



Systemic Nitrogen Fixation
Right Place. Right Time.



Nitrogen Fixation in Potatoes is Now Possible

Encera™ works within plant cells to fix atmospheric nitrogen to a usable form – dramatically improving yield, nitrogen availability and sustainability

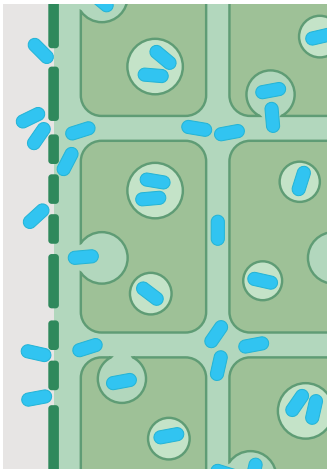
What is Encera?

- Encera is a naturally occurring, food grade bacteria called *Gluconacetobacter diazotrophicus* which was originally discovered in sugarcane
- These bacteria form a symbiotic relationship with the plant to provide nitrogen directly to the cells of leaves and roots throughout the growing season

How Does Encera Work?

- Quickly establishes itself within the plant
- Fixes nitrogen directly in plant cells where nitrogen is needed
- Moves systemically and colonizes new growth
- Provides season-long nitrogen supply

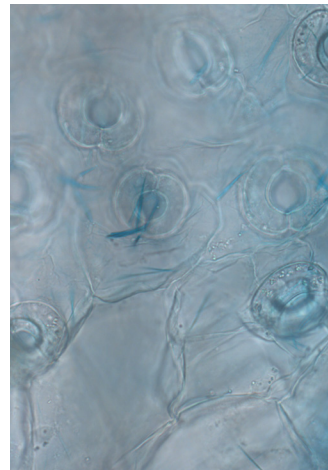
Encera Colonising the Plant



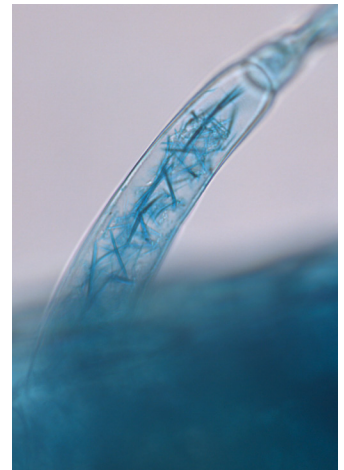
Upon entering the plant, Encera bacteria colonise inside plant cells



Encera bacteria forming a biofilm on the outside of the plant



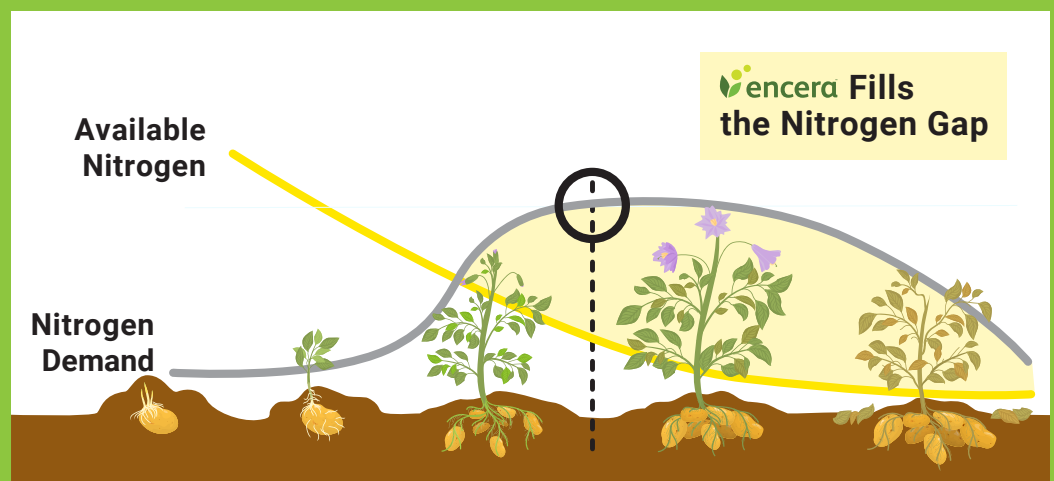
Encera bacteria dyed blue entering through the stomata



Encera bacteria dyed blue entering through leaf hairs

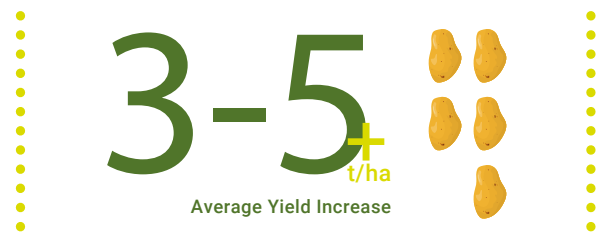
Encera Fills the Nitrogen Gap

- The way nitrogen fertiliser is applied is typically inefficient, largely due to processes such as volatilization and leaching. N applied early is not as available later in the season where it is often needed, leading to a gap between crop requirements and availability. Encera fills the nitrogen gap with consistent sustainable nitrogen.
- Encera provides a constant season long supply of nitrogen from within the cells of the plant – exactly where nitrogen is needed – filling the gap between available N and required N.



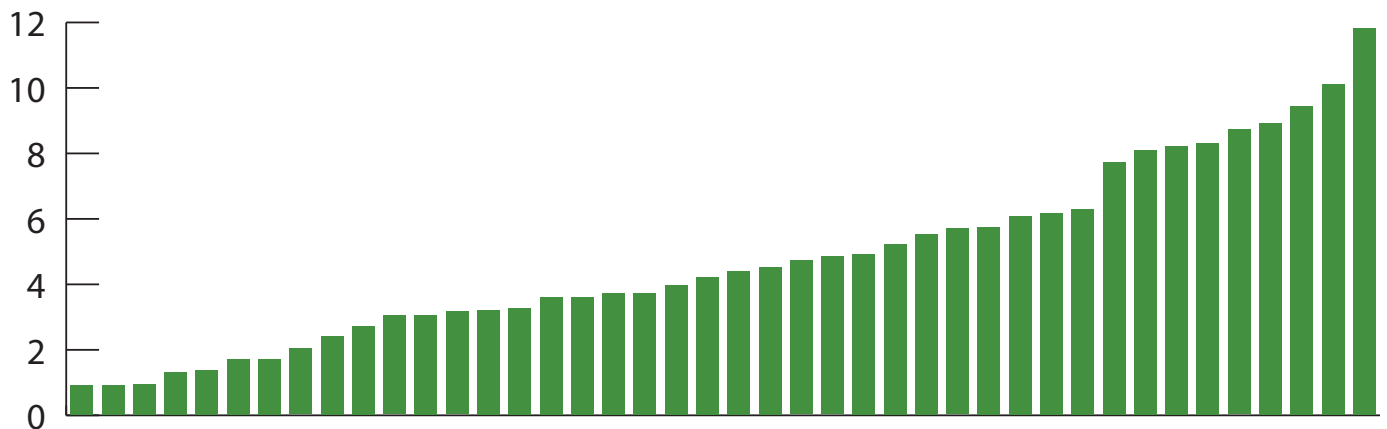
Consistent Results Proven to Perform

- Across small plot and large farm trials, Encera consistently delivers an average yield increase of 3-5t/ha when combined with standard fertility programs
- Yield benefit seen through an increase in the number of the same sized tubers, meaning grading is typically unaffected
- Across 40+ trials in Canada, the USA, UK and Europe, Encera increased yield by 4.7t/ha on average



Global Trial Results with Encera

Difference VS UTC at 100% N (t/ha)



Observations Seen in the Field

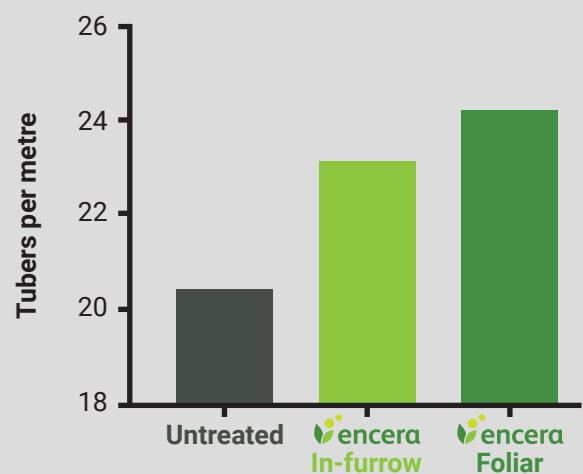
- Advanced growth
- Improved tuber set
- Consistent yield increase
- Deeper rooting systems and more efficient nutrient scavenging
- Improved canopy function



Untreated



Number of tubers typically produced by a single plant in a German potato trial



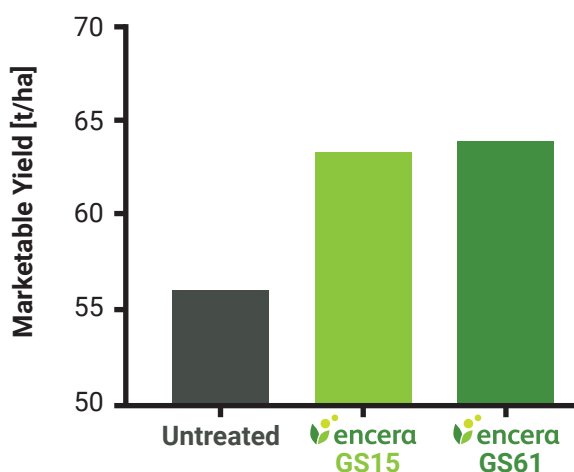
Graph demonstrating an increase in numbers of tubers (dig done on 1m row of a small plot trial in the UK)

Encera is Easy to Use – Fits Your Farm

Using Encera:

- Include Encera with your existing fertility program to increase yield or use as part of a reduced N-fertility program
- Can be applied in furrow or as a foliar spray
- Compatible with leading foliar fungicide and herbicide tank-mixes. Consult label and use instructions for details.
- Not recommended for use with copper based fungicides
- Apply between post-emergence herbicide timing and end of flowering

Flexible to Fit Your Needs



Encera offers flexibility to fit your farm without compromising efficacy. Similar yield benefits have been obtained from early and late foliar applications, as seen in this small plot trial from Yorkshire.

Typically Encera is applied with the first blight spray when conditions are likely to be optimal for Encera bacteria to colonise the plant.

Contact Us

+44 (0) 1904 949696
help@azotic.com
azotic.com

