

Crop Report

7-Jul-2023

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Crop: Canola

Cultivar: Early

Sowing details: 25 plants/m² on 16-Apr

Expected maturity date: 15-Sep

Paddock Details

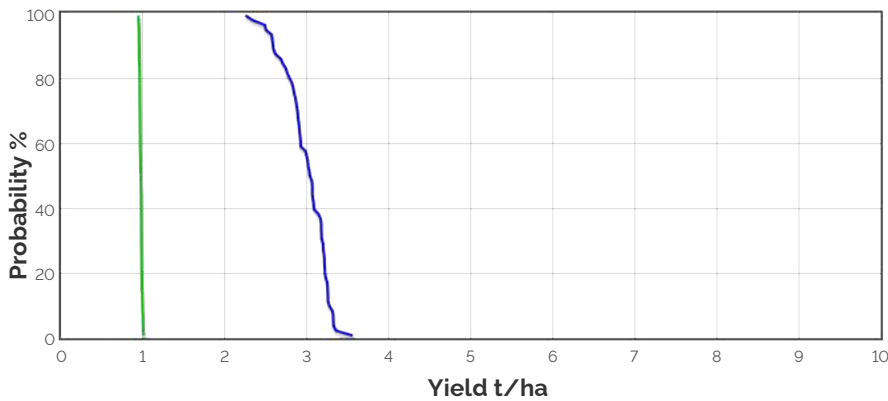
Initial conditions date: 19-Apr

Soil: Sandy clay loam (Tuckey No347)
800 mm max rooting depth

Stubble: 5000 kg/ha of Wheat
No till

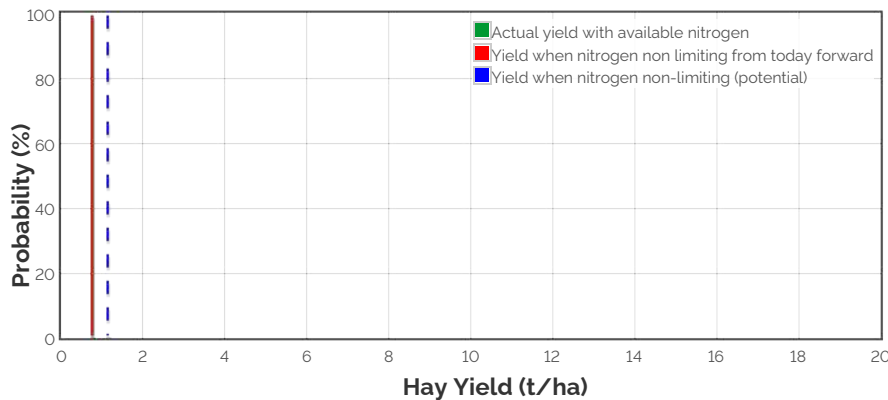
Grain Yield Outcome

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

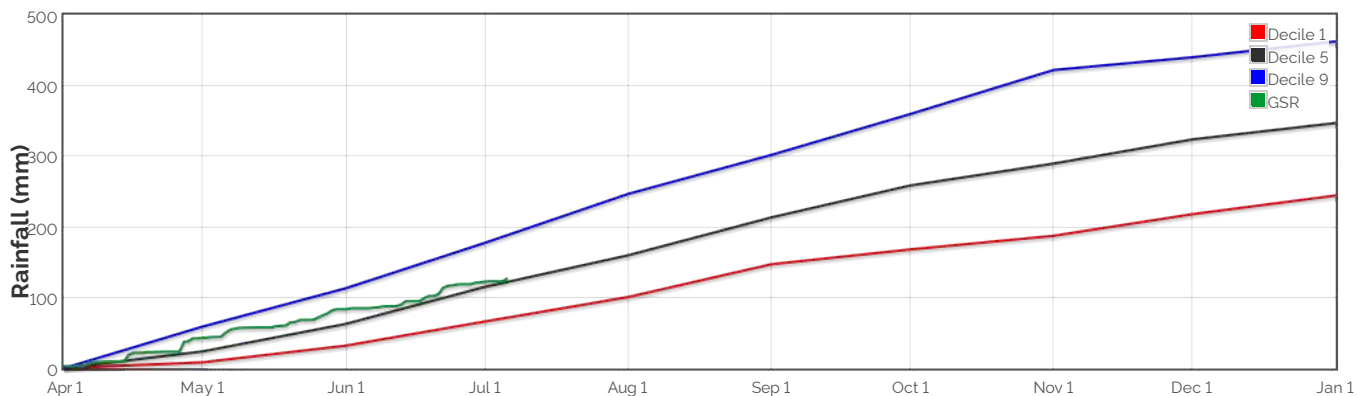
Hay Yield Outcome



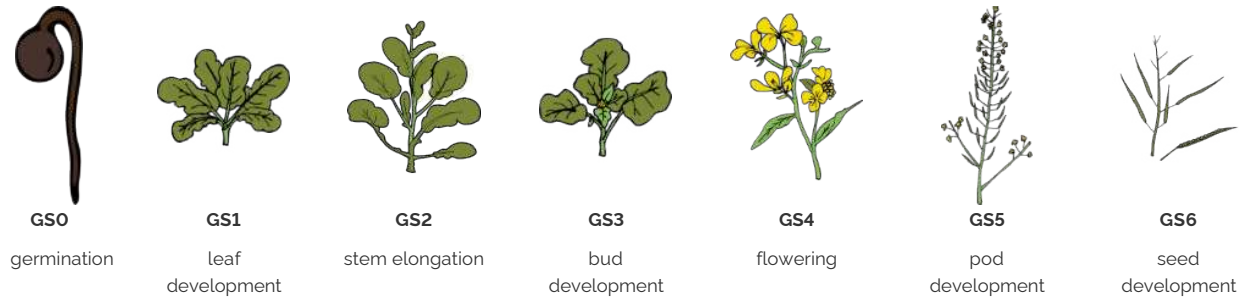
This graph shows the probability of exceeding a range of hay yield outcomes this season. It takes into account the same factors as the grain yield graph above. When above ground dry matter is below 2t/ha, hay yield is assumed to be 70% of dry matter, with a moisture content of 13%. When dry matter is 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: 1526.4kg/ha

The Season So Far - Growing Season Rainfall Deciles



Simulated and Predicted Crop Growth Stage



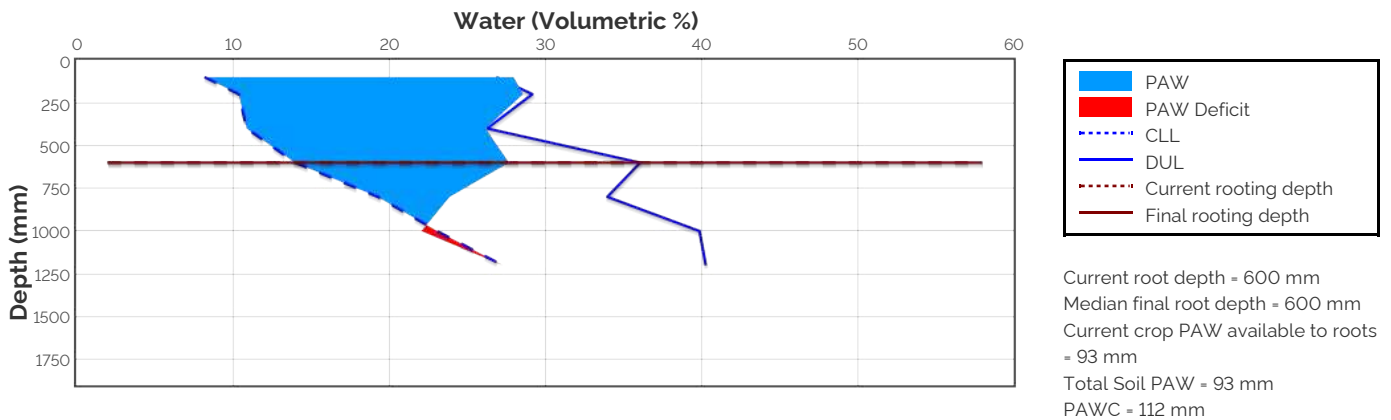
Predicted

	19-Apr	24-Apr	10-May	7-Jun	26-Jun	13-Jul	5-Sep
Earliest	19-Apr	24-Apr	10-May	7-Jun	26-Jun	13-Jul	5-Sep
Median	19-Apr	24-Apr	10-May	7-Jun	26-Jun	15-Jul	11-Sep
Latest	19-Apr	24-Apr	10-May	7-Jun	26-Jun	16-Jul	20-Sep

Probability and Incidence of Frost and Heat Shock

Frost damage during flowering				Heat damage during grain fill			
	Probability	This Season			Probability	This Season	
mild 2 to 0°C during flowering		29%	0	mild 32 to 34°C	0%	0	
moderate 0 to -2°C during flowering & early grain fill		1%	0	moderate 34 to 36°C	0%	0	
severe Less than -2°C during flowering & grain fill		0%	0	severe Above 36°C	0%	0	

Current Distribution of PAW



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 @ 19-Apr
 Rainfall since 19-Apr
 Irrigations
 Evaporation since 19-Apr
 Transpiration since 19-Apr
 Deep drainage since 19-Apr
 Run-off since 19-Apr

68 mm
 104.8 mm
 66 mm
 17 mm
 0 mm
 0 mm
93 mm

Current PAW status:

Nitrogen Budget

Initial N status @ 19-Apr
 N mineralisation since 19-Apr
 N tie up since 19-Apr
 N applications

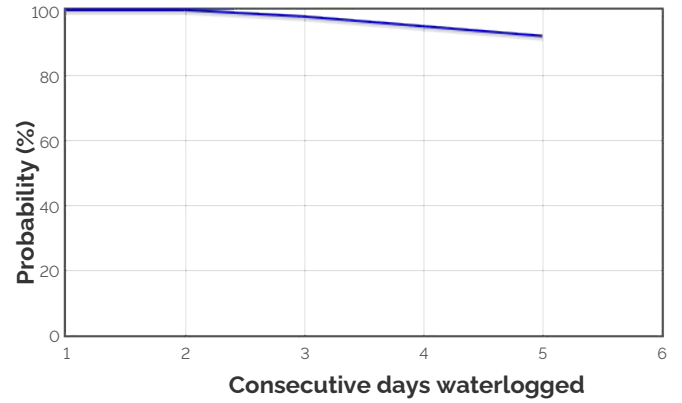
24 kg/ha
 1 kg/ha
 17 kg/ha
 16-Apr : 5 kg/ha
 1-Jun : 38 kg/ha
 1-Jul : 19 kg/ha
 51 kg/ha
 0 kg/ha
 0 kg/ha
2 kg/ha

Total N in plant
 De-nitrification since 19-Apr
 Leaching since 19-Apr

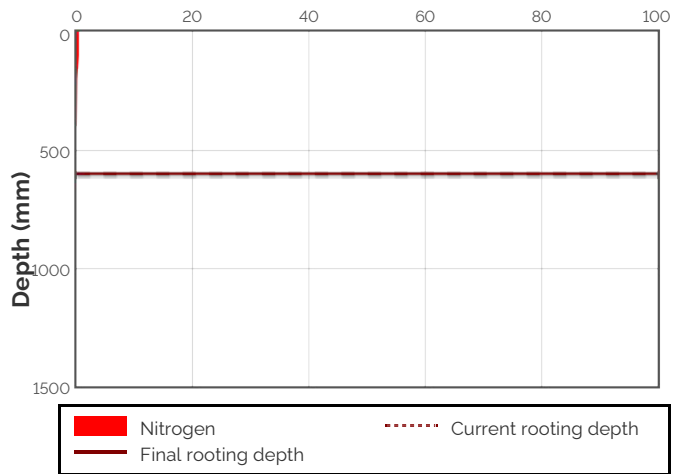
Current N status:

Median N mineralisation to maturity = 1.662 kg/ha
 Median N tie up to maturity = 0.356 kg/ha

Probability of Future Waterlogging Events

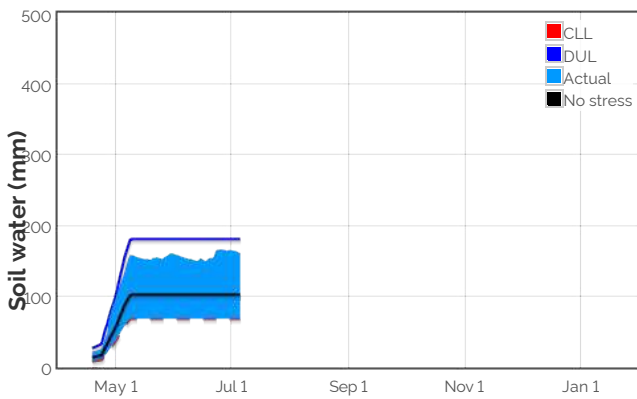


Current distribution of soil nitrogen (kg/ha)

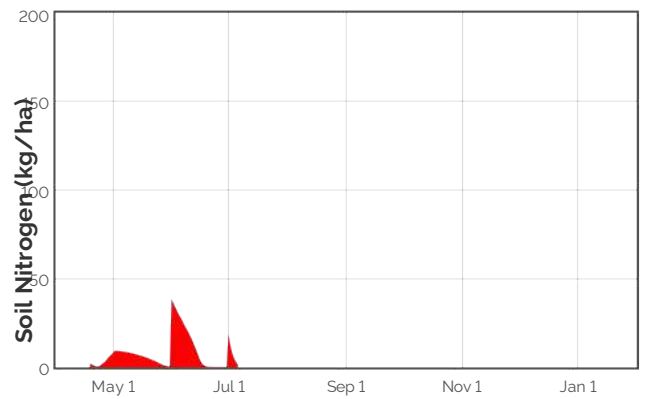


Current Crop Available N = 1 kg/ha
 Total Soil N = 2 kg/ha

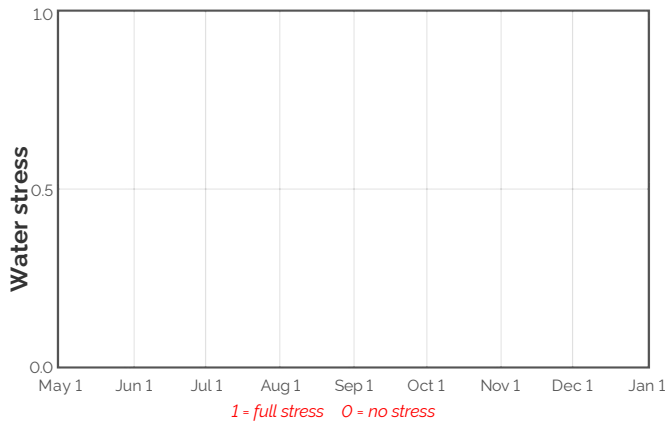
Availability of Water to Growing Roots



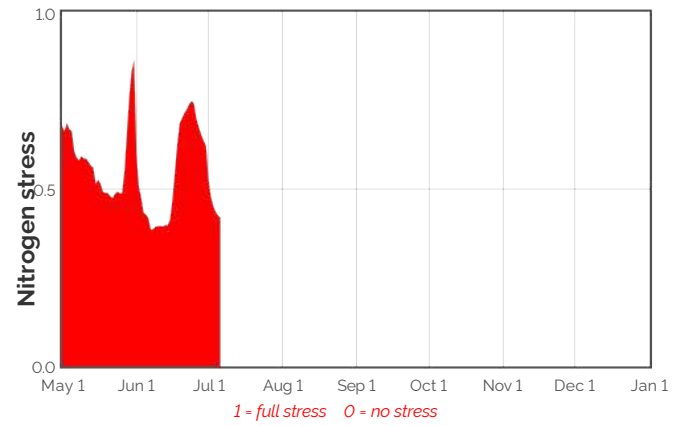
Availability of Soil Nitrogen to Growing Roots



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.

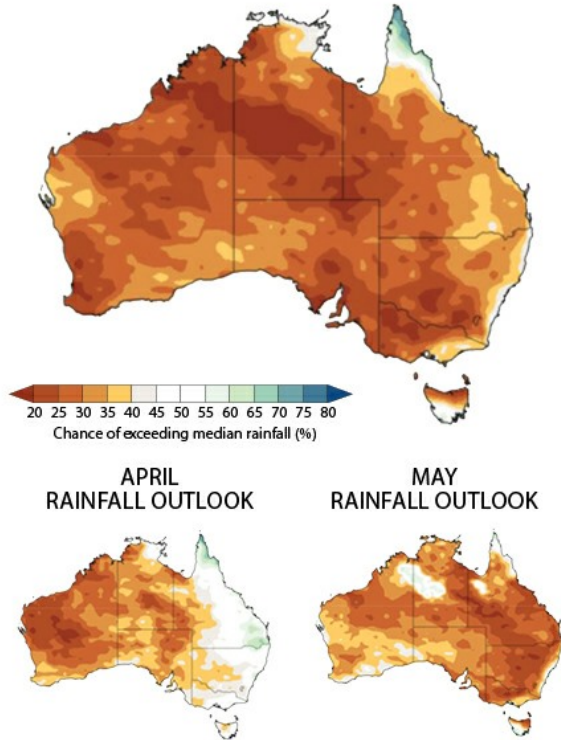
Median projected crop performance and requirements for the next 10 days assuming no rain and no added fertiliser

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)
8-Jul	16.0	0.4	0.7	0.0	60.7	94.4	0.1	0.0	0.0
9-Jul	16.0	0.4	0.7	0.0	59.7	93.4	0.1	0.0	0.0
10-Jul	16.0	0.4	0.8	0.0	58.3	92.1	0.1	0.0	0.0
11-Jul	16.0	0.3	0.7	0.0	57.2	91.0	0.1	0.0	0.0
12-Jul	16.0	0.3	0.8	0.0	56.1	89.9	0.1	0.0	0.0
13-Jul	16.0	0.3	0.8	0.0	55.0	88.7	0.1	0.0	0.0
14-Jul	16.0	0.3	0.7	0.0	54.0	87.7	0.1	0.0	0.0
15-Jul	16.0	0.3	0.8	0.0	52.8	86.6	0.1	0.0	0.0
16-Jul	16.0	0.3	0.8	0.0	51.8	85.5	0.1	0.0	0.0
17-Jul	16.0	0.4	0.9	0.0	49.9	83.7	0.1	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.

Bureau of Meteorology Seasonal and Monthly Outlooks

3 MONTH RAINFALL OUTLOOK FOR APRIL TO JUNE



PAST ACCURACY FOR APRIL TO JUNE

