

Crop Report

16-Sep-2024

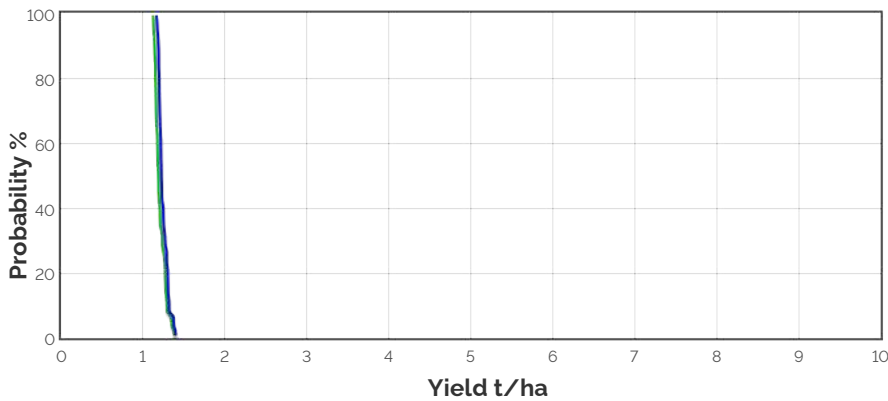
Andrew H Ware: Cleve

Crop: Wheat
Cultivar: Calibre
Sowing details: 150 plants/m² on 1-Jun
Expected maturity date: 18-Nov

Paddock Details
Initial conditions date: 22-Feb
Soil: Red sandy loam over clay (Lock No321)
 1000 mm max rooting depth
Stubble: 1000 kg/ha of Canola
 No till

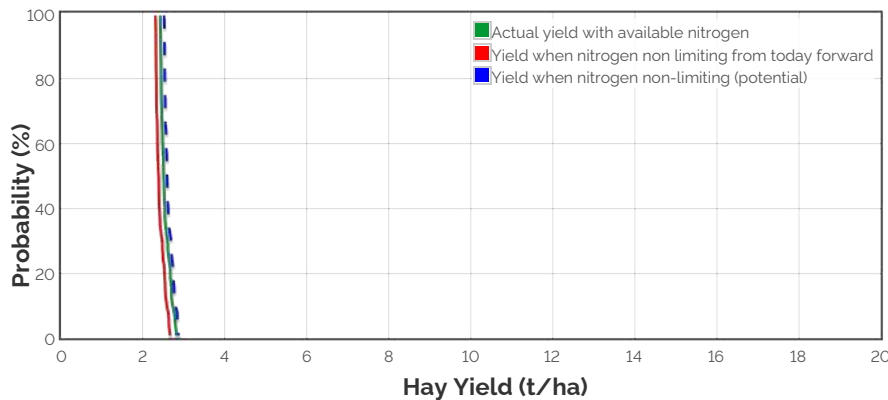
Grain Yield Outcome

- 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.

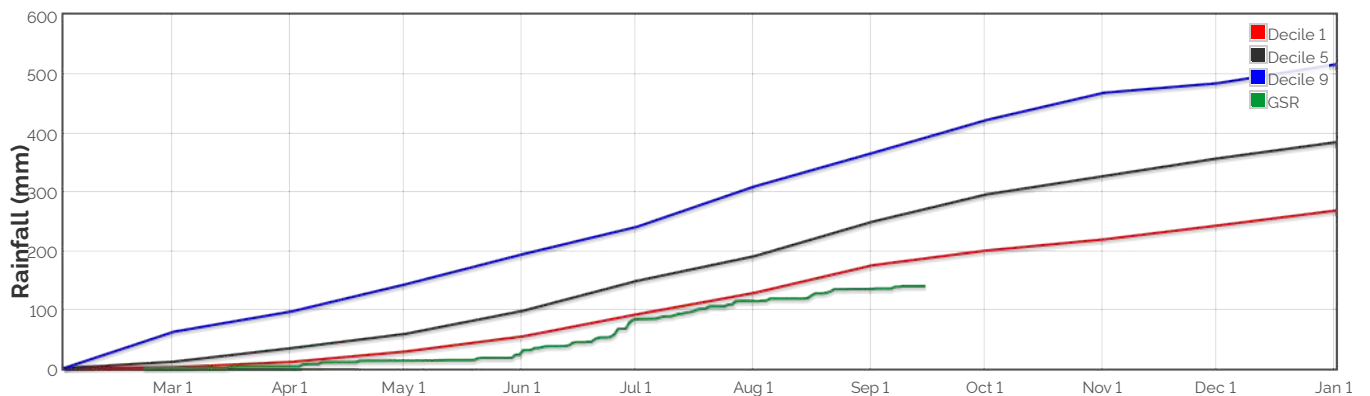
Hay Yield Outcome



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: 3131.555127258082kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

Earliest	18-Jun	26-Jun	7-Jul	16-Jul	25-Jul	4-Aug
Median	18-Jun	26-Jun	7-Jul	16-Jul	25-Jul	4-Aug
Latest	19-Jun	27-Jun	8-Jul	17-Jul	26-Jul	5-Aug



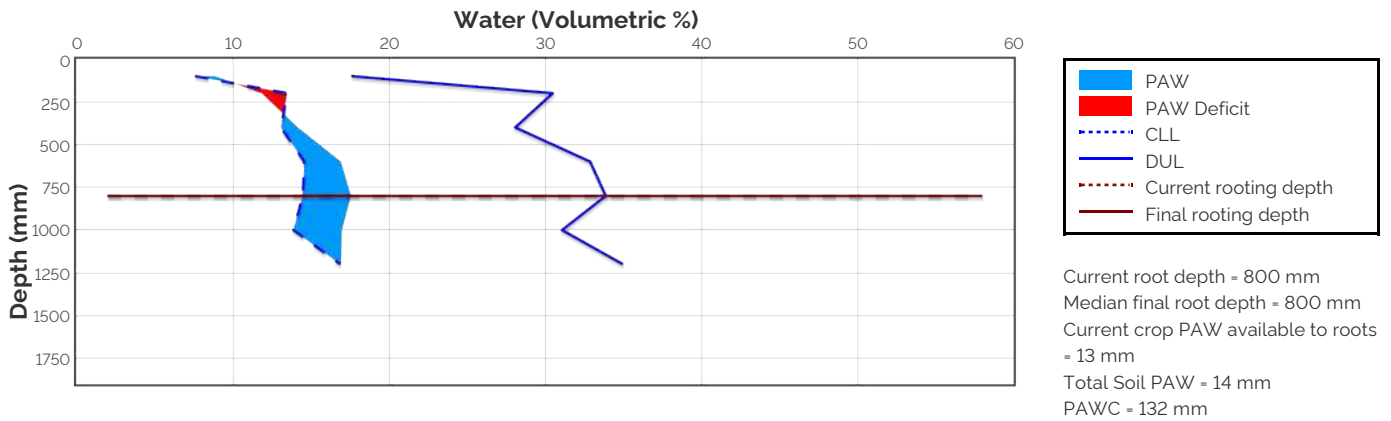
Predicted

Earliest	11-Aug	15-Aug	20-Aug	26-Aug	26-Aug	1-Sep	9-Sep	15-Sep	30-Sep
Median	11-Aug	15-Aug	21-Aug	26-Aug	26-Aug	1-Sep	9-Sep	15-Sep	3-Oct
Latest	11-Aug	16-Aug	21-Aug	26-Aug	26-Aug	2-Sep	10-Sep	16-Sep	7-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	1%	0		mild 32 to 34°C	35%	0	
moderate 0 to -2°C during flowering & early grain fill	0%	0		moderate 34 to 36°C	20%	0	
severe Less than -2°C during flowering & grain fill	0%	0		severe Above 36°C	10%	0	

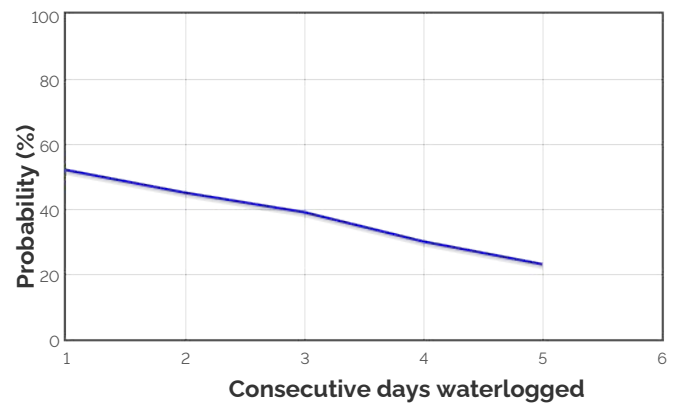
Current Distribution of PAW



Water Budget

Initial PAW status @ 22-Feb	63 mm
Rainfall since 22-Feb	139.5 mm
Irrigations	
Evaporation since 22-Feb	138 mm
Transpiration since 22-Feb	104 mm
Deep drainage since 22-Feb	0 mm
Run-off since 22-Feb	0 mm
Current PAW status:	14 mm

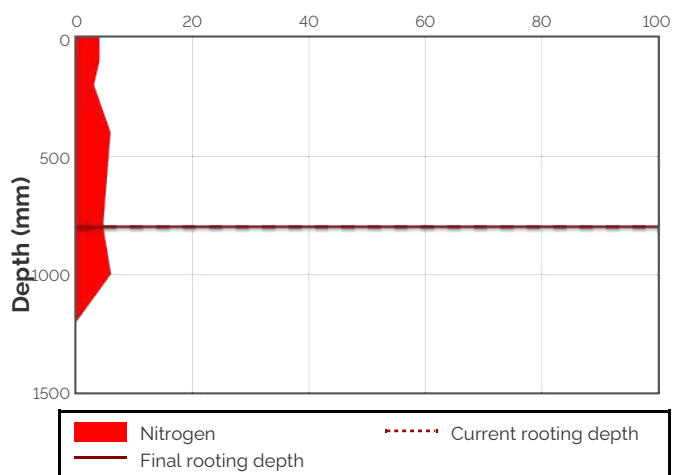
Probability of Future Waterlogging Events



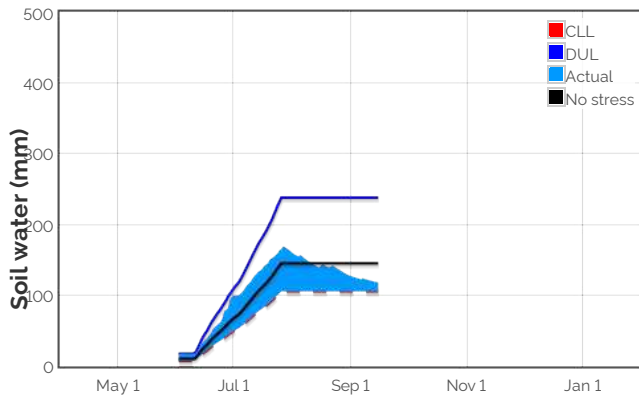
Nitrogen Budget

Initial N status @ 22-Feb	33 kg/ha
N mineralisation since 22-Feb	118 kg/ha
N tie up since 22-Feb	0 kg/ha
N applications	
1-Jun : 14 kg/ha	
19-Jun : 25 kg/ha	
27-Jul : 10 kg/ha	
Total N in plant	69 kg/ha
De-nitrification since 22-Feb	0 kg/ha
Leaching since 22-Feb	0 kg/ha
Current N status:	29 kg/ha

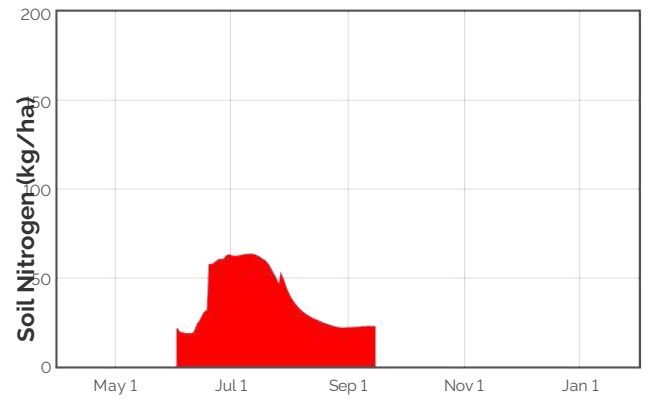
Current distribution of soil nitrogen (kg/ha)



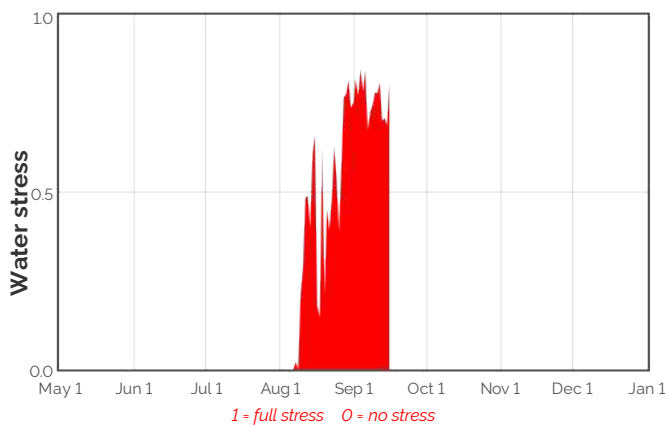
Availability of Water to Growing Roots



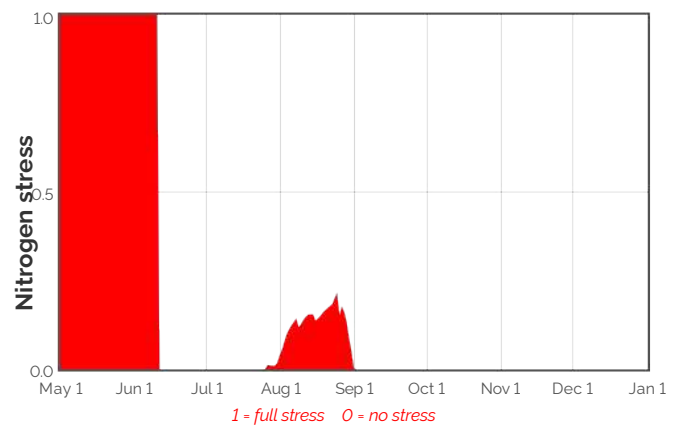
Availability of Soil Nitrogen to Growing Roots



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.

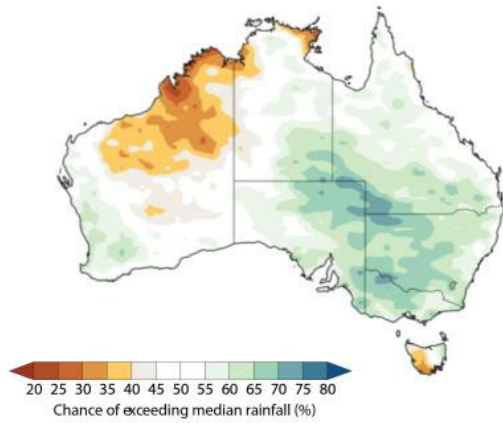
Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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	66.6	0.3	0.8	0.0	-21.1	18.6	23.1	0.5	0.0
18-Sep	67.3	0.2	0.6	0.0	-21.6	18.2	23.1	0.5	0.0
19-Sep	68.0	0.2	0.6	0.0	-22.0	17.8	23.1	0.5	0.0
20-Sep	68.7	0.2	0.5	0.0	-22.4	17.4	23.2	0.5	0.0
21-Sep	69.4	0.2	0.5	0.0	-22.7	17.0	23.3	0.5	0.0
22-Sep	70.2	0.2	0.5	0.0	-23.1	16.6	23.3	0.5	0.0
23-Sep	71.0	0.2	0.4	-0.2	-23.4	16.3	23.2	0.5	0.0
24-Sep	71.4	0.2	0.3	-0.3	-23.8	16.0	23.0	0.5	0.0
25-Sep	71.8	0.2	0.2	-0.2	-24.1	15.6	22.8	0.5	0.0
26-Sep	72.3	0.2	0.2	-0.2	-24.4	15.3	22.7	0.5	0.0

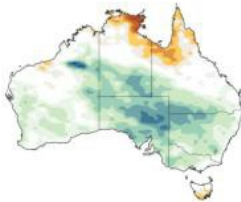
The water available to roots above the stress threshold is the amount of PAW (mm) above one third of the total water holding capacity of this soil. If the water values are below this stress threshold the water available to roots above the stress threshold will be negative.

Bureau of Meteorology Seasonal and Monthly Outlooks

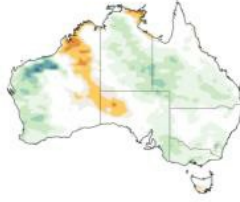
3 MONTH RAINFALL OUTLOOK FOR AUGUST TO OCTOBER



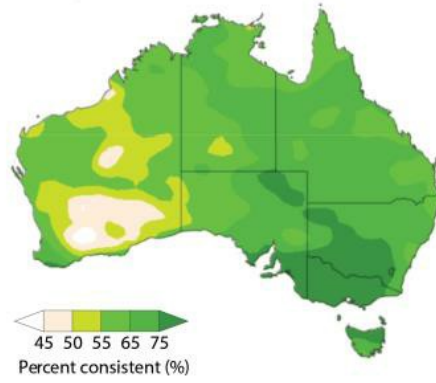
AUGUST RAINFALL OUTLOOK



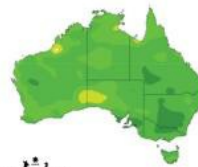
SEPTEMBER RAINFALL OUTLOOK



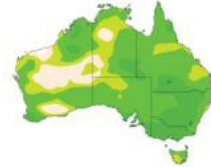
PAST ACCURACY FOR AUGUST TO OCTOBER



PAST ACCURACY FOR AUGUST



PAST ACCURACY FOR SEPTEMBER




Australian Government
Bureau of Meteorology

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