

UNFS YIELD PROPHET® SIMULATIONS 2026



LOCATION: LAURA



The Laura RiskWi\$e Focus Paddock recorded its highest monthly rainfall in August, receiving 64 mm. This brings the annual rainfall to 248 mm and the growing-season rainfall (GSR) to 163 mm.

Yield Prophet now indicates that with a decile 4–7 finish (average), the predicted wheat yield is 4.1 t/ha (Figure 1), which is 0.6 t/ha higher than the projection made on 31st July (Table 1). The model also estimates that 98 mm of plant-available water remains in the profile. On the back of an above-average August, the decile 1 and decile 2–3 yield projections have increased by 1 t/ha and 0.7 t/ha respectively, which is a larger lift than the higher-rainfall deciles (Table 1). As we move closer to the end of the season, this indicates a very strong likelihood of achieving a minimum yield of 3–3.3 t/ha.

The crop has not received, and will not receive, a post-emergent nitrogen application due to the high starting soil nitrogen. Visually the crop remains healthy and is currently at GS41 — flag-leaf sheath extending / early booting.

The rainfall gauge used for reporting is located at the eastern end of the paddock. Given the paddock is approximately 1.5 km long, and rainfall typically decreases with distance from the Southern Flinders Ranges, a second gauge was placed at the western end for comparison. On 25th August, the eastern end recorded 28 mm while the western end recorded 38 mm — a 35 % difference. Although this is a once-off measurement and not repeated, it highlights another significant source of variability within the paddock: rainfall distribution.

As we head towards the end of the season, the focus begins to shift to the risk of frost and heat shock during flowering and grain fill. Yield Prophet models the probability and incidence of these events using the selected weather station, sowing date, and cultivar.

As seen in Figure 3, frost and heat-shock risk for the Laura RiskWi\$e Focus Paddock, modelled using the Gladstone weather station, Tomahawk CL wheat, and a 22nd May sowing date, indicates a slightly higher probability and incidence of heat shock during grain fill than frost during flowering. It is also important to remember the discrepancy between the Gladstone weather station and the Laura site, meaning actual on-farm risk may differ slightly from the modelled outputs.

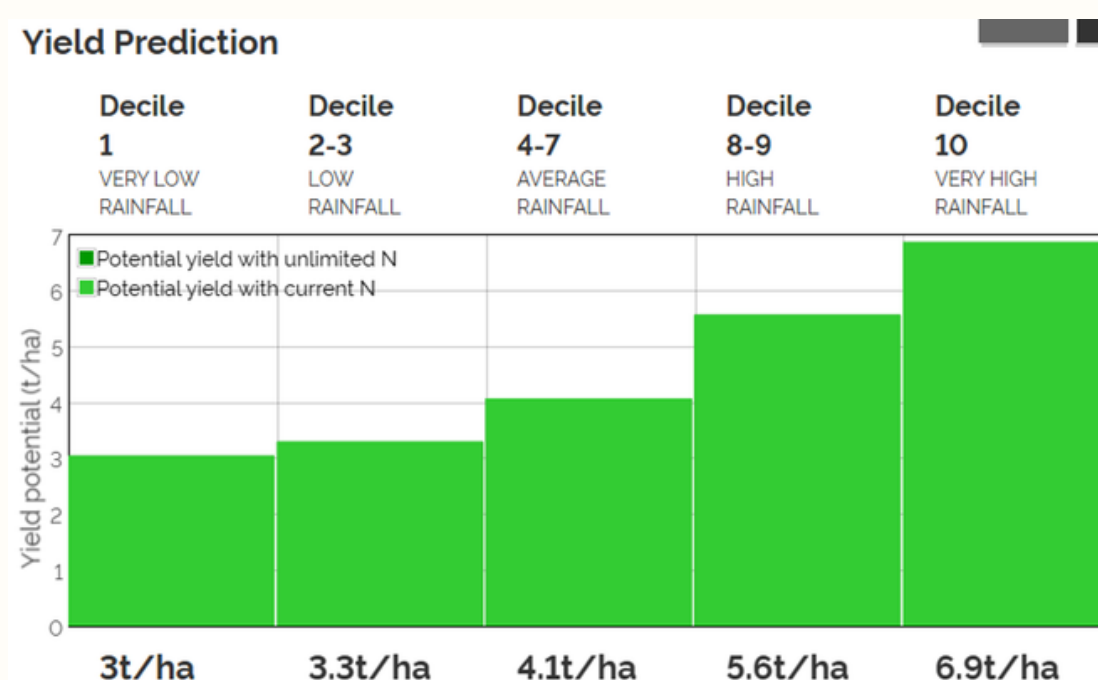
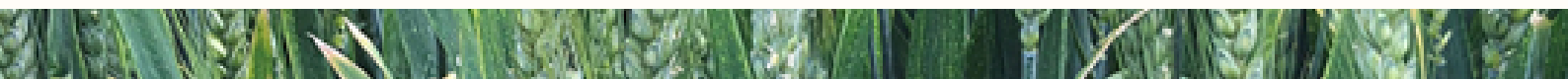


Figure 1: Yield Prophet modelled wheat yield potential for the Laura RiskWi\$e Focus Paddock under varying rainfall deciles, based on the current soil nitrogen level, which is effectively unlimited.

Model Run Date	Decile 1	Decile 2-3	Decile 4-7	Decile 8-9	Decile 10
1st July	2.2 t/ha	2.8 t/ha	3.9 t/ha	5.3 t/ha	6.9 t/ha
31st July	2.0 t/ha	2.6 t/ha	3.5 t/ha	5.4 t/ha	6.6 t/ha
28th August	3.0 t/ha	3.3 t/ha	4.1 t/ha	5.6 t/ha	6.9 t/ha

Table 1: Yield Prophet yield projections for 1st July, 31st July and 28th August model runs, showing yield range across decile rainfall finishes.



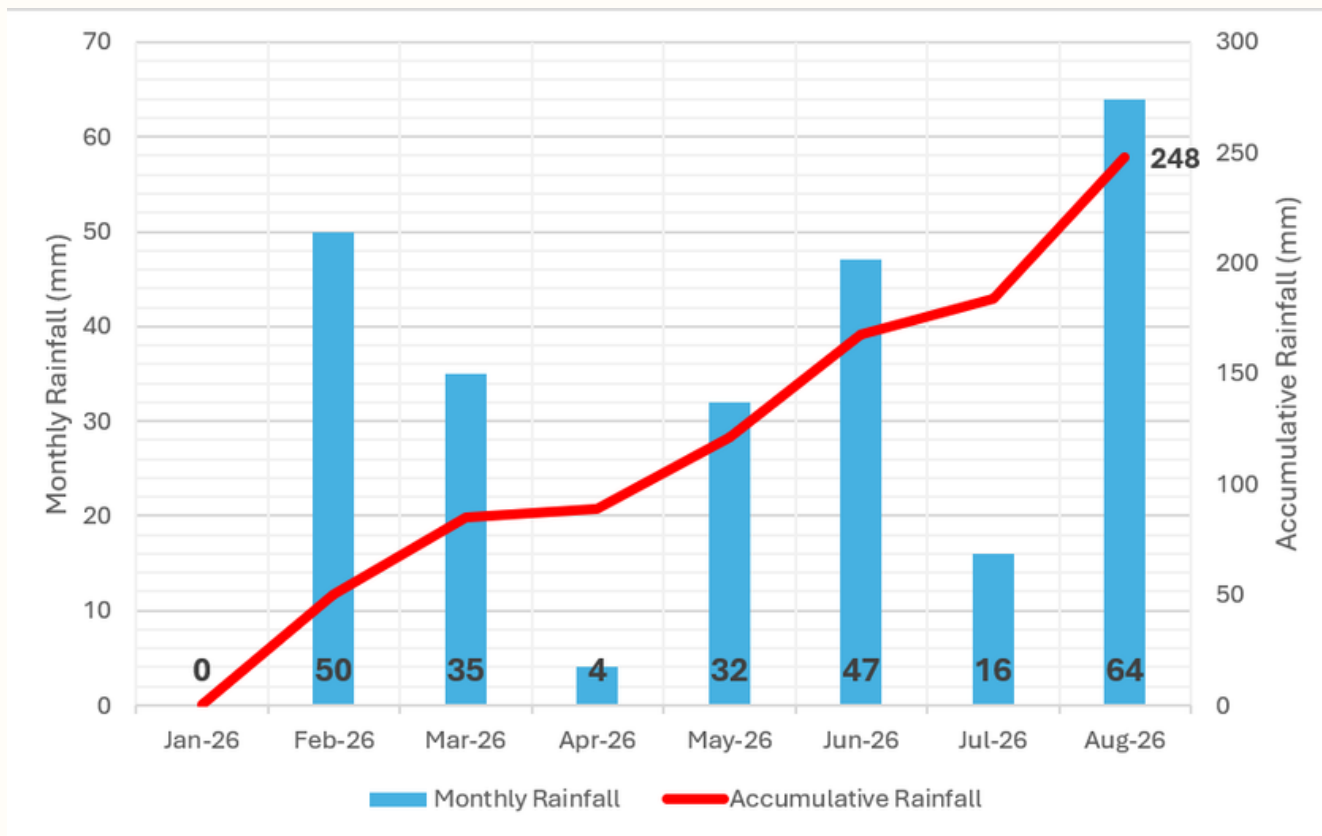


Figure 2: Monthly and accumulative rainfall recorded at the Laura RiskWi\$e Focus Paddock for January–August 2026.

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		40% 0	mild 32 to 34°C		40% 0
moderate 0 to -2°C during flowering & early grain fill		4% 0	moderate 34 to 36°C		25% 0
severe Less than -2°C during flowering & grain fill		0% 0	severe Above 36°C		14% 0

Figure 3: Frost and heat-shock risk for the Laura RiskWi\$e Focus Paddock, modelled using the Gladstone weather station, showing the seasonal likelihood of mild frost and heat events during flowering and grain fill.

For the full Yield Prophet® report for this site click the link:
www.unfs.com.au/other-resources/

RiskWi\$e

– the National Risk Management Initiative

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If you are interested in using Yield Prophet® on your own paddocks, **Yield Prophet® Lite** is a free online tool that estimates potential crop yield under different rainfall scenarios and nitrogen application rates. More information is available at:

<https://www.yieldprophet.com.au/yplite>

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