

Crop Report

10-Jul-2025

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Crop: Wheat Cultivar: Scepter

Sowing details: 150 plants/m² on 9-Jun Expected maturity date: 27-Nov

Paddock Details

Initial conditions date: 28-Jan

Grey Calcareous Sandy Loam Soil:

(Cungena No307)

600 mm max rooting depth

Stubble: 1000 kg/ha of Wheat No till

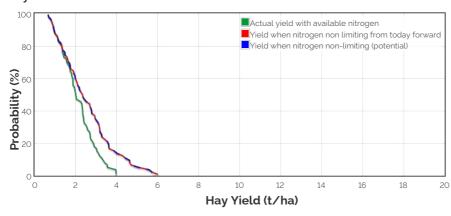
Grain Yield Outcome

☑Nitrogen limited Yield **☑**Water limited Yield Nitrogen limited Yield with Frost and heat Water limited Yield with Frost and heat Effects Effects

Yield t/ha

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.

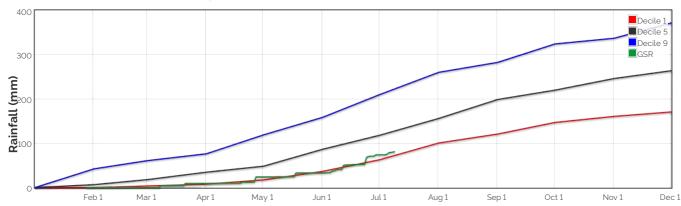
Hay Yield Outcome



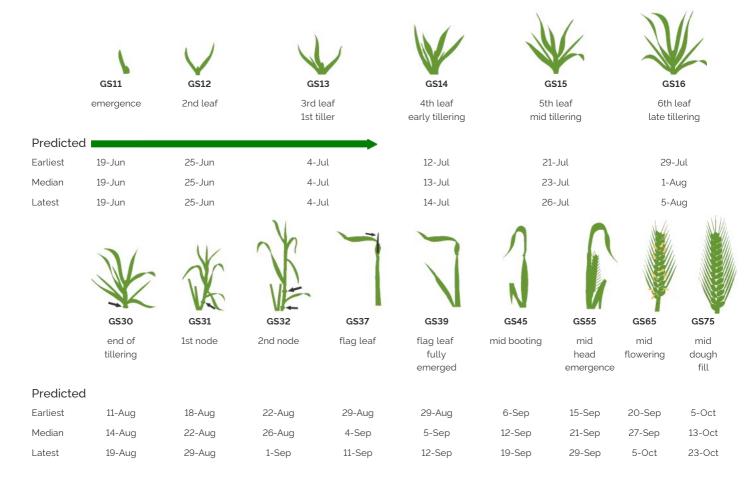
This graph shows the probability of exceeding a range of hay yield outcomes this season. It takes into account the same factors as the grain yield graph above. When above ground dry matter is below 2t/ha, hay yield is assumed to be 70% of dry matter, with a moisture content of 13%. When dry matter is 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: 182.54540507692064kg/ha

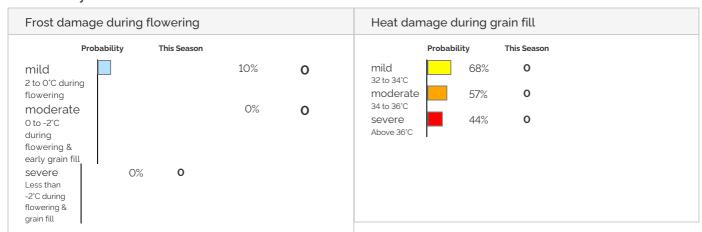
The Season So Far - Growing Season Rainfall Deciles



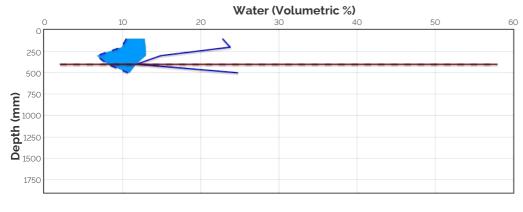
Simulated and Predicted Crop Growth Stage

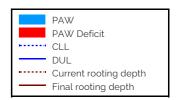


Probability and Incidence of Frost and Heat Shock



Current Distribution of PAW





Current root depth = 400 mm Median final root depth = 400 mm Current crop PAW available to roots = 15 mm Total Soil PAW = 15 mm

PAWC = 38 mm

PAW = Plant Available Water

CLL = Crop Lower Limit or Wilting Point

DUL - Drained Upper Limit or Field Capacity

PAWC = Plant Available Water Capacity

Current Crop PAW = Soil water currently accessible to the roots down to the current rooting depth

4 mm 81.6 mm

65 mm

3 mm

0 mm

0 mm

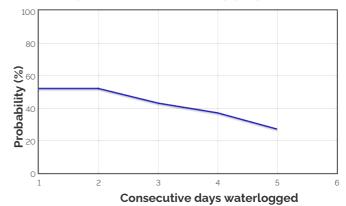
15 mm

Soil PAW = Total accessible soil water in the soil profile

Water Budget

Initial PAW status @ 28-Jan
Rainfall since 28-Jan
Irrigations
Evaporation since 28-Jan
Transpiration since 28-Jan
Deep drainage since 28-Jan
Run-off since 28-Jan
Current PAW status:

Probability of Future Waterlogging Events

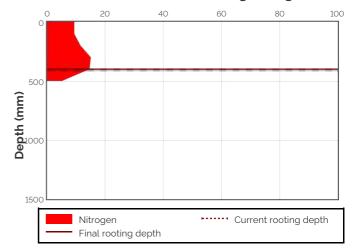


Nitrogen Budget

Initial N status @ 28-Jan 63 kg/ha N mineralisation since 28-Jan 50 kg/ha N tie up since 28-Jan 0 kg/ha N applications 10-May : 5 kg/ha Total N in plant 10 kg/ha De-nitrification since 28-Jan 0 kg/ha Leaching since 28-Jan 0 kg/ha **Current N status:** 57 kg/ha

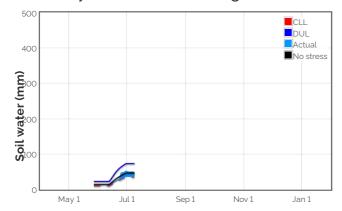
Median N mineralisation to maturity = 47.6174523093216 kg/ha Median N tie up to maturity = 0 kg/ha

Current distribution of soil nitrogen (kg/ha)



Current Crop Available N = 51 kg/haTotal Soil N = 57 kg/ha

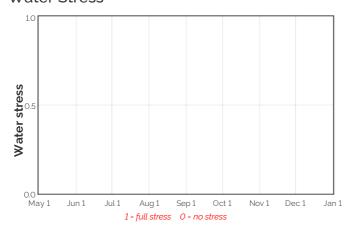
Availability of Water to Growing Roots



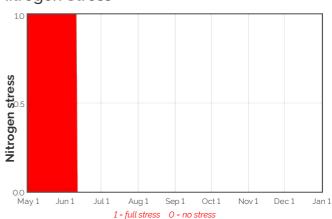
Availability of Soil Nitrogen to Growing Roots



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	Evap.	Water	N use	Water avail. to roots	Water avail. to roots	N avail.	MineralisationN tie up	
	Stage	(mm)	use	(kg/ha)	above stress threshold	above CLL (mm)	to roots	(kg/ha)	(kg/ha)
			(mm)		(mm)		(kg/ha)		
11-Jul	13.8	0.8	0.2	-0.8	3.0	14.5	49.8	0.3	0.0
12-Jul	13.9	0.4	0.3	-0.8	2.4	13.8	49.0	0.2	0.0
13-Jul	14.1	0.4	0.3	-1.0	1.8	13.3	48.0	0.2	0.0
14-Jul	14.1	0.3	0.3	-1.2	1.2	12.6	46.8	0.3	0.0
15-Jul	14.2	0.3	0.3	-1.3	0.6	12.0	45.7	0.2	0.0
16-Jul	14.3	0.3	0.4	-1.3	0.0	11.4	44.5	0.2	0.0
17-Jul	14.5	0.3	0.4	-1.3	-O.7	10.7	43.1	0.3	0.0
18-Jul	14.6	0.3	0.5	-1.3	-1.5	10.0	41.8	0.2	0.0
19-Jul	14.7	0.3	0.5	-1.3	-2.2	9.3	40.5	0.2	0.0
20-Jul	14.8	0.3	0.6	-1.2	-2.7	8.7	39.4	0.2	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

