Jul	20-Jul	30-Jul	9-Aug
Latest	22-Jun	2-Jul	14-Jul	26-Jul	6-Aug	16-Aug



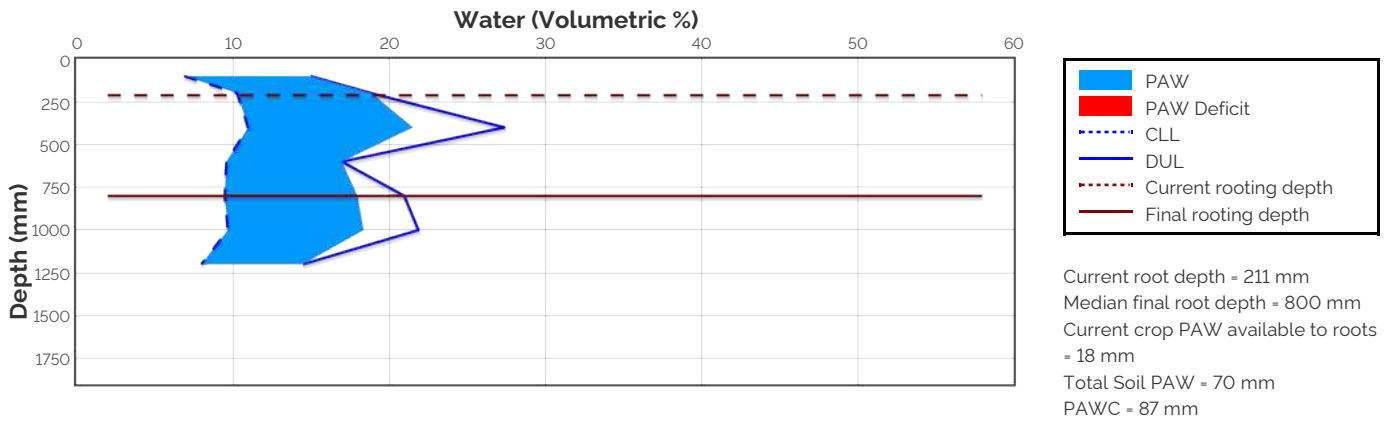
Predicted

Earliest	4-Aug	9-Aug	16-Aug	21-Aug	22-Aug	30-Aug	10-Sep	16-Sep	3-Oct
Median	13-Aug	17-Aug	23-Aug	31-Aug	1-Sep	8-Sep	19-Sep	25-Sep	12-Oct
Latest	20-Aug	23-Aug	31-Aug	7-Sep	8-Sep	16-Sep	28-Sep	4-Oct	21-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		8%	0	mild 32 to 34°C		57%	0
moderate 0 to -2°C during flowering & early grain fill		1%	0	moderate 34 to 36°C		32%	0
severe Less than -2°C during flowering & grain fill		0%	0	severe Above 36°C		23%	0

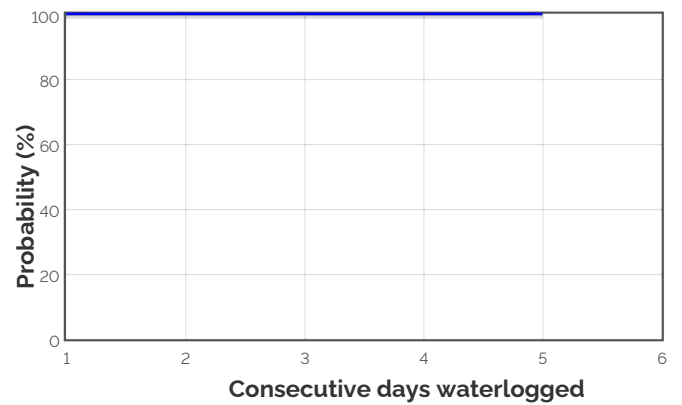
Current Distribution of PAW



Water Budget

Initial PAW status @ 24-Apr	70 mm
Rainfall since 24-Apr	28.4 mm
Irrigations	
Evaporation since 24-Apr	20 mm
Transpiration since 24-Apr	0 mm
Deep drainage since 24-Apr	0 mm
Run-off since 24-Apr	0 mm
Current PAW status:	70 mm

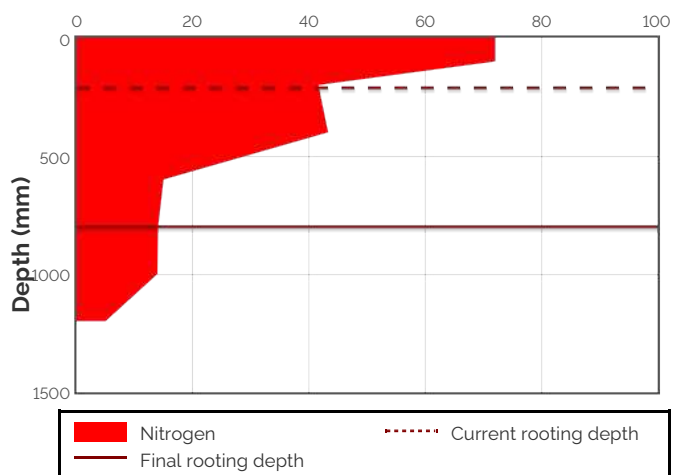
Probability of Future Waterlogging Events



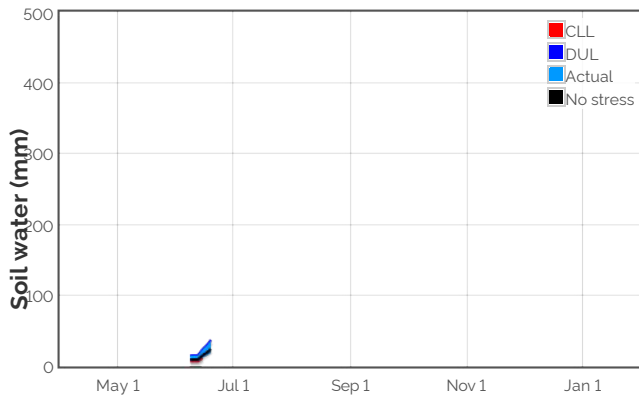
Nitrogen Budget

Initial N status @ 24-Apr	144 kg/ha
N mineralisation since 24-Apr	22 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	1 kg/ha
De-nitrification since 24-Apr	0 kg/ha
Leaching since 24-Apr	0 kg/ha
Current N status:	206 kg/ha
Median N mineralisation to maturity = 60.034527730477 kg/ha	
Median N tie up to maturity = 0 kg/ha	

Current distribution of soil nitrogen (kg/ha)



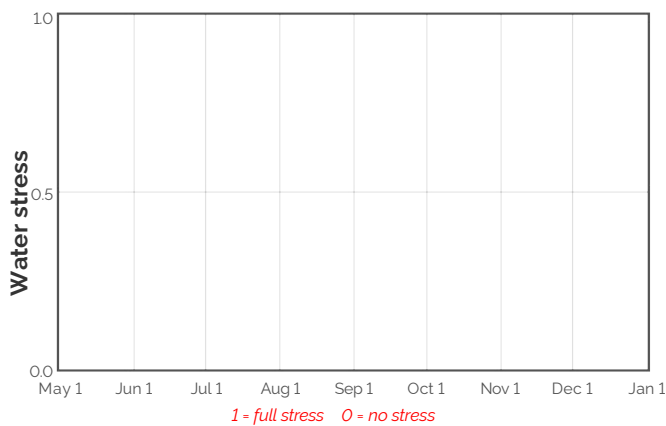
Availability of Water to Growing Roots



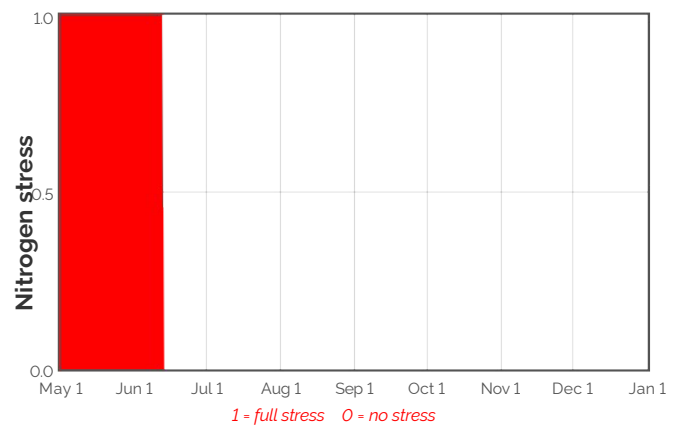
Availability of Soil Nitrogen to Growing Roots



Water Stress



Nitrogen Stress



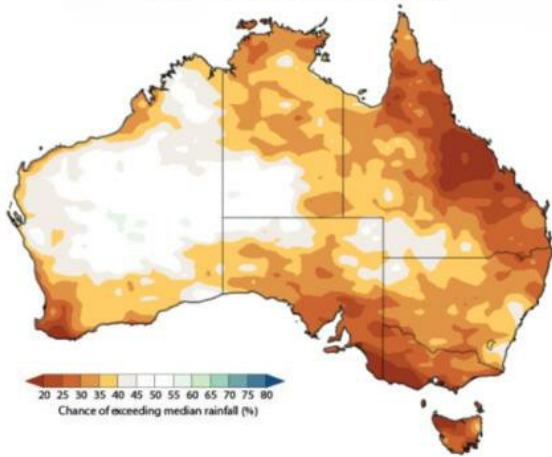
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

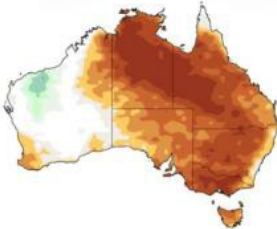
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
21-Jun	11.0	0.2	0.0	0.0	13.2	19.5	119.4	0.3	0.0
22-Jun	11.1	0.2	0.0	-0.3	14.0	21.0	122.4	0.3	0.0
23-Jun	11.2	0.2	0.0	-0.1	14.7	22.4	125.6	0.3	0.0
24-Jun	11.4	0.2	0.0	-0.1	15.4	23.8	128.7	0.3	0.0
25-Jun	11.5	0.2	0.0	-0.1	16.0	25.2	131.7	0.3	0.0
26-Jun	11.6	0.2	0.0	-0.1	16.6	26.6	134.9	0.3	0.0
27-Jun	11.7	0.2	0.0	-0.2	17.2	27.9	137.9	0.3	0.0
28-Jun	11.9	0.2	0.0	-0.2	17.9	29.3	141.0	0.3	0.0
29-Jun	12.0	0.2	0.1	-0.2	18.3	30.6	143.9	0.3	0.0
30-Jun	12.1	0.2	0.1	-0.2	18.8	31.8	146.9	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.

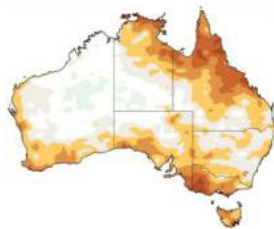
3 MONTH RAINFALL OUTLOOK FOR OCTOBER TO DECEMBER



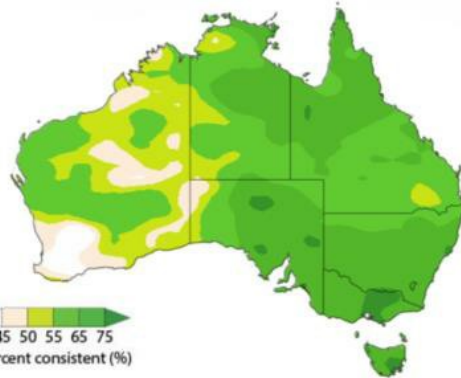
OCTOBER RAINFALL OUTLOOK



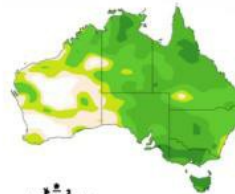
NOVEMBER RAINFALL OUTLOOK



PAST ACCURACY FOR OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER



PAST ACCURACY FOR NOVEMBER

