



**Systemic Nitrogen Fixation**  
**Right Place. Right Time.**



## Nitrogen Fixation for all Crops is Now Possible

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

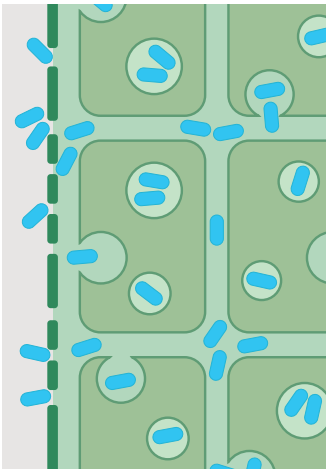
### What is Encera?

- 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

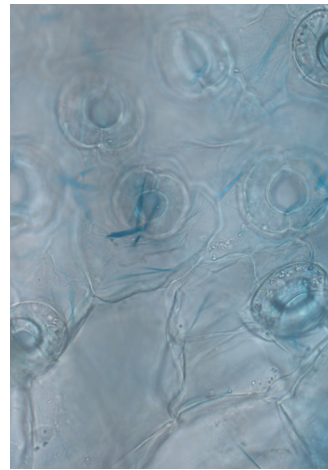
### Encera Colonising the Plant



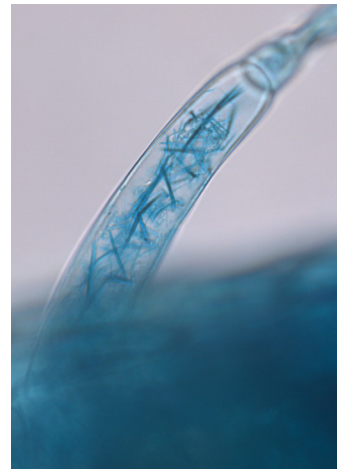
Upon entering the plant, Encera bacteria colonise inside plant cells



Encera bacteria forming a biofilm on the outside of the plant



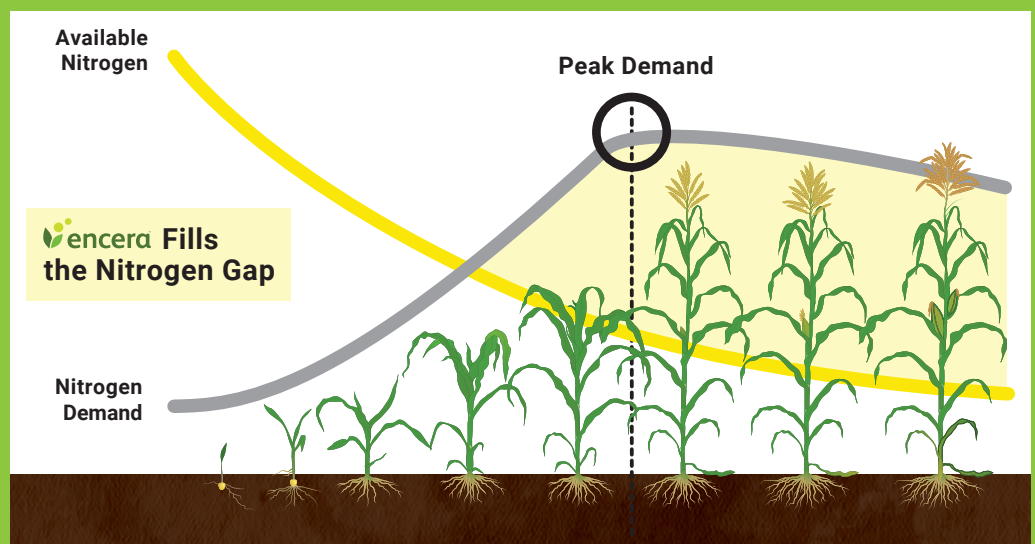
Encera dyed blue entering through the stomata



Encera dyed blue entering through leaf hairs

## Encera Fills the Nitrogen Gap

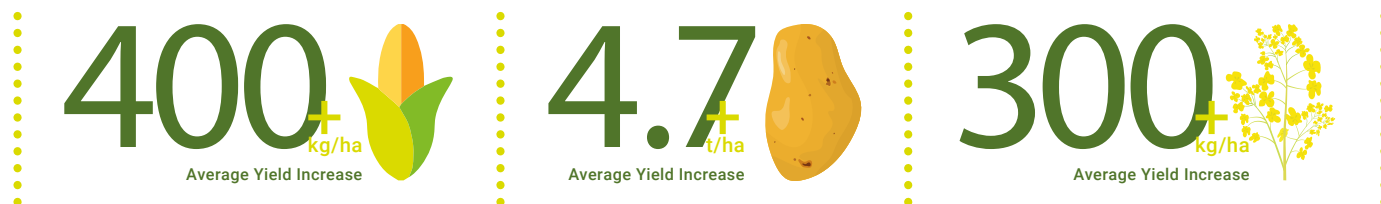
- The way nitrogen fertiliser is applied is typically inefficient, largely due to processes such as volatilization and leaching. N applied early is not as available later in the season where it is often needed, leading to a gap between crop requirements and availability. Encera fills the nitrogen gap 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

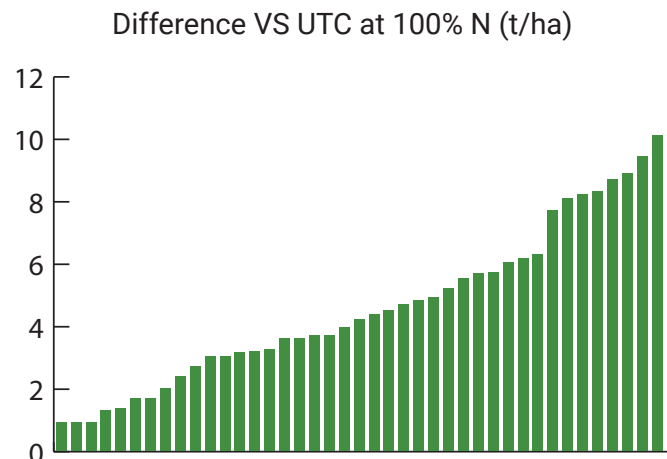
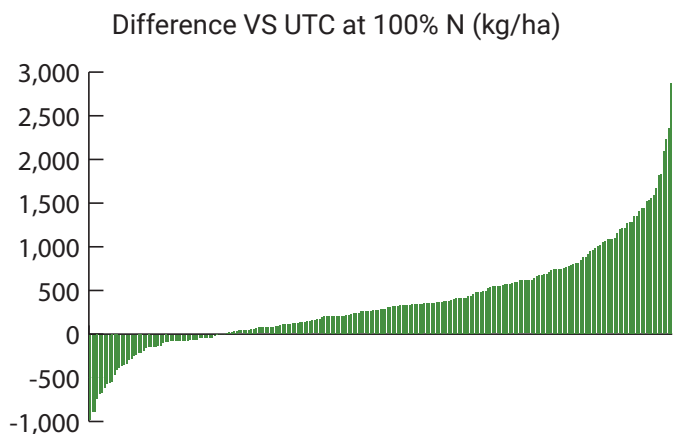
- After hundreds of small plot and grower farm trials, Encera consistently delivers an average yield increase of 400 kg/ha on maize when combined with standard fertility programs
- Higher yields are seen under stress conditions where drought or high moisture impact the availability and use efficiency of nitrogen

- In some conditions it may be possible to reduce nitrogen application rates, however the best grower ROI is seen when nitrogen rates are unchanged



## Global Maize Trial Results with Encera

## Global Potato Trial Results with Encera



# Observations Seen in the Field

- Advanced growth
- Consistent yield increase
- Benefits across all nitrogen levels
- Deeper rooting systems and more efficient nutrient scavenging
- Reduction in tip-back in maize
- Increased cob size in maize
- Improved tuber set in potatoes



Untreated



Encera treated corn on right stayed greener longer



Untreated



Encera treated potatoes on right improved yield

# 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 fungicide and herbicide tank-mixes (foliar). Consult label and use instructions for details.
- Not recommended for use with copper based fungicides

## In-furrow Application

	Rate	Water	Mix Partners	Crop Staging
Maize Potato Sugar Beet	12.5 g/ha	Minimum 50 l/ha	*Starter fertilizer, insecticide or fungicide	BBCH 00

\* For a complete list of tank mix partners please contact Azotic

## Foliar Application

	Rate	Water	Mix Partners	Crop Staging
Maize Potato Cereals Sunflower Leafy Veg. Other Brassica Fruiting Veg. Strawberry Bulbous Veg. Root Veg. Stem Veg. Rice Flax Alfalfa	12.5 g/ha	Minimum 100 l/ha	*Most crop protection products	BBCH 12-59
Oilseed Rape Pulses Soybeans	12.5 g/ha	Minimum 100 l/ha	*Most crop protection products	BBCH 12-69
Sugar Beet	12.5 g/ha	Minimum 100 l/ha	*Most crop protection products	BBCH 12-45



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