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Crop Report

25-Jul-2025

Andrew H Ware:
Matthews Cootra

Crop: Barley

Cultivar: Spartacus

Sowing details: 150 plants/m^2 on 6-Jun

Expected maturity date: 31-Oct

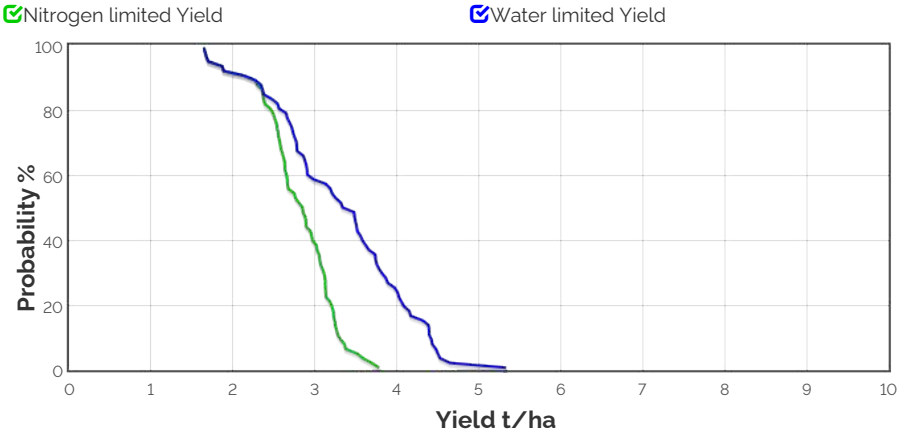
Paddock Details

Initial conditions date: 1-Apr

Soil: Sand (Tuckey No366)
1000 mm max rooting depth

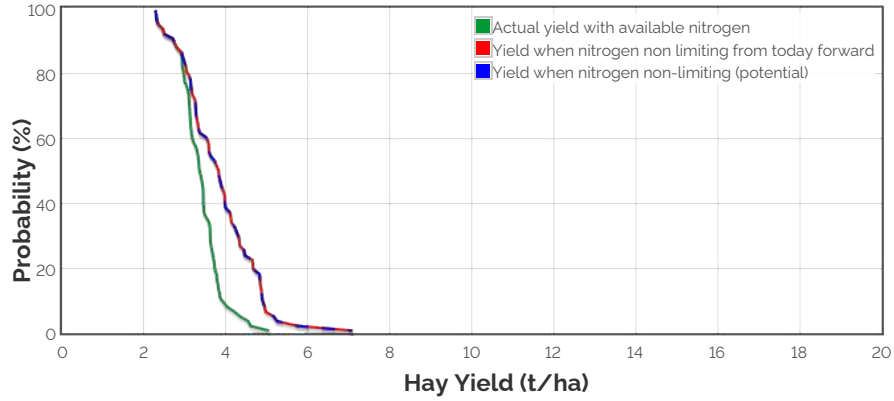
Stubble: 1500 kg/ha of Wheat
No till

Grain Yield Outcome



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.

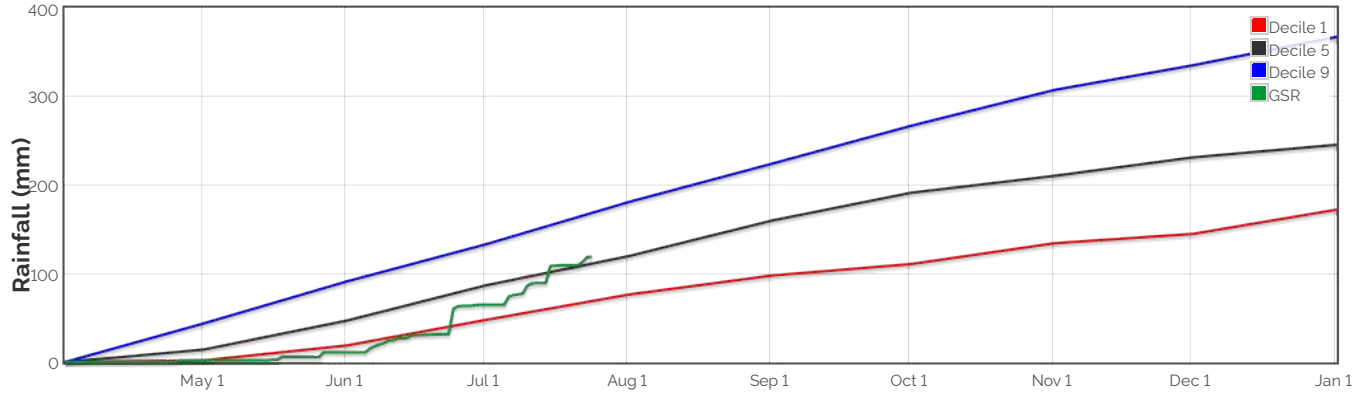
Hay Yield Outcome



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: 434.1892182971884kg/ha

The Season So Far - Growing Season Rainfall Deciles



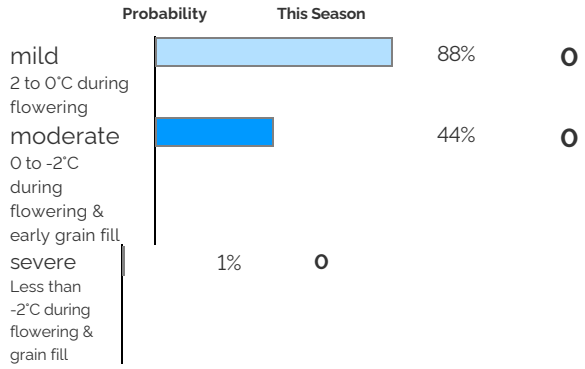
Simulated and Predicted Crop Growth Stage

	GS11	GS12	GS13	GS14	GS15	GS16
	emergence	2nd leaf	3rd leaf 1st tiller	4th leaf early tillering	5th leaf mid tillering	6th leaf late tillering
Predicted						
Earliest	19-Jun	24-Jun	1-Jul	9-Jul	17-Jul	26-Jul
Median	19-Jun	24-Jun	1-Jul	9-Jul	17-Jul	26-Jul
Latest	19-Jun	24-Jun	1-Jul	9-Jul	17-Jul	27-Jul

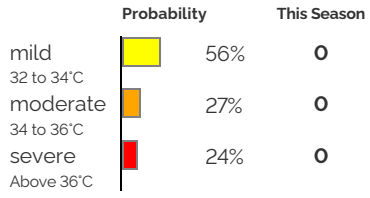
	GS30	GS31	GS32	GS37	GS39	GS45	GS55	GS65	GS75
	end of tillering	1st node	2nd node	flag leaf	flag leaf fully emerged	mid booting	mid head emergence	mid flowering	mid dough fill
Predicted									
Earliest	27-Jul	30-Jul	2-Aug	12-Aug	13-Aug	18-Aug	23-Aug	28-Aug	14-Sep
Median	28-Jul	2-Aug	7-Aug	16-Aug	17-Aug	22-Aug	27-Aug	2-Sep	21-Sep
Latest	29-Jul	5-Aug	11-Aug	22-Aug	24-Aug	29-Aug	3-Sep	10-Sep	30-Sep

Probability and Incidence of Frost and Heat Shock

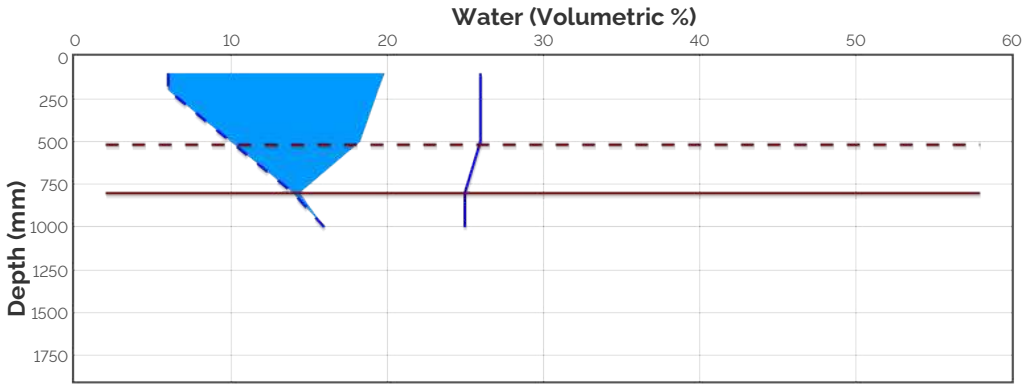
Frost damage during flowering



Heat damage during grain fill



Current Distribution of PAW



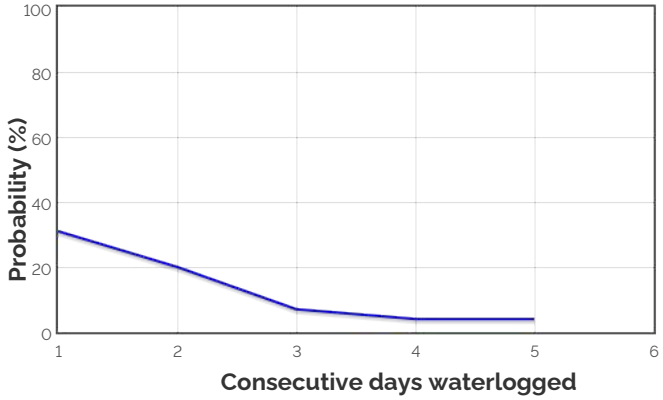
Current root depth = 518 mm
Median final root depth = 801 mm
Current crop PAW available to roots = 52 mm
Total Soil PAW = 54 mm
PAWC = 139 mm

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
Soil PAW = Total accessible soil water in the soil profile

Water Budget

Initial PAW status @ 1-Apr	5 mm
Rainfall since 1-Apr	118.9 mm
Irrigations	
Evaporation since 1-Apr	61 mm
Transpiration since 1-Apr	7 mm
Deep drainage since 1-Apr	0 mm
Run-off since 1-Apr	0 mm
Current PAW status:	**54 mm**

Probability of Future Waterlogging Events

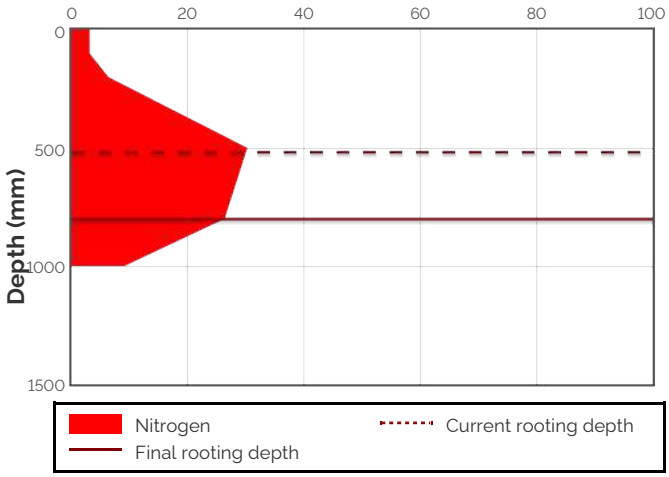


Nitrogen Budget

Initial N status @ 1-Apr	78 kg/ha
N mineralisation since 1-Apr	49 kg/ha
N tie up since 1-Apr	0 kg/ha
N applications	
	7-May : 28 kg/ha
Total N in plant	19 kg/ha
De-nitrification since 1-Apr	0 kg/ha
Leaching since 1-Apr	0 kg/ha
Current N status:	**76 kg/ha**

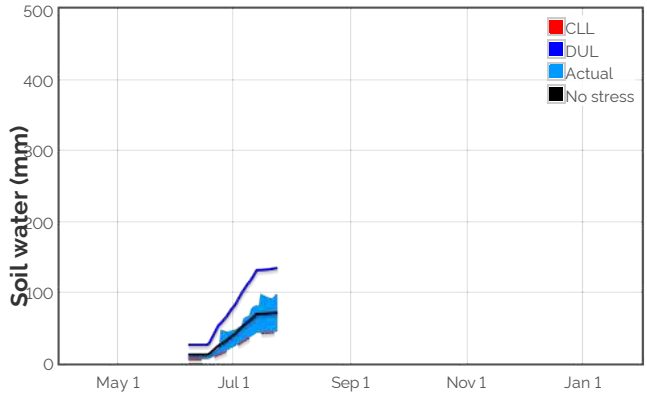
Median N mineralisation to maturity = 53.8377170647006 kg/ha
Median N tie up to maturity = 0 kg/ha

Current distribution of soil nitrogen (kg/ha)

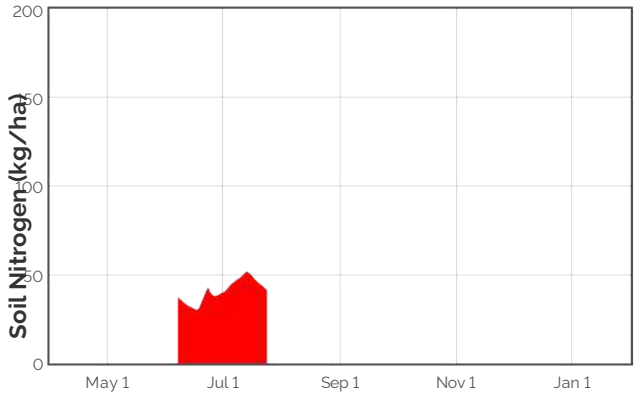


Current Crop Available N = 41 kg/ha
Total Soil N = 76 kg/ha

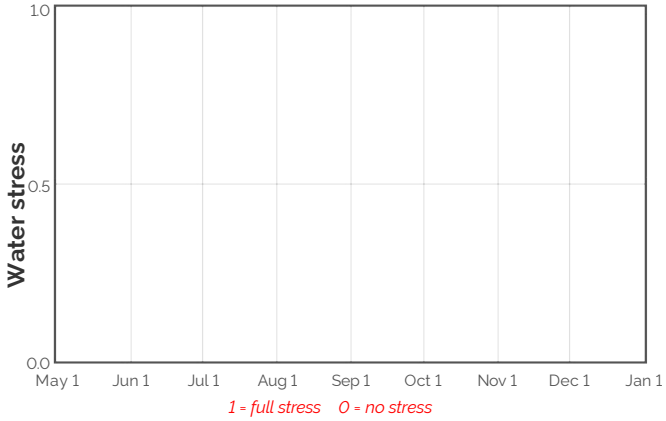
Availability of Water to Growing Roots



Availability of Soil Nitrogen to Growing Roots

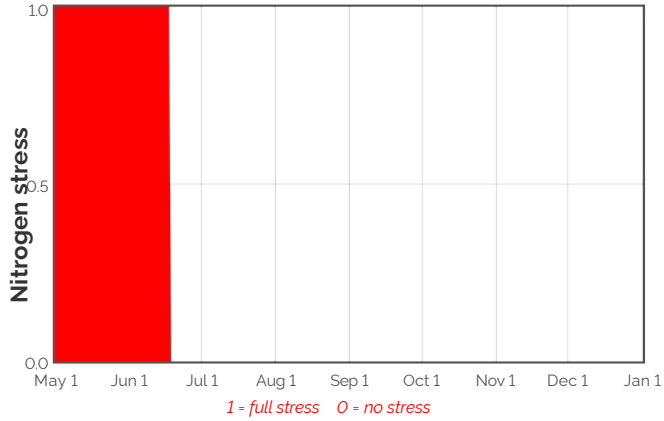


Water Stress



1 = full stress 0 = no stress

Nitrogen Stress



1 = full stress 0 = no stress

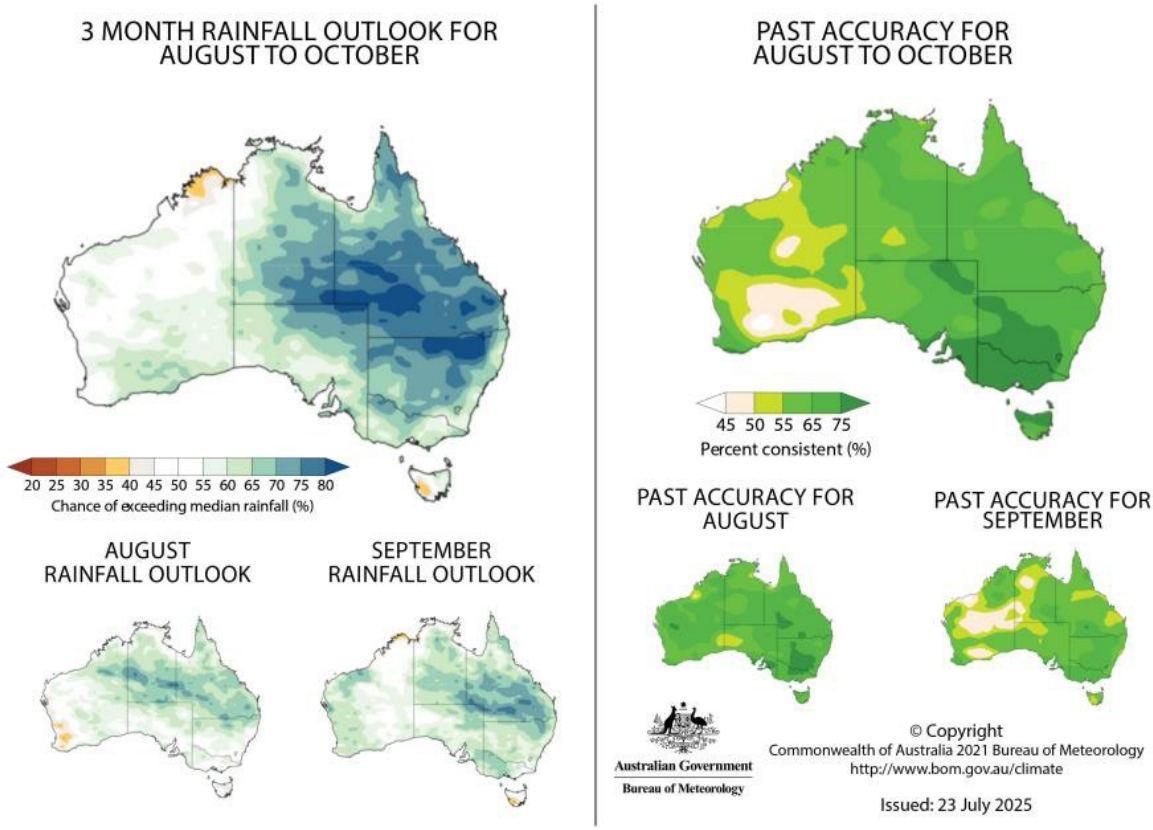
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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-Jul	16.0	1.2	0.5	-1.1	24.0	51.1	40.3	0.3	0.0
27-Jul	16.0	1.1	0.6	-1.2	22.2	49.4	39.3	0.3	0.0
28-Jul	30.1	1.0	0.7	-1.1	20.5	47.8	38.3	0.3	0.0
29-Jul	30.6	0.7	0.6	-0.7	18.9	46.3	37.6	0.3	0.0
30-Jul	30.7	0.5	0.7	-1.0	17.6	45.0	36.9	0.3	0.0
31-Jul	30.8	0.4	0.7	-1.1	16.4	44.0	36.1	0.4	0.0
1-Aug	30.9	0.4	0.7	-1.2	15.1	42.8	35.1	0.4	0.0
2-Aug	31.1	0.4	0.7	-1.3	13.6	41.5	34.3	0.4	0.0
3-Aug	31.2	0.3	0.8	-1.2	12.6	40.6	33.4	0.4	0.0
4-Aug	31.3	0.3	0.8	-1.2	11.4	39.5	32.7	0.4	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



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