



Crop Report

21-Jul-2022

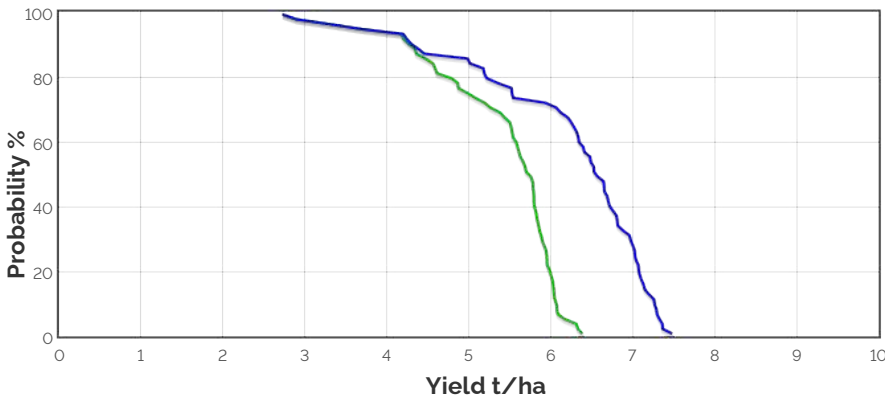
Resilient EP Soil
Moisture Probe Network:
Lock

Crop: Wheat
Cultivar: Scepter
Sowing details: 180 plants/m² on 9-May
Expected maturity date: 24-Oct

Paddock Details
Initial conditions date: 21-Mar
Soil: ResEP_sandy loam_Lock
1000 mm max rooting depth
Stubble: 1000 kg/ha of Canola
No till

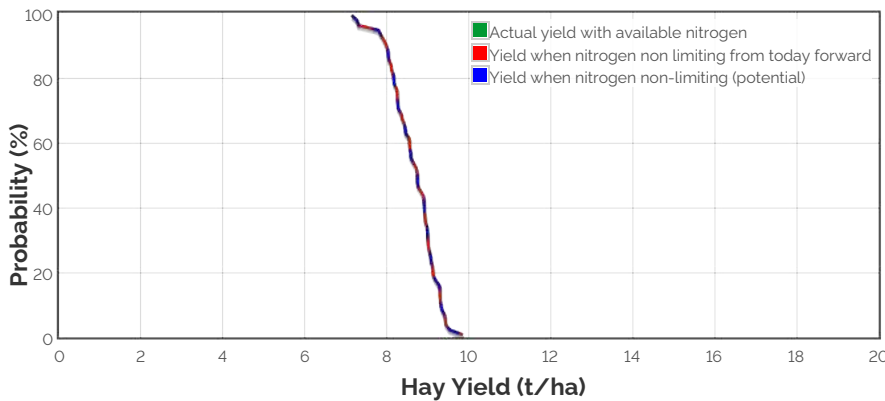
Grain Yield Outcome

- 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.

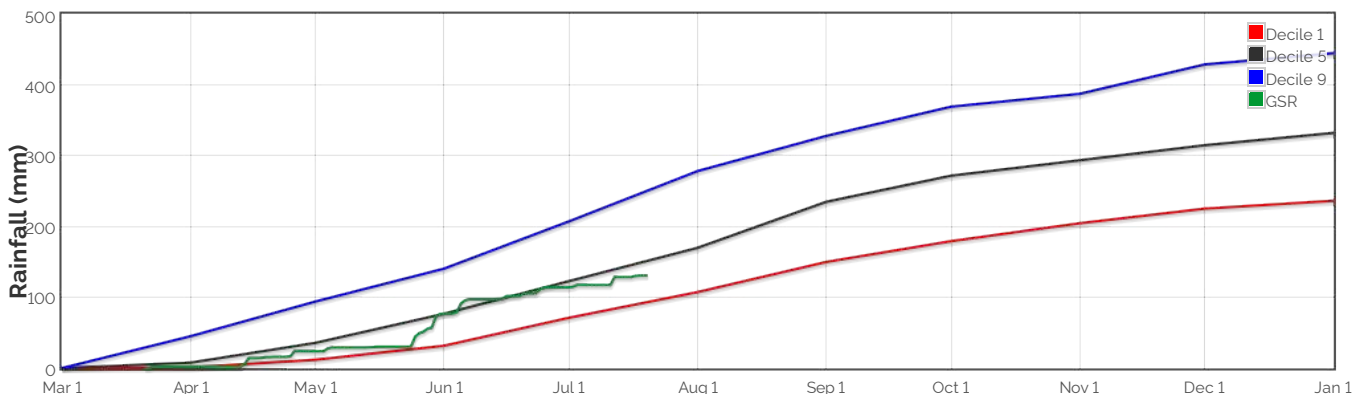
Hay Yield Outcome



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: 3621.4kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

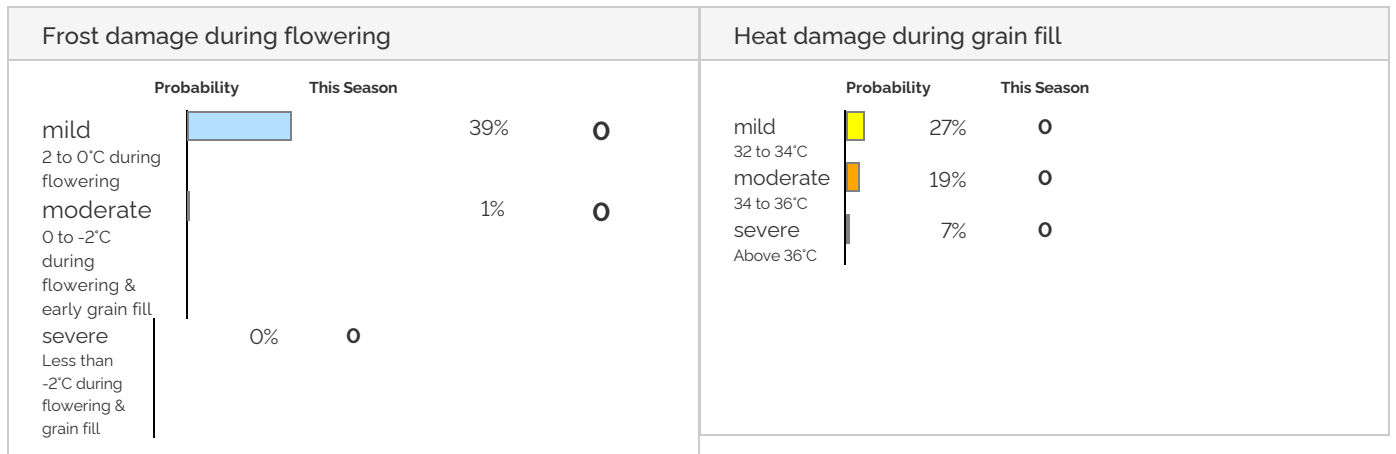
Earliest	18-May	28-May	5-Jun	14-Jun	21-Jun	29-Jun
Median	18-May	28-May	5-Jun	14-Jun	21-Jun	29-Jun
Latest	18-May	28-May	5-Jun	14-Jun	21-Jun	29-Jun



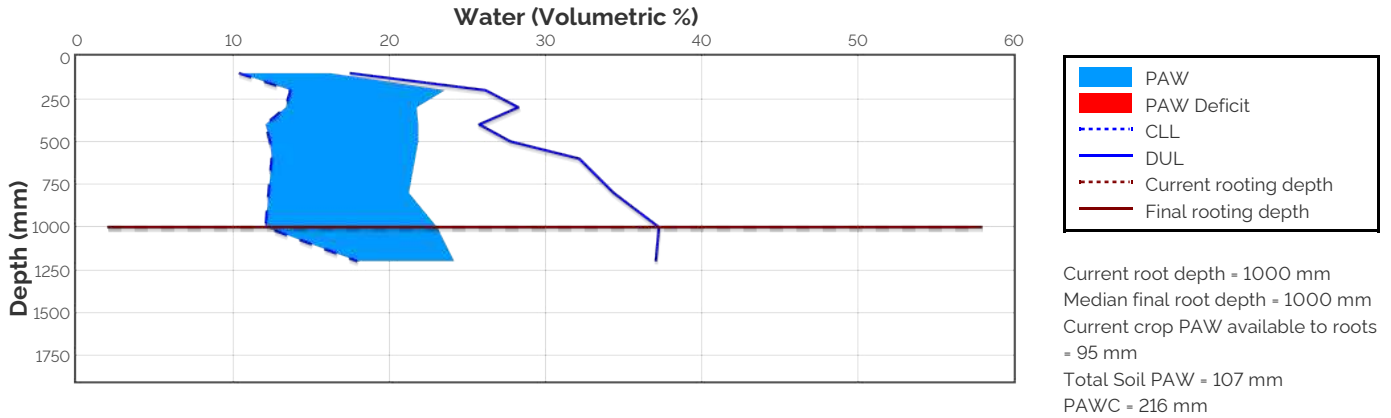
Predicted

Earliest	17-Jul	21-Jul	25-Jul	3-Aug	8-Aug	16-Aug	26-Aug	4-Sep	22-Sep
Median	17-Jul	21-Jul	26-Jul	6-Aug	11-Aug	20-Aug	31-Aug	10-Sep	28-Sep
Latest	17-Jul	21-Jul	27-Jul	9-Aug	15-Aug	25-Aug	6-Sep	16-Sep	5-Oct

Probability and Incidence of Frost and Heat Shock



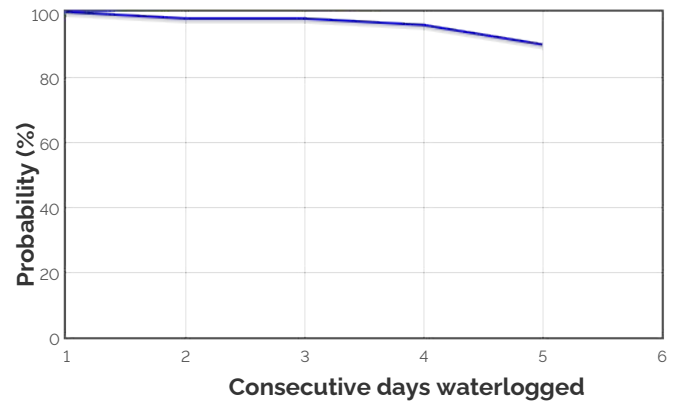
Current Distribution of PAW



Water Budget

Initial PAW status @ 21-Mar	93 mm
Rainfall since 21-Mar	130.9 mm
Irrigations	
Evaporation since 21-Mar	77 mm
Transpiration since 21-Mar	41 mm
Deep drainage since 21-Mar	0 mm
Run-off since 21-Mar	0 mm
Current PAW status:	107 mm

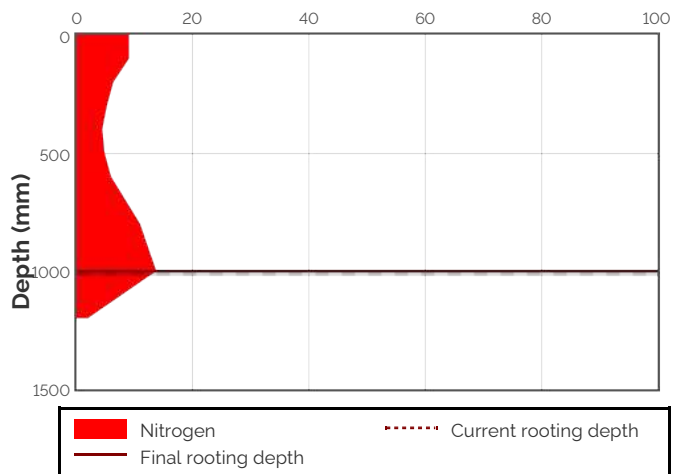
Probability of Future Waterlogging Events



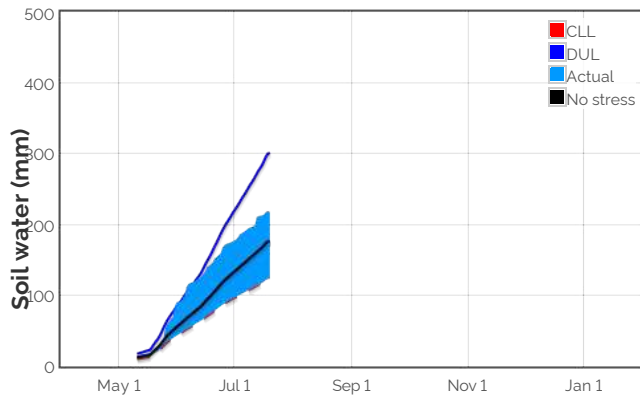
Nitrogen Budget

Initial N status @ 21-Mar	154 kg/ha
N mineralisation since 21-Mar	3 kg/ha
N tie up since 21-Mar	6 kg/ha
N applications	
9-May : 9 kg/ha	
23-Jun : 32 kg/ha	
13-Jul : 20.7 kg/ha	
Total N in plant	146 kg/ha
De-nitrification since 21-Mar	0 kg/ha
Leaching since 21-Mar	0 kg/ha
Current N status:	66 kg/ha
Median N mineralisation to maturity = 0.372 kg/ha	
Median N tie up to maturity = 0.7345 kg/ha	

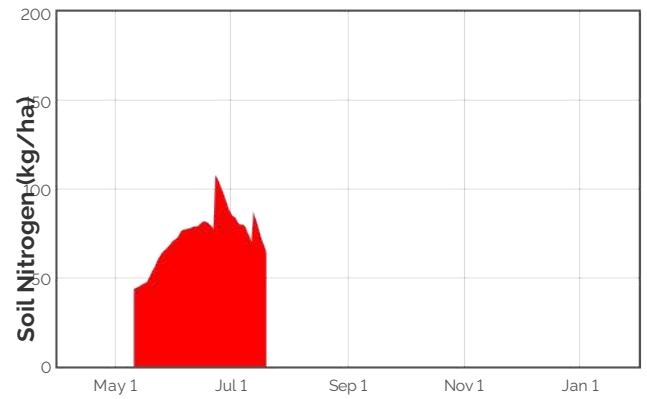
Current distribution of soil nitrogen (kg/ha)



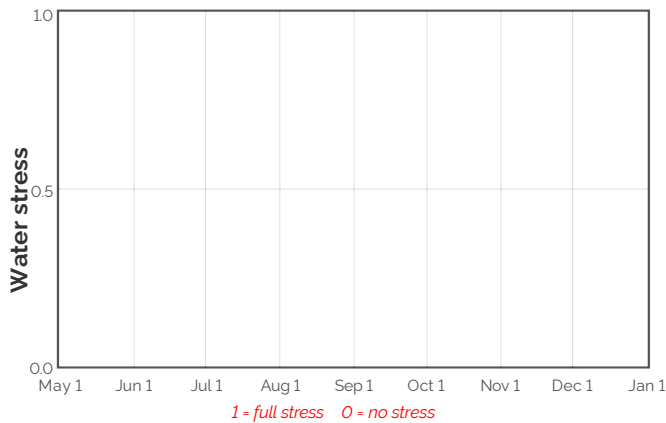
Availability of Water to Growing Roots



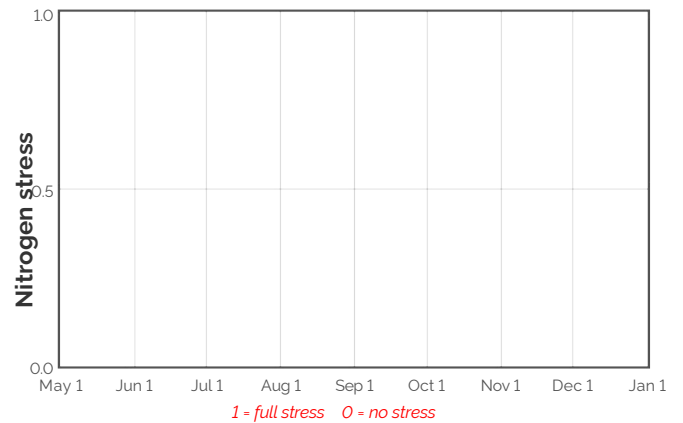
Availability of Soil Nitrogen to Growing Roots



Water Stress



Nitrogen Stress



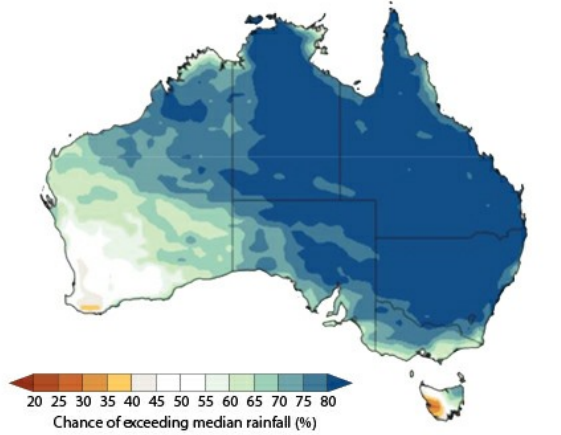
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

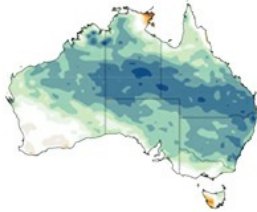
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
22-Jul	31.7	0.4	1.4	2.6	36.3	89.8	55.2	0.0	0.0
23-Jul	32.0	0.4	1.2	2.3	34.8	88.2	53.4	0.0	0.0
24-Jul	32.0	0.4	1.3	2.1	33.4	86.7	51.2	0.0	0.0
25-Jul	32.6	0.4	1.1	1.9	31.8	85.2	49.3	0.0	0.0
26-Jul	33.0	0.4	1.2	1.7	30.0	83.4	47.8	0.0	0.0
27-Jul	33.4	0.3	1.4	1.6	28.4	81.8	46.2	0.0	0.0
28-Jul	33.8	0.4	1.2	1.4	27.4	80.8	44.9	0.0	0.0
29-Jul	34.2	0.4	1.3	1.3	25.4	78.7	43.6	0.0	0.0
30-Jul	34.6	0.4	1.4	1.2	23.8	77.2	42.4	0.0	0.0
31-Jul	35.0	0.4	1.4	1.1	22.4	75.7	41.5	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.

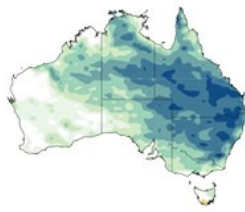
3 MONTH RAINFALL OUTLOOK FOR JULY TO SEPTEMBER



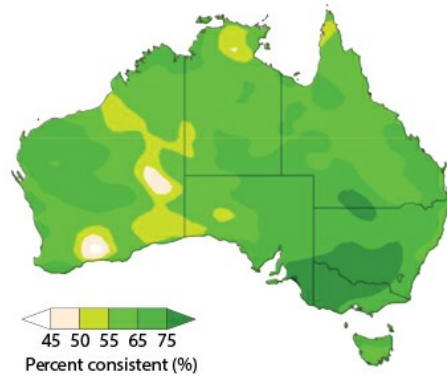
JULY RAINFALL OUTLOOK



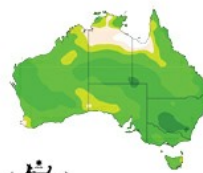
AUGUST RAINFALL OUTLOOK



PAST ACCURACY FOR JULY TO SEPTEMBER



PAST ACCURACY FOR JULY



PAST ACCURACY FOR AUGUST

