

## BlueN™



### NUTRIENT EFFICIENCY BIOSTIMULANT

BlueN™ provides a potato 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 crop's life in an effective and controlled way.
- Increases marketable yield (quantity and size) by impacting haulm growth and development.
- In trials, meta data analysis shows on average a 2.5t/ha yield benefit.
- For best results apply on top of your conventional fertiliser programme.
- BlueN is compatible with Zorvec Endavia, for more information on tank mix partners follow the link: <https://www.corteva.co.uk/tools-and-advice/tank-mix.html>
- BlueN meets changing market expectations by providing a sustainable source of nitrogen.

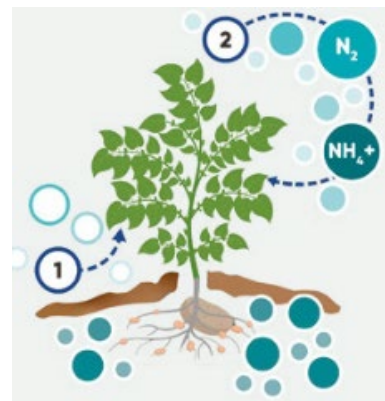
#### What is BlueN?

BlueN is a novel nutrient efficiency biostimulant for use in a broad range of crops including potatoes. 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

1. BlueN enters the potato plant through the stomata from where it can colonise the plant.
2. BlueN converts atmospheric N<sub>2</sub> into ammonium which can be used by the plant.

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



Supplies nitrogen throughout the crop cycle in an effective and controlled way

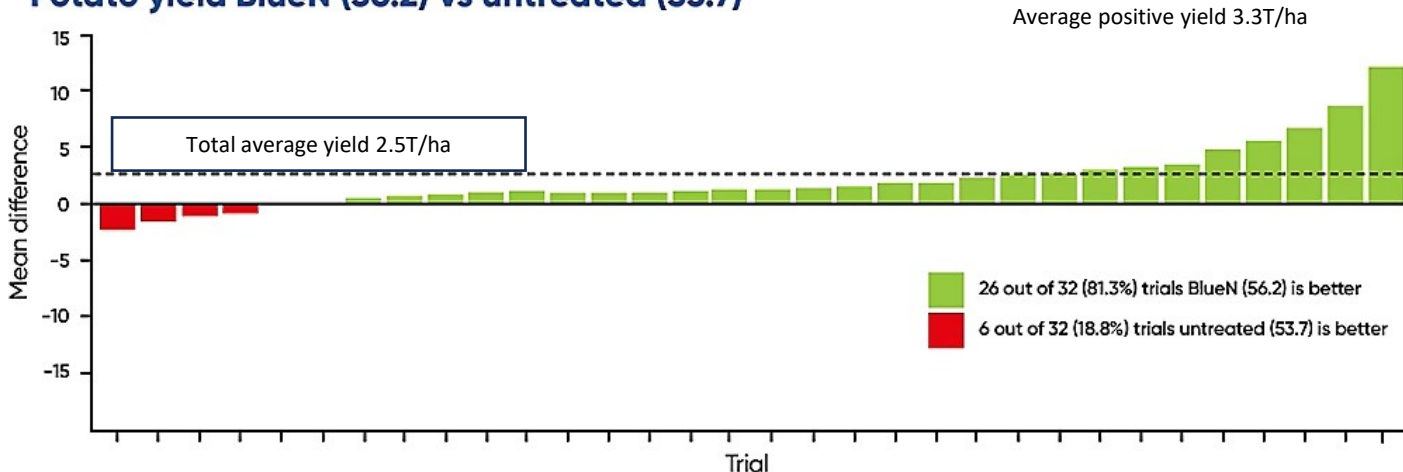
#### APPLICATION INFORMATION

PACK SIZE	3kg
RECOMMENDED RATE	333g/ha
RAINFAST	1 hour (leave 24hrs before irrigating as a precaution)
NUMBER OF APPLICATIONS	1 application per crop
APPLICATION TIMING	BBCH 25-33 (before plants meet in the row, immediately before rapid canopy expansion)
APPLICATION CONDITIONS - KEY FOR EFFECTIVE COLONISATION OF METHYLOBACTERIUM SYMBIOTICUM	<ul style="list-style-type: none"> <li>• Apply to actively growing plants unaffected by stress.</li> <li>• Apply when the majority of stomata are open</li> <li>• Try to apply when day temperatures begin to reach at least 10°C up to 25°C (maximum 30°C)</li> <li>• Use water with a pH between 5 and 8.</li> </ul>

## BlueN meta-analysis on Potatoes

On top strategy, (applying BlueN on top of the planned fertiliser programme) 2022 trial results

### Potato yield BlueN (56.2) vs untreated (53.7)



For potatoes the best strategy is to use BlueN **on top** of the normal conventional fertiliser programme.

Blue N investment:30/ha

In more than 80% of cases this strategy brings a yield increase over the untreated with an average yield benefit +3.3 T/ha = + £1320/ha\*

Across all the trials the average yield benefit is +2.5 T/ha = £1000/ha\*

\* Potatoes £400/t ( average price March '24)

Treatment	SPAD Assessment	Haulm weight kg	Tuber weight kg
203kg N	35.8	1.37	0.975
169kg N + BlueN	34.2	1.38	1.23
203 kg N + BlueN	38.4	3.37	2.03

### UK Small plot trial work

**Location:** Southeast.  
**Planting Date:** 9<sup>th</sup> April 23  
**Variety:** Maris Piper

**Nutrition: total N = 203 kg**  
30m<sup>3</sup> Liquid digestate (41 kg/ha N)

159L/ha Chafer Nuram 37 N (59 kg N/ha)

300kg AN 34.5% (103 kg N/ha)

**BlueN Application** - 7<sup>th</sup> June 2023

**Assessment date:** 14<sup>th</sup> July 2023

