



Sub Surface Drainage Trial Update

Farm Host: Preston Family, West Cranbrook

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WHAT A SEASON TO HOST A DRAINAGE TRIAL!

Following on from the drainage installation day earlier in February this year, the team at SCF have been busy monitoring the drainage site, undertaking soil sampling, and completing plant counts and plant tissue sampling. The monitoring equipment has now all been installed (weather stations, 4x soil moisture probes & trial site piezometers) which helps the SCF team get a better understanding of what is happening across the treatment site (in both the drained & undrained sections), as weather events occur.

Rainfall data is being collected on-site from the weather station and is being plotted against the BOM long-term (20-year) gridded data for the region (Figure 1). So far for 2021, total rainfall of 538mm has fallen until 31st August (green line), which represents approximately a 230mm increase in rainfall to this time, last year (blue). As you can see, when comparing the minimum & maximum rainfall amounts for the past 20 years, it has been continually tracking near the highest rainfall amounts since early July.

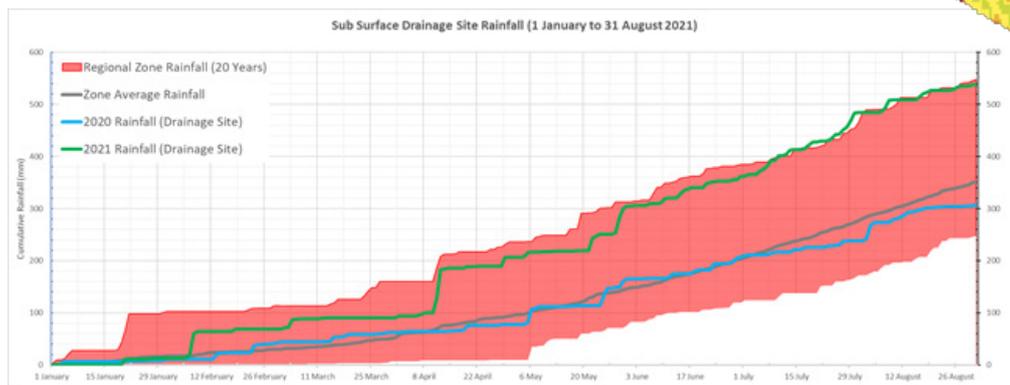


Figure 1: Recorded rainfall at the SCF sub surface drainage site

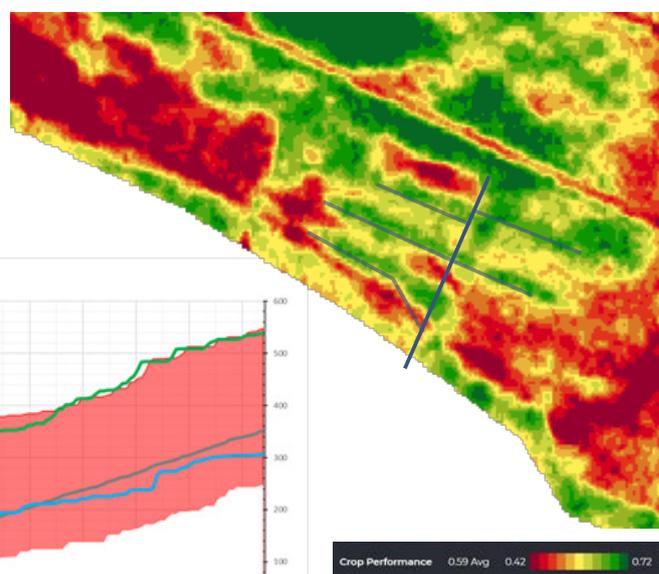
Throughout the course of the trial, the team will continue to monitor crop status and NDVI variation through satellite imagery, before completing yield analysis from harvester data later in the year. High-resolution satellite imagery is being sourced through the Taranis Platform, which is tracking NDVI levels across the trial paddock nearly daily, pending weather conditions.

This 3-metre high-resolution imagery is providing approximately 9x the data (and clarity) compared to the 10m Sentinel satellite imagery, which is freely available to growers through platforms

such as Decipher & Data-Farming for example. This will allow the SCF team to have a better understanding of how much area the drains are effectively managing through variation in crop biomass each season. For the 2021 season, it is evident through satellite imagery the differences the drainage has made to the crop, and this has also been reflected in seasonal plant counts (Figure 2).

Growers interested in managing sub-surface water are encouraged to inspect the drainage site. Stay tuned for upcoming field walks and do feel free to call the Preston Family or SCF to arrange a booking to personally inspect the drainage site.

Figure 2: Sub surface drainage NDVI 13 August 2021



ACKNOWLEDGEMENTS

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