



## **Crop Report**

28-Jul-2025

Andrew H Ware: Matthews Cootra

## Crop: Barley Cultivar: Spartacus

Sowing details: 150 plants/m<sup>2</sup> on 6-Jun Expected maturity date: 31-Oct

#### Paddock Details

Initial conditions date: 1-Apr

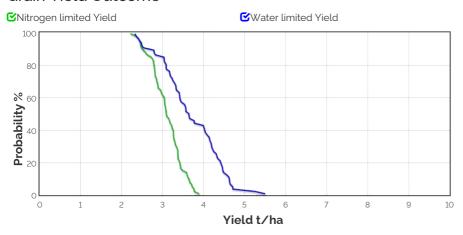
Soil: Sand (Tuckey No366)

1000 mm max rooting depth

Stubble: 1500 kg/ha of Wheat

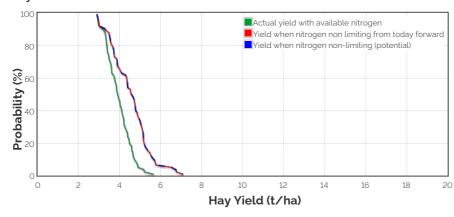
No till

#### 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



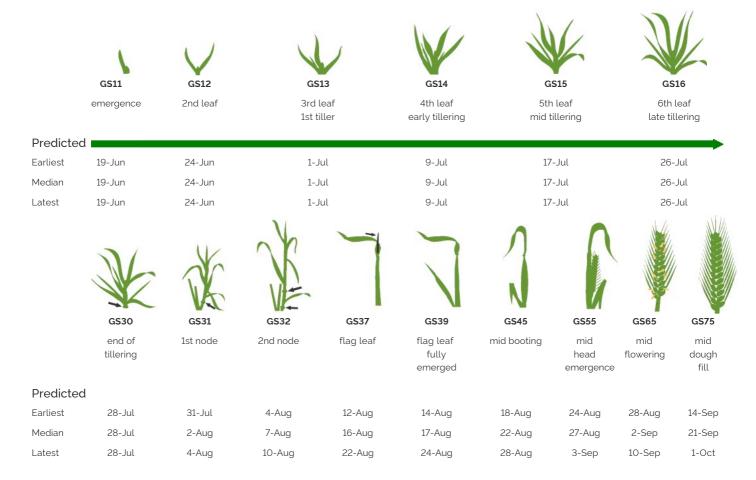
This graph shows the probability of exceeding a range of hay yield outcomes this season. It takes into account the same factors as the grain yield graph above. When above ground dry matter is below 2t/ha, hay yield is assumed to be 70% of dry matter, with a moisture content of 13%. When dry matter is 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: 536.3379086411467kg/ha

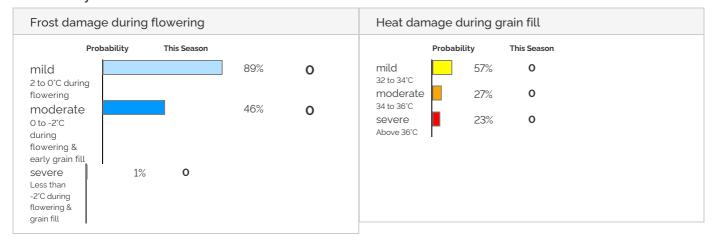
#### The Season So Far - Growing Season Rainfall Deciles



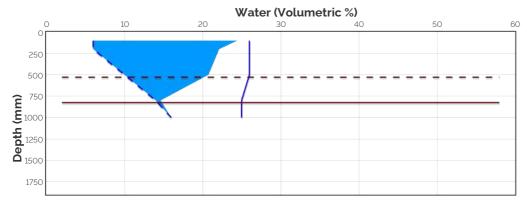
### Simulated and Predicted Crop Growth Stage

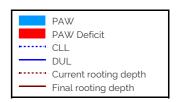


#### Probability and Incidence of Frost and Heat Shock



#### **Current Distribution of PAW**





Current root depth = 528 mm Median final root depth = 825 mm Current crop PAW available to roots = 67 mm Total Soil PAW = 69 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

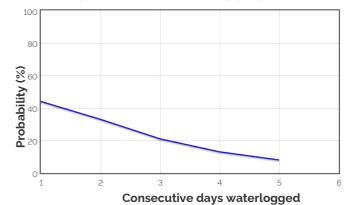
Initial PAW status @ 1-Apr Rainfall since 1-Apr Irrigations Evaporation since 1-Apr Transpiration since 1-Apr Deep drainage since 1-Apr Run-off since 1-Apr

Current PAW status:

5 mm 137.9 mm 64 mm 8 mm 0 mm 0 mm

69 mm

#### Probability of Future Waterlogging Events

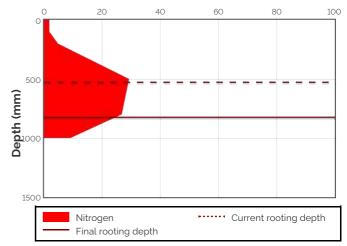


#### Nitrogen Budget

Initial N status @ 1-Apr 78 kg/ha N mineralisation since 1-Apr 50 kg/ha N tie up since 1-Apr 0 kg/ha N applications 7-May: 28 kg/ha Total N in plant 23 kg/ha De-nitrification since 1-Apr 0 kg/ha Leaching since 1-Apr 0 kg/ha **Current N status:** 72 kg/ha

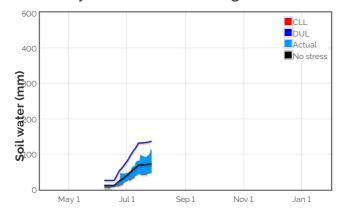
Median N mineralisation to maturity = 56.1550482387208 kg/ha Median N tie up to maturity = 0 kg/ha

## Current distribution of soil nitrogen (kg/ha)

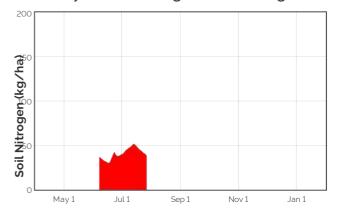


Current Crop Available N = 38 kg/ha Total Soil N = 72 kg/ha

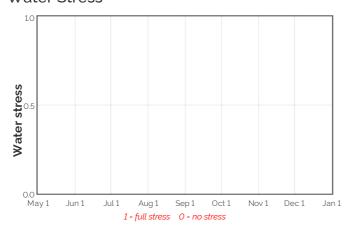
#### Availability of Water to Growing Roots



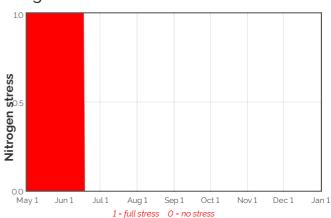
#### Availability of Soil Nitrogen to Growing Roots



#### 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)		
29-Jul	30.6	1.1	0.6	-0.5	38.1	65.5	38.0	0.4	0.0
30-Jul	30.7	1.1	0.7	-1.0	36.2	63.7	37.2	0.4	0.0
31-Jul	30.8	0.8	0.7	-1.2	34.2	62.0	36.4	0.4	0.0
1-Aug	30.9	0.7	0.7	-1.2	32.3	60.3	35.7	0.4	0.0
2-Aug	31.1	0.5	0.7	-1.2	30.8	58.9	34.8	0.4	0.0
3-Aug	31.2	0.4	0.8	-1.3	29.4	57.8	34.1	0.4	0.0
4-Aug	31.3	0.4	0.8	-1.3	27.9	56.5	33.4	0.4	0.0
5-Aug	31.5	0.4	0.8	-1.0	26.4	55.1	33.1	0.4	0.0
6-Aug	31.9	0.3	0.8	-0.7	24.8	53.8	33.0	0.4	0.0
7-Aug	32.0	0.3	0.9	-0.7	23.4	52.7	32.8	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

