

Crop Report

23-Jun-2022

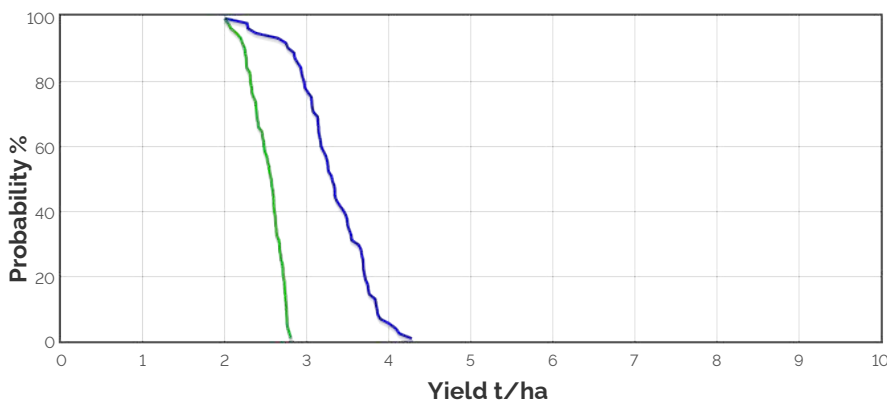
Resilient EP Soil
Moisture Probe Network:
Yeelanna

Crop: Canola
Cultivar: Early
Sowing details: 45 plants/m² on 29-Apr
Expected maturity date: 16-Oct

Paddock Details
Initial conditions date: 24-Mar
Soil: Clay Loam over Loamy Medium Clay (Yeelanna No590)
1200 mm max rooting depth
Stubble: 1000 kg/ha of Lentil
No till

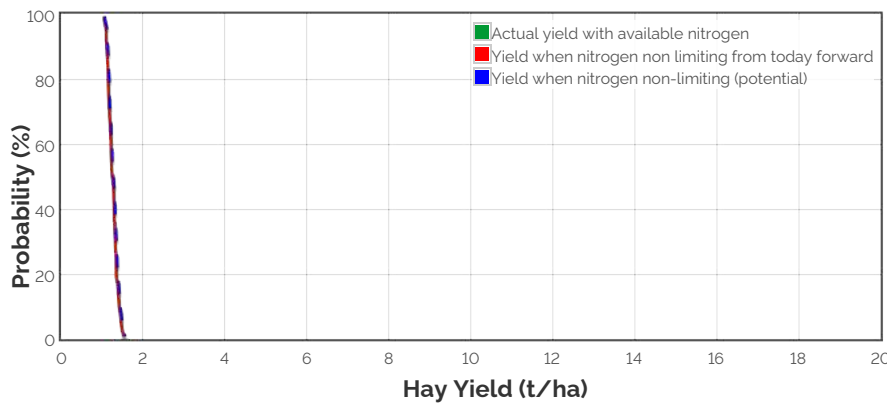
Grain Yield Outcome

- 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.

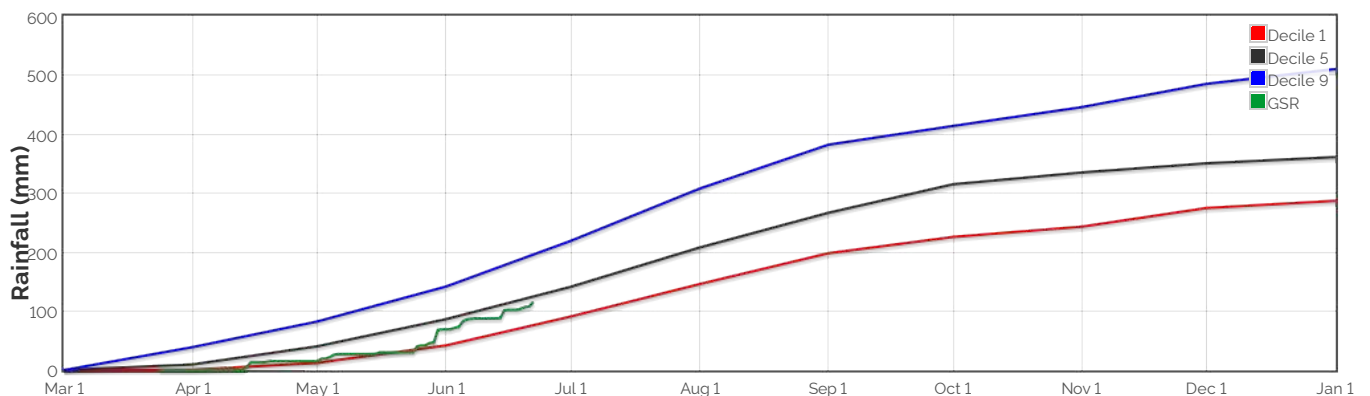
Hay Yield Outcome



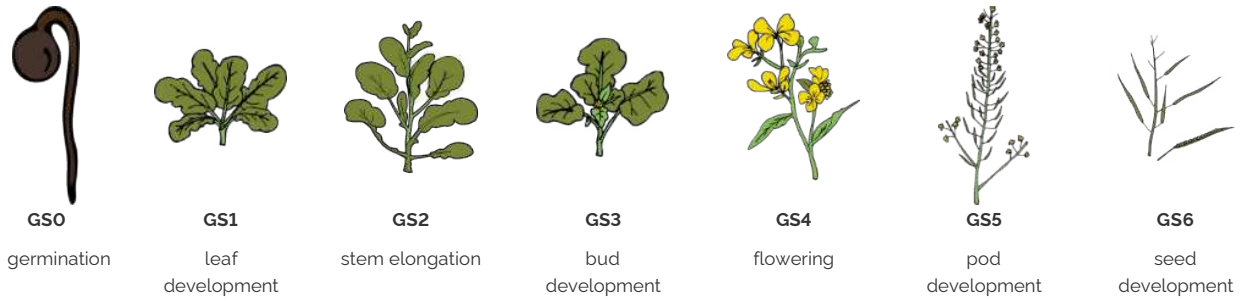
This graph shows the probability of exceeding a range of hay yield outcomes this season. It takes into account the same factors as the grain yield graph above. When above ground dry matter is below 2t/ha, hay yield is assumed to be 70% of dry matter, with a moisture content of 13%. When dry matter is 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: 170.3kg/ha

The Season So Far - Growing Season Rainfall Deciles



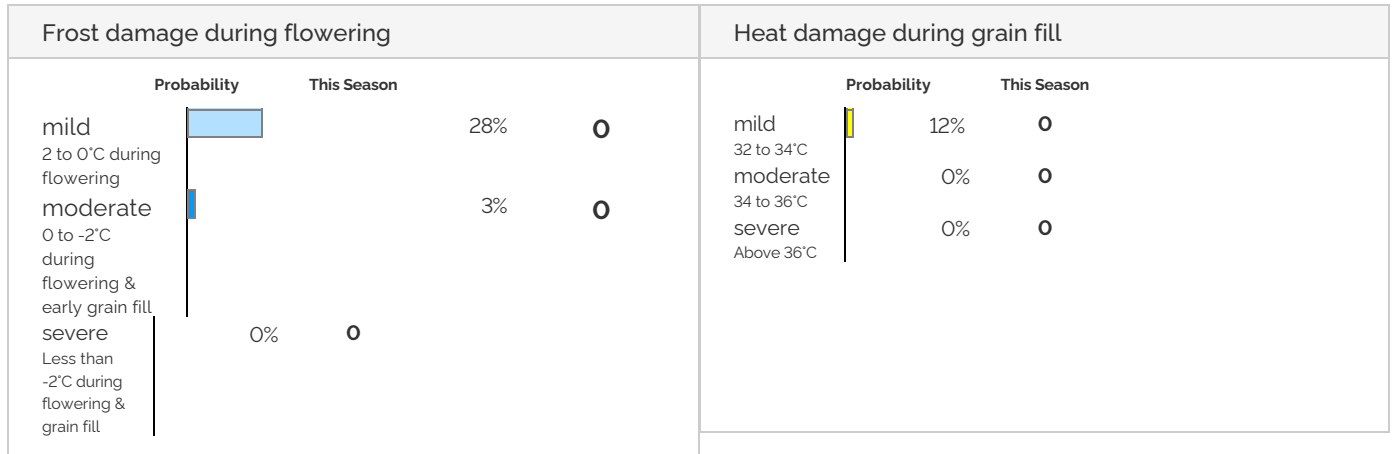
Simulated and Predicted Crop Growth Stage



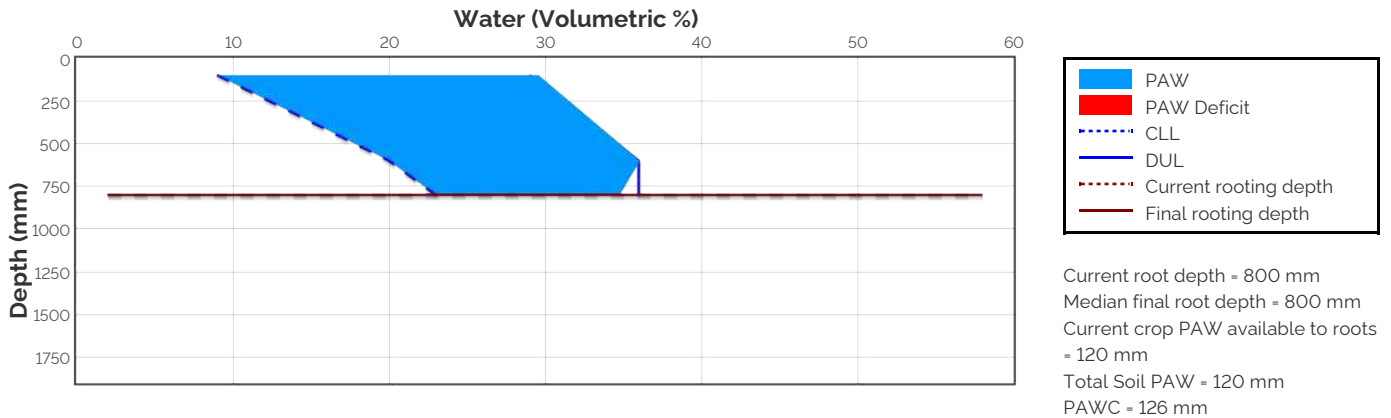
Predicted

Earliest	18-May	23-May	7-Jun	7-Jul	29-Jul	14-Aug	6-Oct
Median	18-May	23-May	7-Jun	10-Jul	1-Aug	19-Aug	13-Oct
Latest	18-May	23-May	7-Jun	13-Jul	6-Aug	25-Aug	21-Oct

Probability and Incidence of Frost and Heat Shock



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 @ 24-Mar
 Rainfall since 24-Mar
 Irrigations
 Evaporation since 24-Mar
 Transpiration since 24-Mar
 Deep drainage since 24-Mar
 Run-off since 24-Mar

90 mm
 115.5 mm
 77 mm
 2 mm
 0 mm
 1 mm
120 mm

Current PAW status:

Nitrogen Budget

Initial N status @ 24-Mar
 N mineralisation since 24-Mar
 N tie up since 24-Mar
 N applications

121 kg/ha
 11 kg/ha
 3 kg/ha

Total N in plant
 De-nitrification since 24-Mar
 Leaching since 24-Mar

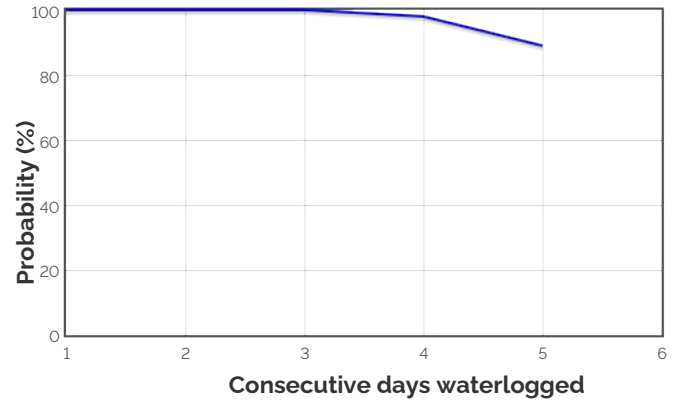
29-Apr : 16.1 kg/ha
 16-Jun : 46 kg/ha
 10 kg/ha
 0 kg/ha
 0 kg/ha

Current N status:

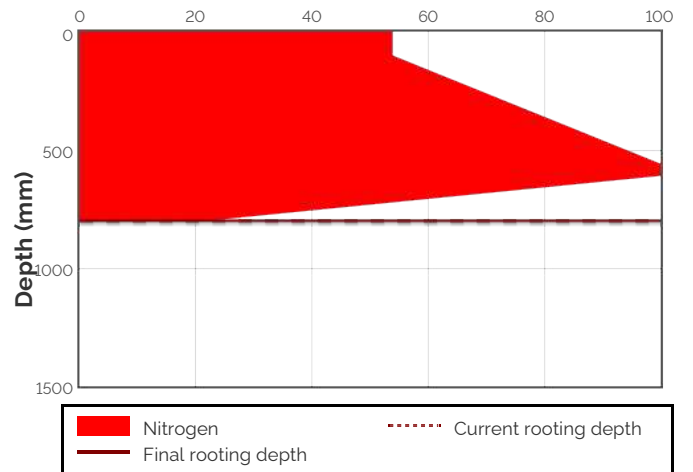
182 kg/ha

Median N mineralisation to maturity = 9.014 kg/ha
 Median N tie up to maturity = 0 kg/ha

Probability of Future Waterlogging Events

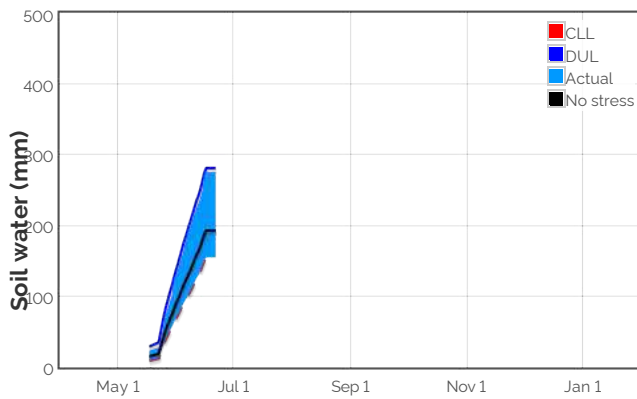


Current distribution of soil nitrogen (kg/ha)

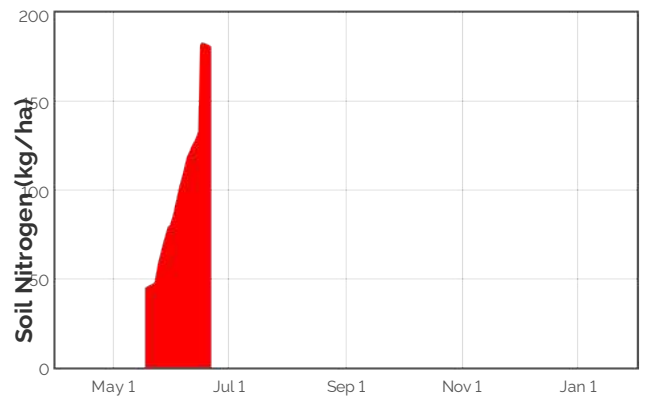


Current Crop Available N = 181 kg/ha
 Total Soil N = 182 kg/ha

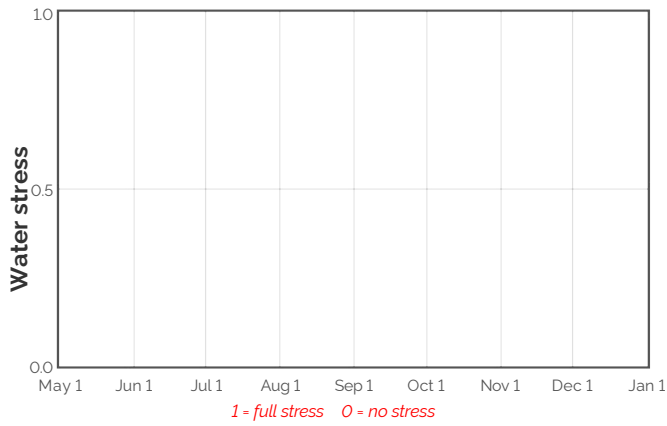
Availability of Water to Growing Roots



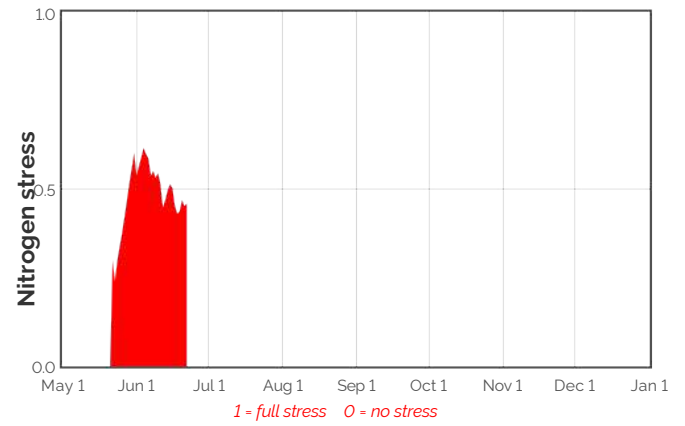
Availability of Soil Nitrogen to Growing Roots



Water Stress



Nitrogen Stress



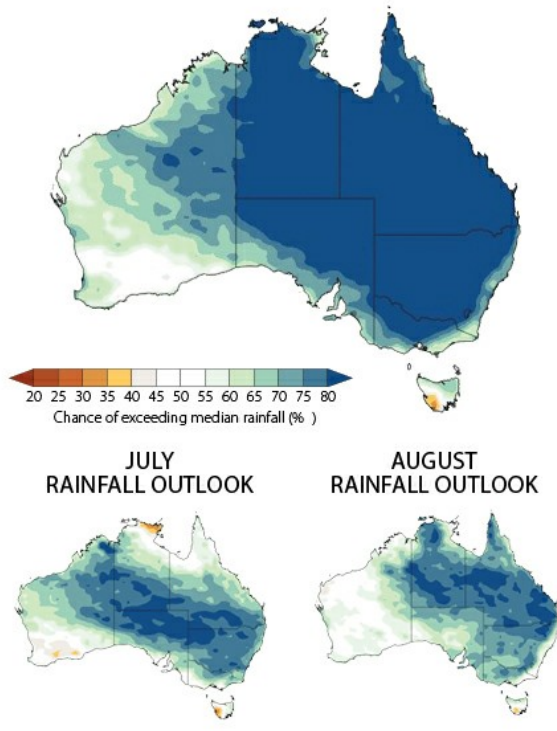
Brief periods of mild to moderate stress do not necessarily lead to reduced yield. To see the likely impacts of additional nitrogen fertiliser rates use the Nitrogen and Nitrogen Profit reports.

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

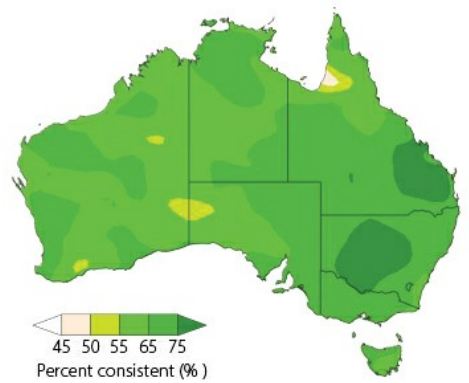
Date	Growth Stage	Evap. (mm)	Water use (mm)	N use (kg/ha)	Water avail. to roots above stress threshold (mm)	Water avail. to roots above CLL (mm)	N avail. to roots (kg/ha)	Mineralisation (kg/ha)	N tie up (kg/ha)
24-Jun	14.4	1.1	0.1	0.6	85.0	122.8	179.0	0.1	0.0
25-Jun	14.5	0.9	0.1	0.7	83.8	121.6	178.4	0.1	0.0
26-Jun	14.7	0.6	0.1	0.7	83.0	120.8	177.7	0.1	0.0
27-Jun	14.8	0.5	0.2	0.8	82.3	120.1	177.0	0.1	0.0
28-Jun	15.0	0.5	0.2	0.8	81.7	119.5	176.3	0.1	0.0
29-Jun	15.1	0.4	0.2	0.8	81.1	118.9	175.6	0.1	0.0
30-Jun	15.3	0.4	0.2	0.9	80.6	118.4	174.8	0.1	0.0
1-Jul	15.4	0.4	0.2	1.0	80.0	117.8	174.0	0.1	0.0
2-Jul	15.6	0.3	0.2	1.0	79.6	117.4	173.2	0.1	0.0
3-Jul	15.7	0.3	0.2	1.0	79.0	116.8	172.3	0.1	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.

3 MONTH RAINFALL OUTLOOK FOR JULY TO SEPTEMBER



PAST ACCURACY FOR JULY TO SEPTEMBER



PAST ACCURACY FOR JULY



PAST ACCURACY FOR AUGUST



Australian Government
Bureau of Meteorology

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