

Crop Report

5-Oct-2017

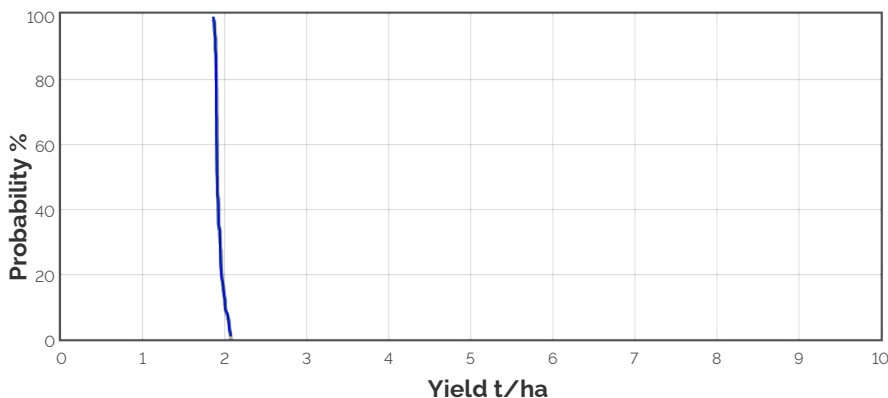
UpperNorthFS: Mudge`

Crop: Wheat
 Cultivar: Mace
 Sowing details: 130 plants/m² on 2-May
 Expected maturity date: 20-Oct

Paddock Details
 Initial conditions date: 23-May
 Soil: Loamy sand over red sandy clay loam (Telowie)(CU062)
 900 mm max rooting depth
 Stubble: 800 kg/ha of Lentil
 No till

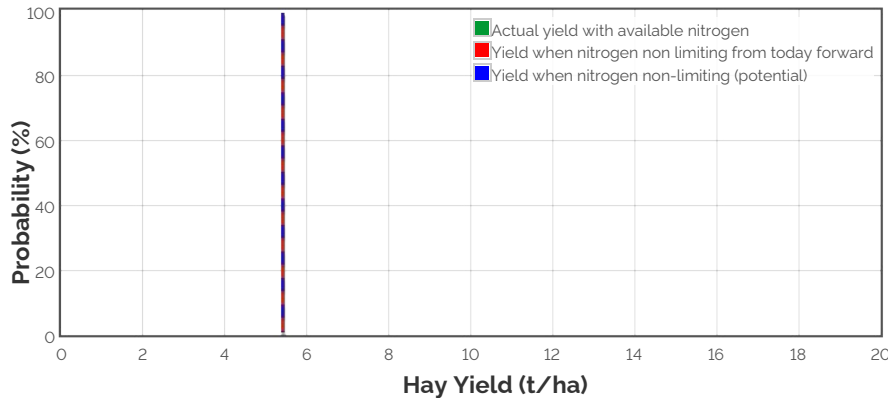
Grain Yield Outcome

- 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.

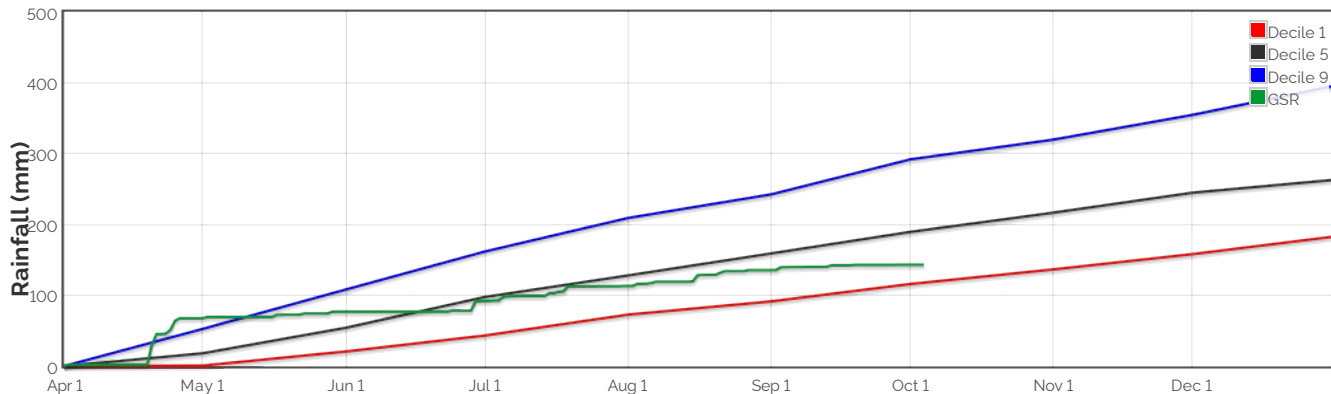
Hay Yield Outcome



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: 6839.2kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



Predicted

Earliest	13-May	24-May	31-May	9-Jun	18-Jun	27-Jun
Median	13-May	24-May	31-May	9-Jun	18-Jun	27-Jun
Latest	13-May	24-May	31-May	9-Jun	18-Jun	27-Jun



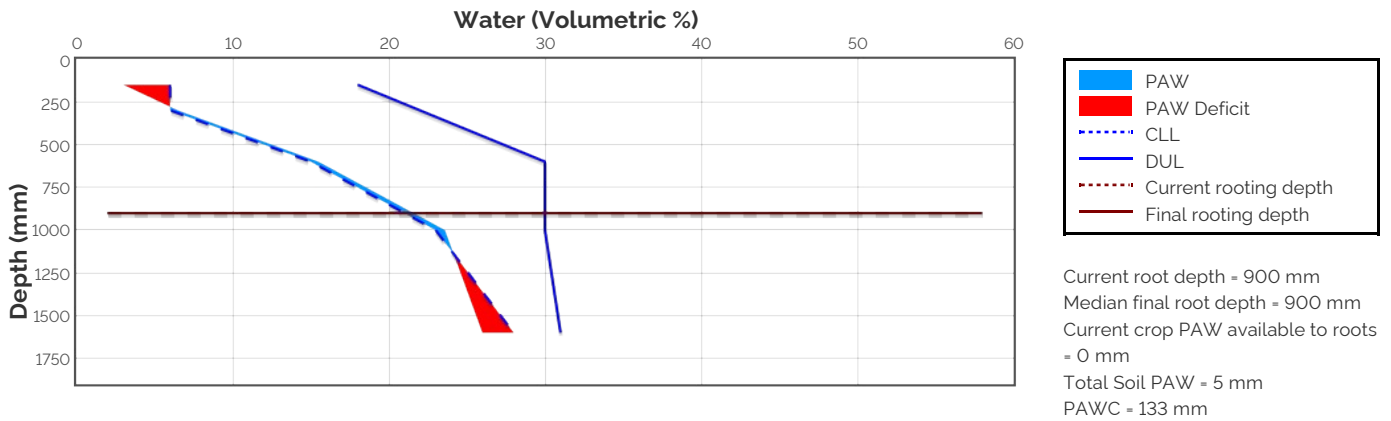
Predicted

Earliest	17-Jul	21-Jul	25-Jul	6-Aug	10-Aug	17-Aug	29-Aug	9-Sep	25-Sep
Median	17-Jul	21-Jul	25-Jul	6-Aug	10-Aug	17-Aug	29-Aug	9-Sep	25-Sep
Latest	17-Jul	21-Jul	25-Jul	6-Aug	10-Aug	17-Aug	29-Aug	9-Sep	25-Sep

Probability and Incidence of Frost and Heat Shock

Frost damage during flowering			Heat damage during grain fill		
Severity	Probability	This Season	Severity	Probability	This Season
mild 2 to 0°C during flowering	4%	0	mild 32 to 34°C	34%	1
moderate 0 to -2°C during flowering & early grain fill	0%	0	moderate 34 to 36°C	16%	1
severe Less than -2°C during flowering & grain fill	0%	0	severe Above 36°C	4%	0

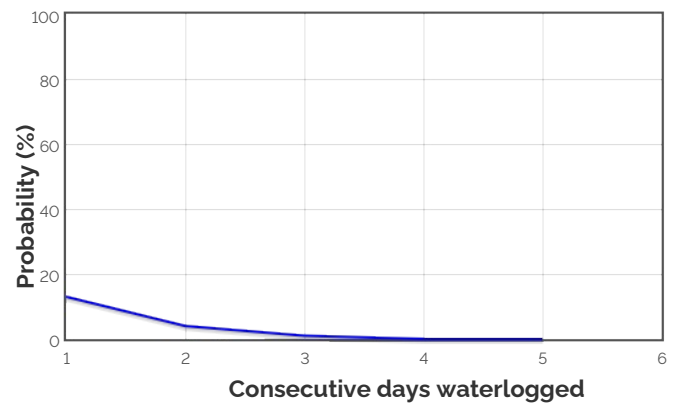
Current Distribution of PAW



Water Budget

Initial PAW status @ 23-May	84 mm
Rainfall since 23-May	68.8 mm
Irrigations	
Evaporation since 23-May	54 mm
Transpiration since 23-May	111 mm
Deep drainage since 23-May	0 mm
Run-off since 23-May	0 mm
Current PAW status:	5 mm

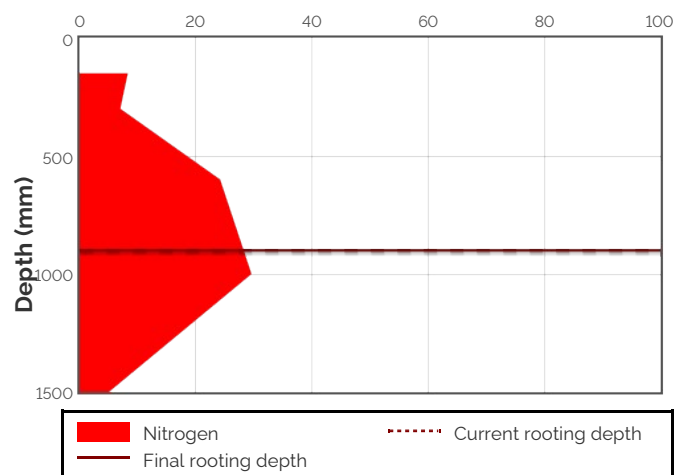
Probability of Future Waterlogging Events



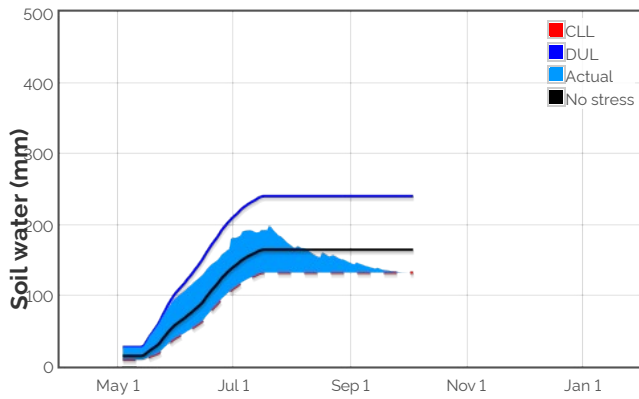
Nitrogen Budget

Initial N status @ 23-May	83 kg/ha
N mineralisation since 23-May	0 kg/ha
N tie up since 23-May	11 kg/ha
N applications	
25-May : 16 kg/ha	
28-Jun : 40 kg/ha	
Total N in plant	106 kg/ha
De-nitrification since 23-May	0 kg/ha
Leaching since 23-May	0 kg/ha
Current N status:	20 kg/ha
Median N mineralisation to maturity = 0 kg/ha	
Median N tie up to maturity = 0.251 kg/ha	

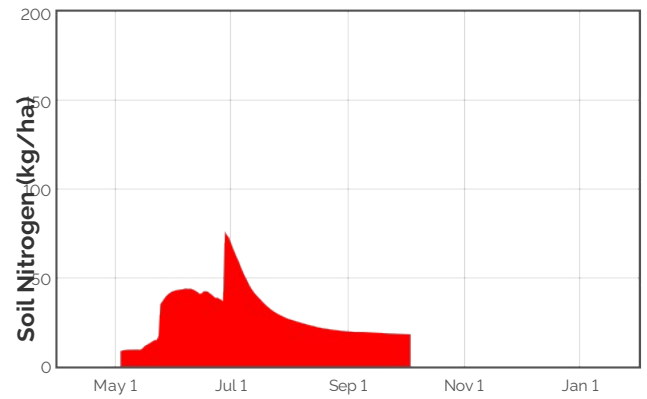
Current distribution of soil nitrogen (kg/ha)



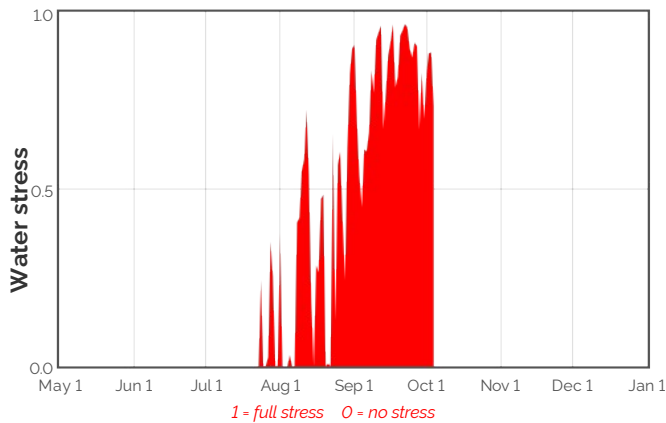
Availability of Water to Growing Roots



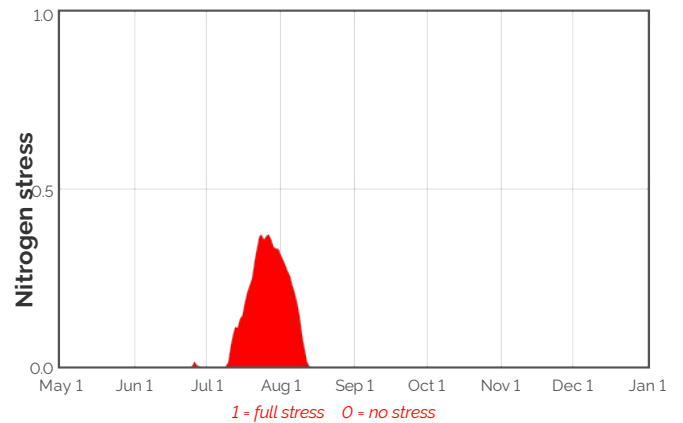
Availability of Soil Nitrogen to Growing Roots



Water Stress



Nitrogen Stress



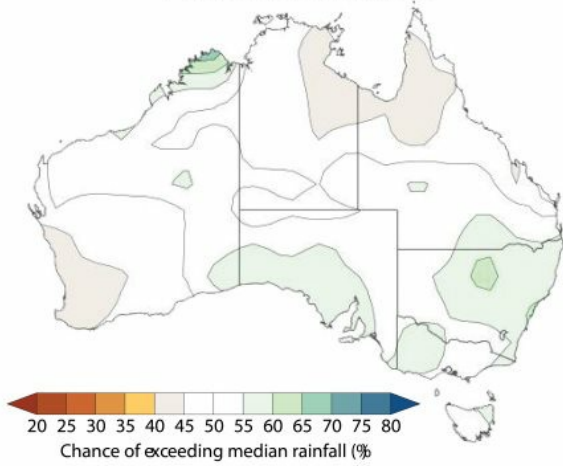
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

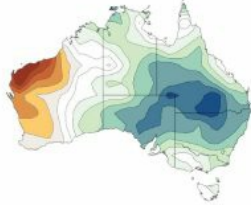
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
4-Oct	80.7	0.0	0.2	0.0	-32.8	0.0	18.0	0.0	0.0
5-Oct	81.2	0.0	0.1	0.0	-32.9	0.0	17.9	0.0	0.0
6-Oct	81.6	0.0	0.1	0.0	-33.0	0.0	17.9	0.0	0.0
7-Oct	82.1	0.0	0.1	0.0	-33.1	0.0	17.8	0.0	0.0
8-Oct	82.7	0.0	0.1	0.0	-33.1	0.0	17.8	0.0	0.0
9-Oct	83.2	0.0	0.1	0.0	-33.2	0.0	17.8	0.0	0.0
10-Oct	83.7	0.0	0.1	0.0	-33.3	0.0	17.8	0.0	0.0
11-Oct	84.2	0.0	0.1	0.0	-33.3	0.0	17.7	0.0	0.0
12-Oct	84.7	0.0	0.1	0.0	-33.4	0.0	17.7	0.0	0.0
13-Oct	85.2	0.0	0.1	0.0	-33.5	0.0	17.7	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.

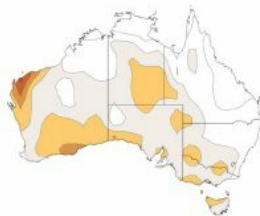
3 MONTH CLIMATE OUTLOOK FROM OCTOBER TO DECEMBER



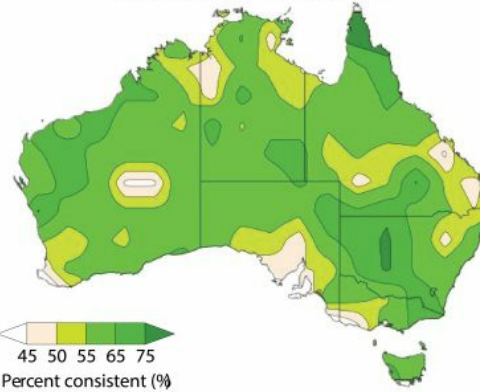
OCTOBER CLIMATE OUTLOOK



NOVEMBER CLIMATE OUTLOOK



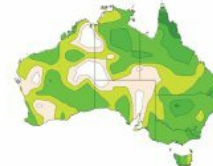
PAST ACCURACY FROM OCTOBER TO DECEMBER



PAST ACCURACY FOR OCTOBER



PAST ACCURACY FOR NOVEMBER



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