

Crop Report

30-Sep-2022

Nicole Baty:
Cockaleeche

Crop: Wheat

Cultivar: Sunco

Sowing details: 200 plants/m² on 10-May

Expected maturity date: 7-Nov

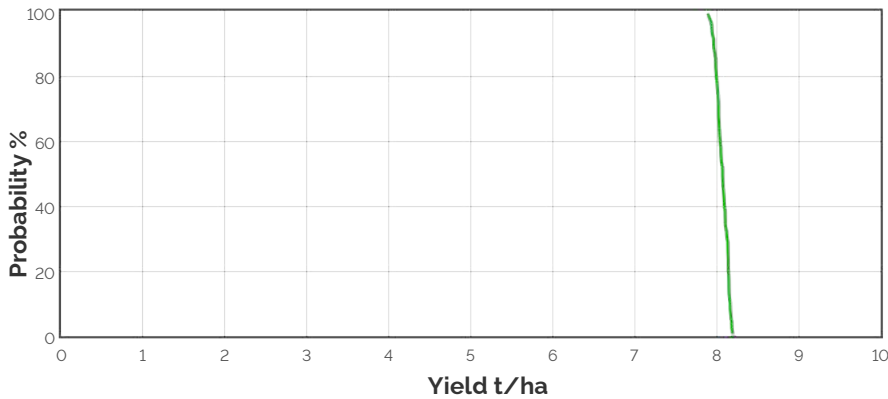
Paddock Details

Initial conditions date: 10-May

Soil: ResEP_clay_Cockaleeche
1400 mm max rooting depth
Stubble: 2000 kg/ha of Wheat
No till

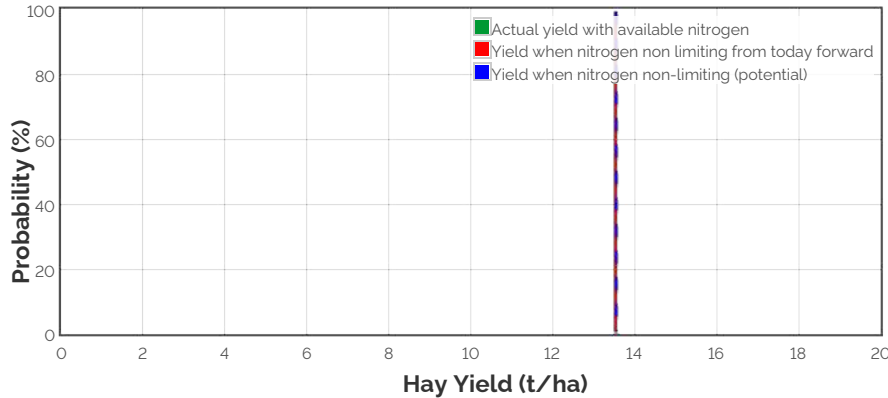
Grain Yield Outcome

- 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.

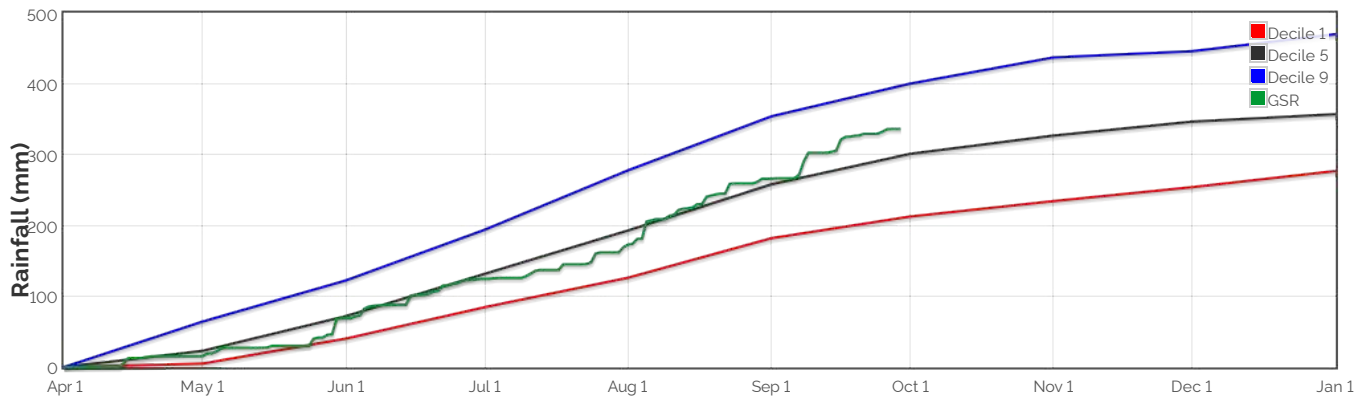
Hay Yield Outcome



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: 17539.8kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

Earliest	20-May	30-May	7-Jun	15-Jun	23-Jun	1-Jul
Median	20-May	30-May	7-Jun	15-Jun	23-Jun	1-Jul
Latest	20-May	30-May	7-Jun	15-Jun	23-Jun	1-Jul



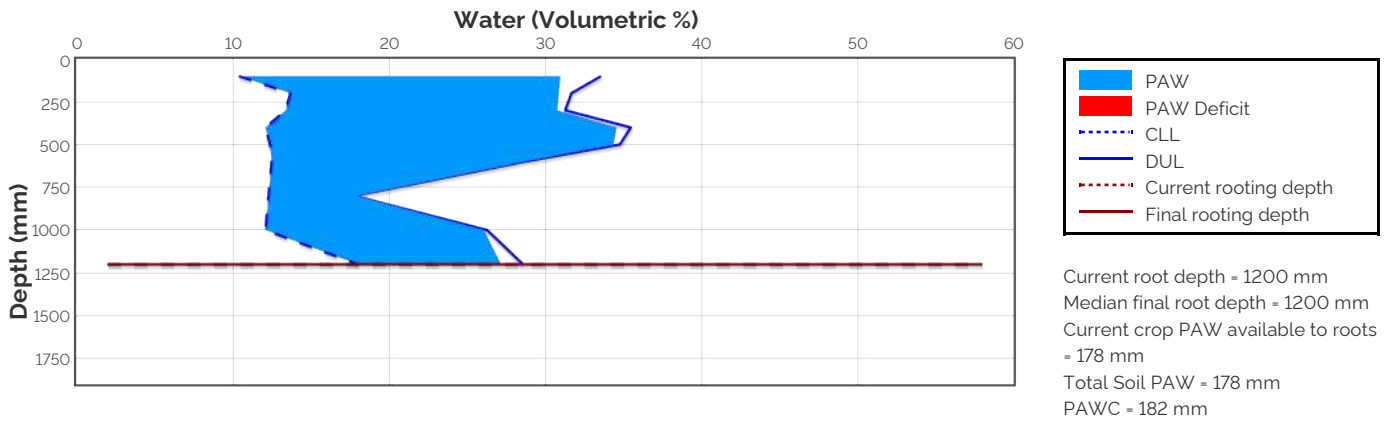
Predicted

Earliest	31-Jul	4-Aug	8-Aug	20-Aug	25-Aug	3-Sep	14-Sep	23-Sep	10-Oct
Median	31-Jul	4-Aug	8-Aug	20-Aug	25-Aug	3-Sep	14-Sep	23-Sep	12-Oct
Latest	31-Jul	4-Aug	8-Aug	20-Aug	25-Aug	3-Sep	14-Sep	23-Sep	15-Oct

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		10%	0	mild 32 to 34°C		25%	0
moderate 0 to -2°C during flowering & early grain fill		4%	0	moderate 34 to 36°C		16%	0
severe Less than -2°C during flowering & grain fill		0%	0	severe Above 36°C		4%	0

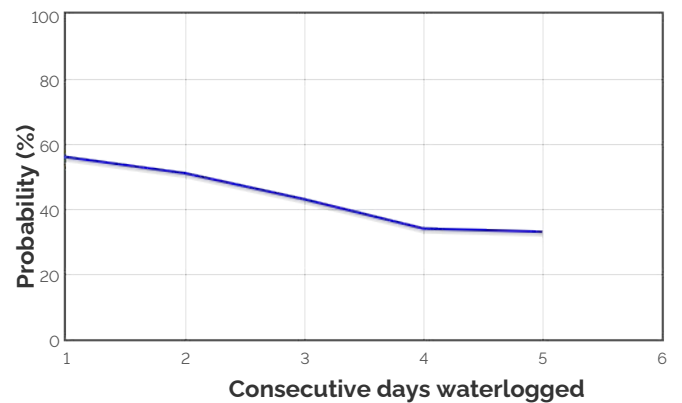
Current Distribution of PAW



Water Budget

Initial PAW status @ 10-May	249 mm
Rainfall since 10-May	309.1 mm
Irrigations	
Evaporation since 10-May	94 mm
Transpiration since 10-May	183 mm
Deep drainage since 10-May	16 mm
Run-off since 10-May	1 mm
Current PAW status:	178 mm

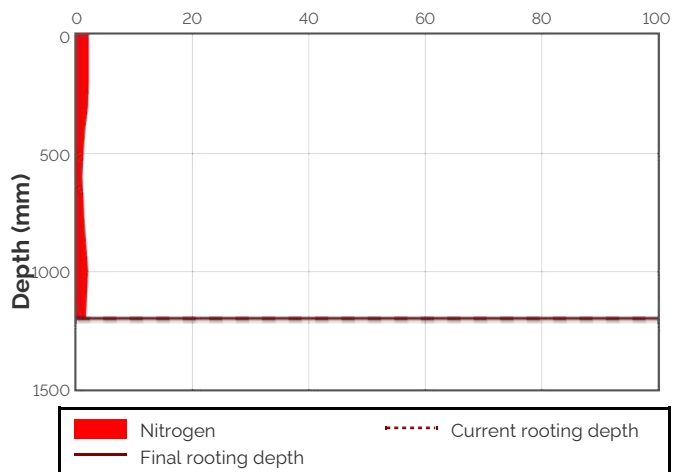
Probability of Future Waterlogging Events



Nitrogen Budget

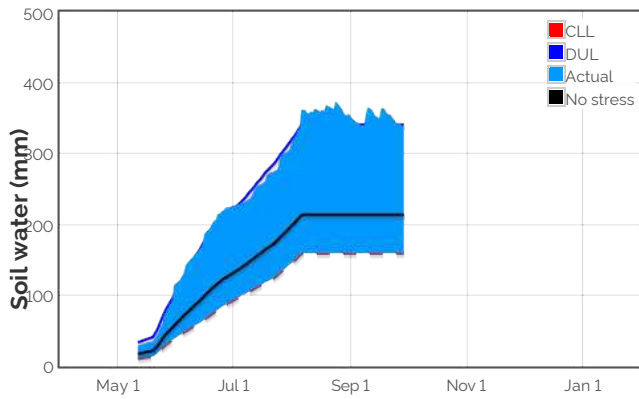
Initial N status @ 10-May	79 kg/ha
N mineralisation since 10-May	3 kg/ha
N tie up since 10-May	4 kg/ha
N applications	
10-May	9.7 kg/ha
1-Jun	37.7 kg/ha
17-Jun	36.3 kg/ha
8-Jul	42.3 kg/ha
29-Jul	38.6 kg/ha
6-Sep	34.5 kg/ha
Total N in plant	242 kg/ha
De-nitrification since 10-May	3 kg/ha
Leaching since 10-May	0 kg/ha
Current N status:	15 kg/ha

Current distribution of soil nitrogen (kg/ha)

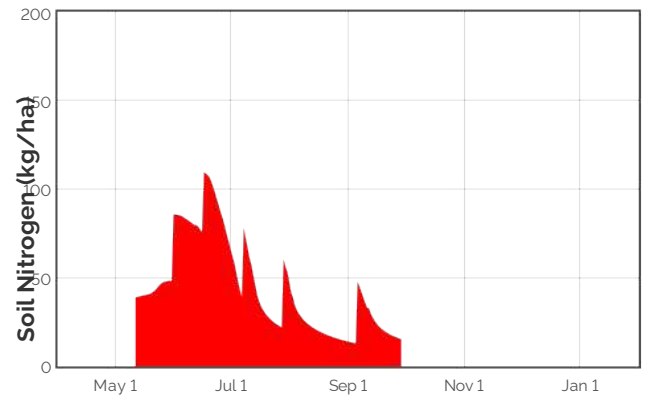


Median N mineralisation to maturity = 1.2165 kg/ha
 Median N tie up to maturity = 0.003 kg/ha

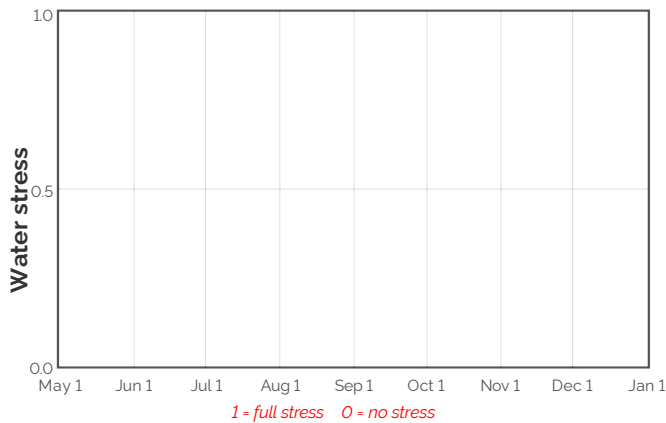
Availability of Water to Growing Roots



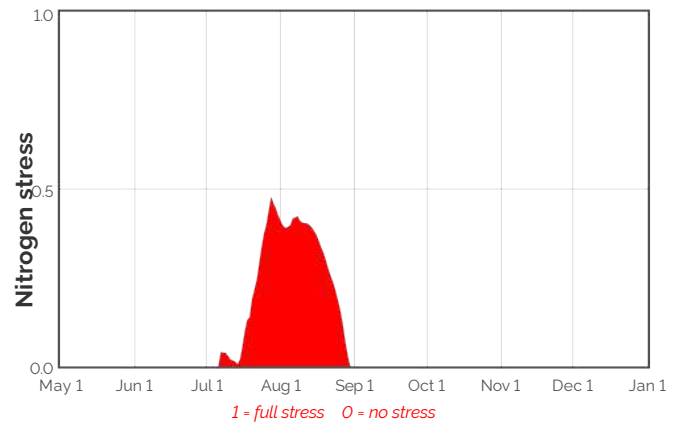
Availability of Soil Nitrogen to Growing Roots



Water Stress



Nitrogen Stress



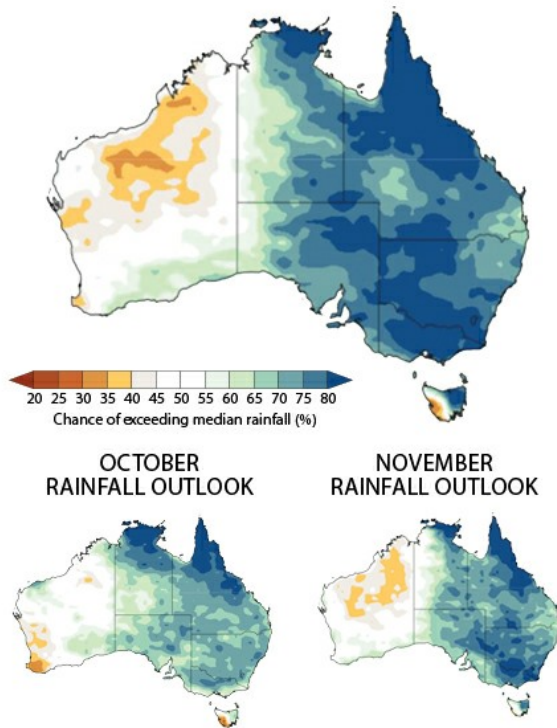
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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)
1-Oct	70.8	0.7	3.0	0.3	111.5	166.1	14.3	0.0	0.0
2-Oct	71.0	0.6	2.3	0.3	107.8	162.3	14.0	0.0	0.0
2-Oct	71.8	0.7	3.1	0.2	103.4	157.9	13.7	0.0	0.0
3-Oct	72.2	0.6	3.2	0.2	99.8	154.2	13.5	0.0	0.0
4-Oct	72.6	0.6	3.0	0.2	96.0	150.5	13.3	0.0	0.0
5-Oct	73.1	0.6	3.2	0.2	91.9	146.4	13.1	0.0	0.0
6-Oct	73.5	0.4	2.8	0.2	87.4	142.0	12.9	0.0	0.0
7-Oct	74.0	0.4	3.6	0.2	83.4	138.0	12.7	0.0	0.0
8-Oct	74.4	0.3	3.6	0.2	80.4	134.8	12.6	0.0	0.0
9-Oct	74.8	0.3	3.0	0.2	77.0	131.5	12.4	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 OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER TO DECEMBER

