

# Pump up your crops



# Vixeran®

VIXERAN® is a proven bacteria-based biofertiliser that allows your crop to fix nitrogen directly from the atmosphere. This improves nitrogen use efficiency on your farm – a benefit to your crop and the environment.

## Fill the gap between the crop's nitrogen supply and demand

There are many situations where it is not possible to meet the nitrogen demand of the plant. Much of the nitrogen added through fertiliser application for example, can be lost to the environment through volatilisation or leaching. Applied in this peak demand stage, VIXERAN® provides a sustainable and reliable source of nitrogen to the crop.

## What is VIXERAN®?

VIXERAN® is based on a bacterium called *Azotobacter salinestris* and is applied as a foliar treatment. Once added, it colonises the leaves and the roots, supporting the crops throughout the entire season.

## How does it work?



### Inside and Outside

- **Free-living nitrogen-fixing bacteria** (*Azotobacter salinestris* strain CECT 9690)
- **Lives within the plant or in the soil**
- Constantly fixing nitrogen from the atmosphere benefitting plant & rhizosphere



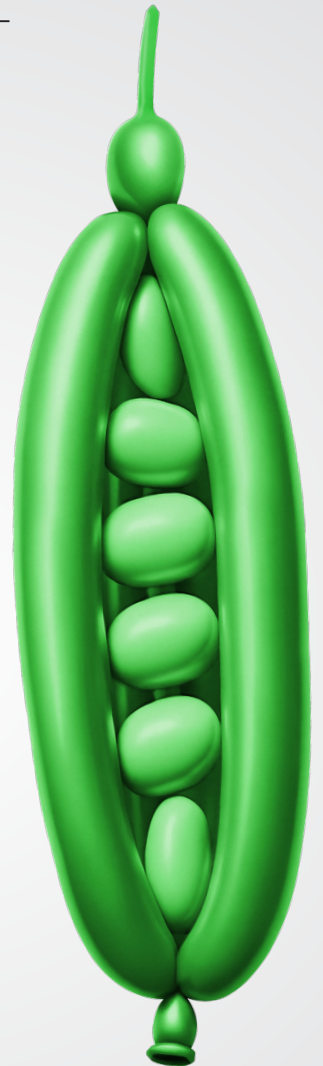
### Up and Down

- **Colonises the foliage**
- **Colonises the root system**
- Colonising the whole plant gives more consistent benefits



### Protects and Surrounds

- **Forms cysts to survive hostile conditions**  
Allows a wider range of compatibility with crop protection products
- **Produces a protective biofilm around the whole plant**  
Helping to maximise the colonisation process, protecting both plant and bacteria from harsh environmental pressures and harmful phytopathogens



**Add a breath of fresh air to your fertiliser strategy**

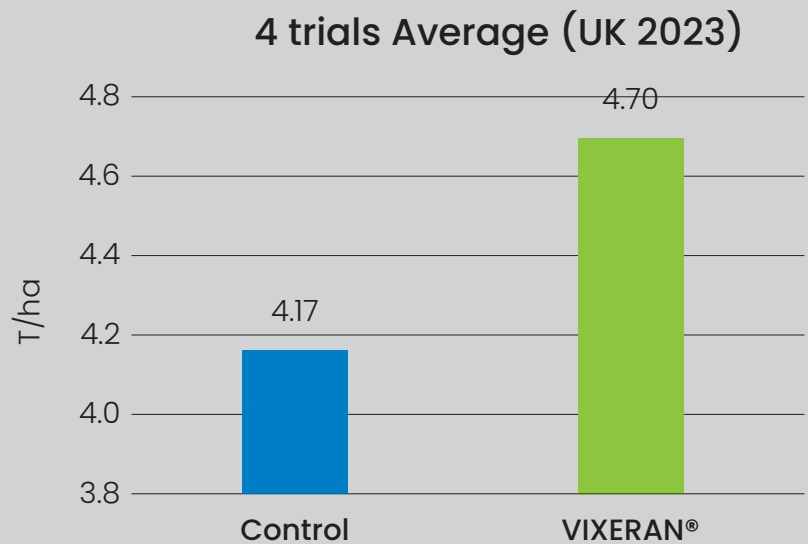
learn more at [www.syngenta.ie](http://www.syngenta.ie)

**syngenta®**  
Biologicals

Pulses provide their own nitrogen for growth and development, so how can VIXERAN® help?

**Understanding the relationship pulses have with the rhizobium in the nodules, highlights why VIXERAN® will help!**

- Nitrogen fixing nodules are normally formed 3-5 weeks post emergence and start to fix nitrogen as soon as they are formed
- Around the time of pod filling the nodules will gradually senesce and therefore stop fixing nitrogen
- However, pulses are a great source of protein and the demand for nitrogen is highest exactly when the nodules have senesced off, which means the plant robs the required nitrogen from the leaves
- This saps the plant of its photosynthetic yield building potential
- By supplementing the nitrogen-need with VIXERAN®, it reduces the burden on the leaves, allowing the plant to carry on photosynthesising and so increasing yield



**Strain**

***Azotobacter salinestris* Strain CECT9690**

<b>FORMULATION</b>	Solid, powder
<b>DOSE</b>	50 g/ha
<b>TIME OF APPLICATION</b>	Apply during periods of active crop growth Pulses GS14-60; Optimum at flower buds visible (GS51)
<b>APPLICATION</b>	Foliar
<b>ACTION</b>	Biological N-fixing (leaves/roots/rhizosphere)
<b>SHELF-LIFE</b>	24 months (at room temperature); longer in cold storage

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Always read the label and product information before use.

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