Agrii-Start Liqui-Safe

Powered by Nutrisphere-NL

Agri intelligence

Unique Urease and Nitrification Inhibitor that's kind to the Environment...

WHAT IS LIQUI-SAFE?

Liqui-Safe is a unique nitrification and urease inhibitor for liquid fertilisers. Liqui-Safe is a highly water-soluble organic compound primarily created from fermentation of maize.

HOW LIQUI-SAFE WORKS

The technology reduces the 3 sources of N loss by using its high cation exchange capacity designed to sequester elements involved in the nitrogen cycle.

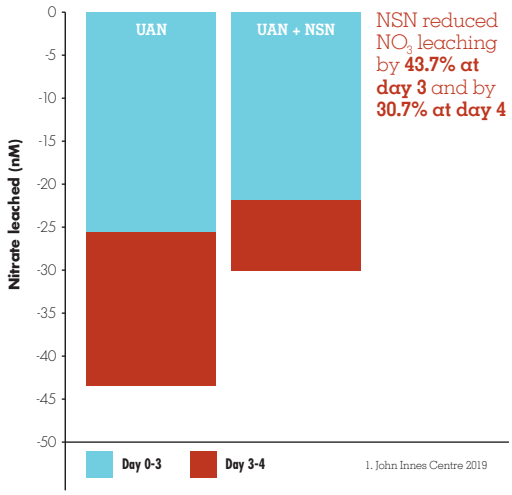
ENVIRONMENTAL BENEFITS OF LIQUI-SAFE

- **Liqui-Safe improves N use efficiency from UAN by 15%.**
- **Liqui-Safe keeps the fertiliser where it is needed for longer**, increasing nitrogen efficiency, yield and crop quality.
- Liqui-Safe has demonstrated a **beneficial effect on soil biome**.
- Studies have demonstrated **significant reductions in Nitrous Oxide and Ammonia losses** from field applications of Liqui-Safe.

Product	Ammonia loss (Volatilisation)	De Nitrification Losses	Reduction in Leaching
Liqui-Safe	Up to 86%	Up to 61%	Up to 43%

1

Nitrate leaching – at 40% soil moisture (Liqui-Safe)



NSN reduced NO_3 leaching by **43.7% at day 3** and by **30.7% at day 4**

1. John Innes Centre 2019

REDUCED IMPACT ON THE ENVIRONMENT – THE RESULTS

NUTRISPHERE-N TERRESTRIAL ORGANISMS 0% 12 MONTH PERIOD

NutriSphere-N presents no long-term effect on the rate of mortality, reproduction or biomass inhibition of earthworms.

NUTRISPHERE-N SOIL MICROORGANISMS +74% 69 DAY PERIOD

NutriSphere-N treated urea by Athens University reported a **74% increase** in Mycorrhizal colonisation compared with untreated urea.

NUTRISPHERE-N AQUATIC ORGANISMS 0% 12 MONTH PERIOD

Acute and chronic studies performed with **NutriSphere-N** at up to **10 times** the agronomic dose determined there was no long-term effect on the mobility of Daphnia.

NUTRISPHERE-N FRESHWATER FISH 0% 12 MONTH PERIOD

Acute study performed with **NutriSphere-N** at up to **10 times** the agronomic dose determined there was no effect on fish mortality.

NUTRISPHERE-NL YIELD AVERAGE INCREASE 3.7% 62 FIELD TRIALS

Trialled in EU, TR and UK with **NutriSphere-NL** over a 3 year period covering a total of 6 different crops the use of the **technology** produced an average **3.7% yield increase**.

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LIQUI-SAFE BEST USE POINTERS

Early Feb N applications:

To reduce leaching and slow down N conversion from ammonium to nitrate.

(See graph 1)

To reduce passes of N:

Reduce from 3 to 2 passes. Apply Liqui-Safe in both applications.

(See graph 2)

To Improve NUE:

Apply Liqui-Safe in every pass. Potential to reduce N rates (subject to optimal N).

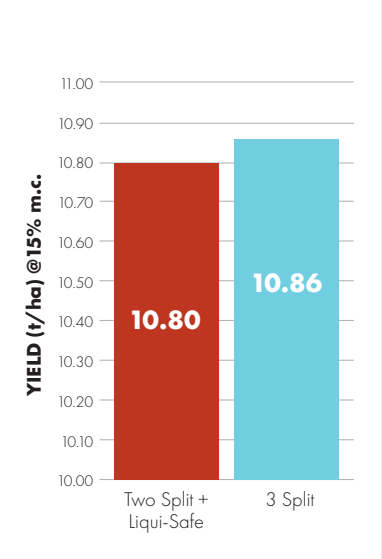
(See graph 3 and 4)

With VR nitrogen:

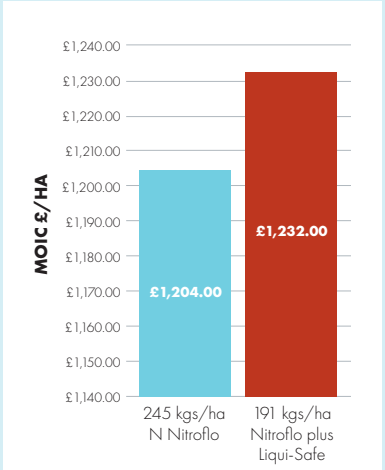
Apply in two splits with different nitrogen loadings.

(See graph 5)

2 **Trial demonstrating how Liqui-Safe can be used to reduce passes compared to a standard 3 split program.**

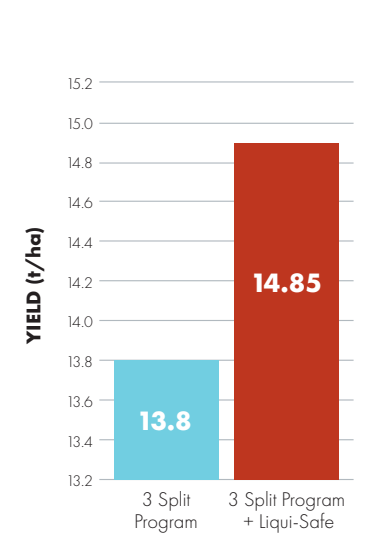


3 **Trial highlighting how Liqui-Safe can be used as a tool to reduce N rates and increasing NUE.** Liqui-Safe reduced the carbon footprint of the crop by 120 kgs CO_2e (54 kgs/ha N Reduction) and maintained yield.



4 **Liqui-Safe NUE Trial**

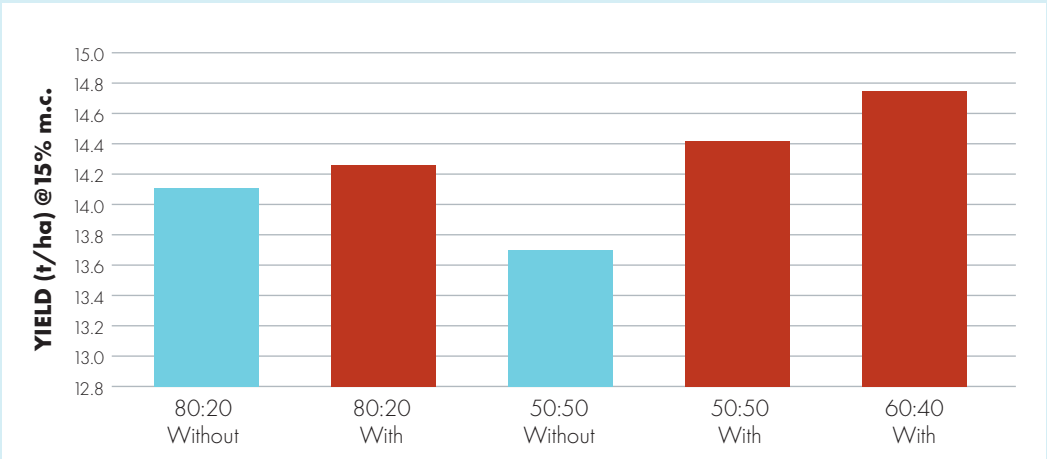
N SPLIT 1	N SPLIT 2	N SPLIT 3
70 kgs/ha N	86 kgs/ha N	80 kgs/ha N



5 **Trial highlighting how Liqui-Safe improves NUE in tailored N situations.**

Liqui-Safe was found to:

- In all scenarios, produce an increase in yield and protein.
- Average yield increase: 0.4 tonnes per ha.
- Average protein increase: 0.1%.



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