

BlueN™



**NUTRIENT EFFICIENCY
BIOSTIMULANT**

BlueN™ provides a crop with a unique way to capture nitrogen throughout the season, helping plants reach their yield potential.



Why use BlueN nutrient efficiency biostimulant?

- Maximises crop potential through optimised nitrogen management.
- BlueN enhances plant growth by improving the nitrogen availability in the plant throughout the growing season.
- BlueN meets changing market expectations by providing a sustainable source of nitrogen.

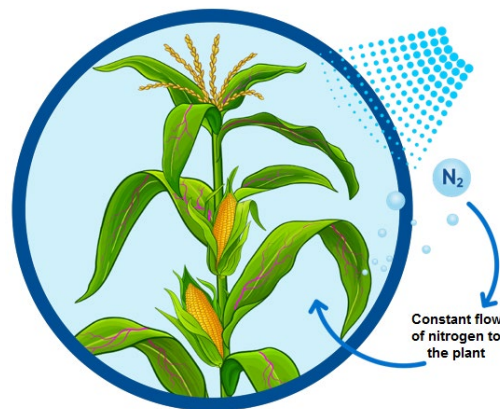
What is BlueN?

BlueN is a novel nutrient efficiency biostimulant for use in a broad range of crops. BlueN contains *Methylobacterium symbioticum*, a bacteria found in nature that fixes atmospheric nitrogen for use by the plant. BlueN provides a sustainable, alternative source of nitrogen that reduces dependency of nitrogen uptake from the soil and ensures the plant has access to nitrogen all season long.

How BlueN Works

- BlueN enters the plant through the stomata from where it can colonise the plant.
- BlueN converts atmospheric N₂ into ammonium which can be used by the plant.
- Once BlueN has colonised the plant, on average it can deliver the equivalent of 30kg/ha of applied nitrogen to the crop.

Plants generate methanol during normal growth which is used as a food source by BlueN ensuring reliable colonisation.



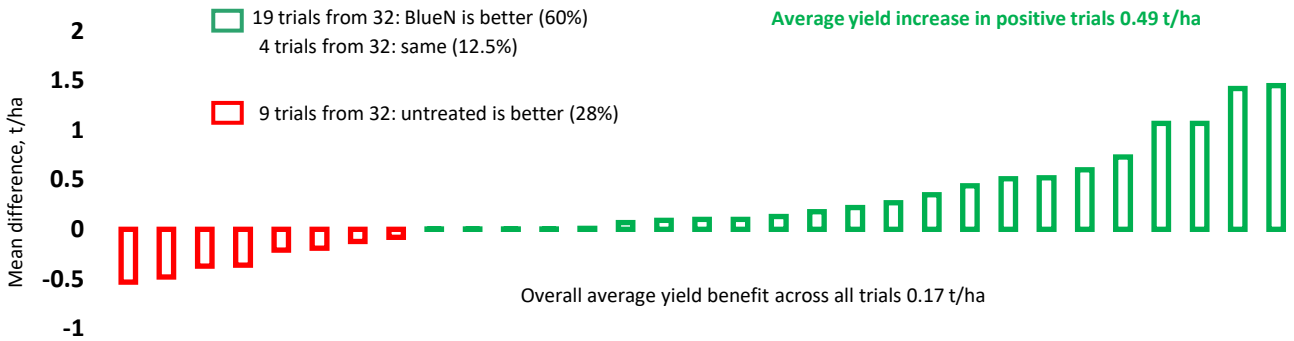
Supplies nitrogen throughout the crop's life in an effective and controlled way.

APPLICATION INFORMATION

PACK SIZE	3kg
RECOMMENDED RATE	333g/ha
RAINFAST	1 hour
NUMBER OF APPLICATIONS	1 application per crop
APPLICATION TIMING	Winter cereals BBCH 25-61 (optimum timing is BBCH 25-32)* Spring cereals BBCH 25-32
APPLICATION CONDITIONS - KEY FOR EFFECTIVE COLONISATION OF <i>METHYLOBACTERIUM SYMBIOTICUM</i>	<ul style="list-style-type: none"> • Apply to actively growing plants unaffected by stress. • Apply when the majority of stomata are open • Try to apply when day temperatures begin to reach at least 10°C up to 25°C (maximum 30°C) • Use water with a pH between 5 and 8.

* - Please consult Corteva Agriscience for more information.

UK meta-analysis in winter wheat, 2023 On top strategy (applying BlueN on top of planned fertiliser programme).

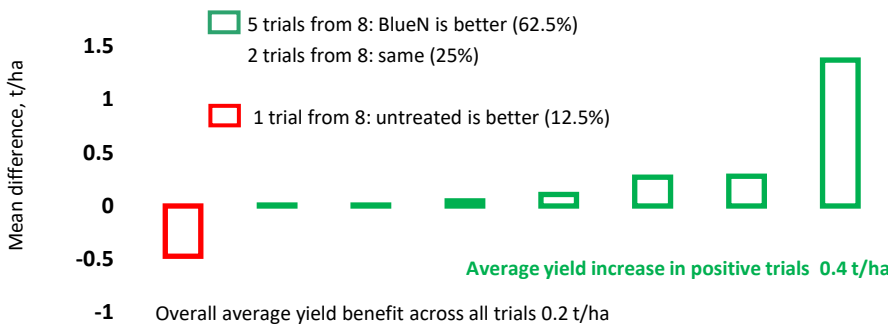


On top strategy (Blue N plus normal fertiliser programme):

- For all fertiliser programmes.
 - BlueN investment: £30/ha
 - Yield benefit: +0.49 t/ha = +£117.6/ha*
- *Winter wheat £240/t

- In 60% of trials, the yield increase of treated vs. untreated was over +0.49 t/ha
- Across all the trials an average yield benefit was +0.17 t/ha

UK meta-analysis in winter wheat, 2023 – Replacement strategy (replace 30kg/ha of Nitrogen with Blue N in a planned fertiliser programme).

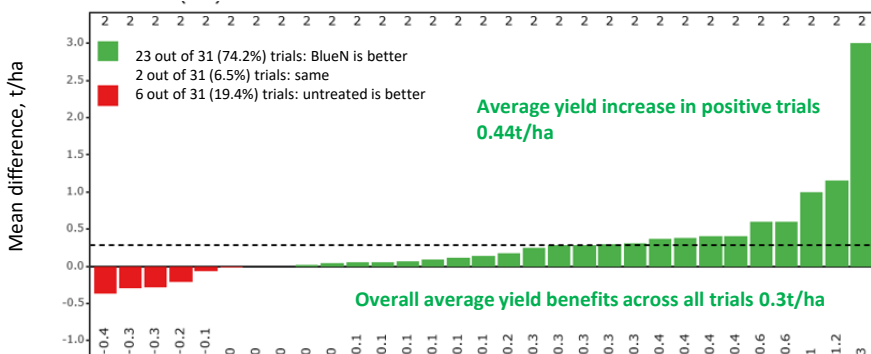


Replacement strategy (Blue N replacing 30kg/ha of nitrogen in a normal fertiliser programme):

- BlueN investment: £30/ha
 - Yield benefit: +0.4 t/ha = +£96/ha*
- *Winter wheat £240/t

- In 62% of trials, the yield increase of treated vs. untreated was over +0.4 t/ha
- Across all the trials an average yield benefit was +0.2 t/ha

Meta-analysis in winter barley, 2023 On top strategy (applying BlueN on top of planned fertiliser programme).



On top strategy:

- BlueN investment: £30/ha
 - Yield benefit: +0.44 T/ha
 - = + £63.8 ha*
- *Barley £145/t

- The best strategy is to use BlueN on top of existing fertiliser programmes.
- In 74% of cases this strategy brings a yield increase over the untreated on average +0.44 T/ha
- Across all the trials an average yield benefit is +0.3 T/ha