

# NUELLO® iN is the seed treatment that acts as a nitrogen “back-up generator” in times of nutrient stress



## Transform your seed into a biological nitrogen factory.

Nuello® iN is an innovative biological seed dressing that contains two unique endophyte bacterial strains that capture nitrogen from air to form a steady supply to the crop. It complements standard nitrogen applications as an additional source of N.

Using Nuello iN as an early season source of nitrogen boosts crop vigour, root development and yield potential to support your crop especially in times of nutrient stress:

- Enhances yields on light/shallow nutrient deficient soils
- Enhances yields in second cereals (and following other nitrogen hungry previous crops)
- Mitigates risk from extreme weather. Nuello® iN has proven effect in the extremely dry season 2022 and extremely wet season 2024.

## NUELLO® iN backs up your crop with a steady source of nitrogen from day one

Use Nuello® iN to ensure you support your crops in times of nutrient stress



Light soils



Dry weather / soil conditions



Wet weather, low SMN levels



Following nitrogen hungry crops

## How does NUELLO® iN work?

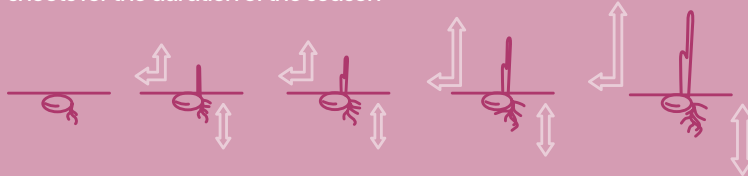
***Pseudomonas siliginis***  
A strong atmospheric nitrogen fixing endophyte bacterial strain

**NUELLO® iN microbes**

***Curtobacterium salicaceae***  
A strong atmospheric nitrogen fixing and soil insoluble phosphate mobilising endophyte bacterial strain

## NUELLO® iN ALWAYS ON Nitrogen Generation

Endophytes enter the plant through root cracks and colonise the roots and shoots for the duration of the season



Inside the plant the endophytes constantly work to aerobically fix atmospheric nitrogen producing ammonium  $\text{NH}_4$  and organic N to give a more consistent nitrogen availability and efficiency for the duration of the season.

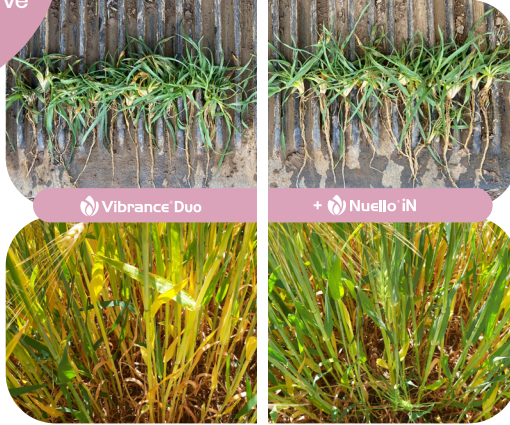
# At the time you buy your seed you do not know what the season has in store



NUELLO® iN average yield benefit: **0.5 t/ha** in the winter wheat and **0.3 t/ha** in the hybrid barley (nitrogen curve trials)

## CASE 2022: Yield benefits in DRY conditions

A light land case study in winter wheat and hybrid barley from Newark, Nottinghamshire 2022



SY KINGSBARN hybrid barley NUELLO® iN rooting benefit assessed February 2022, and clear greening benefits observed June 2022

### 2022 was an extremely hot and dry season

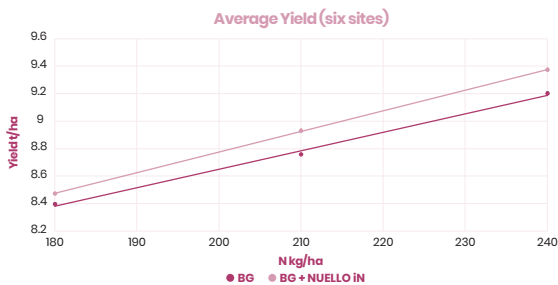
- The main nitrogen timing in both the winter wheat and hybrid barley nitrogen curve trials was applied during an extremely dry April with no moisture to take up the nitrogen prills until May
- Nuello® iN treated plots displayed clear rooting benefits, clear greening benefits, higher chlorophyll levels and reduced crop stress to extend the grain fill period

## CASE 2023&2024: Autumn and winter 2023/24 was EXTREMELY wet which led to:

- Compromised crop establishment
- Low soil nitrogen levels
- Delayed nitrogen application timings with growers unable to travel to apply early N
- Poor crop vigour and rooting
- Waterlogging
- Leaching



### CONSISTENT BENEFIT for NUELLO® iN in winter wheat in the EXTREMELY WET 2024 season.



BG = Beret Gold Base = Fungicide dressing

### Hybrid winter barley yield benefit 2024.

