

Crop Report

7-Jul-2023

Andrew H Ware: Heddle
Minnipa

Crop: Wheat

Cultivar: Calibre

Sowing details: 150 plants/m² on 8-May

Expected maturity date: 12-Nov

Paddock Details

Initial conditions date: 18-Apr

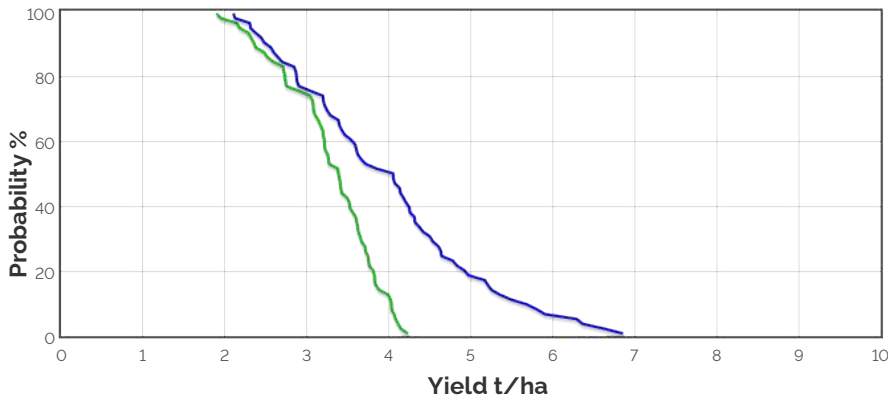
Soil: Red sandy clay loam (Minnipa No909)

1000 mm max rooting depth

Stubble: 1000 kg/ha of Lentil
No till

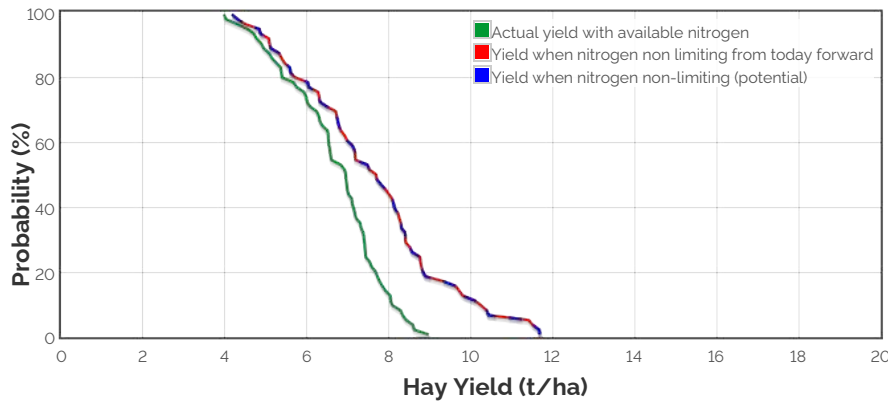
Grain Yield Outcome

- 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.

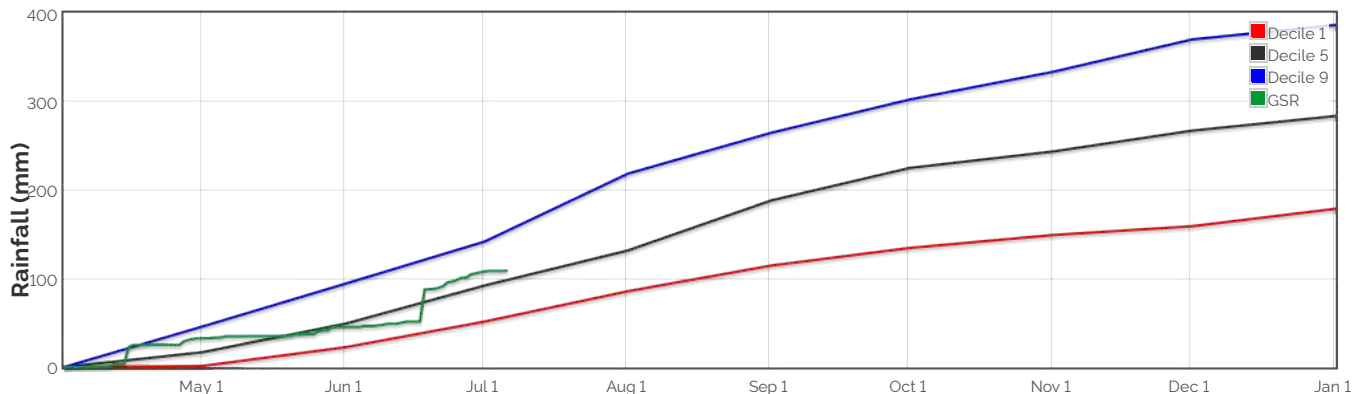
Hay Yield Outcome



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: 1526.343394241483kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

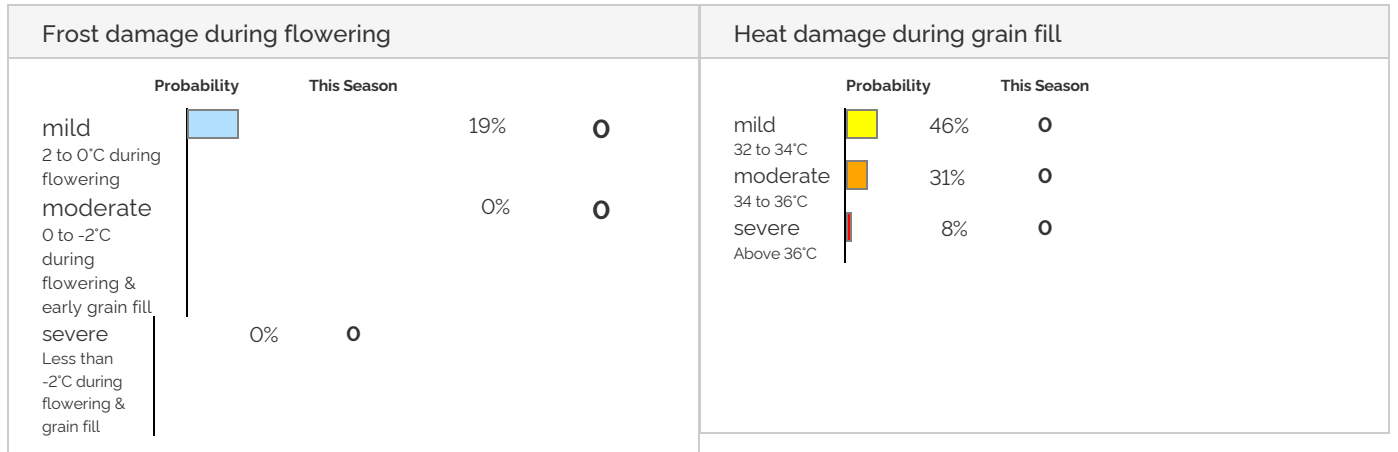
Earliest	24-May	30-May	6-Jun	14-Jun	24-Jun	5-Jul
Median	24-May	30-May	6-Jun	14-Jun	24-Jun	5-Jul
Latest	24-May	30-May	6-Jun	14-Jun	24-Jun	5-Jul



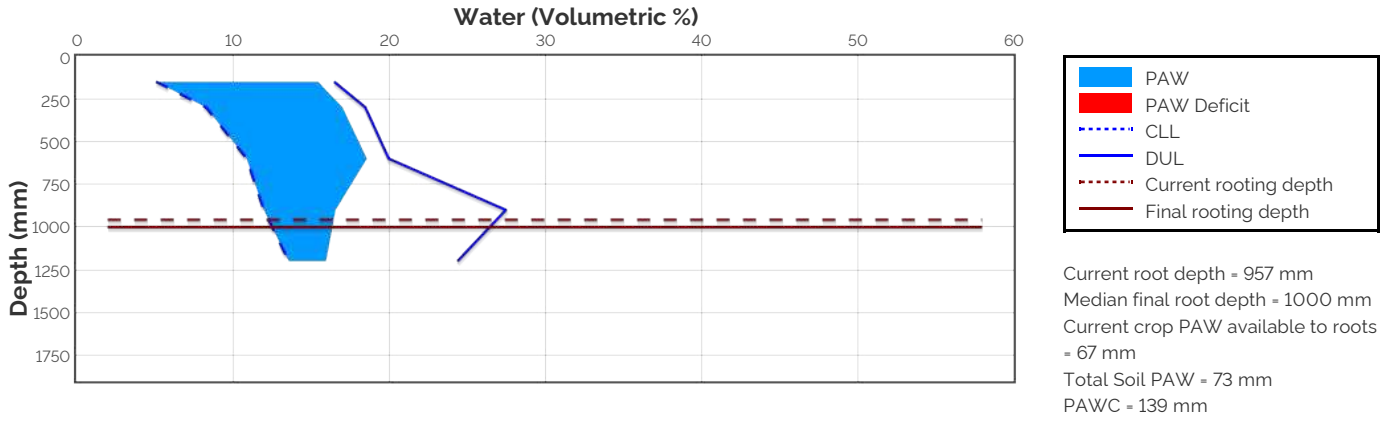
Predicted

Earliest	17-Jul	24-Jul	30-Jul	9-Aug	11-Aug	17-Aug	27-Aug	2-Sep	20-Sep
Median	19-Jul	28-Jul	2-Aug	13-Aug	14-Aug	22-Aug	2-Sep	8-Sep	26-Sep
Latest	21-Jul	31-Jul	6-Aug	19-Aug	21-Aug	30-Aug	11-Sep	17-Sep	7-Oct

Probability and Incidence of Frost and Heat Shock



Current Distribution of PAW



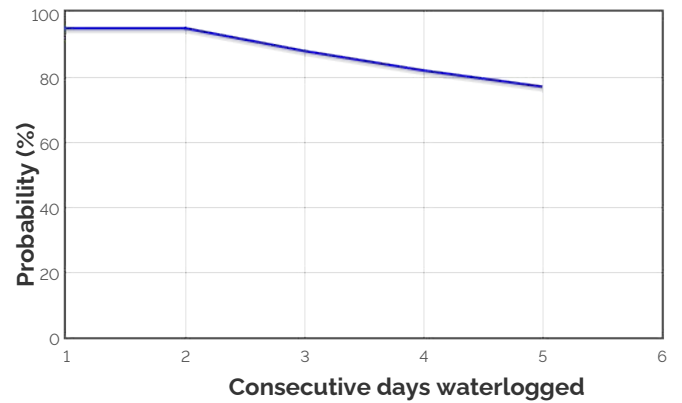
Water Budget

Initial PAW status @ 18-Apr
 Rainfall since 18-Apr
 Irrigations
 Evaporation since 18-Apr
 Transpiration since 18-Apr
 Deep drainage since 18-Apr
 Run-off since 18-Apr

46 mm
 84 mm
 52 mm
 21 mm
 0 mm
 0 mm
73 mm

Current PAW status:

Probability of Future Waterlogging Events



Nitrogen Budget

Initial N status @ 18-Apr
 N mineralisation since 18-Apr
 N tie up since 18-Apr
 N applications

124 kg/ha
 22 kg/ha
 0 kg/ha

Total N in plant
 De-nitrification since 18-Apr
 Leaching since 18-Apr

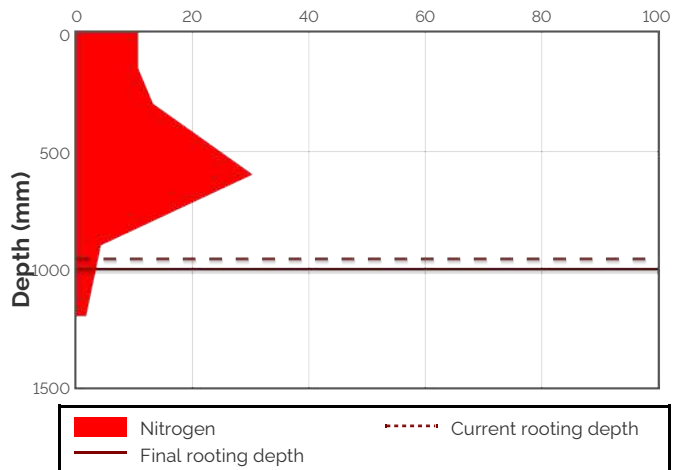
8-May : 10 kg/ha
 8 kg/ha
 0 kg/ha
 0 kg/ha

Current N status:

62 kg/ha

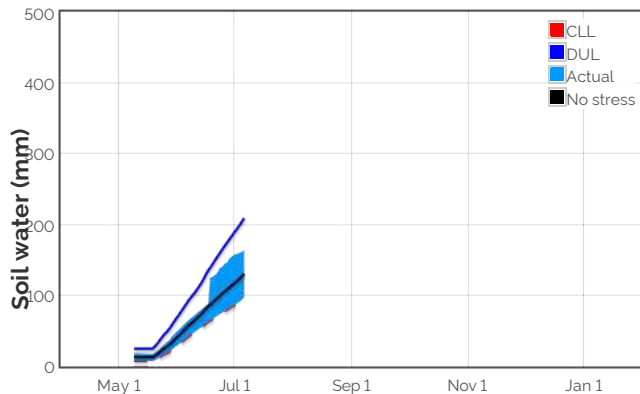
Median N mineralisation to maturity = 42.1497359595882 kg/ha
 Median N tie up to maturity = 0 kg/ha

Current distribution of soil nitrogen (kg/ha)

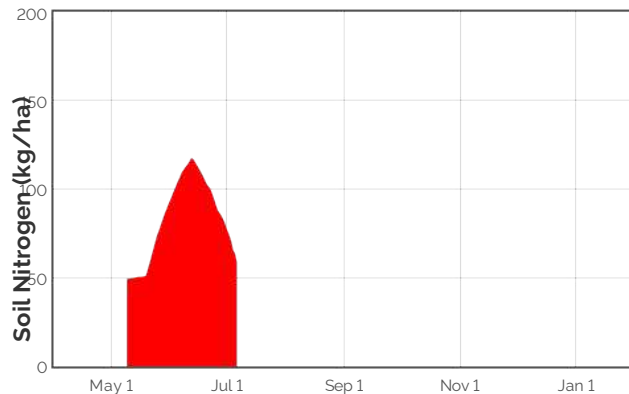


Current Crop Available N = 59 kg/ha
 Total Soil N = 62 kg/ha

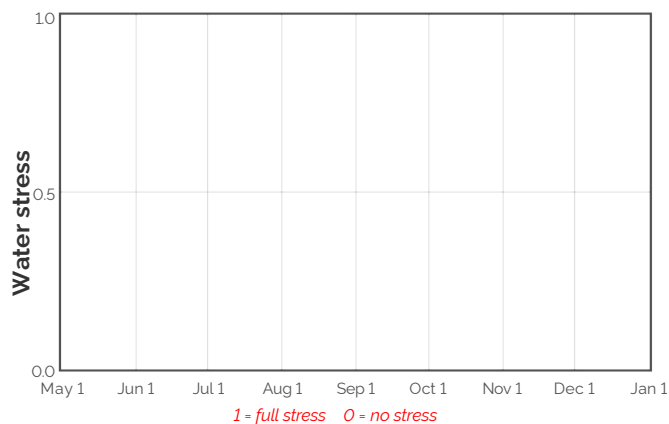
Availability of Water to Growing Roots



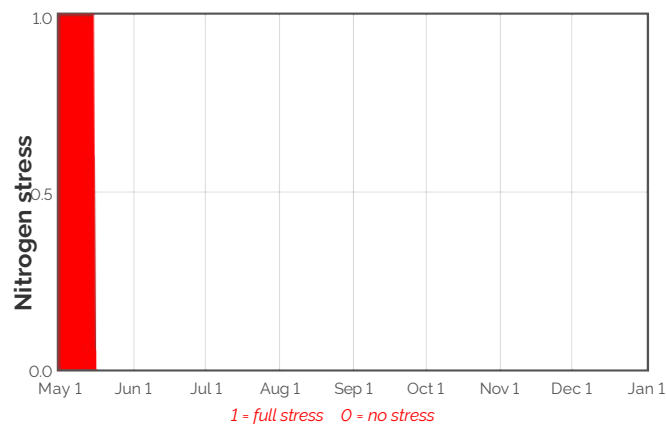
Availability of Soil Nitrogen to Growing Roots



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.

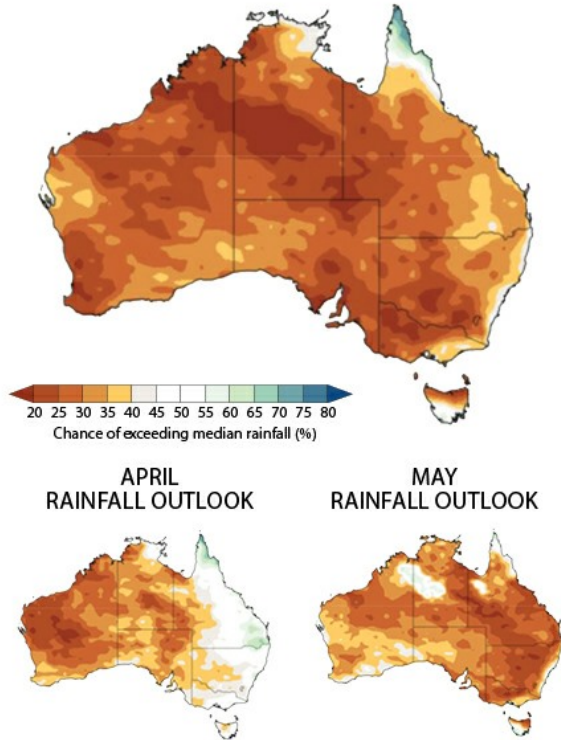
Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
8-Jul	16.0	0.5	1.1	-3.1	31.5	65.7	55.5	0.2	0.0
9-Jul	16.0	0.5	1.0	-3.2	29.9	64.6	52.5	0.2	0.0
10-Jul	16.0	0.5	1.0	-3.4	28.4	63.5	49.1	0.2	0.0
11-Jul	16.0	0.5	1.1	-3.4	27.0	62.1	46.2	0.2	0.0
12-Jul	16.0	0.4	1.0	-2.9	25.6	60.7	43.3	0.2	0.0
13-Jul	16.0	0.4	1.0	-2.6	24.3	59.4	40.6	0.2	0.0
14-Jul	16.0	0.4	1.1	-2.2	22.8	57.9	38.3	0.2	0.0
15-Jul	16.0	0.4	1.1	-2.0	21.4	56.5	36.4	0.2	0.0
16-Jul	16.0	0.4	1.2	-1.7	20.1	55.2	34.7	0.2	0.0
17-Jul	16.0	0.4	1.2	-1.5	18.6	53.7	33.3	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

3 MONTH RAINFALL OUTLOOK FOR APRIL TO JUNE



PAST ACCURACY FOR APRIL TO JUNE

