

Crop Report

22-Jun-2026

Andrew H Ware: Lock

Crop: Wheat

Cultivar: Tomahawk

Sowing details: 160 plants/m² on 30-Apr

Expected maturity date: 9-Nov

Paddock Details

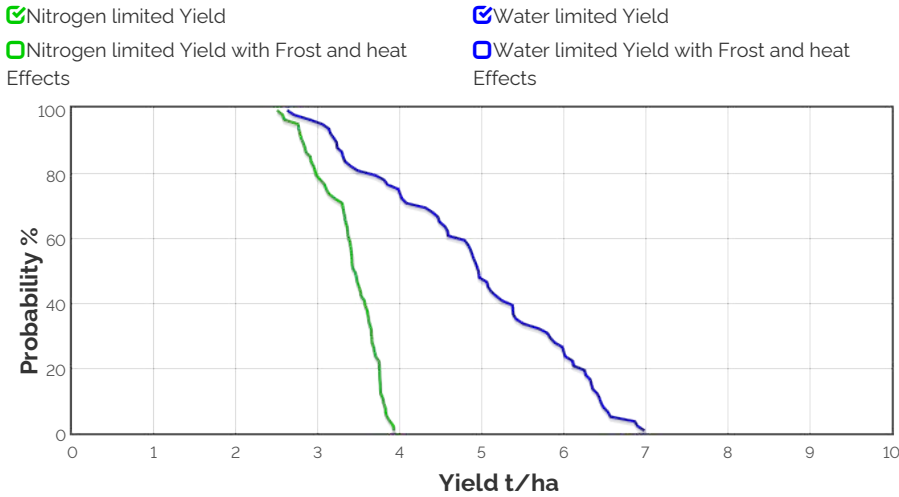
Initial conditions date: 18-Mar

Soil: Grey Calcareous Loamy Sand (Lock No318)

800 mm max rooting depth

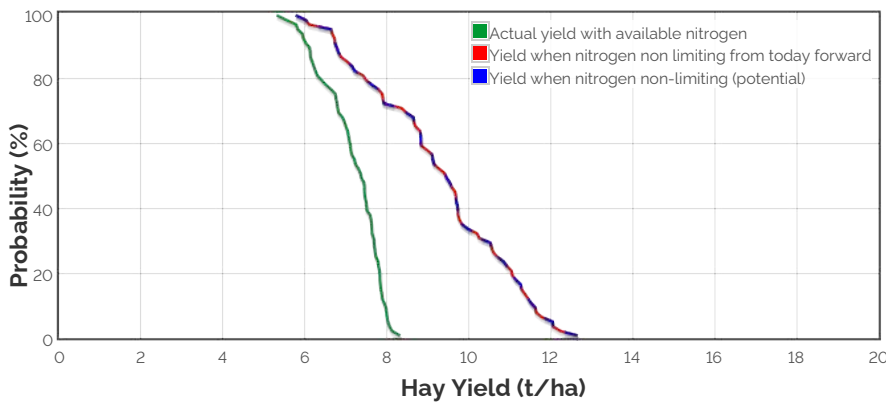
Stubble: 2000 kg/ha of Wheat
No till

Grain Yield Outcome



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.

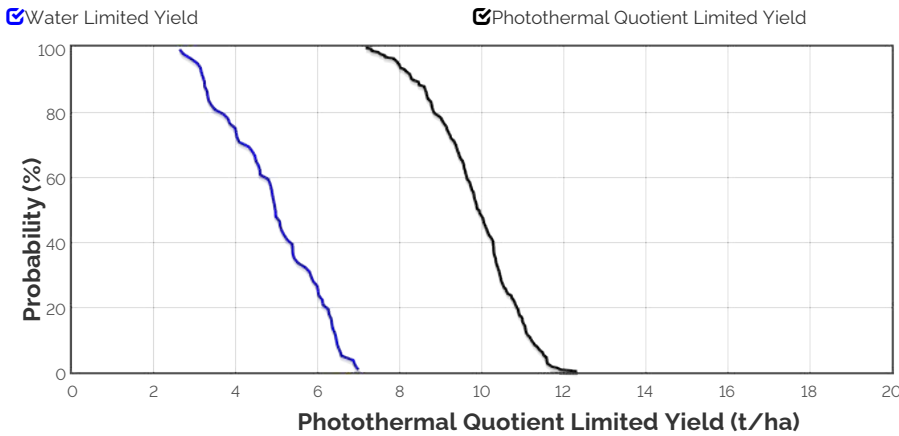
Hay Yield Outcome



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).

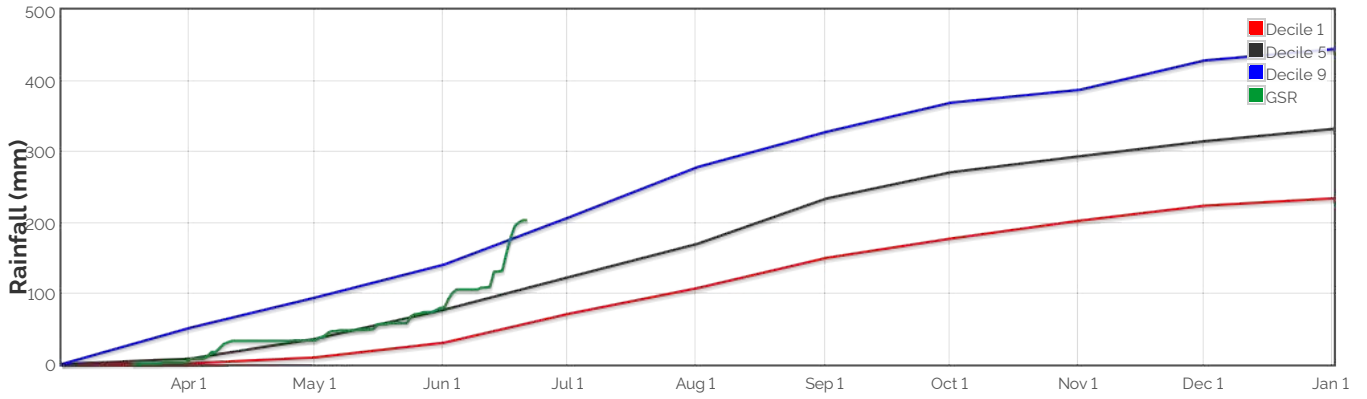
Current dry matter: 807.8099496823679kg/ha

PTQ Yield Outcome



This chart shows the chances of achieving different yield outcomes this season, based on two key limits: water, and the balance of radiation and temperature during the critical period for grain number development (Photothermal quotient). Water-limited yield is estimated from pre-season soil moisture, seasonal weather to date, and agronomic inputs, with future conditions simulated using the long-term weather record from your chosen station. Radiation and temperature-limited yield is estimated by modelling a range of flowering dates and calculating the ratio between radiation and temperature during the critical period for grain number determination. In most cases, water is the main constraint on yield, but in wetter seasons or locations, radiation and temperature can also limit yield if crop development is not well aligned with the environment. Earlier flowering often reduces potential from radiation due to shorter day lengths and cloudier conditions, while later flowering increases radiation but higher temperatures shorten the critical period, causing yield potential to decline again. These limits assume >90% light interception during the critical period and do not account for frost or heat events pre or post flowering, nor for other grain-filling stresses that reduce harvest index and grain size.

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

Earliest	15-May	21-May	28-May	6-Jun	14-Jun	23-Jun
Median	15-May	21-May	28-May	6-Jun	14-Jun	24-Jun
Latest	15-May	21-May	28-May	6-Jun	14-Jun	25-Jun



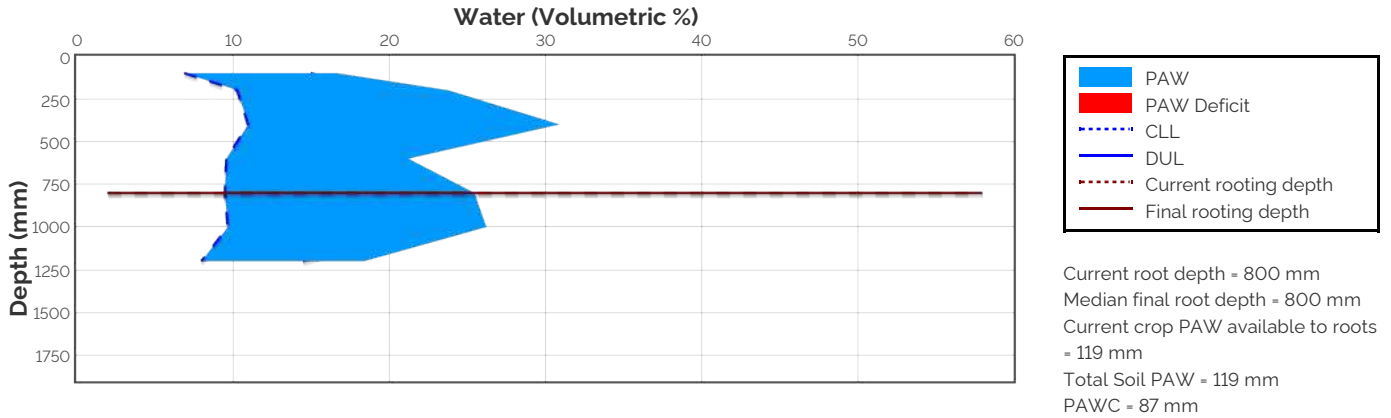
Predicted

Earliest	7-Jul	17-Jul	22-Jul	31-Jul	31-Jul	10-Aug	21-Aug	27-Aug	14-Sep
Median	11-Jul	21-Jul	26-Jul	5-Aug	5-Aug	15-Aug	27-Aug	2-Sep	22-Sep
Latest	16-Jul	27-Jul	1-Aug	11-Aug	11-Aug	22-Aug	5-Sep	11-Sep	1-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		44%		mild 32 to 34°C		22%	
moderate 0 to -2°C during flowering & early grain fill		0%		moderate 34 to 36°C		14%	
severe Less than -2°C during flowering & grain fill		0%		severe Above 36°C		2%	

Current Distribution of PAW

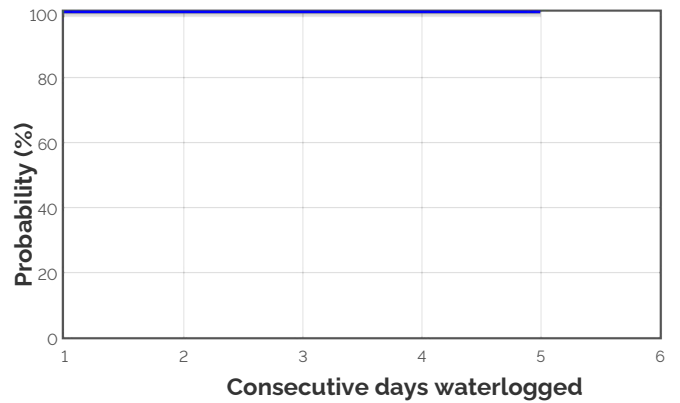


PAW = Plant Available Water
CLL = Crop Lower Limit or Wilting Point
DUL = Drained Upper Limit or Field Capacity
PAWC = Plant Available Water Capacity
Current Crop PAW = Soil water currently accessible to the roots down to the current rooting depth
Soil PAW = Total accessible soil water in the soil profile

Water Budget

Initial PAW status @ 18-Mar	82 mm
Rainfall since 18-Mar	203.3 mm
Irrigations	
Evaporation since 18-Mar	97 mm
Transpiration since 18-Mar	11 mm
Deep drainage since 18-Mar	27 mm
Run-off since 18-Mar	4 mm
Current PAW status:	119 mm

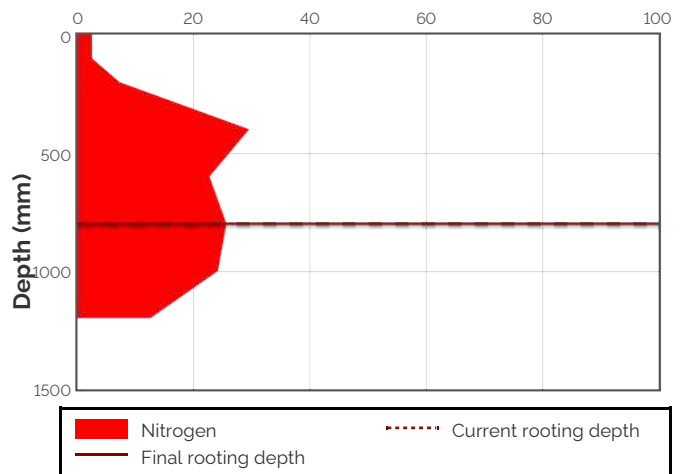
Probability of Future Waterlogging Events



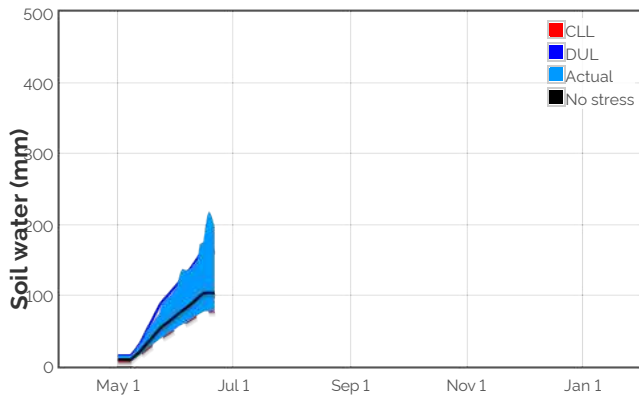
Nitrogen Budget

Initial N status @ 18-Mar	117 kg/ha
N mineralisation since 18-Mar	39 kg/ha
N tie up since 18-Mar	0 kg/ha
N applications	
26-Apr : 10 kg/ha	
10-Jun : 46 kg/ha	
Total N in plant	41 kg/ha
De-nitrification since 18-Mar	0 kg/ha
Leaching since 18-Mar	8 kg/ha
Current N status:	126 kg/ha
Median N mineralisation to maturity = 66.3587515662936 kg/ha	
Median N tie up to maturity = 0 kg/ha	

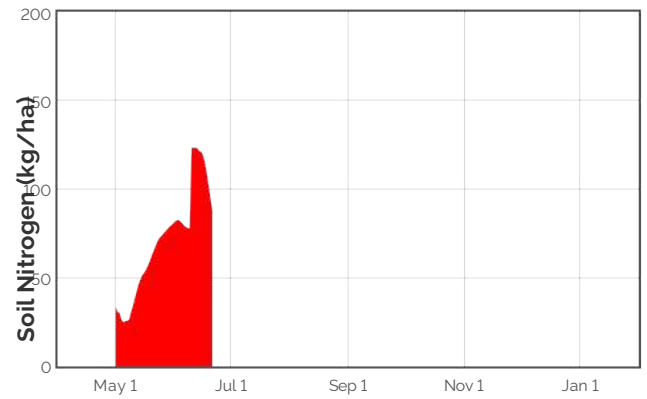
Current distribution of soil nitrogen (kg/ha)



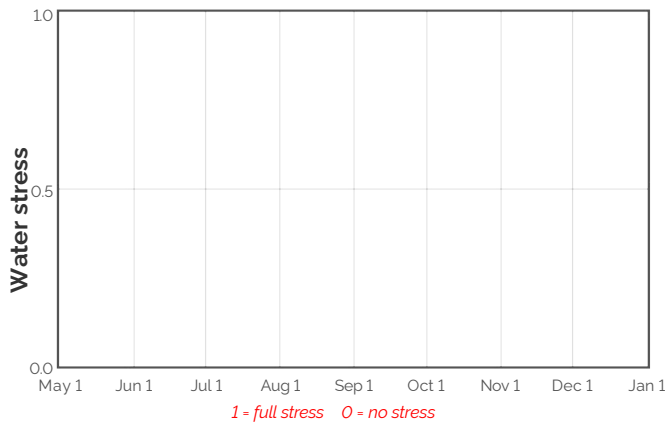
Availability of Water to Growing Roots



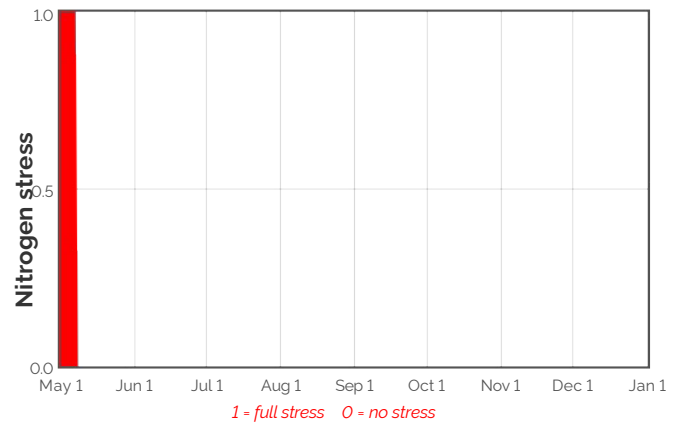
Availability of Soil Nitrogen to Growing Roots



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.

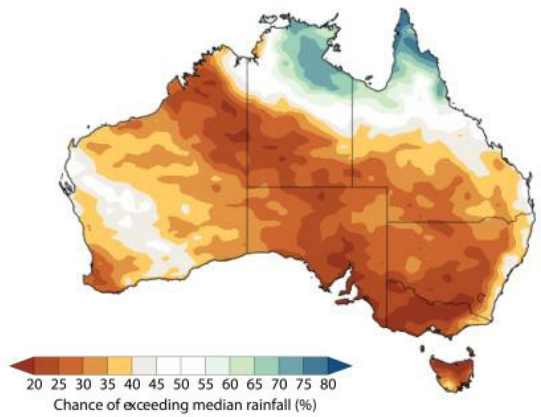
Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
23-Jun	16.0	0.7	0.7	-2.6	83.6	109.8	80.9	0.3	0.0
24-Jun	16.0	0.6	0.8	-2.8	76.3	102.5	75.2	0.3	0.0
25-Jun	16.0	0.6	0.8	-2.8	70.4	96.6	70.4	0.3	0.0
26-Jun	16.0	0.6	0.8	-3.1	66.0	92.2	65.8	0.3	0.0
27-Jun	16.0	0.6	0.9	-3.0	62.6	88.8	61.8	0.3	0.0
28-Jun	16.0	0.6	1.0	-3.4	60.3	86.5	58.0	0.3	0.0
29-Jun	16.0	0.6	1.0	-3.5	58.4	84.6	54.3	0.3	0.0
30-Jun	16.0	0.5	1.0	-3.2	56.7	82.9	51.2	0.3	0.0
1-Jul	16.0	0.5	1.0	-3.5	55.3	81.5	47.7	0.3	0.0
2-Jul	16.0	0.5	1.0	-3.3	54.0	80.2	44.6	0.3	0.0

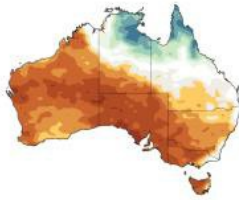
The water available to roots above the stress threshold is the amount of PAW (mm) above one third of the total water holding capacity of this soil. If the water values are below this stress threshold the water available to roots above the stress threshold will be negative.

Bureau of Meteorology Seasonal and Monthly Outlooks

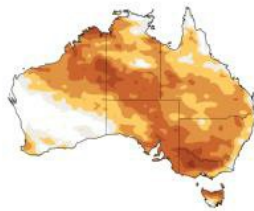
3 MONTH RAINFALL OUTLOOK FOR APRIL TO JUNE



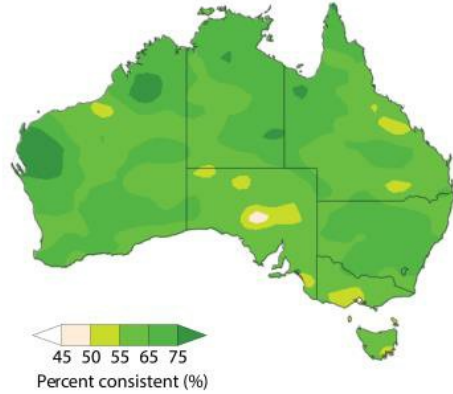
APRIL RAINFALL OUTLOOK



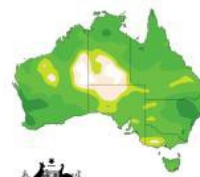
MAY RAINFALL OUTLOOK



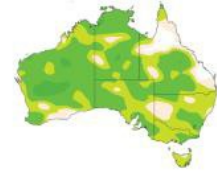
PAST ACCURACY FOR APRIL TO JUNE



PAST ACCURACY FOR APRIL



PAST ACCURACY FOR MAY




Australian Government
Bureau of Meteorology

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