

Crop Report

12-Aug-2022

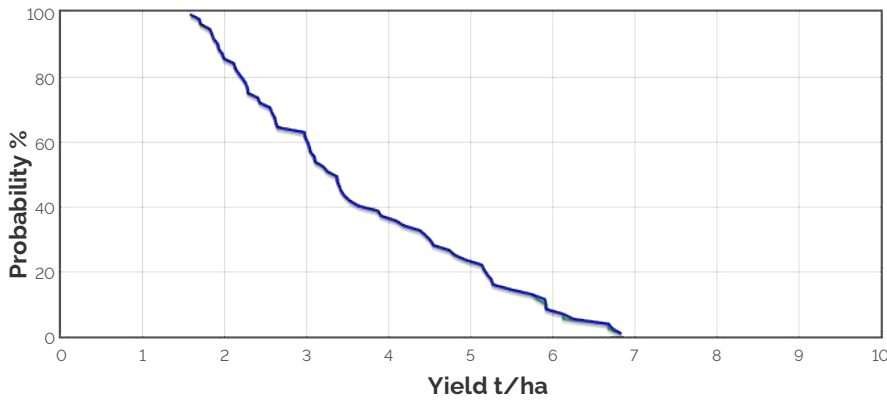
Resilient EP Soil
Moisture Probe Network:
Minnipa

Crop: Wheat
Cultivar: Mace
Sowing details: 180 plants/m² on 5-May
Expected maturity date: 22-Oct

Paddock Details
Initial conditions date: 15-Mar
Soil: Red sandy clay loam (Minnipa No909)
1100 mm max rooting depth
Stubble: 1000 kg/ha of Canola
No till

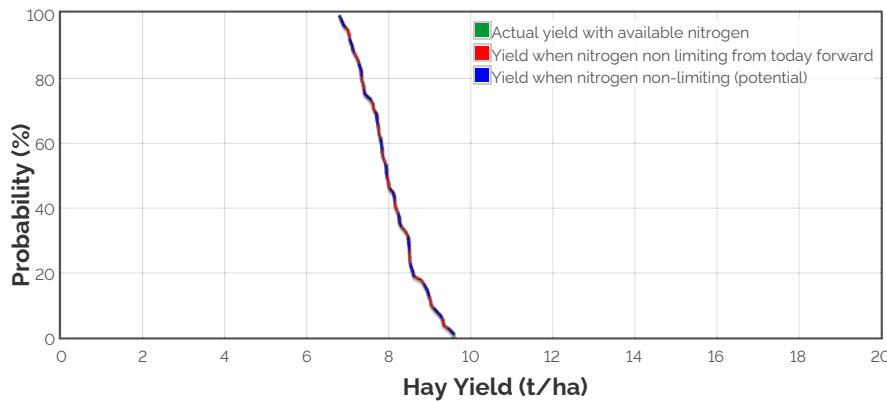
Grain Yield Outcome

- 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.

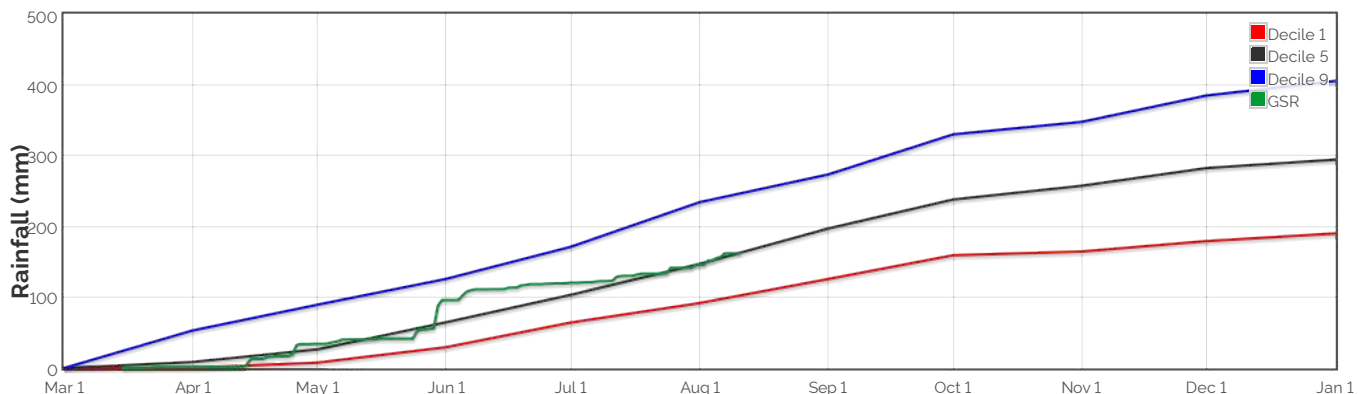
Hay Yield Outcome



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: 7500kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

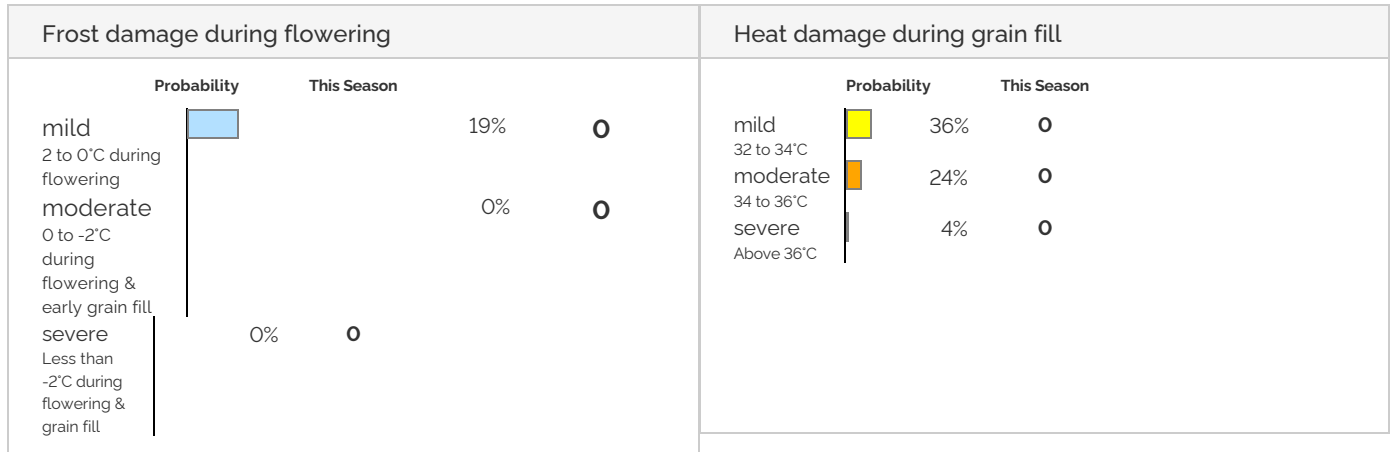
Earliest	15-May	24-May	31-May	8-Jun	16-Jun	23-Jun
Median	15-May	24-May	31-May	8-Jun	16-Jun	23-Jun
Latest	15-May	24-May	31-May	8-Jun	16-Jun	23-Jun



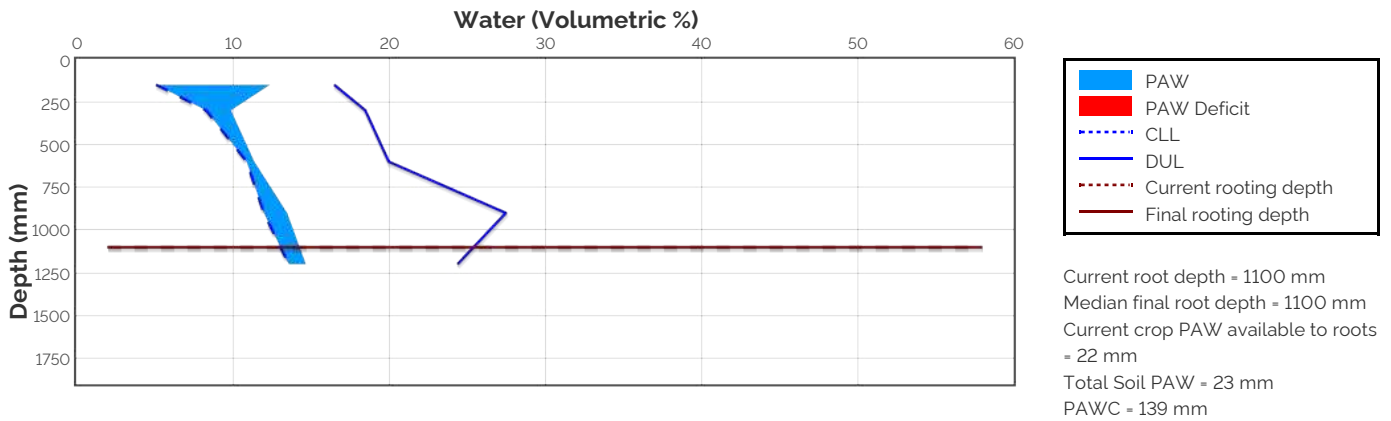
Predicted

Earliest	17-Jul	21-Jul	26-Jul	6-Aug	11-Aug	17-Aug	25-Aug	2-Sep	20-Sep
Median	17-Jul	21-Jul	26-Jul	6-Aug	11-Aug	19-Aug	30-Aug	9-Sep	26-Sep
Latest	17-Jul	21-Jul	26-Jul	6-Aug	11-Aug	21-Aug	2-Sep	14-Sep	3-Oct

Probability and Incidence of Frost and Heat Shock



Current Distribution of PAW



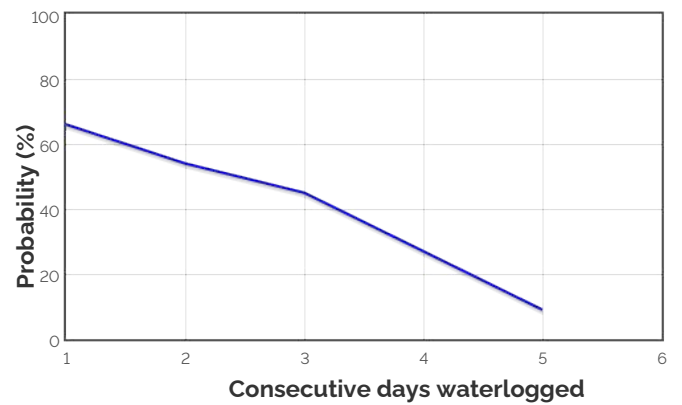
Water Budget

Initial PAW status @ 15-Mar
 Rainfall since 15-Mar
 Irrigations
 Evaporation since 15-Mar
 Transpiration since 15-Mar
 Deep drainage since 15-Mar
 Run-off since 15-Mar

42 mm
 163 mm
 100 mm
 80 mm
 0 mm
 2 mm
23 mm

Current PAW status:

Probability of Future Waterlogging Events



Nitrogen Budget

Initial N status @ 15-Mar
 N mineralisation since 15-Mar
 N tie up since 15-Mar
 N applications

250 kg/ha
 17 kg/ha
 1 kg/ha

Total N in plant
 De-nitrification since 15-Mar
 Leaching since 15-Mar

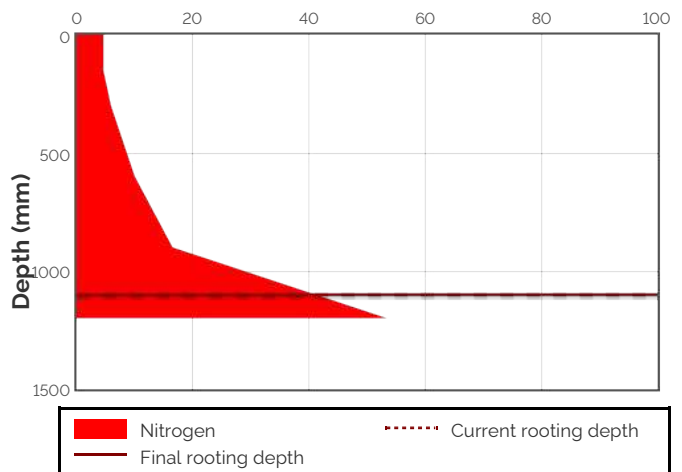
5-May : 31.5 kg/ha
 205 kg/ha
 1 kg/ha
 0 kg/ha

Current N status:

Median N mineralisation to maturity = 0.232 kg/ha
 Median N tie up to maturity = 1.181 kg/ha

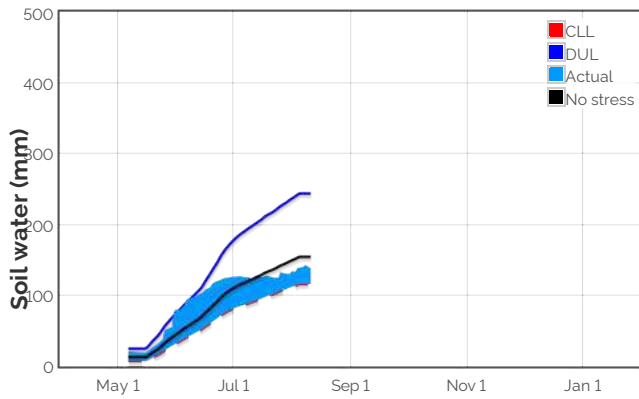
91 kg/ha

Current distribution of soil nitrogen (kg/ha)

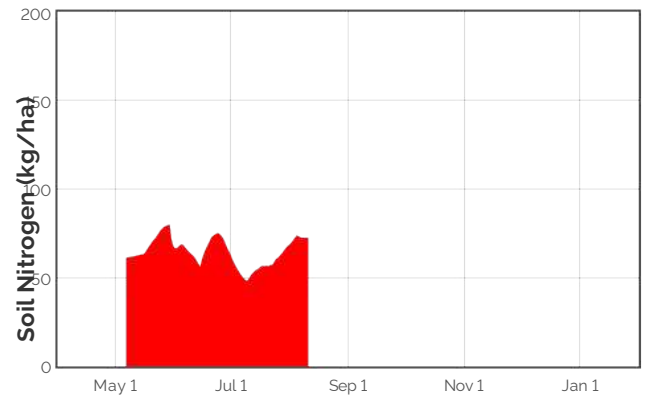


Current Crop Available N = 73 kg/ha
 Total Soil N = 91 kg/ha

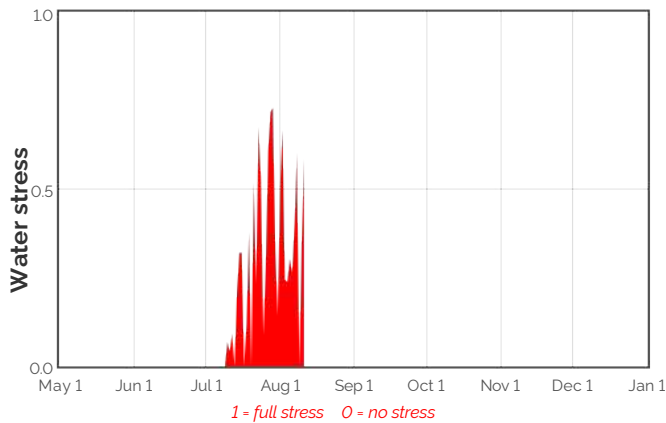
Availability of Water to Growing Roots



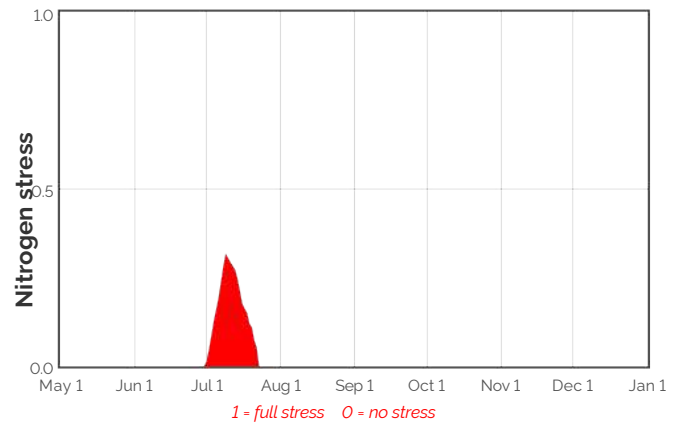
Availability of Soil Nitrogen to Growing Roots



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.

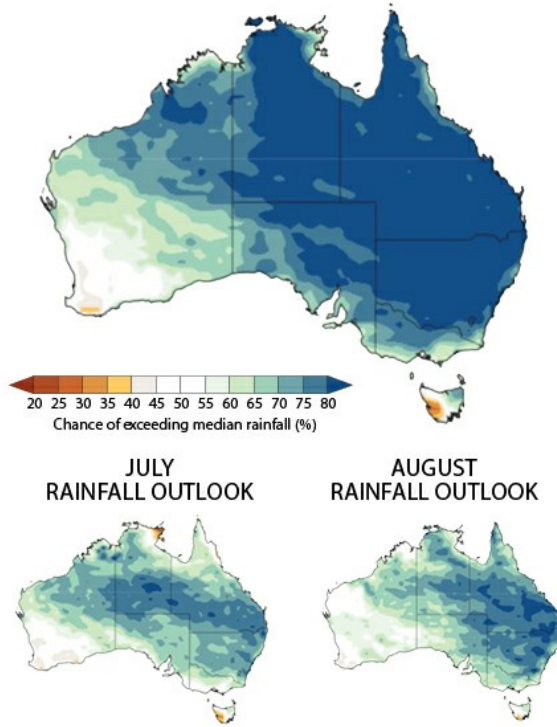
Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
13-Aug	41.2	0.4	1.0	0.0	-19.6	18.8	72.6	0.0	0.0
14-Aug	42.1	0.4	0.9	0.0	-20.7	17.6	72.5	0.0	0.0
15-Aug	43.1	0.5	0.9	0.0	-22.0	16.4	72.5	0.0	0.0
16-Aug	43.9	0.4	0.8	0.0	-23.0	15.3	72.5	0.0	0.0
17-Aug	44.8	0.4	0.7	0.0	-24.2	14.2	72.5	0.0	0.0
18-Aug	45.7	0.5	0.7	0.0	-25.3	13.0	72.4	0.0	0.0
19-Aug	46.5	0.5	0.6	0.0	-26.4	12.0	72.4	0.0	0.0
20-Aug	47.4	0.5	0.5	0.0	-27.4	10.9	72.3	0.0	0.0
21-Aug	48.3	0.5	0.5	0.0	-28.4	10.0	72.3	0.0	0.0
22-Aug	49.2	0.5	0.4	0.0	-29.2	9.1	72.3	0.0	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 JULY TO SEPTEMBER



PAST ACCURACY FOR JULY TO SEPTEMBER

