

Crop Report

28-Jul-2025

Andrew H Ware: Heddle Minnipa

Crop: Wheat Cultivar: Calibre

Sowing details: 150 plants/m² on 9-Jun Expected maturity date: 30-Nov

Paddock Details

Initial conditions date: 20-May

Soil: Red sandy clay loam (Minnipa No909)

1000 mm max rooting depth

1000 kg/ha of Lentil Stubble:

No till

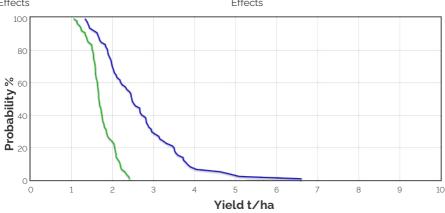
Grain Yield Outcome

☑Nitrogen limited Yield

■Nitrogen limited Yield with Frost and heat Effects

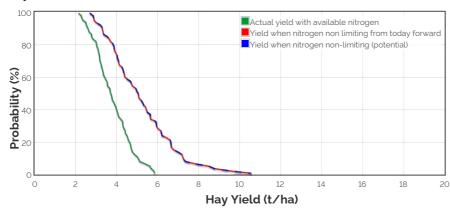
☑Water limited Yield

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.

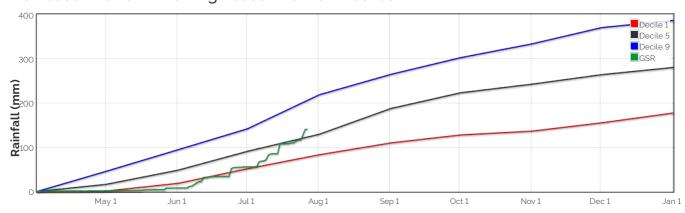
Hay Yield Outcome



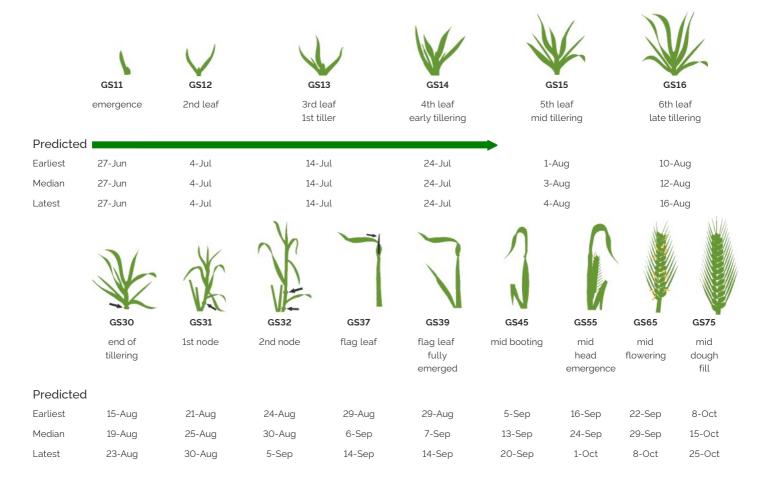
This graph shows the probability of exceeding a range of hay yield outcomes this season. It takes into account the same factors as the grain yield graph above. When above ground dry matter is below 2t/ha, hay yield is assumed to be 70% of dry matter, with a moisture content of 13%. When dry matter is 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: 428.49774638713643kg/ha

The Season So Far - Growing Season Rainfall Deciles



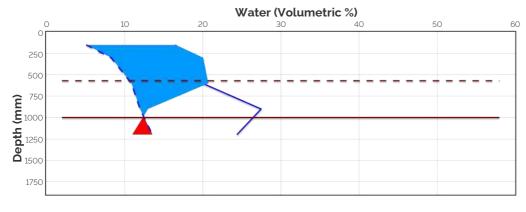
Simulated and Predicted Crop Growth Stage

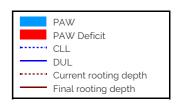


Probability and Incidence of Frost and Heat Shock

Frost damage during flowering					Heat damage during grain fill			
Prob	ability	This Season			Probability		This Season	
mild 2 to 0°C during			4%	0	mild 32 to 34°C	69%	0	
flowering					moderate	46%	0	
moderate 0 to -2°C during flowering & early grain fill			0%	0	34 to 36°C severe Above 36°C	30%	O	
Severe Less than -2°C during flowering & grain fill	0%	0						

Current Distribution of PAW





Current root depth = 570 mm

Median final root depth = 1000 mm

Current crop PAW available to roots
= 62 mm

Total Soil PAW = 68 mm

PAWC = 139 mm

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

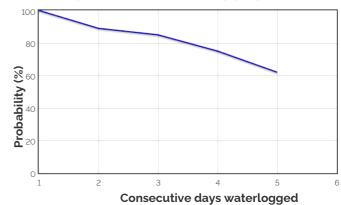
Water Budget

Initial PAW status @ 20-May Rainfall since 20-May Irrigations Evaporation since 20-May Transpiration since 20-May Deep drainage since 20-May Run-off since 20-May

Current PAW status:

2 mm 136.8 mm 58 mm 5 mm 0 mm 1 mm

Probability of Future Waterlogging Events

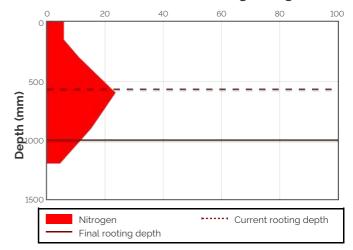


Nitrogen Budget

Initial N status @ 20-May 58 kg/ha N mineralisation since 20-May 9 kg/ha N tie up since 20-May 0 kg/ha N applications 1-May: 30 kg/ha Total N in plant 22 kg/ha De-nitrification since 20-May 0 kg/ha Leaching since 20-May 0 kg/ha **Current N status:** 61 kg/ha

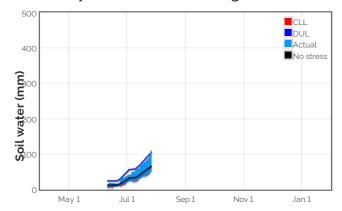
Median N mineralisation to maturity = 35.8162718885866 kg/ha Median N tie up to maturity = 0 kg/ha

Current distribution of soil nitrogen (kg/ha)

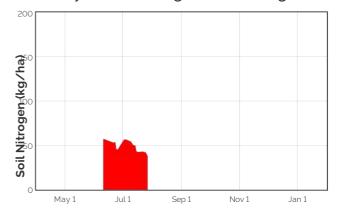


Current Crop Available N = 38 kg/ha Total Soil N = 61 kg/ha

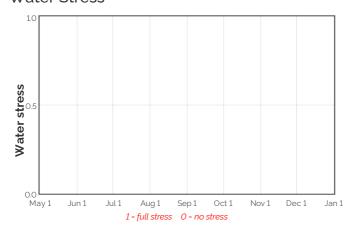
Availability of Water to Growing Roots



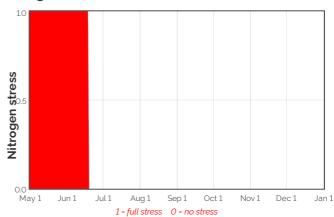
Availability of Soil Nitrogen to Growing Roots



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	Evap.	Water	N use	Water avail. to roots	Water avail. to roots	N avail.	MineralisationN tie up	
	Stage	(mm)	use	(kg/ha)	above stress threshold	above CLL (mm)	to roots	(kg/ha)	(kg/ha)
			(mm)		(mm)		(kg/ha)		
29-Jul	14.6	1.1	0.6	-1.9	42.5	59.9	36.4	0.2	0.0
30-Jul	14.7	1.0	0.6	-2.1	40.9	58.9	35.1	0.2	0.0
31-Jul	14.8	0.8	0.7	-2.3	39.0	57.5	33.5	0.2	0.0
1-Aug	14.9	0.6	0.7	-2.3	37.1	56.2	31.8	0.2	0.0
2-Aug	15.0	0.5	0.7	-2.1	35.4	55.1	30.6	0.2	0.0
3-Aug	15.1	0.5	0.7	-1.8	33.9	54.2	29.4	0.2	0.0
4-Aug	15.2	0.4	0.8	-1.6	32.4	53.1	28.4	0.2	0.0
5-Aug	15.3	0.4	0.8	-1.4	30.9	52.1	27.8	0.2	0.0
6-Aug	15.4	0.4	0.9	-1.2	29.0	50.9	27.2	0.2	0.0
7-Aug	15.5	0.3	0.9	-1.1	27.3	50.0	26.8	0.2	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

