

Crop Report

27-Jul-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

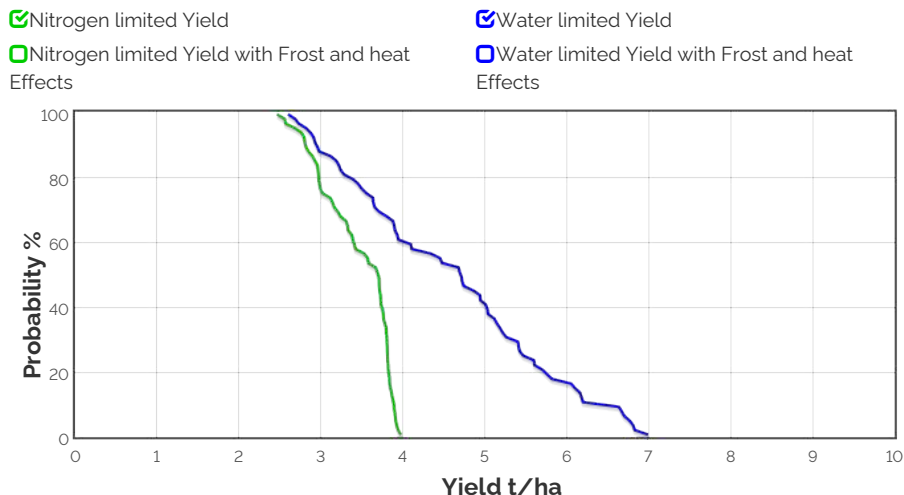
Soil: Grey Calcareous Loamy Sand (Lock No318)

800 mm max rooting depth

Stubble: 2000 kg/ha of Wheat

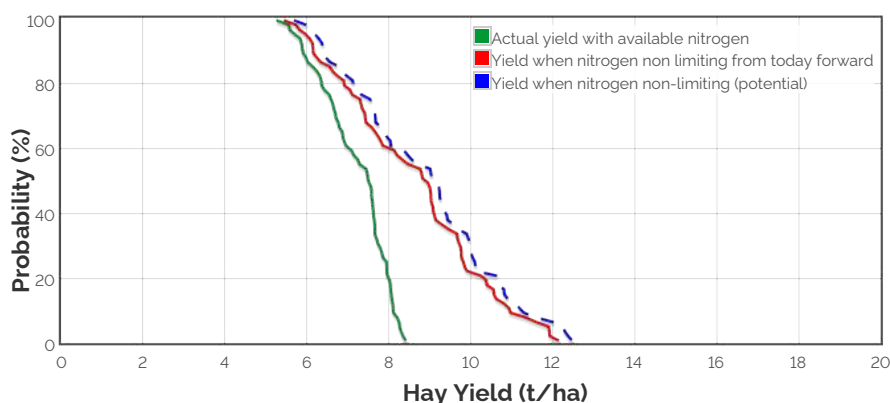
No till

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.

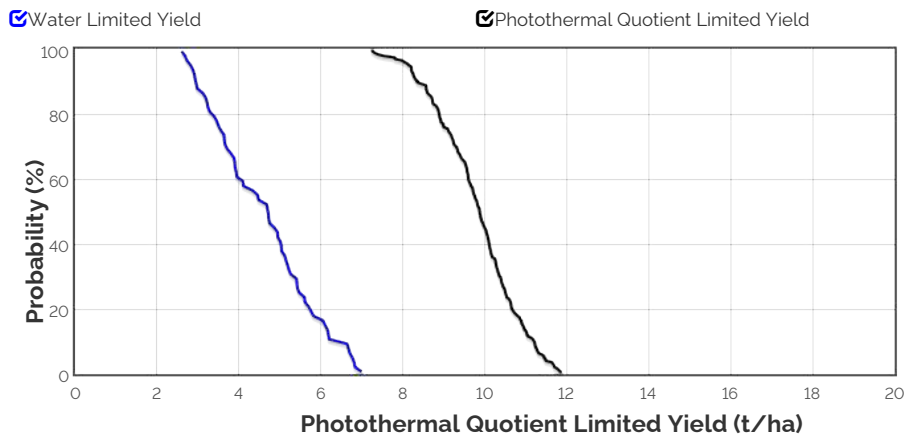
Hay Yield Outcome



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).

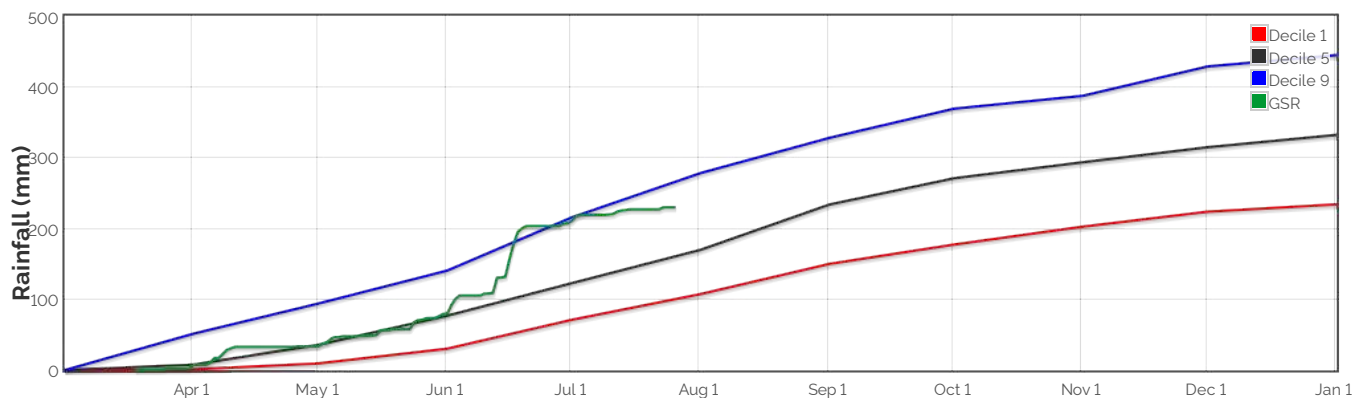
Current dry matter: 3679.856959677075kg/ha

PTQ Yield Outcome

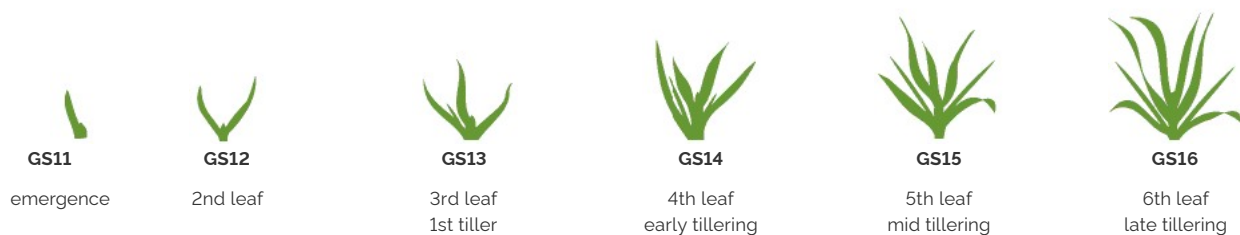


This chart shows the chances of achieving different yield outcomes this season, based on two key limits: water, and the balance of radiation and temperature during the critical period for grain number development (Photothermal quotient). Water-limited yield is estimated from pre-season soil moisture, 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	24-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	24-Jun



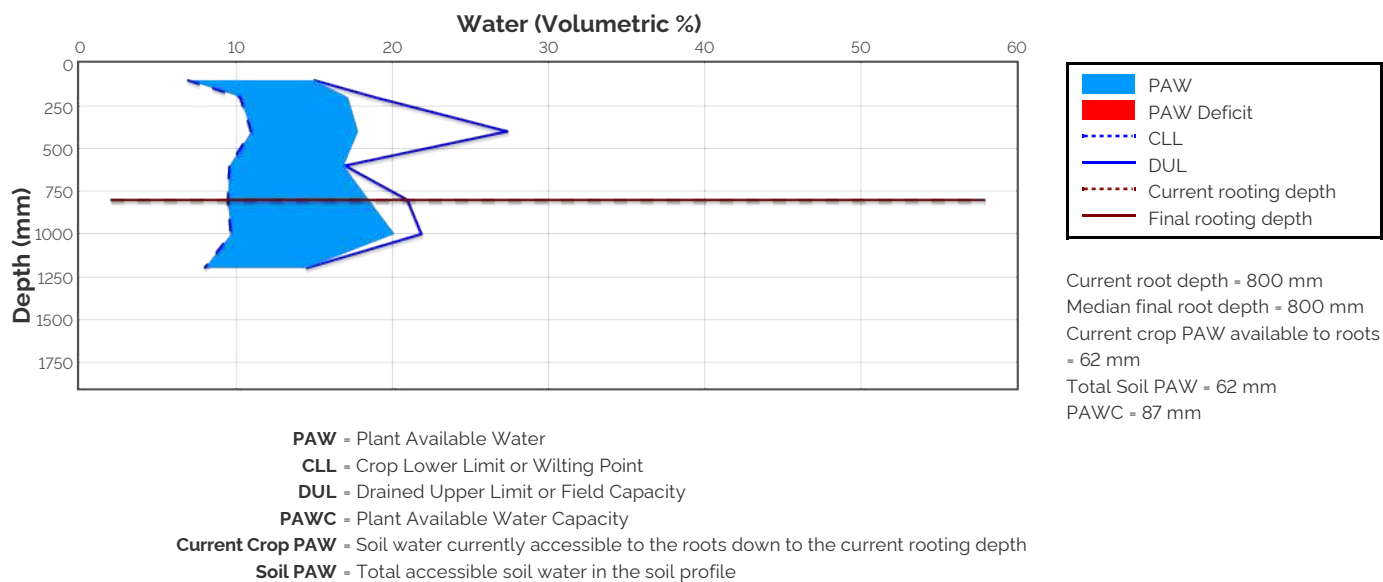
Predicted

Earliest	12-Jul	21-Jul	27-Jul	2-Aug	2-Aug	13-Aug	24-Aug	29-Aug	15-Sep
Median	12-Jul	21-Jul	27-Jul	5-Aug	5-Aug	16-Aug	28-Aug	3-Sep	22-Sep
Latest	12-Jul	21-Jul	27-Jul	7-Aug	7-Aug	18-Aug	1-Sep	8-Sep	29-Sep

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		41%	0	mild 32 to 34°C	22%	0	
moderate 0 to -2°C during flowering & early grain fill		0%	0	moderate 34 to 36°C	12%	0	
severe Less than -2°C during flowering & grain fill		0%	0	severe Above 36°C	2%	0	

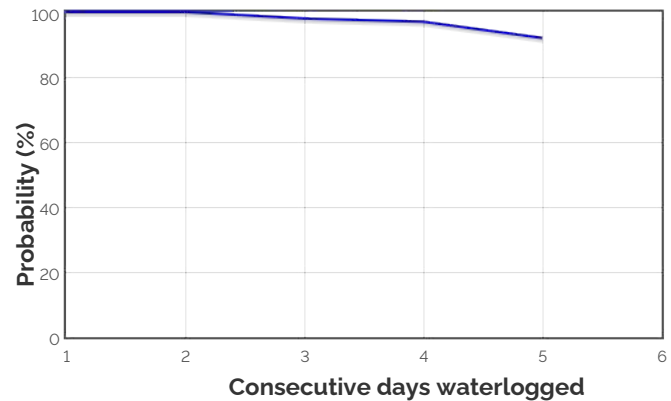
Current Distribution of PAW



Water Budget

Initial PAW status @ 18-Mar	82 mm
Rainfall since 18-Mar	230 mm
Irrigations	
Evaporation since 18-Mar	113 mm
Transpiration since 18-Mar	58 mm
Deep drainage since 18-Mar	69 mm
Run-off since 18-Mar	4 mm
Current PAW status:	62 mm

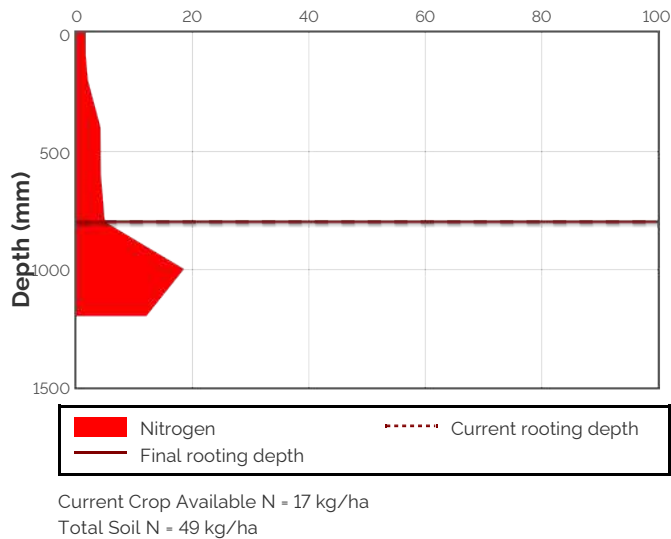
Probability of Future Waterlogging Events



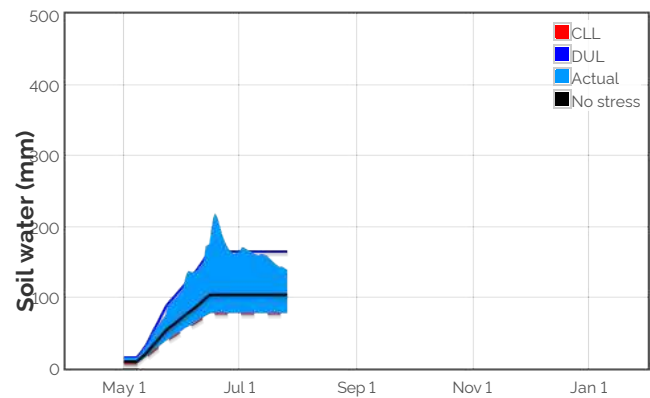
Nitrogen Budget

Initial N status @ 18-Mar	117 kg/ha
N mineralisation since 18-Mar	49 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	103 kg/ha
De-nitrification since 18-Mar	0 kg/ha
Leaching since 18-Mar	24 kg/ha
Current N status:	49 kg/ha
Median N mineralisation to maturity = 66.5985246150666 kg/ha	
Median N tie up to maturity = 0 kg/ha	

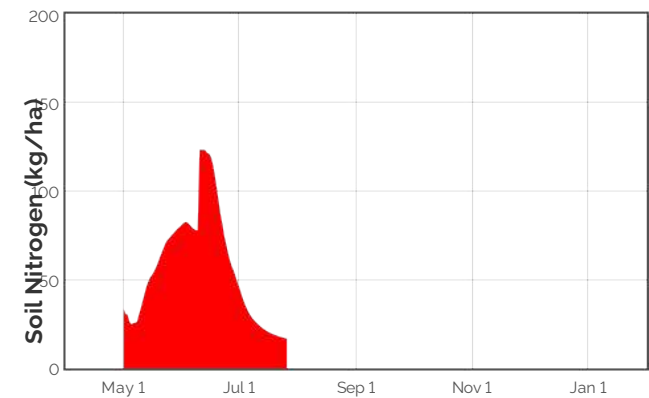
Current distribution of soil nitrogen (kg/ha)



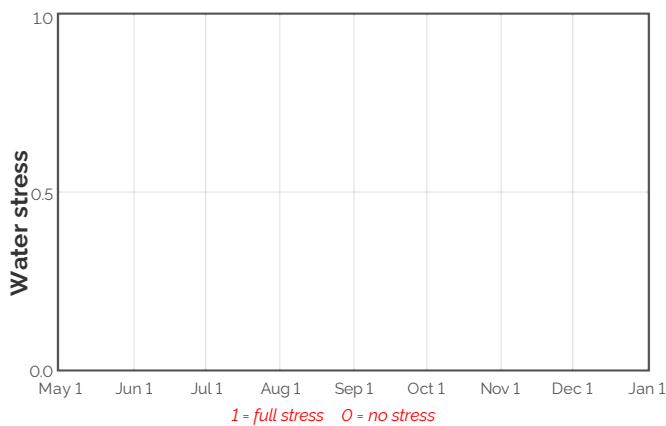
Availability of Water to Growing Roots



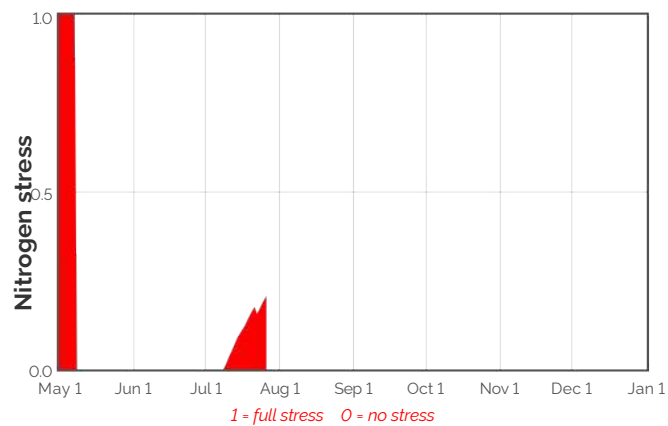
Availability of Soil Nitrogen to Growing Roots



Water Stress



Nitrogen Stress



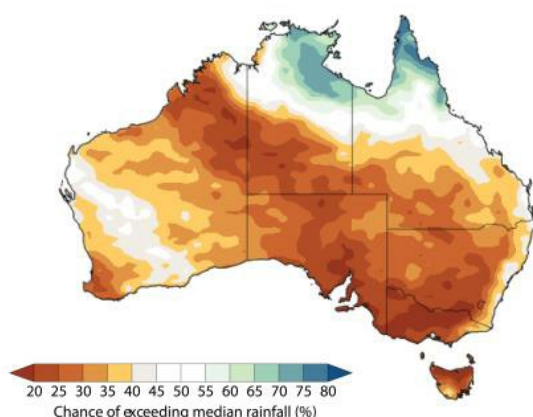
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

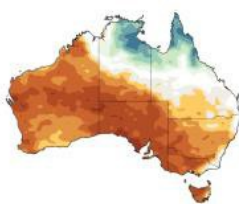
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
28-Jul	32.2	0.4	1.7	-0.4	34.0	60.2	16.4	0.3	0.0
29-Jul	32.3	0.4	1.6	-0.4	32.2	58.4	16.2	0.3	0.0
30-Jul	32.4	0.4	1.6	-0.4	30.6	56.8	16.0	0.3	0.0
31-Jul	32.5	0.4	1.7	-0.3	28.8	55.0	15.8	0.3	0.0
1-Aug	32.6	0.4	1.7	-0.3	26.8	53.0	15.6	0.3	0.0
2-Aug	32.7	0.4	1.8	-0.3	24.8	51.0	15.4	0.3	0.0
3-Aug	32.8	0.4	1.8	-0.3	23.0	49.2	15.2	0.3	0.0
4-Aug	32.8	0.4	1.8	-0.3	21.3	47.5	15.1	0.3	0.0
5-Aug	39.0	0.4	1.7	-0.3	19.4	45.7	15.0	0.3	0.0
6-Aug	39.0	0.4	1.7	-0.3	17.4	43.7	14.9	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.

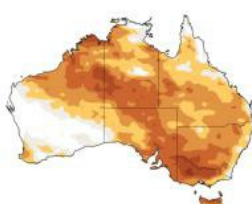
3 MONTH RAINFALL OUTLOOK FOR
APRIL TO JUNE



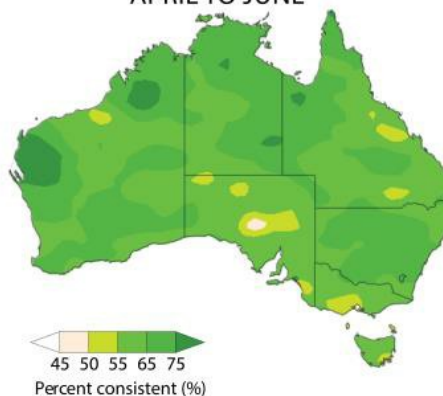
APRIL
RAINFALL OUTLOOK



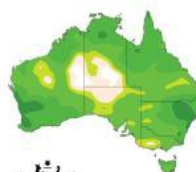
MAY
RAINFALL OUTLOOK



PAST ACCURACY FOR
APRIL TO JUNE



PAST ACCURACY FOR
APRIL



PAST ACCURACY FOR
MAY

