

#Navigating Nutrition

# ENHANCE NUTRIENT USE



Matching nutrition to your



**Crop  
requirements**



**Environmental  
needs**



**Twoxo XL is a unique award-winning signalling molecule designed to increase nitrogen assimilation in plants and up-regulate photosynthesis.**

The technology has many possibilities. It can increase crop establishment, growth and development, leading to increased yield and quality depending upon application, timing and dose. It is proven 2-oxo is superior to L-PGA, but the combination outperforms either separately.

**£68/ha**

*return on  
investment*

**100%**

*chance of a return  
on investment*

**12%**

*average  
yield increase  
(15 trials)*

# What does it do?

The 2-oxoglutaramate (2-OXO) technology stimulates the plant to increase both CO<sub>2</sub> uptake as well as nitrogen. This creates a similar crop effect to that of elevated atmospheric CO<sub>2</sub> levels, increasing biomass and yield.



## Application

CROP	TIMING	DOSE
Cereals	GS 30 – 32 (trials optimum GS31) *	1.0 l/ha
OSR	G bud – mid flowering (trials optimum) *	1.0 l/ha
Potatoes	Onset and mid bulking *	1.0 l/ha x 2

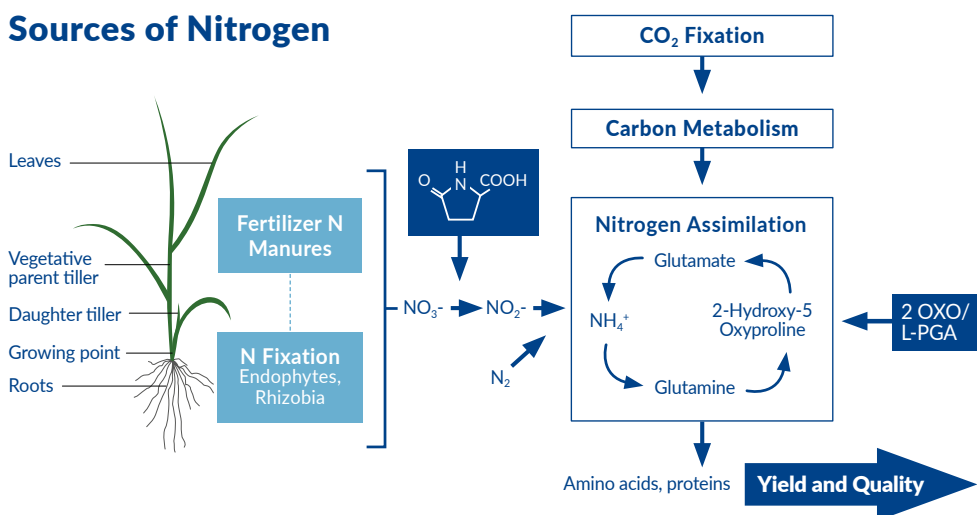
*\* Can be applied alone or with liquid N fertiliser*

***Enhance your nitrogen use efficiency  
and carbon sequestration to optimise  
crop production***

# How does it do it?

The unique combination of 2-oxo, L-PGA and  $\gamma$ -PGA work synergistically to enhance nutrient use efficiency, increasing the assimilation of nitrogen co-ordinated with  $\text{CO}_2$  fixation from photosynthesis. It is proven that 2-oxo is superior to L-PGA, but the combination outperforms either separately.

## Sources of Nitrogen



## Features



- Improved root and shoot mass
- Increases fertiliser uptake
- Increases nitrogen assimilation
- Increases photosynthesis = increased  $\text{CO}_2$  fixation

## Benefits

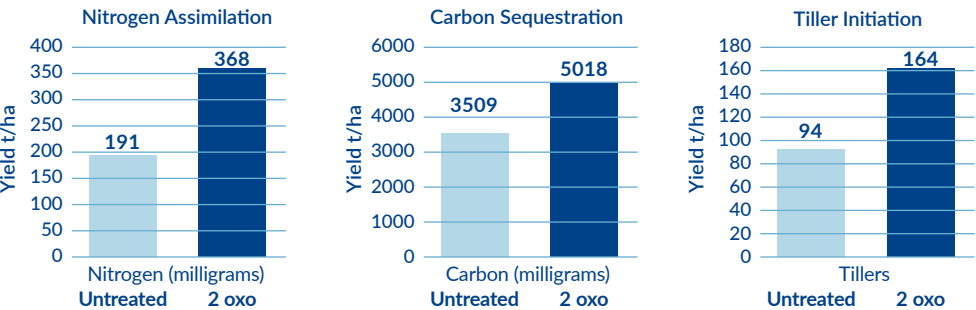


- Increases growth – tillers
- Increases leaf protein
- Improved nutrient use efficiency
- Increases seeds/ear
- Increases soil microbial biomass
- Enhances yield/quality

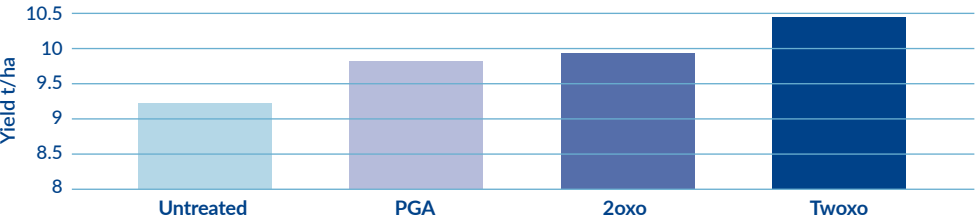


# Results

## Effect of 2-oxo on winter wheat



## Performance in the field



## Effect on components of yield

Treatment	Yield t/ha	Ears/ m²	Weight of Ear	Grains/ ear	TGW	Kg/HI	Hagberg	Protein	Screenings 2mm
Untreated	8.38	124.6	1.89	32.81	57.6	73.6	193	12.81	0.73
Twoxo	8.69	141.8	2.08	35.98	57.8	76	199	14.08	0.77

# Navigating Nutrition

Agrovista leads the way in progressive, cost-effective nutrient management. Years of research and development along with a tailored product range means we can provide expert advice on this complex area, working to match your crop requirements to environmental needs and your carbon footprint.

[www.agrovista.co.uk/nutrition](http://www.agrovista.co.uk/nutrition)

Matching  
nutrition  
to your



Crop  
requirements



Environmental  
needs



**TWOXO<sup>XL</sup>**



Talk to your local agronomist  
for more information or scan  
the QR code to view online.



## Agrovista UK Limited

Rutherford House  
Nottingham Science  
& Technology Park  
University Boulevard  
Nottingham, NG7 2PZ

**T:** 0115 939 0202  
**F:** 0115 939 8031  
**E:** [enquiries@agrovista.co.uk](mailto:enquiries@agrovista.co.uk)

[www.agrovista.co.uk](http://www.agrovista.co.uk)

**@AgrovistaUK**

