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Trial type: Utrisha N  
Farm location: Sussex

Variety: Mascani  
Soil type: Silty Clay Loam

This trial was part of the AICC Crop Nutrition Club 2022, which has been run in conjunction with the Farm-PEP project led by ADAS. This report contains the results of an oats trial testing Utrisha N.

## Treatments

1. Utrisha N at 300 g/ha (test)
2. Control

## Satellite imagery

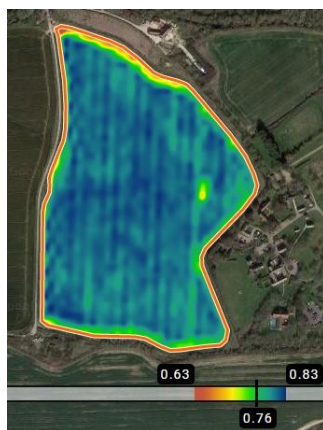
NDVI (normalized difference vegetation index) is a spectral reflectance index which shows a combination of canopy size and greenness, on a scale from 0 to 1. NDVI images were sourced from [www.datafarming.com.au](http://www.datafarming.com.au), based on freely available 10m resolution data from the Sentinel 2 satellites. The scale varies between images but always runs from red (low) through orange, yellow and green to blue (high). The availability of imagery is constrained by the need for cloudless conditions.



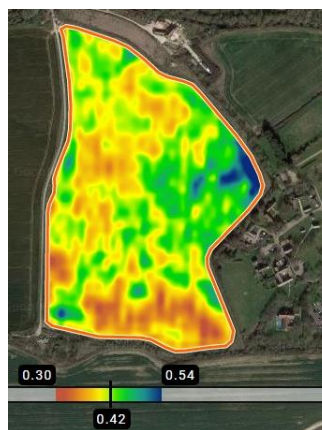
Prior to trial initiation, the main variation in the field ran across the tramlines which should not have biased the treatment comparison. There were no clear differences in NDVI between treatments until very close to harvest, when the Utrisha N tramline appeared to have slightly higher NDVI. This is supported by observations in the field, where it was noted that the stems of the Utrisha N treatment were greener at harvest.



Before treatments  
27 Feb



After treatments  
26 Apr



Pre-harvest  
10 Jul



Close to harvest  
11 Aug

## Yield results

The average measured yield of the control treatment was **10.86 t/ha**, according to weighbridge results.

The Utrisha-N treatment reduced yield by **0.15 t/ha** relative to the control, but this difference is small enough that it could easily have been due to underlying variation rather than to any difference between the treatments.

It is possible that the greener stems and higher NDVI in the Utrisha N tramline could have contributed to a longer grain filling period and higher yield, had harvest been delayed to accommodate this. The potential for Utrisha N to improve yield may also have been limited by the early harvest caused by hot, dry weather in July 2022, and by the lower than usual N optima seen in 2022; given that Utrisha N is supposed to supply additional N to plants, we would only expect a significant yield benefit in situations where yield is limited by N supply.

## Future trials

The trial was well placed in an even area of an even field; in any future trials, seek to use similarly even fields, or fields where the variation runs across the tramlines to affect all treatments equally. Greater confidence in the yield effect could be achieved by replicating the treatments within the field and either weighing each harvested tramline separately, or using yield mapping.