

# BlueN™ – Nutrient Efficiency Biostimulant

BlueN™ provides a crop with an additional 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, especially during critical growing periods.
- 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, which is not affected by unfavourable weather conditions, leaching or volatilisation.
- Active plant growth is important for optimum colonisation, but application timing is flexible.

## What is BlueN?

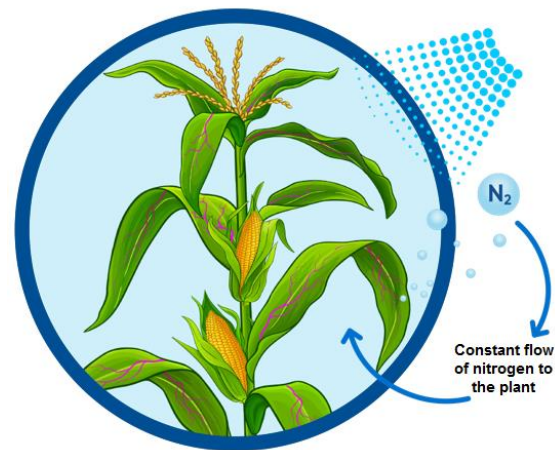
BlueN is a novel nutrient efficiency biostimulant for use in a broad range of crops. BlueN contains *Methylobacterium symbioticum*, a bacterium found in nature that fixes atmospheric nitrogen for use by the plant. BlueN provides a sustainable, alternative source of nitrogen that reduces dependency of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

## How does BlueN work?

- BlueN enters the plant through the stomata from where it can colonise the leaves and then quickly translocate to surrounding leaves, stems and roots.
- 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.
- Once BlueN has colonised the plant, on average it can deliver the equivalent of ~3kg/ha of applied nitrogen to the crop per week.

## Enhances nitrogen use efficiency

BlueN provides an additional source of sustainable nitrogen, which is available throughout the plant's lifecycle, ensuring the plant has access to nitrogen all season long.



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

### Application Information

<b>Crops</b>	A range of crops – see label for specific crops - including sugar beet, potatoes and maize
<b>Pack Size</b>	3kg – Aluminum bags to guarantee excellent product quality and 2 years shelf life. Use on day of opening
<b>Recommended Rate</b>	333g/ha
<b>Water Volume</b>	100-400L/ha depending on crop type
<b>Rainfastness</b>	1 hour
<b>Number of Applications</b>	1 application per crop - Add BlueN to the tank last
<b>Application conditions</b> – Key for effective colonization of <i>Methylobacterium symbioticum</i>	<ul style="list-style-type: none"> <li>• Apply to actively growing plants unaffected by stress to ensure successful colonisation.</li> <li>• Apply when most stomata are open, ie., morning, late afternoon or evening.</li> <li>• Try to apply when day temperatures begin to reach at least 10°C up to 25°C (maximum 30°C), and night temperatures are preferably over 5°C.</li> <li>• Try to avoid frosts 1 week before and 3 days after application.</li> <li>• Apply with sufficient biomass, when at least 50% groundcover is achieved by the crop i.e., presenting a large leaf surface area for the spray to hit.</li> <li>• Use water with a pH between 5 and 8.</li> </ul>

### Recommended Application Timing

<b>Maize</b>	GS14-18 (4 to 8 leaves)
<b>Peas and Beans</b>	GS14-18 (4 to 8 leaves)
<b>Potatoes</b>	GS25-60 (side shoots visible to flowering) Optimum timing is GS 25-33, immediately before rapid canopy expansion)
<b>Sugar beet</b>	GS16-35 (6 leaves – 50% ground cover) Optimum timing is around GS35

For effective colonisation of the plant, **always** apply BlueN to an actively growing crop. For guidance on application timing information in your local area please refer to the BlueN Application Optimiser Tool found on the home screen of the **Corteva Arable App**, which is available for download.