

Crop Report

21-Aug-2024

Andrew H Ware: Heddle
Minnipa

Crop: Wheat

Cultivar: Calibre

Sowing details: 150 plants/m² on 1-Jun

Expected maturity date: 22-Nov

Paddock Details

Initial conditions date: 22-Feb

Soil: Red sandy clay loam (Minnipa No909)

1000 mm max rooting depth

Stubble: 500 kg/ha of Lentil
No till

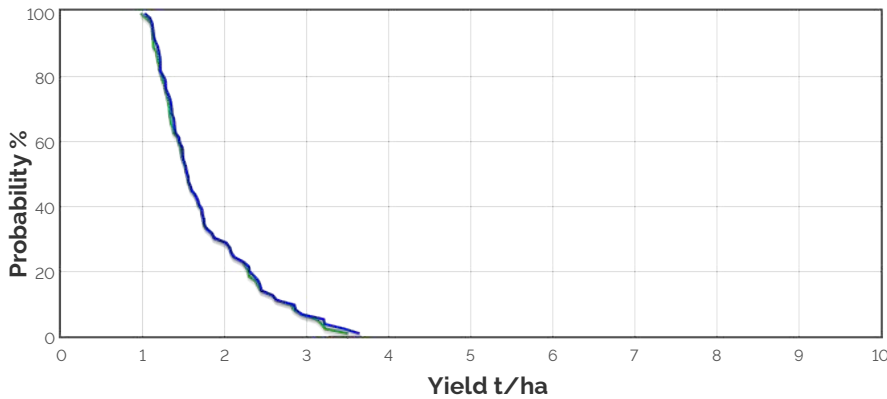
Grain Yield Outcome

Nitrogen limited Yield

Nitrogen limited Yield with Frost and heat Effects

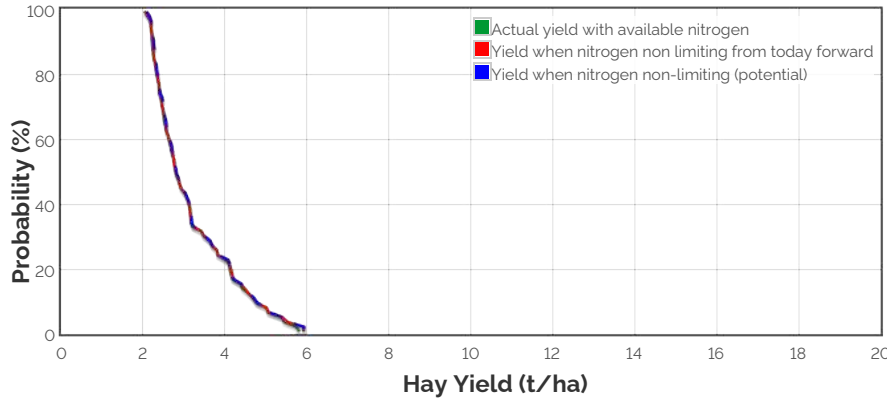
Water limited Yield

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.

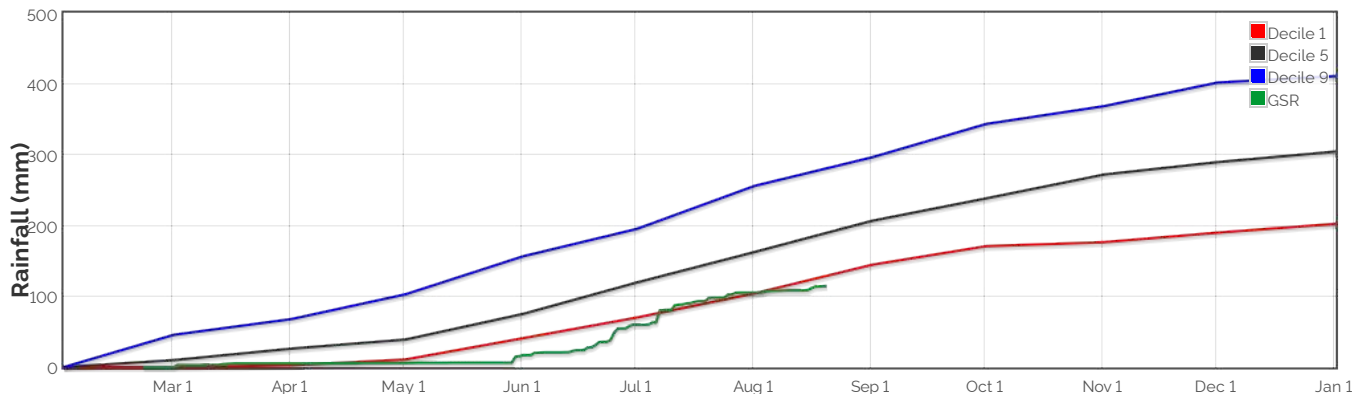
Hay Yield Outcome



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: 2206.535415910607kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

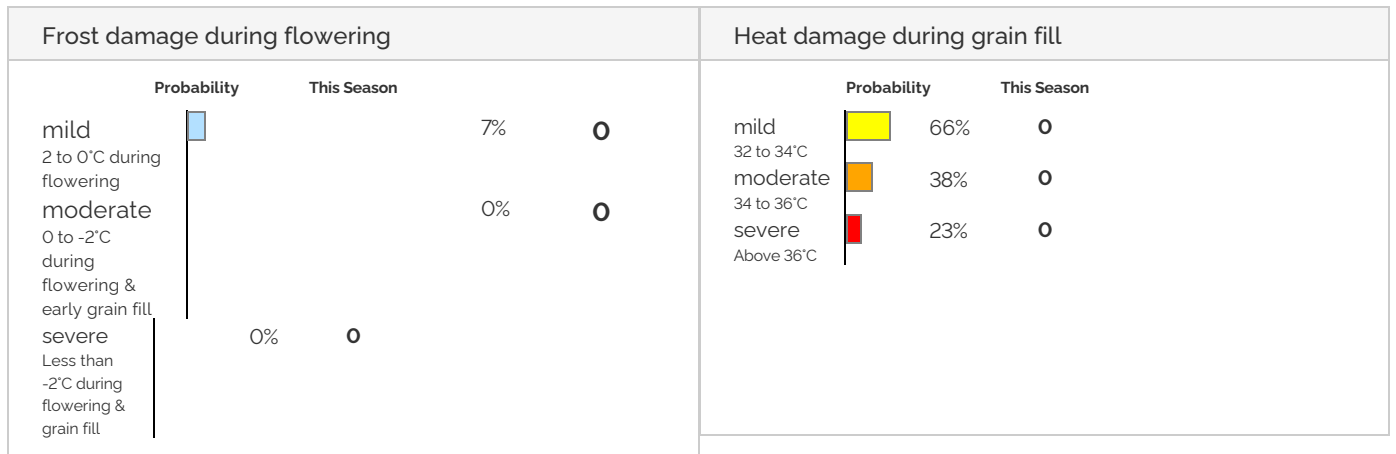
Earliest	18-Jun	26-Jun	7-Jul	17-Jul	26-Jul	6-Aug
Median	18-Jun	26-Jun	7-Jul	17-Jul	26-Jul	6-Aug
Latest	19-Jun	27-Jun	8-Jul	18-Jul	27-Jul	7-Aug



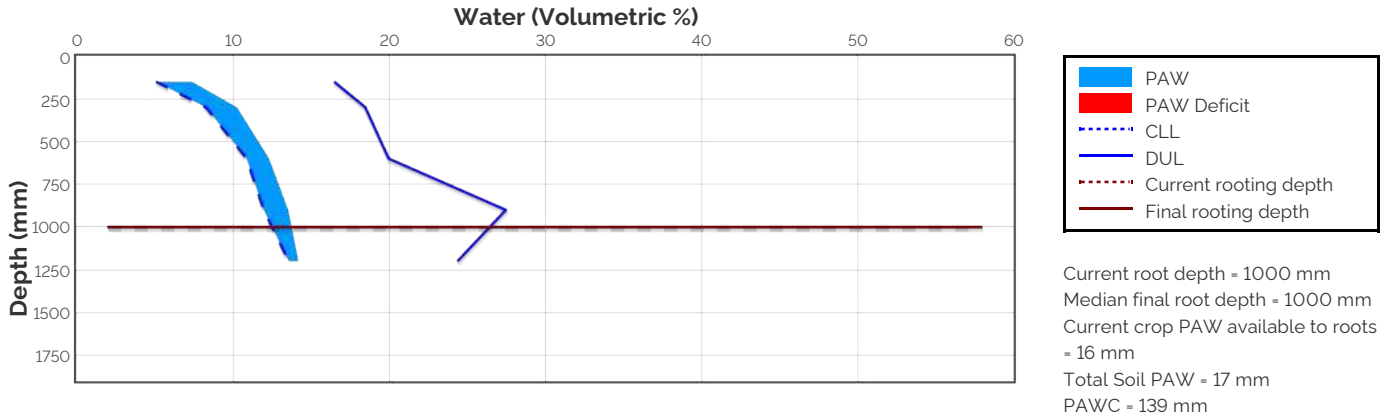
Predicted

Earliest	12-Aug	16-Aug	20-Aug	26-Aug	26-Aug	31-Aug	11-Sep	16-Sep	2-Oct
Median	12-Aug	16-Aug	20-Aug	28-Aug	29-Aug	5-Sep	15-Sep	20-Sep	7-Oct
Latest	12-Aug	17-Aug	20-Aug	30-Aug	31-Aug	8-Sep	19-Sep	26-Sep	13-Oct

Probability and Incidence of Frost and Heat Shock



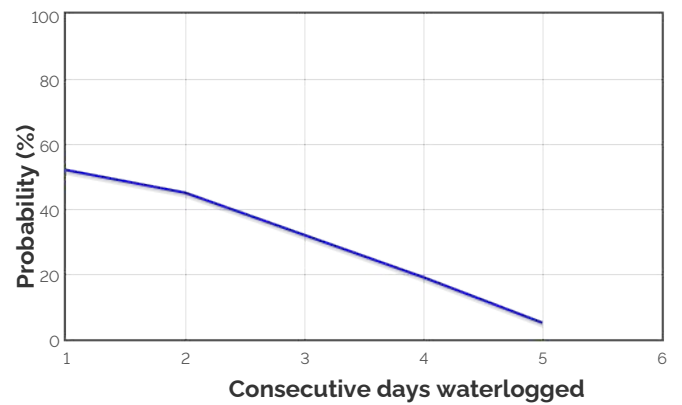
Current Distribution of PAW



Water Budget

Initial PAW status @ 22-Feb	29 mm
Rainfall since 22-Feb	114.6 mm
Irrigations	
Evaporation since 22-Feb	92 mm
Transpiration since 22-Feb	50 mm
Deep drainage since 22-Feb	0 mm
Run-off since 22-Feb	0 mm
Current PAW status:	17 mm

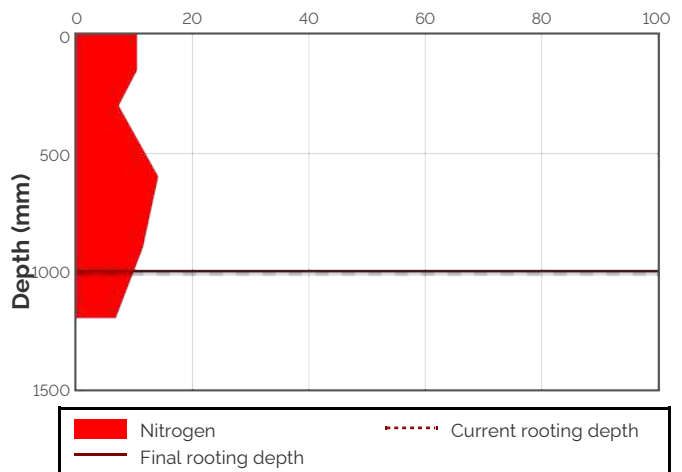
Probability of Future Waterlogging Events



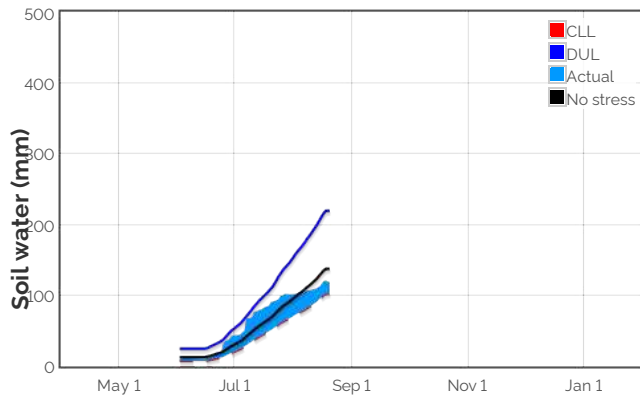
Nitrogen Budget

Initial N status @ 22-Feb	60 kg/ha
N mineralisation since 22-Feb	43 kg/ha
N tie up since 22-Feb	0 kg/ha
N applications	
1-May : 16 kg/ha	
31-May : 24 kg/ha	
17-Jul : 34.5 kg/ha	
Total N in plant	80 kg/ha
De-nitrification since 22-Feb	0 kg/ha
Leaching since 22-Feb	0 kg/ha
Current N status:	58 kg/ha
Median N mineralisation to maturity = 40.5011532752893 kg/ha	
Median N tie up to maturity = 0 kg/ha	

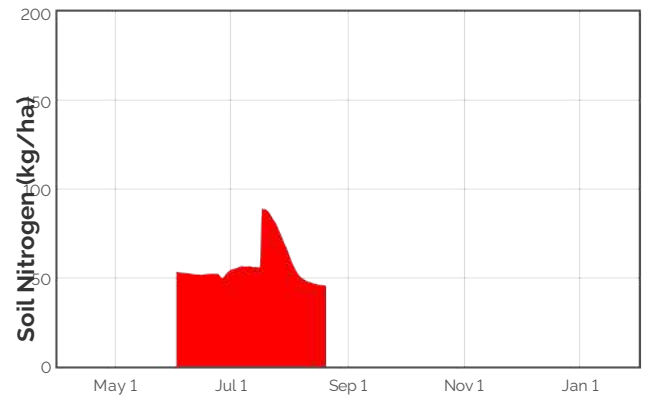
Current distribution of soil nitrogen (kg/ha)



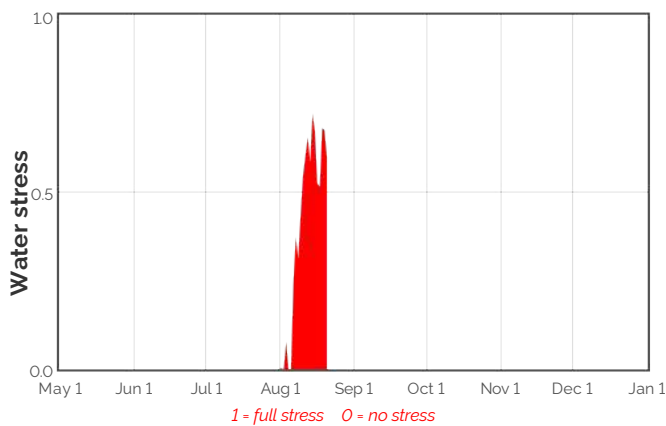
Availability of Water to Growing Roots



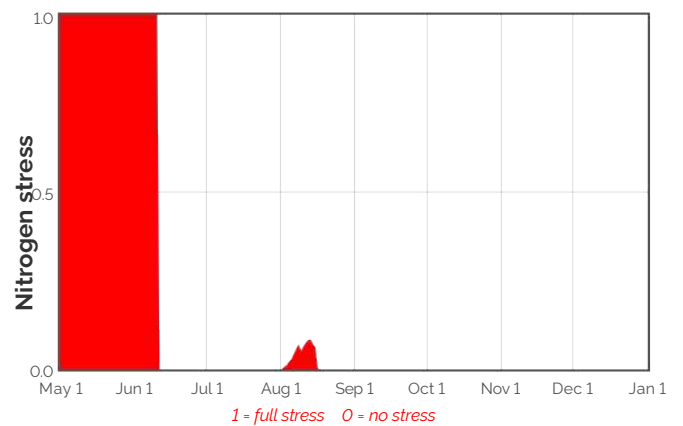
Availability of Soil Nitrogen to Growing Roots



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.

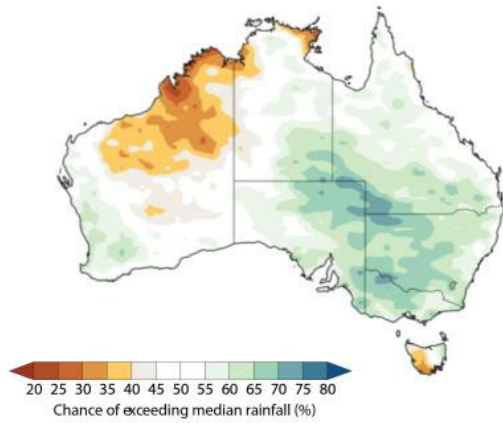
Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
22-Aug	32.3	0.4	1.8	-0.5	-20.0	15.1	44.0	0.2	0.0
23-Aug	32.4	0.3	1.8	-0.5	-21.2	13.9	43.6	0.2	0.0
24-Aug	32.5	0.3	1.7	-0.4	-22.1	13.0	43.3	0.2	0.0
25-Aug	32.6	0.3	1.8	-0.3	-23.0	12.1	43.2	0.2	0.0
26-Aug	32.6	0.3	2.0	-0.3	-23.6	11.5	43.0	0.2	0.0
27-Aug	32.7	0.3	2.0	-0.1	-24.3	10.8	42.8	0.2	0.0
28-Aug	37.7	0.3	2.1	0.0	-25.0	10.1	42.8	0.2	0.0
29-Aug	39.0	0.3	1.9	0.0	-25.6	9.4	42.9	0.2	0.0
30-Aug	39.8	0.3	2.0	0.0	-26.2	8.9	42.9	0.2	0.0
31-Aug	40.8	0.2	1.8	0.0	-26.8	8.2	42.9	0.2	0.0

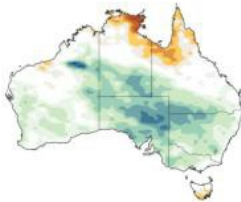
The water available to roots above the stress threshold is the amount of PAW (mm) above one third of the total water holding capacity of this soil. If the water values are below this stress threshold the water available to roots above the stress threshold will be negative.

Bureau of Meteorology Seasonal and Monthly Outlooks

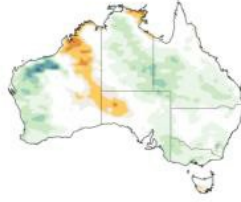
3 MONTH RAINFALL OUTLOOK FOR AUGUST TO OCTOBER



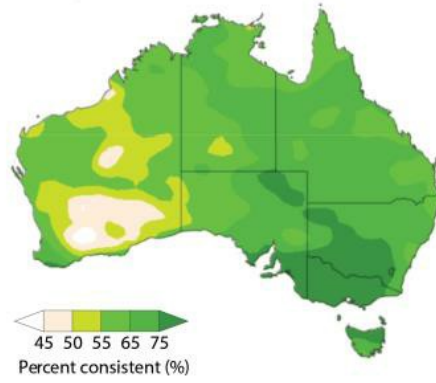
AUGUST RAINFALL OUTLOOK



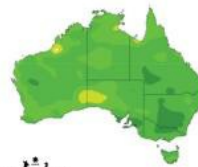
SEPTEMBER RAINFALL OUTLOOK



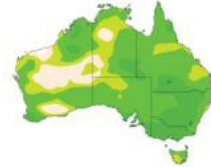
PAST ACCURACY FOR AUGUST TO OCTOBER



PAST ACCURACY FOR AUGUST



PAST ACCURACY FOR SEPTEMBER




Australian Government
Bureau of Meteorology

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