



Crop Report

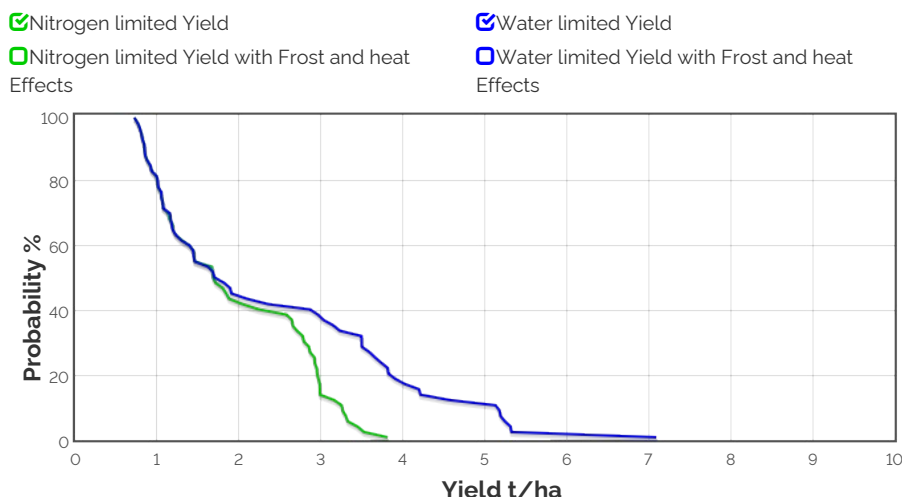
21-Aug-2017

UpperNorthFS: Barrie

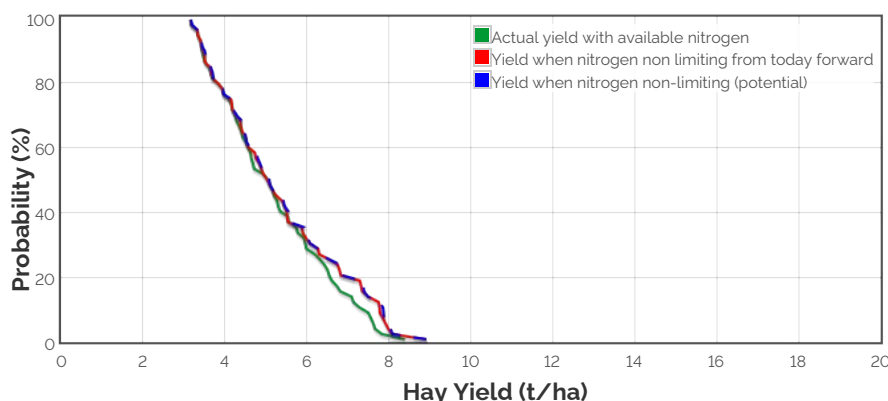
Crop: Wheat
Cultivar: Katana
Sowing details: 155 plants/m² on 23-May
Expected maturity date: 19-Nov

Paddock Details
Initial conditions date: 23-May
Soil: Sandy Clay Loam over Light and Medium Clay (Morchard Hill No604-YP)
800 mm max rooting depth
Stubble: 500 kg/ha of Wheat
No till

Grain Yield Outcome

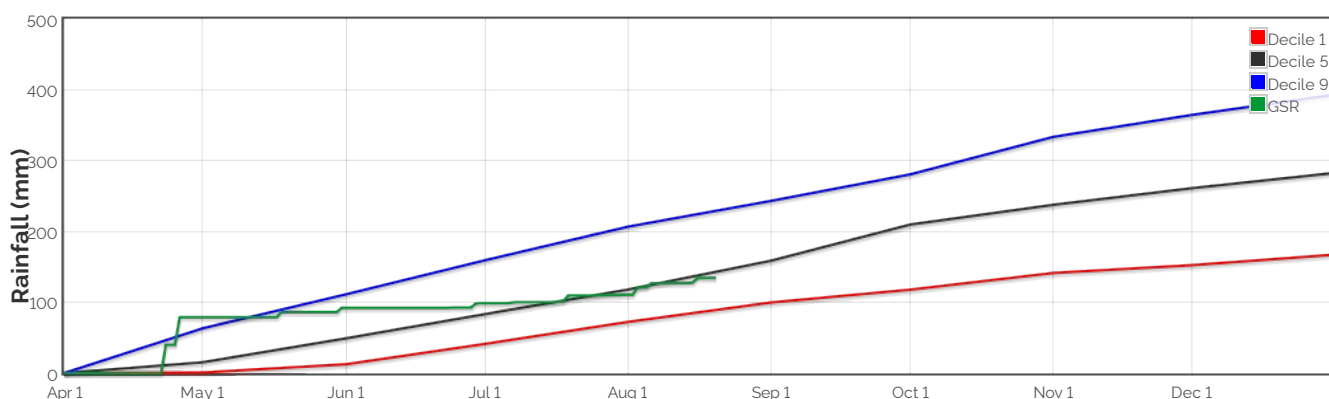


Hay Yield Outcome

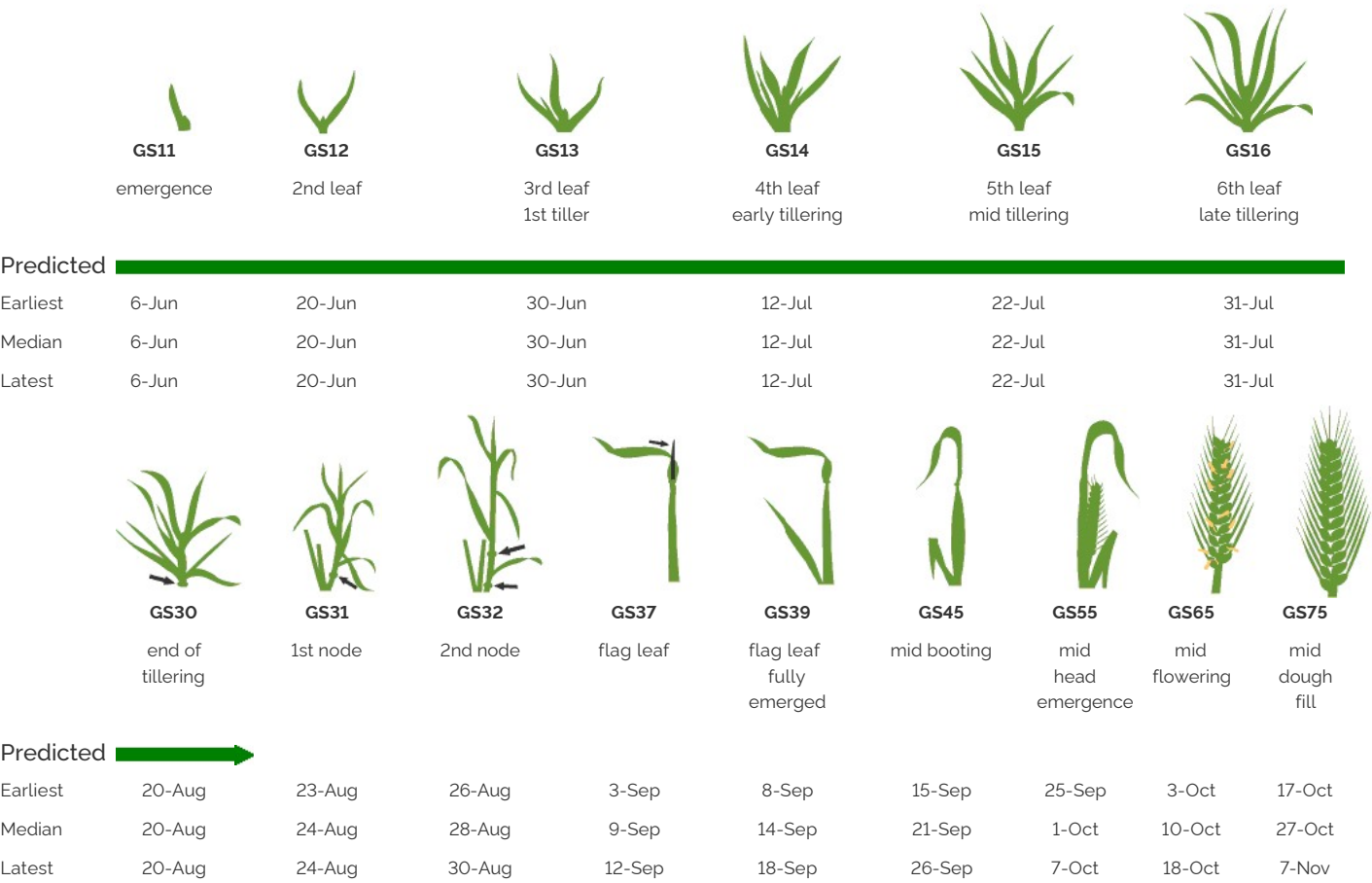


Current dry matter: 2833.9kg/ha

The Season So Far - Growing Season Rainfall Deciles



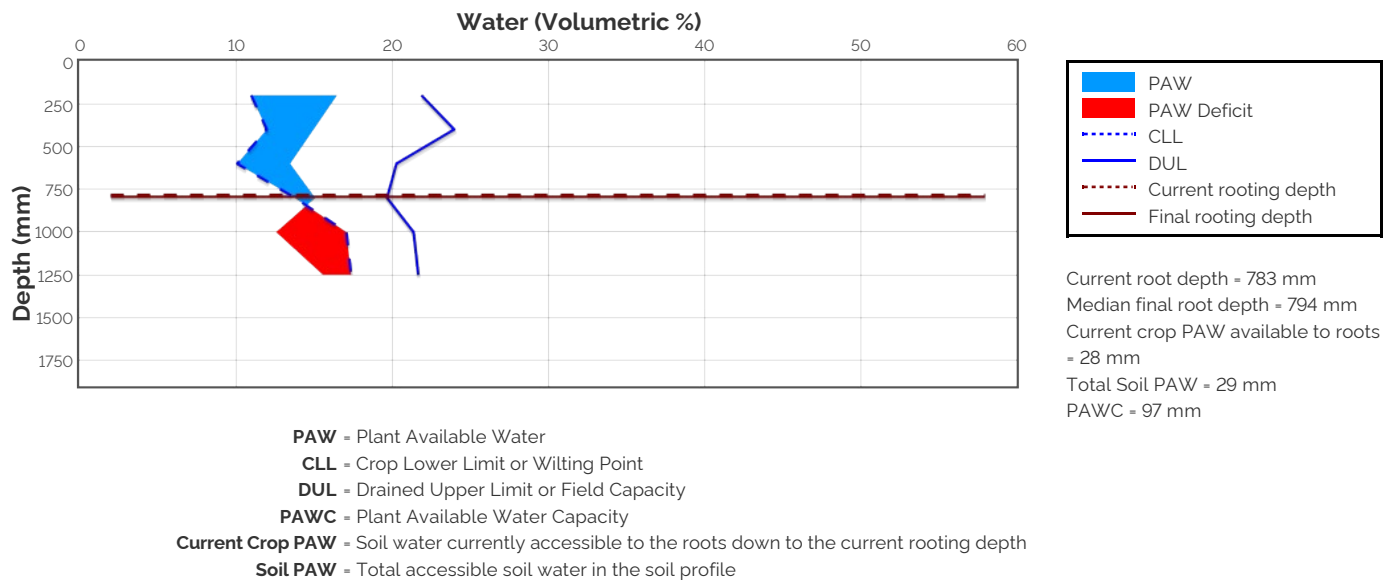
Simulated and Predicted Crop Growth Stage



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		24%	0	mild 32 to 34°C		55%	0
moderate 0 to -2°C during flowering & early grain fill		0%	0	moderate 34 to 36°C		29%	0
severe Less than -2°C during flowering & grain fill		0%	0	severe Above 36°C		22%	0

Current Distribution of PAW



Water Budget

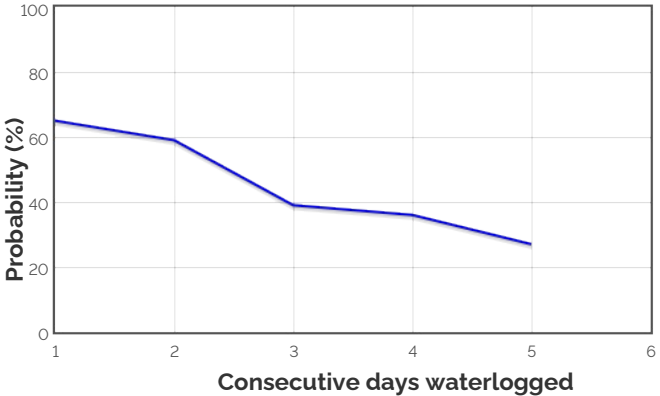
Initial PAW status @ 23-May
Rainfall since 23-May
Irrigations
Evaporation since 23-May
Transpiration since 23-May
Deep drainage since 23-May
Run-off since 23-May

Current PAW status:

66 mm
48.1 mm

42 mm
38 mm
0 mm
0 mm
29 mm

Probability of Future Waterlogging Events



Nitrogen Budget

Initial N status @ 23-May
N mineralisation since 23-May
N tie up since 23-May
N applications

Total N in plant
De-nitrification since 23-May
Leaching since 23-May

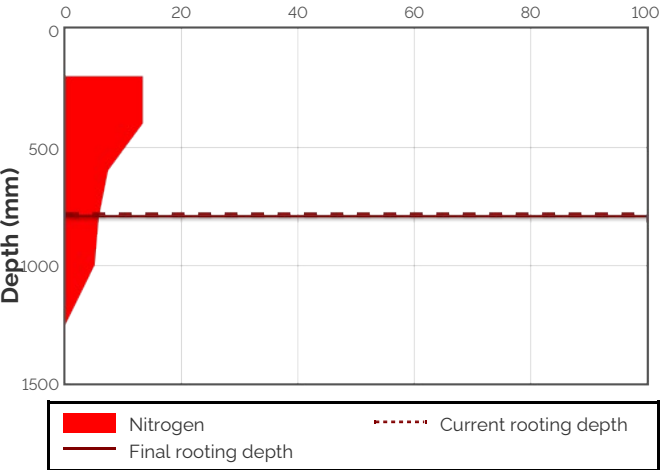
Current N status:

Median N mineralisation to maturity = 0.046 kg/ha
Median N tie up to maturity = 1.543 kg/ha

62 kg/ha
1 kg/ha
2 kg/ha

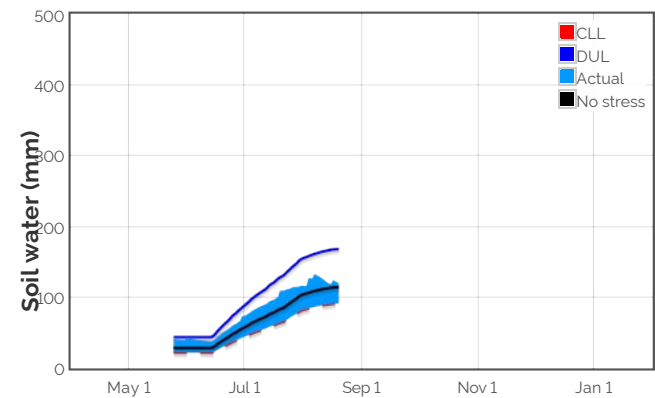
24-May : 25 kg/ha
2-Aug : 37 kg/ha
84 kg/ha
0 kg/ha
0 kg/ha
39 kg/ha

Current distribution of soil nitrogen (kg/ha)

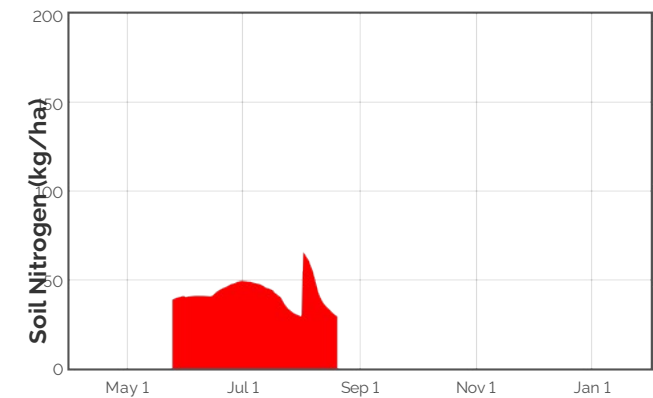


Current Crop Available N = 29 kg/ha
Total Soil N = 39 kg/ha

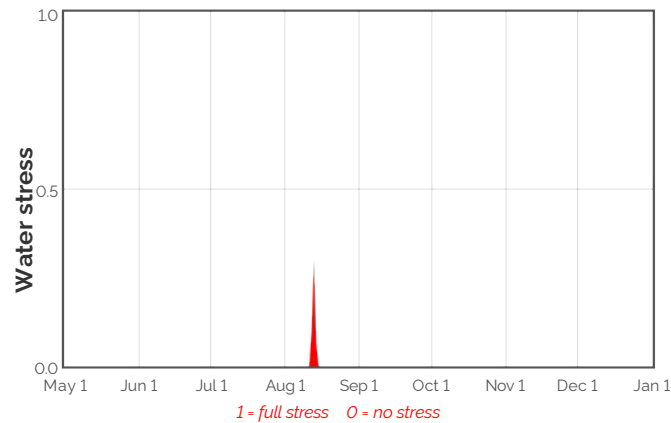
Availability of Water to Growing Roots



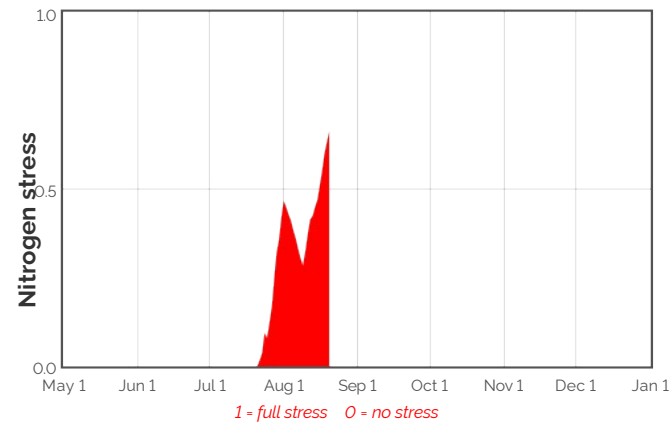
Availability of Soil Nitrogen to Growing Roots



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)
21-Aug	30.7	0.5	1.4	0.6	1.3	24.4	28.0	0.0	0.0
22-Aug	31.0	0.5	1.2	0.5	-0.2	23.0	27.6	0.0	0.0
23-Aug	31.3	0.5	1.1	0.4	-1.6	21.5	27.1	0.0	0.0
24-Aug	31.6	0.5	1.1	0.4	-3.0	20.2	26.8	0.0	0.0
25-Aug	31.9	0.6	1.0	0.3	-4.3	18.8	26.4	0.0	0.0
26-Aug	32.0	0.5	0.9	0.3	-5.7	17.5	26.1	0.0	0.0
27-Aug	32.6	0.6	0.9	0.3	-7.2	16.0	25.9	0.0	0.0
28-Aug	32.9	0.5	0.8	0.2	-8.5	14.7	25.6	0.0	0.0
29-Aug	33.2	0.5	0.8	0.2	-9.8	13.4	25.4	0.0	0.0
30-Aug	33.6	0.5	0.7	0.2	-11.1	12.1	25.2	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

