

# Crop Report

25-Sep-2019

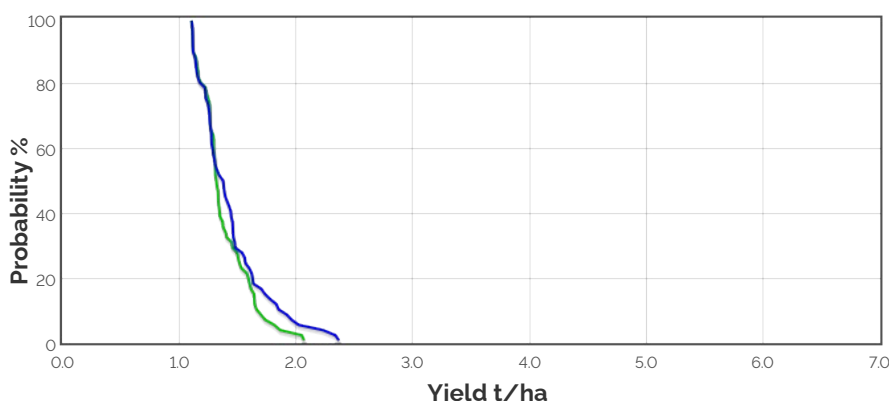
Living Farm : Corrigin YS  
2019

Crop: Wheat  
Cultivar: Scepter  
Sowing details: 180 plants/m<sup>2</sup> on 5-Jun  
Expected maturity date: 12-Nov

Paddock Details  
Initial conditions date: 1-Apr  
Soil: Soil>  
1800 mm max rooting depth  
Stubble: 0 kg/ha of Canola  
No till

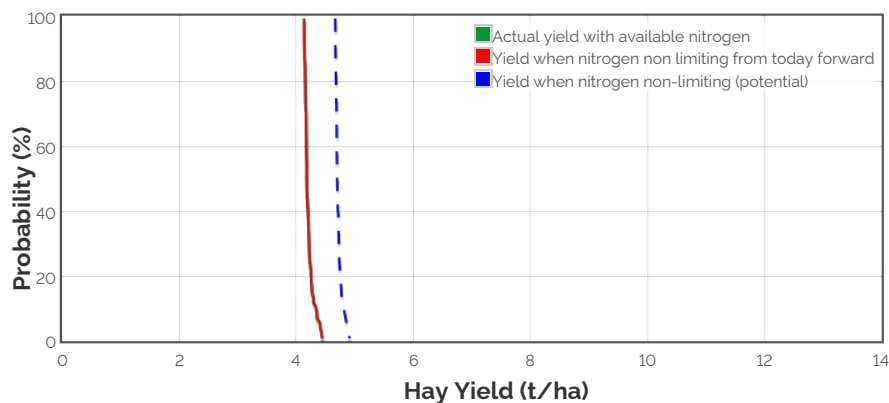
## Grain Yield Outcome

- ☒ Nitrogen limited Yield  
☒ Nitrogen limited Yield with Frost and heat Effects  
☒ Water limited Yield  
☒ 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.

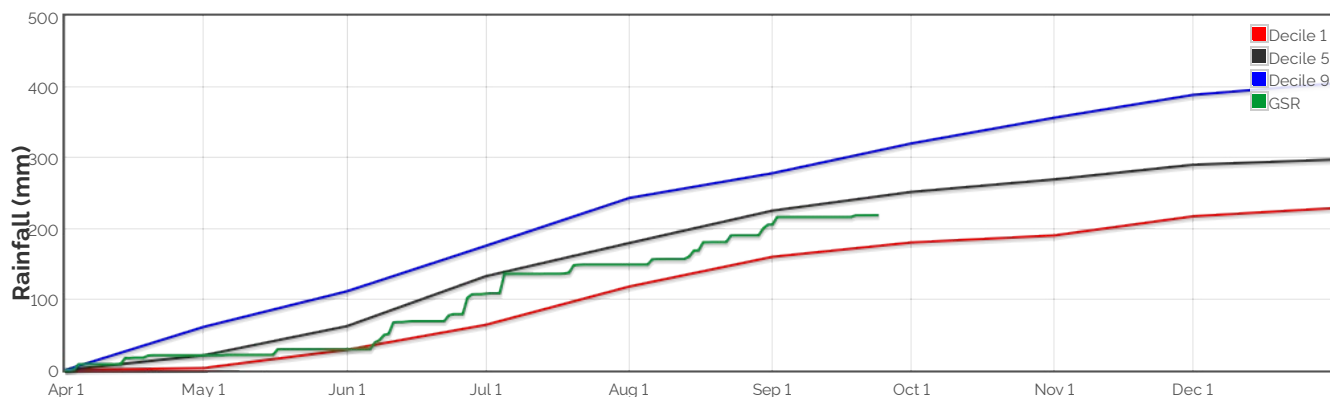
## Hay Yield Outcome



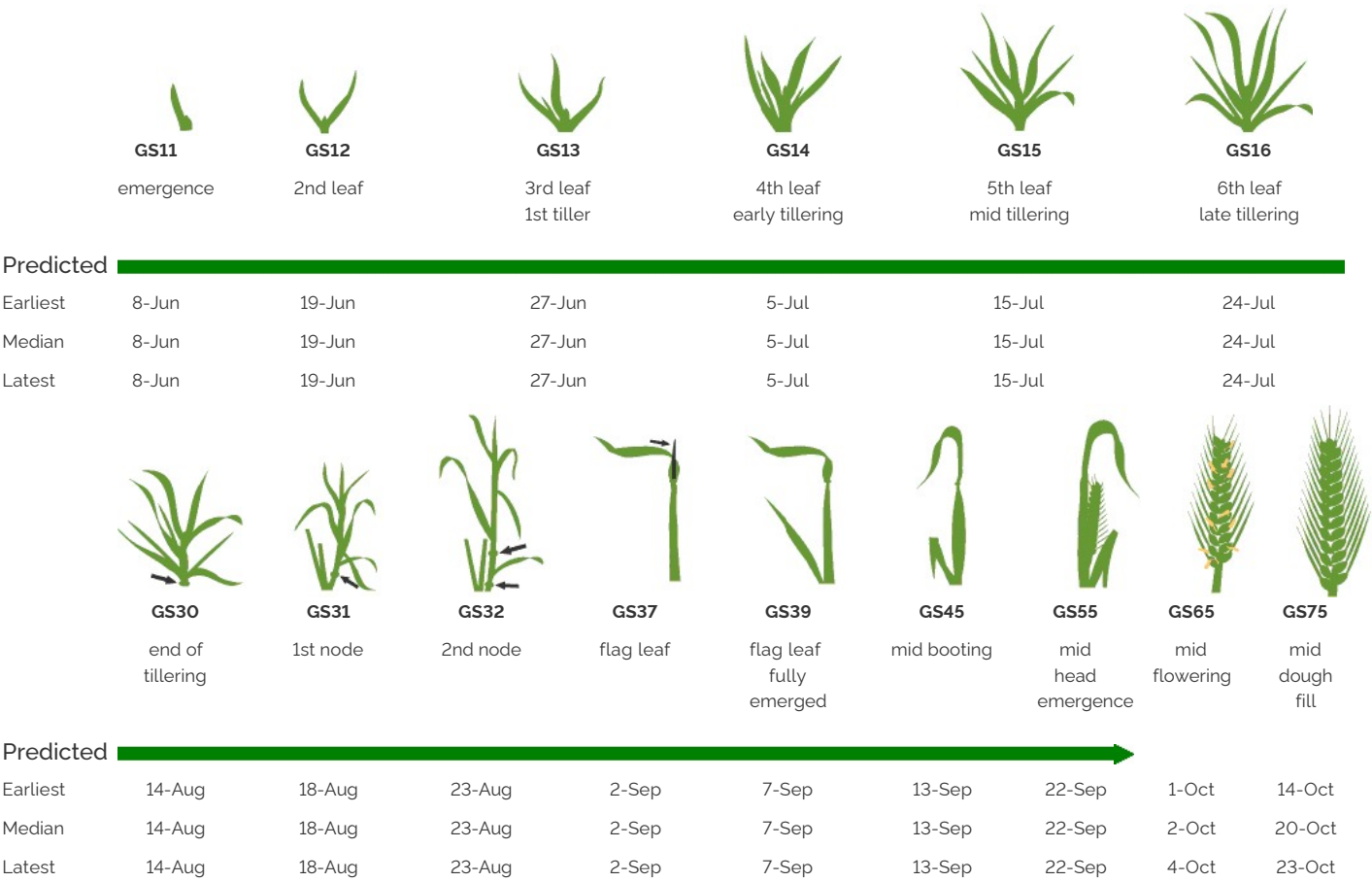
This graph shows the probability of exceeding a range of hay yield outcomes this season. It takes into account the same factors as the grain yield graph above. When above ground dry matter is below 2t/ha, hay yield is assumed to be 70% of dry matter, with a moisture content of 13%. When dry matter is 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: 4964.9kg/ha

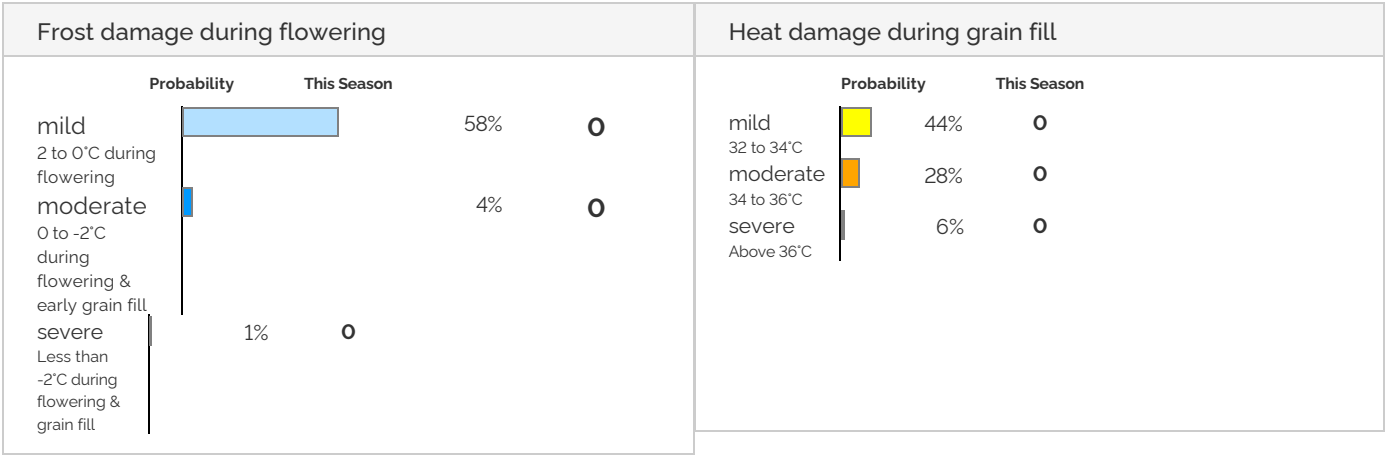
## The Season So Far - Growing Season Rainfall Deciles



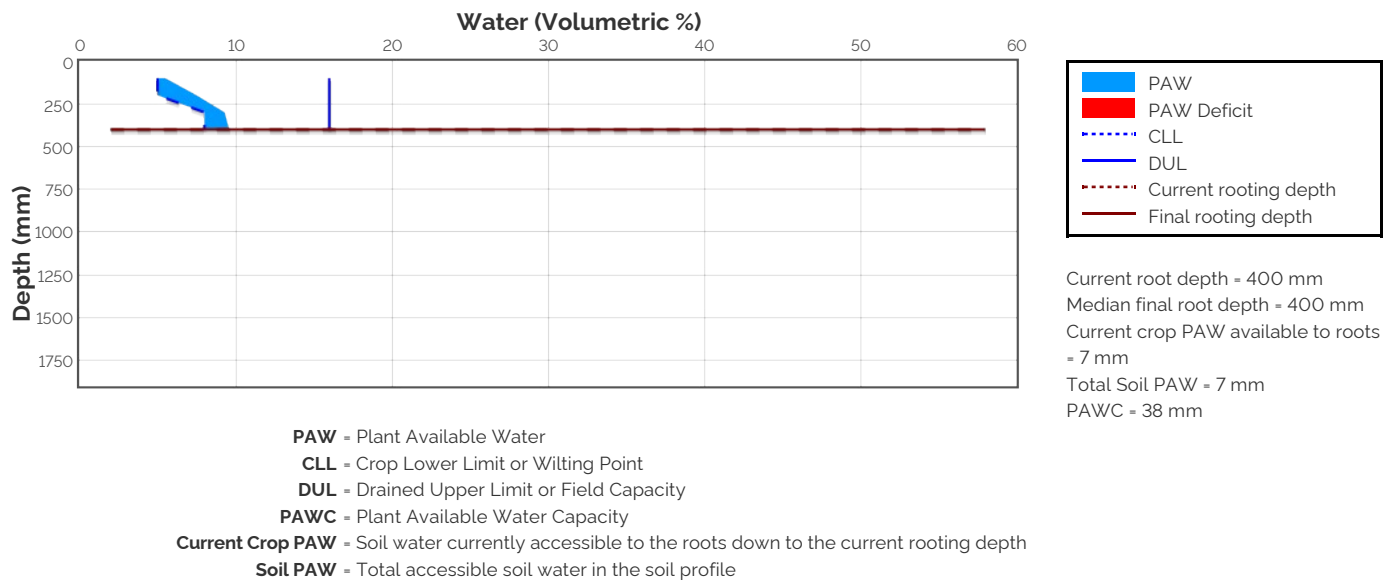
Simulated and Predicted Crop Growth Stage



Probability and Incidence of Frost and Heat Shock



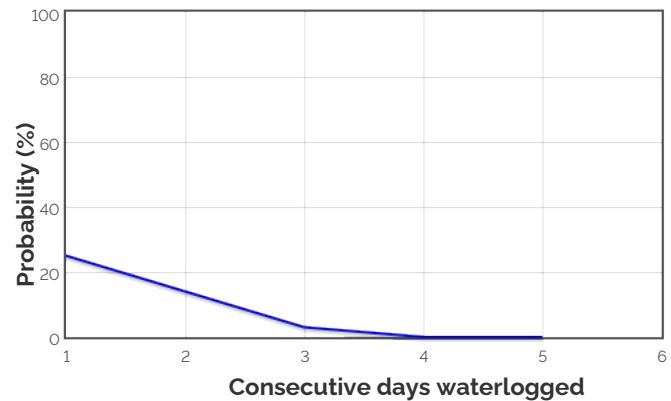
Current Distribution of PAW



Water Budget

Initial PAW status @ 1-Apr	2 mm
Rainfall since 1-Apr	218.8 mm
Irrigations	
Evaporation since 1-Apr	102 mm
Transpiration since 1-Apr	72 mm
Deep drainage since 1-Apr	34 mm
Run-off since 1-Apr	0 mm
<b>Current PAW status:</b>	<b>7 mm</b>

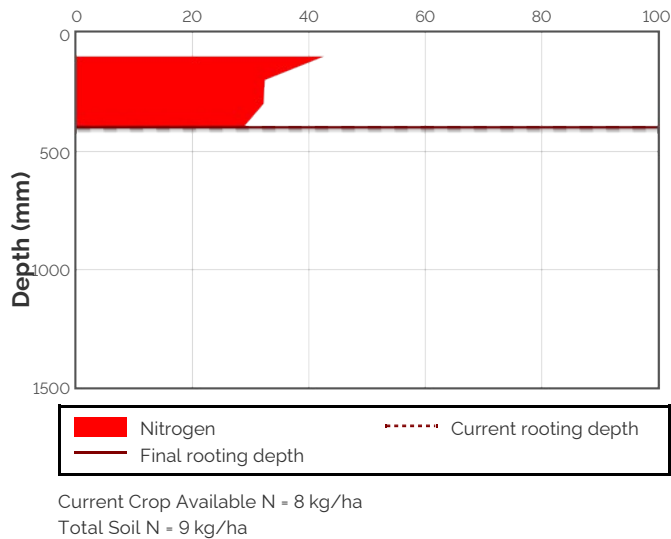
Probability of Future Waterlogging Events



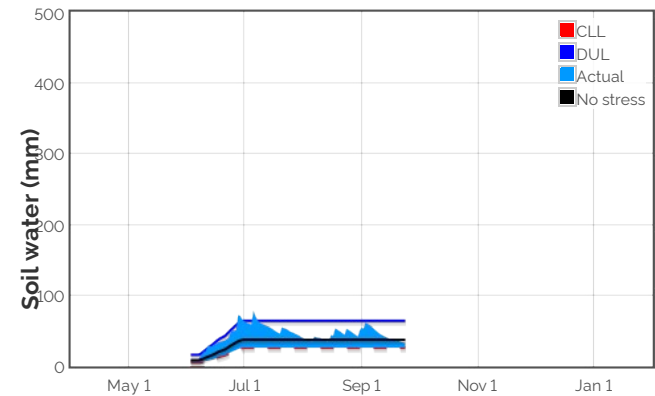
Nitrogen Budget

Initial N status @ 1-Apr	122 kg/ha
N mineralisation since 1-Apr	13 kg/ha
N tie up since 1-Apr	0 kg/ha
N applications	
5-Jun : 12 kg/ha	
Total N in plant	68 kg/ha
De-nitrification since 1-Apr	1 kg/ha
Leaching since 1-Apr	68 kg/ha
<b>Current N status:</b>	<b>9 kg/ha</b>
Median N mineralisation to maturity = 0.454 kg/ha	
Median N tie up to maturity = 0.003 kg/ha	

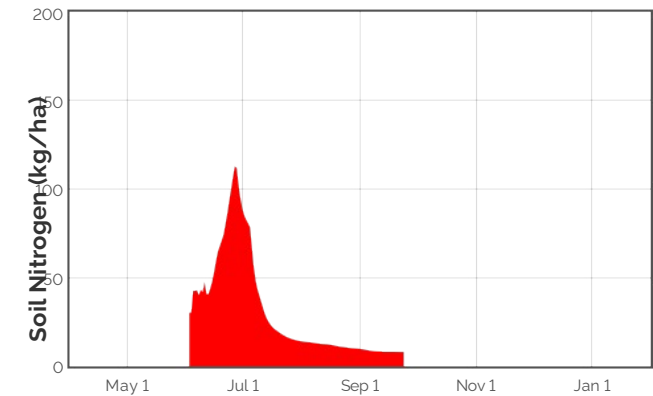
Current distribution of soil nitrogen (kg/ha)



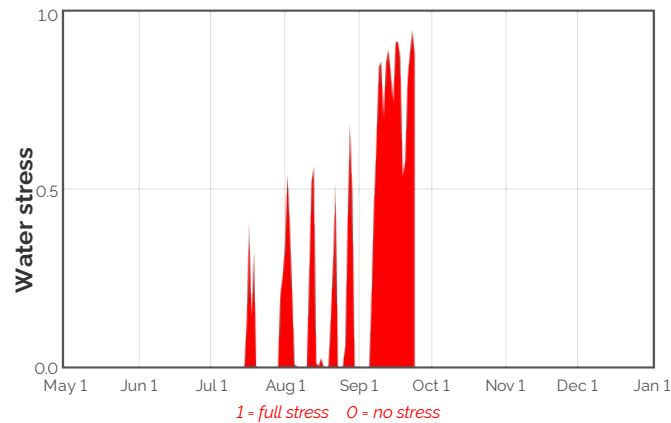
Availability of Water to Growing Roots



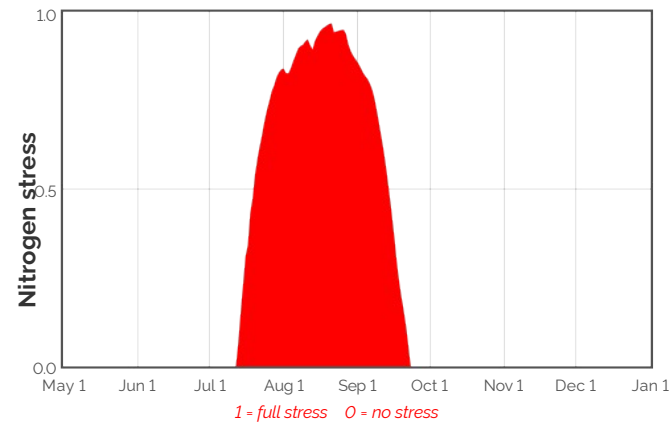
Availability of Soil Nitrogen to Growing Roots



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)
26-Sep	60.2	0.2	0.3	0.0	-6.6	4.8	8.1	0.0	0.0
27-Sep	61.2	0.2	0.3	0.0	-7.1	4.3	8.1	0.0	0.0
28-Sep	62.1	0.2	0.3	0.0	-7.6	3.8	8.1	0.0	0.0
29-Sep	63.1	0.2	0.2	0.0	-8.0	3.4	8.1	0.0	0.0
30-Sep	64.2	0.2	0.2	0.0	-8.5	2.9	8.1	0.0	0.0
1-Oct	65.0	0.2	0.2	0.0	-8.9	2.5	8.1	0.0	0.0
2-Oct	65.9	0.2	0.2	0.0	-9.3	2.1	8.1	0.0	0.0
3-Oct	66.6	0.2	0.2	0.0	-9.6	1.8	8.1	0.0	0.0
4-Oct	67.4	0.2	0.2	0.0	-10.0	1.4	8.1	0.0	0.0
5-Oct	68.1	0.2	0.1	0.0	-10.3	1.1	8.1	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.

