

Crop Report

16-Sep-2024

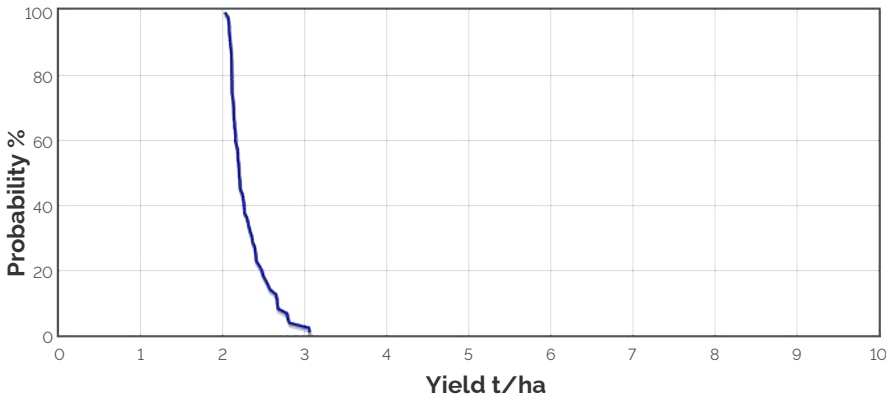
Andrew H Ware: Lock

Crop: Wheat
Cultivar: Calibre
 Sowing details: 150 plants/m² 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

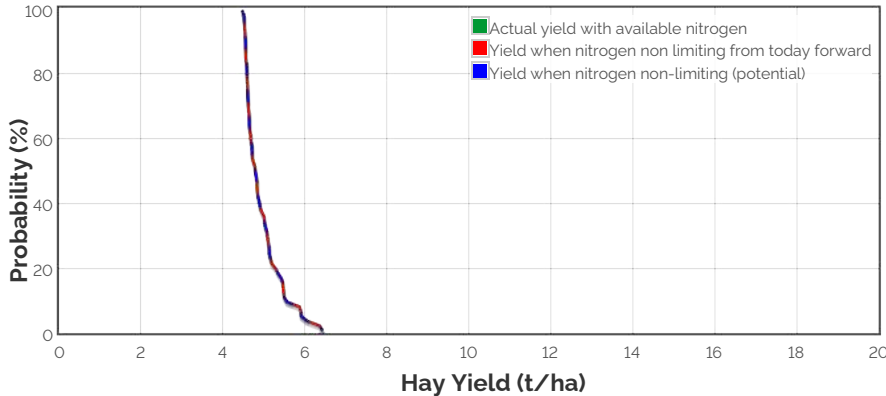
Grain Yield Outcome

- 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.

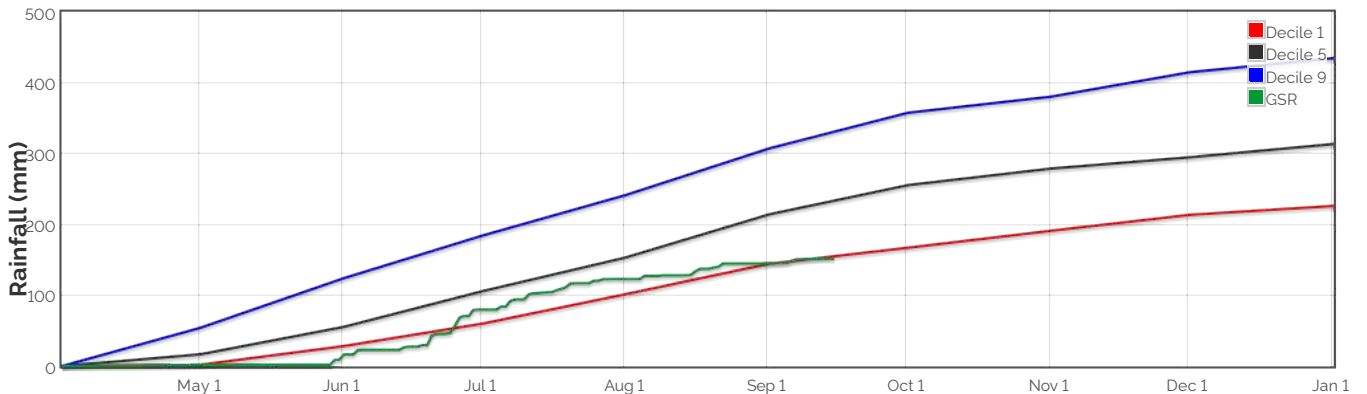
Hay Yield Outcome



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: 5145.392039281695kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

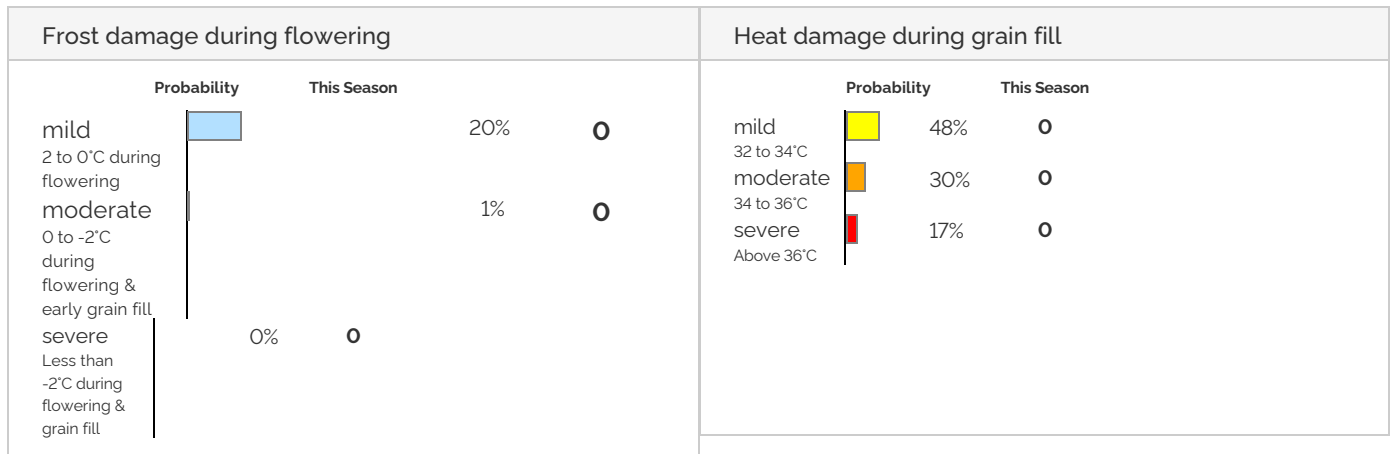
Earliest	18-Jun	25-Jun	7-Jul	16-Jul	26-Jul	6-Aug
Median	18-Jun	25-Jun	7-Jul	16-Jul	26-Jul	6-Aug
Latest	18-Jun	25-Jun	7-Jul	16-Jul	26-Jul	6-Aug



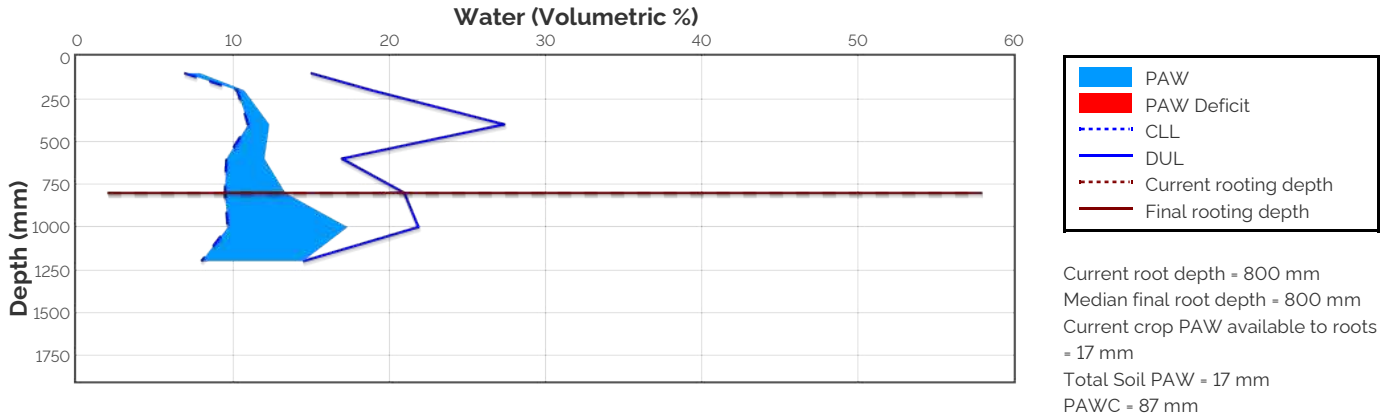
Predicted

Earliest	12-Aug	17-Aug	21-Aug	28-Aug	29-Aug	4-Sep	14-Sep	19-Sep	5-Oct
Median	12-Aug	17-Aug	21-Aug	28-Aug	29-Aug	4-Sep	14-Sep	20-Sep	8-Oct
Latest	12-Aug	17-Aug	21-Aug	28-Aug	29-Aug	4-Sep	14-Sep	21-Sep	10-Oct

Probability and Incidence of Frost and Heat Shock



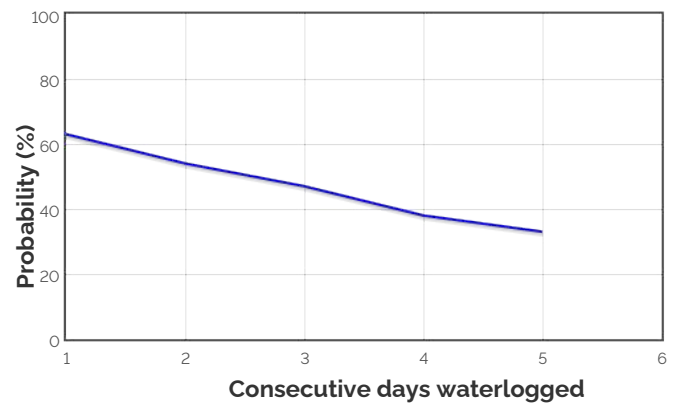
Current Distribution of PAW



Water Budget

Initial PAW status @ 24-Apr	70 mm
Rainfall since 24-Apr	150.3 mm
Irrigations	
Evaporation since 24-Apr	95 mm
Transpiration since 24-Apr	136 mm
Deep drainage since 24-Apr	15 mm
Run-off since 24-Apr	0 mm
Current PAW status:	17 mm

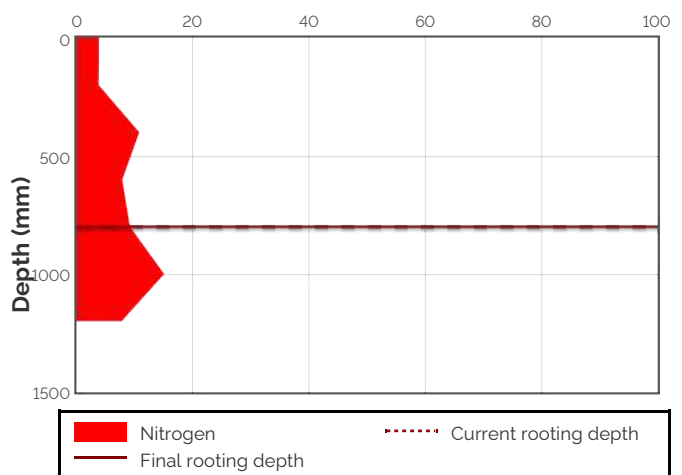
Probability of Future Waterlogging Events



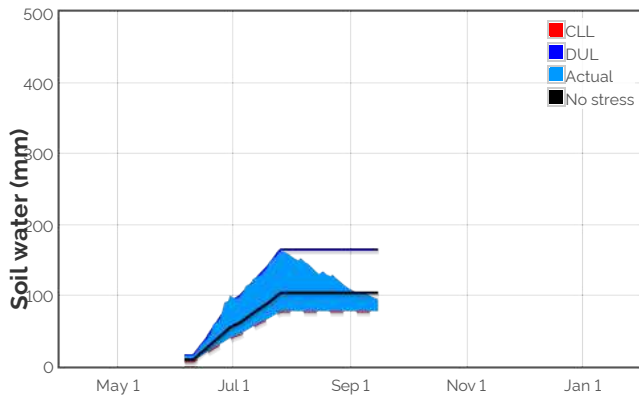
Nitrogen Budget

Initial N status @ 24-Apr	144 kg/ha
N mineralisation since 24-Apr	51 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	143 kg/ha
De-nitrification since 24-Apr	0 kg/ha
Leaching since 24-Apr	3 kg/ha
Current N status:	60 kg/ha
Median N mineralisation to maturity = 60.7853623357199 kg/ha	
Median N tie up to maturity = 0 kg/ha	

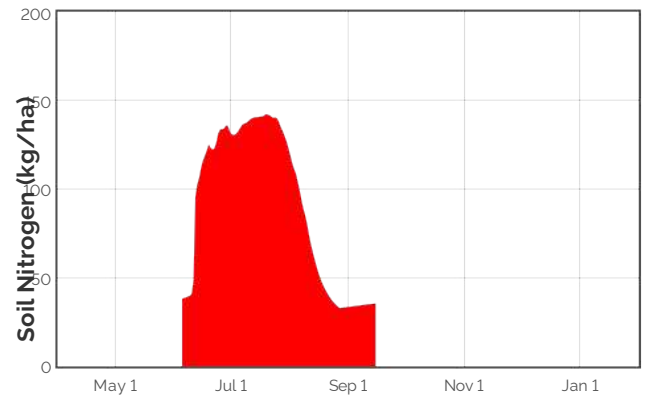
Current distribution of soil nitrogen (kg/ha)



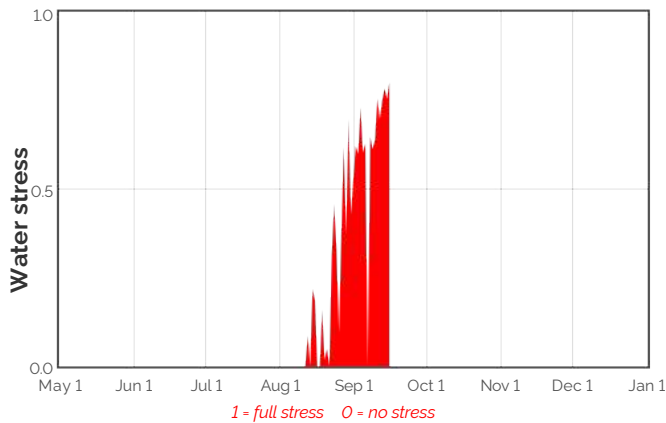
Availability of Water to Growing Roots



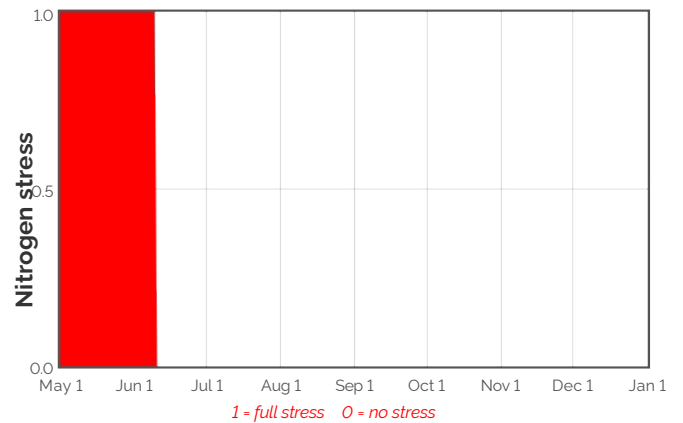
Availability of Soil Nitrogen to Growing Roots



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.

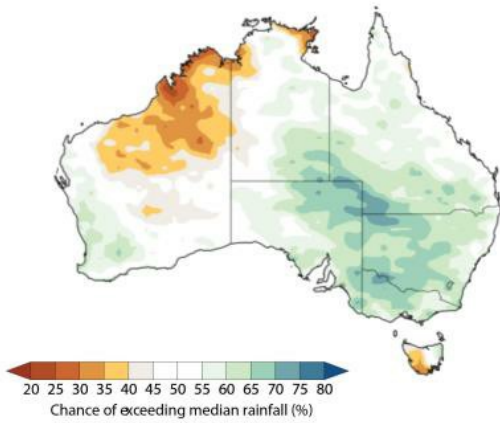
Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
17-Sep	60.9	0.4	2.6	0.0	-10.3	15.9	35.5	0.3	0.0
18-Sep	62.5	0.3	2.8	0.0	-11.1	15.1	35.6	0.3	0.0
19-Sep	64.3	0.3	2.6	0.0	-11.9	14.2	35.7	0.3	0.0
20-Sep	65.4	0.3	2.6	0.0	-12.7	13.5	35.8	0.3	0.0
21-Sep	66.0	0.3	2.6	0.0	-13.4	12.8	35.9	0.3	0.0
22-Sep	66.8	0.3	2.6	0.0	-14.1	12.1	36.0	0.3	0.0
23-Sep	67.6	0.3	2.4	0.0	-14.8	11.4	36.2	0.4	0.0
24-Sep	68.3	0.3	2.1	0.0	-15.4	10.8	36.3	0.4	0.0
25-Sep	69.0	0.3	2.0	0.0	-16.0	10.2	36.4	0.4	0.0
26-Sep	69.7	0.2	1.9	0.0	-16.6	9.6	36.5	0.4	0.0

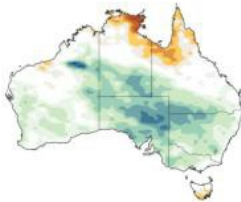
The water available to roots above the stress threshold is the amount of PAW (mm) above one third of the total water holding capacity of this soil. If the water values are below this stress threshold the water available to roots above the stress threshold will be negative.

Bureau of Meteorology Seasonal and Monthly Outlooks

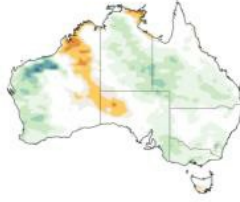
3 MONTH RAINFALL OUTLOOK FOR AUGUST TO OCTOBER



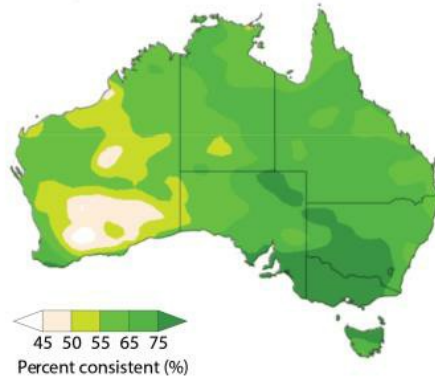
AUGUST RAINFALL OUTLOOK



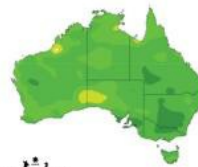
SEPTEMBER RAINFALL OUTLOOK



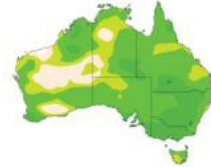
PAST ACCURACY FOR AUGUST TO OCTOBER



PAST ACCURACY FOR AUGUST



PAST ACCURACY FOR SEPTEMBER




Australian Government
Bureau of Meteorology

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