

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 a wide range of potato products, for more information on tank mix partners follow the link: <https://www.corteva.ie/products-and-solutions/biologicals/bluen.html>
- BlueN meets changing market expectations by providing a sustainable source of nitrogen.

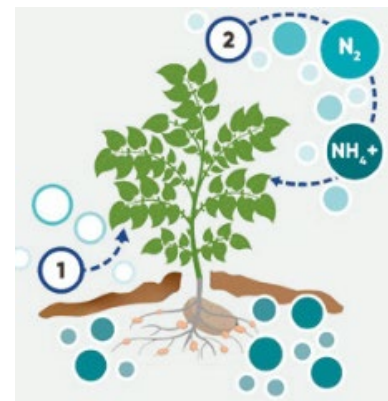
What is BlueN?

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 N₂ 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

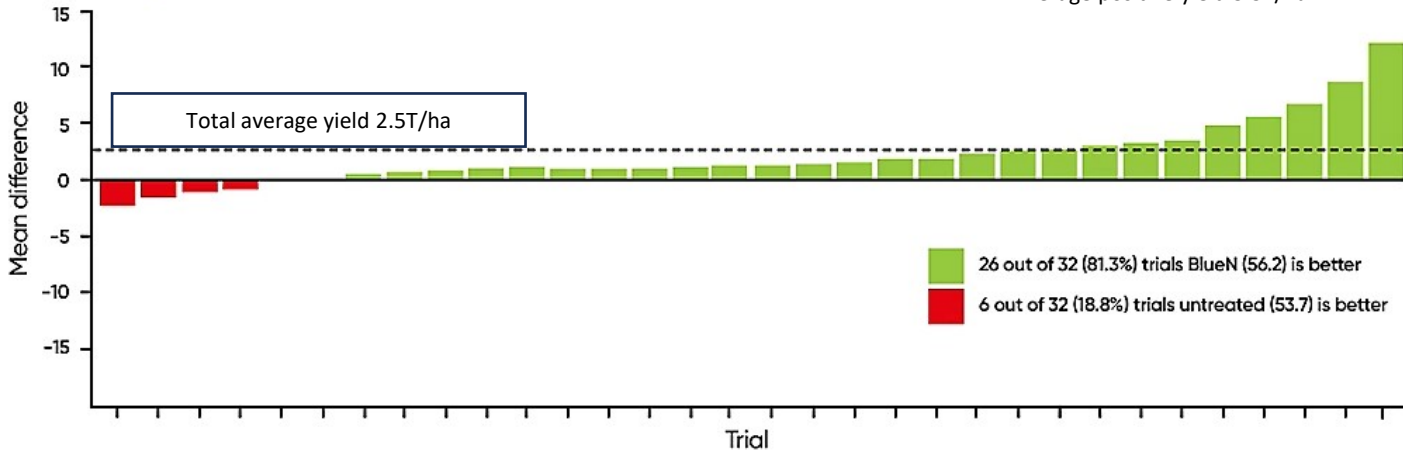
PACK SIZE	3kg
RECOMMENDED RATE	333g/ha
RAINFAST	1 hour (leave 24hrs before irrigating as a precaution)
NUMBER OF APPLICATIONS	1 application per crop
APPLICATION TIMING	BBCH 25-33 (before plants meet in the row, immediately before rapid canopy expansion)
APPLICATION CONDITIONS - KEY FOR EFFECTIVE COLONISATION OF <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.

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)

Average positive yield 3.3T/ha



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

Blue N investment:€35/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 = + €1560/ha*

Across all the trials the average yield benefit is +2.5 T/ha = €1181/ha*

* Potatoes €472/t (average GB 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: 9th April 23
Variety: Maris Piper

Nutrition: total N = 203 kg
 30m³ 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 - 7th June 2023

Assessment date: 14th July 2023

