

Crop Report

20-Jun-2024

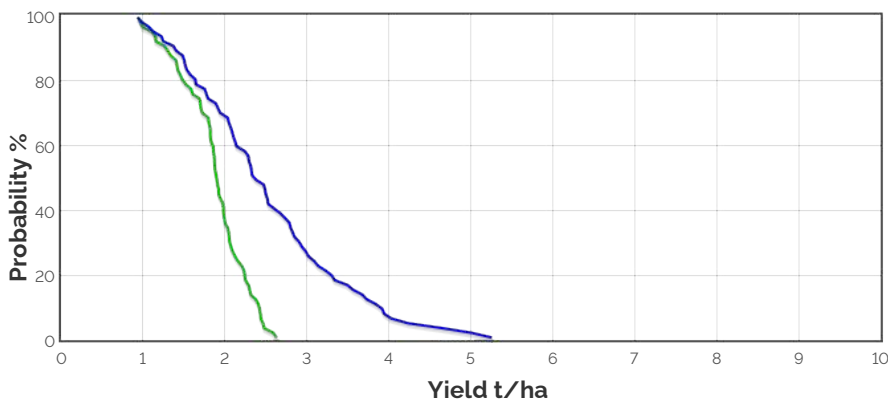
Andrew H Ware: Cleve

Crop: Wheat
Cultivar: Calibre
Sowing details: 150 plants/m² on 1-Jun
Expected maturity date: 28-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

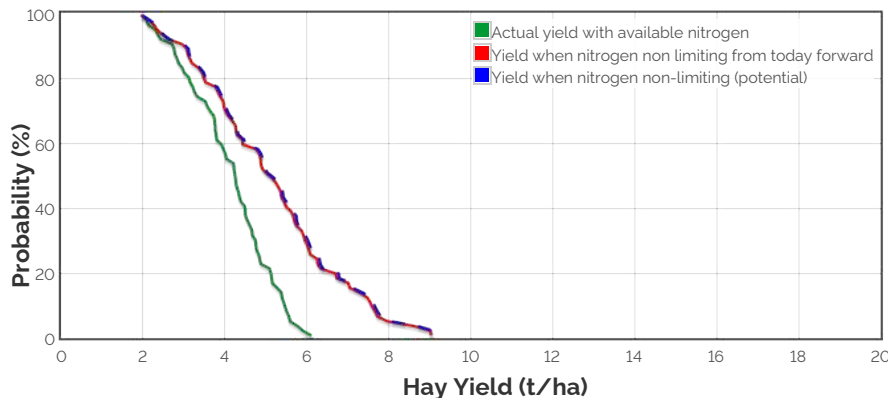
Grain Yield Outcome

- 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.

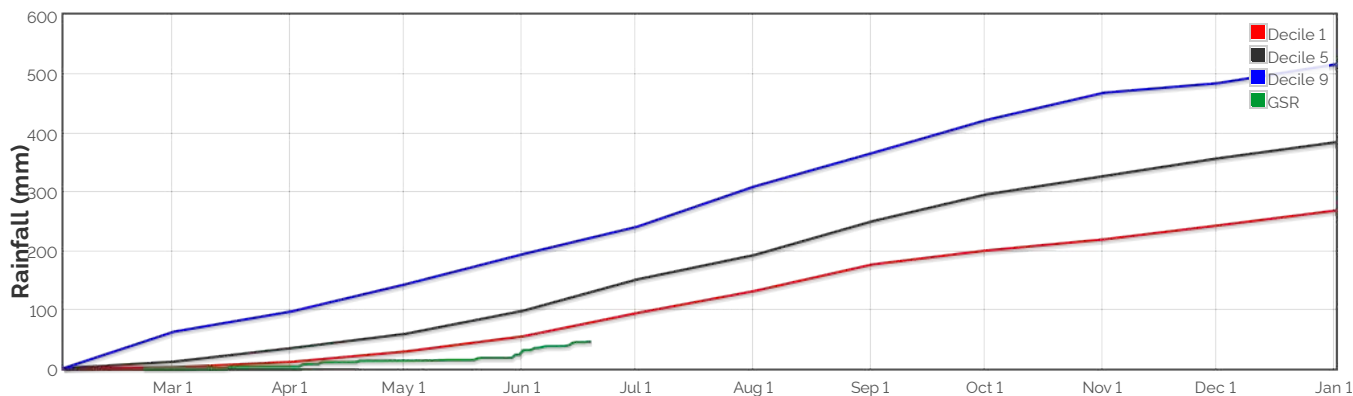
Hay Yield Outcome



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: 28.370062236292686kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

Earliest	18-Jun	24-Jun	2-Jul	11-Jul	21-Jul	30-Jul
Median	18-Jun	26-Jun	5-Jul	15-Jul	25-Jul	4-Aug
Latest	19-Jun	28-Jun	10-Jul	22-Jul	2-Aug	12-Aug



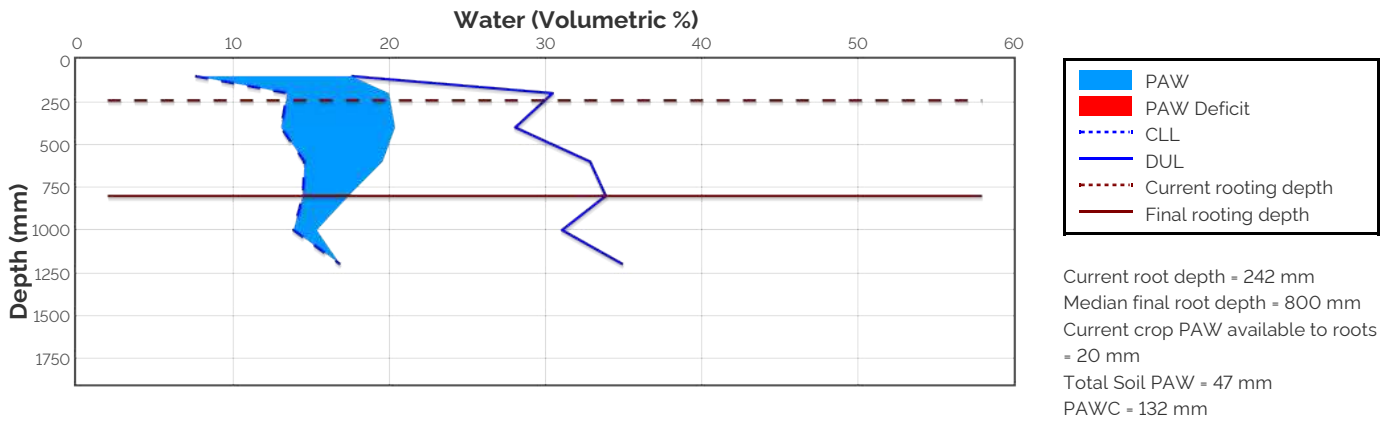
Predicted

Earliest	6-Aug	12-Aug	18-Aug	26-Aug	27-Aug	2-Sep	12-Sep	17-Sep	2-Oct
Median	13-Aug	18-Aug	27-Aug	2-Sep	3-Sep	10-Sep	20-Sep	26-Sep	13-Oct
Latest	20-Aug	29-Aug	6-Sep	10-Sep	11-Sep	20-Sep	30-Sep	5-Oct	23-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%			54%		
moderate 0 to -2°C during flowering & early grain fill		0%			29%		
severe Less than -2°C during flowering & grain fill		0%			22%		

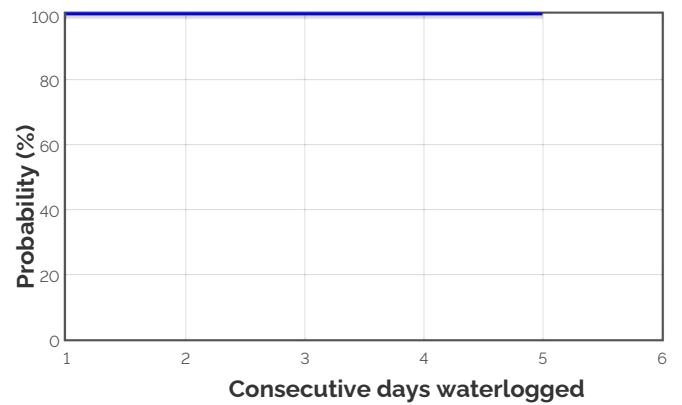
Current Distribution of PAW



Water Budget

Initial PAW status @ 22-Feb	63 mm
Rainfall since 22-Feb	45 mm
Irrigations	
Evaporation since 22-Feb	64 mm
Transpiration since 22-Feb	0 mm
Deep drainage since 22-Feb	0 mm
Run-off since 22-Feb	0 mm
Current PAW status:	47 mm

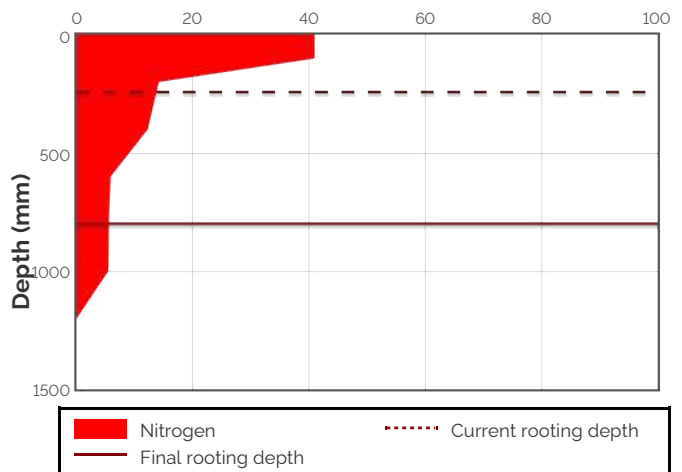
Probability of Future Waterlogging Events



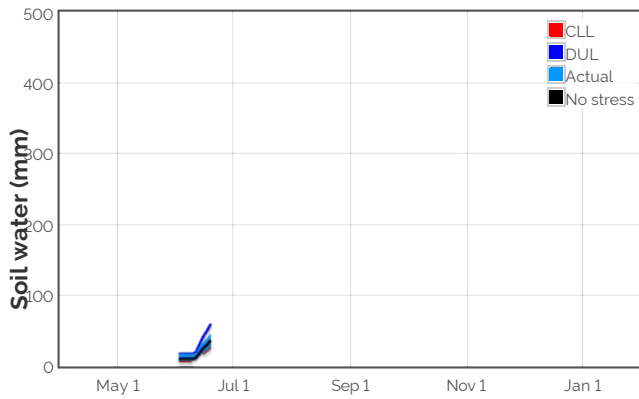
Nitrogen Budget

Initial N status @ 22-Feb	33 kg/ha
N mineralisation since 22-Feb	78 kg/ha
N tie up since 22-Feb	0 kg/ha
N applications	
	1-Jun : 14 kg/ha
	19-Jun : 25 kg/ha
Total N in plant	2 kg/ha
De-nitrification since 22-Feb	0 kg/ha
Leaching since 22-Feb	0 kg/ha
Current N status:	85 kg/ha
Median N mineralisation to maturity = 86.2870485237189 kg/ha	
Median N tie up to maturity = 0 kg/ha	

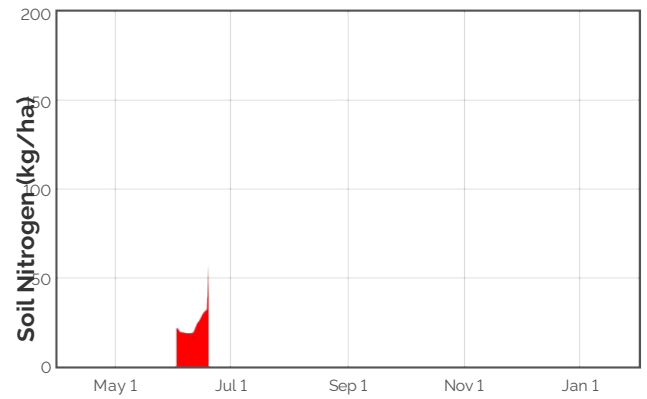
Current distribution of soil nitrogen (kg/ha)



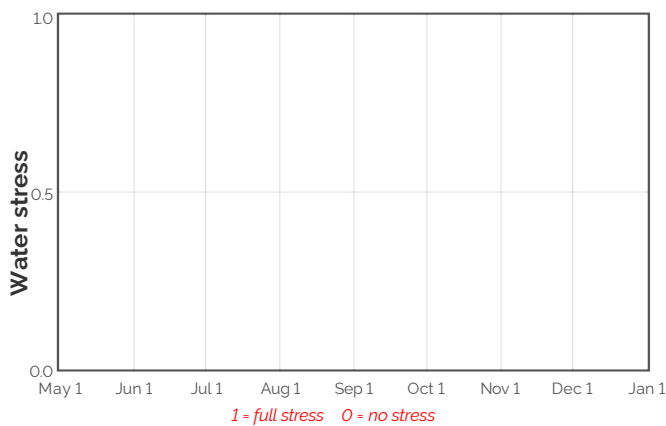
Availability of Water to Growing Roots



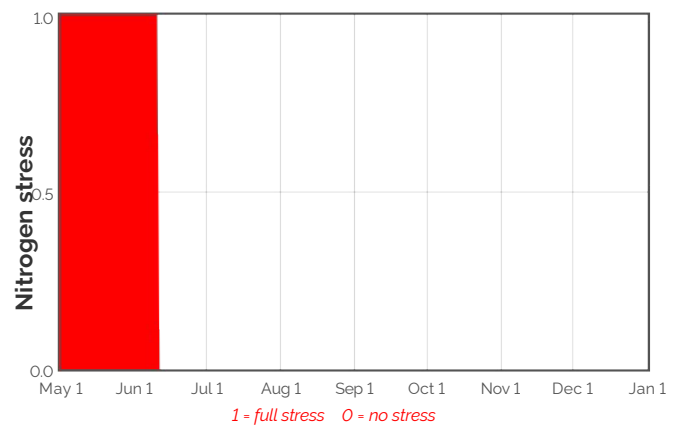
Availability of Soil Nitrogen to Growing Roots



Water Stress



Nitrogen Stress



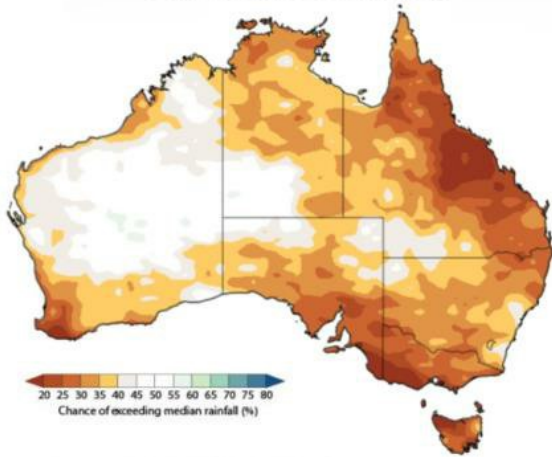
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

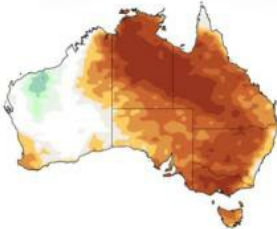
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
21-Jun	11.5	0.6	0.0	-0.1	10.1	21.4	58.8	0.5	0.0
22-Jun	11.6	0.2	0.0	-0.1	10.3	22.4	59.5	0.5	0.0
23-Jun	11.7	0.2	0.0	-0.1	10.6	23.3	60.2	0.4	0.0
24-Jun	11.8	0.2	0.0	-0.1	10.7	24.2	61.0	0.4	0.0
25-Jun	12.0	0.2	0.0	-0.2	10.9	25.0	61.8	0.4	0.0
26-Jun	12.1	0.2	0.0	-0.2	11.0	26.0	62.6	0.4	0.0
27-Jun	12.2	0.2	0.0	-0.2	11.1	26.8	63.4	0.4	0.0
28-Jun	12.3	0.2	0.0	-0.2	11.2	27.6	64.1	0.4	0.0
29-Jun	12.4	0.2	0.1	-0.2	11.1	28.2	64.8	0.4	0.0
30-Jun	12.5	0.2	0.1	-0.3	11.0	28.8	65.4	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.

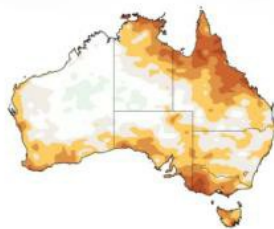
3 MONTH RAINFALL OUTLOOK FOR OCTOBER TO DECEMBER



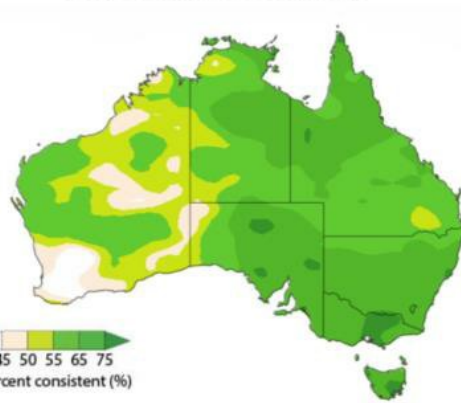
OCTOBER RAINFALL OUTLOOK



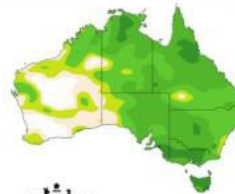
NOVEMBER RAINFALL OUTLOOK



PAST ACCURACY FOR OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER



PAST ACCURACY FOR NOVEMBER

