



New ways of thinking

Bioscience products

Tiros and
Voltek Bio

growing through **innovation**

Inspiring
change...

The ultimate plant nutrition duo

A combination of two complementary seed treatments offering the ultimate support for plant establishment and early nutrition.

How it works

By choosing to use Tiros and Voltek Bio seed treatments in combination, growers are addressing the biological and biostimulant requirements of a crop right from day one.

Tiros contains endophytes – the microorganisms found between living plant cells. Endophytes can influence a range of beneficial behaviours in a plant including fostering growth, fixing nitrogen and reducing the impact of abiotic stress.

Following considerable scientific research, endophytes can now be isolated, grown in culture and used to re-inoculate plants – the result of which is Tiros.

The specific bacterial endophytes found in Tiros have been carefully selected to fix atmospheric nitrogen and sequester other nutrients from the soil, living within the whole plant from roots to shoots. This results in improved root and shoot biomass, which leads to increased drought stress tolerance. Because the product optimises what is available in the soil, it reduces the reliance on artificial fertiliser products.

In contrast, Voltek Bio is a biostimulant seed treatment complex known as a metabolite, containing a unique blend of keto acid, amino acids and additional nutrients.

This metabolite complex boosts nitrogen and carbon uptake, to aid germination and support crop establishment. In doing so, it maximises the nutrients made available by Tiros, whilst helping to stimulate the plant to grow away from potential stresses and pressures.

Harnessing the power of these targeted products in combination provides a connected approach to early plant nutrition, helping growers to make the most of crop establishment.



Benefits

Using Tiros and Voltek Bio in combination offers the following benefits:

- **Improved nutrition uptake and efficiency**
- **Increased root and shoot biomass**
- **Supported plant establishment and early vigour**
- **Improved crop uniformity**
- **Resistance to stress**



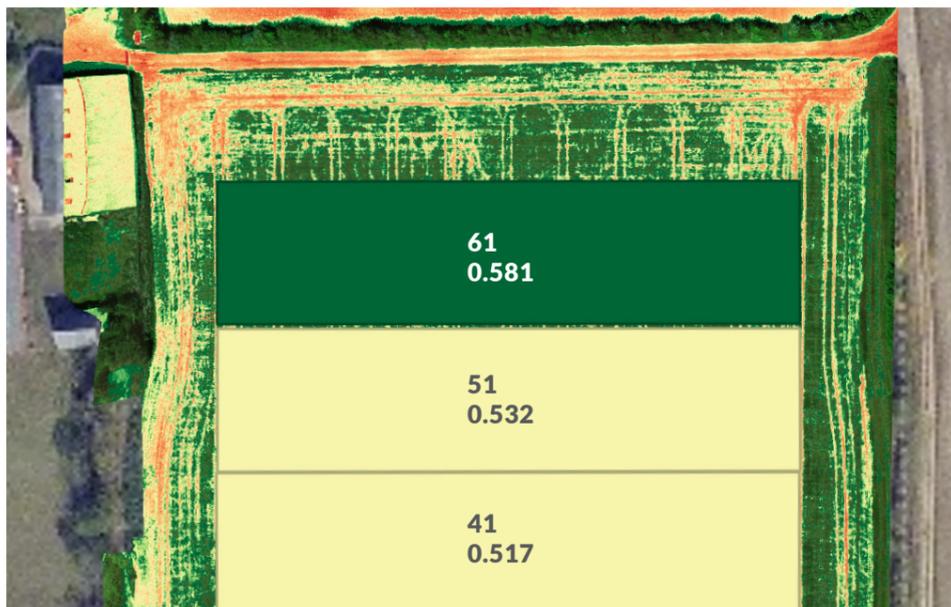
*Two complementary
seed treatments that
offer the **ultimate**
support for plant
establishment*



Results

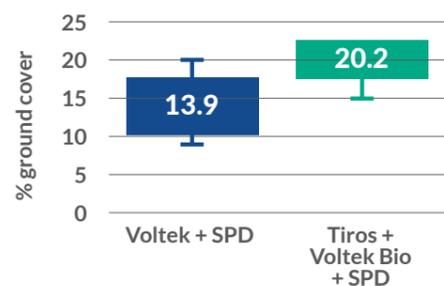
Using Tiros and Voltek Bio in conjunction with a single-purpose dressing (SPD) is shown to have a positive impact on vegetation condition, as shown by the below NDVI scan for a barley trial at Scotland Wood.

NDVI (Normalised Difference Vegetation Index) uses visible and near-infrared bands of electromagnetic spectrum to collect and analyse data, indicating levels of healthy vegetation.



This is further supported by these barley trial results from Haselbech in Northamptonshire, conducted using Canopeo - a green canopy measurement application.

% ground cover analysis in barley*



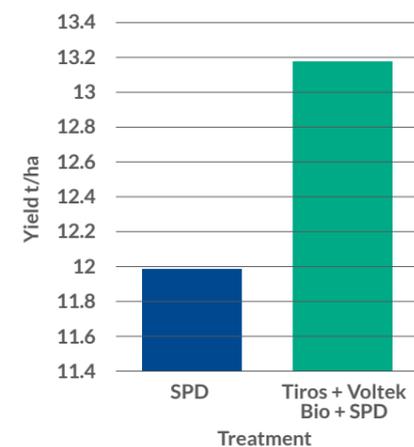
*Analysed at GS 23-25



What this means for you

A trial conducted in North Lincolnshire in 2019 on Shabras winter wheat shows a considerable increase in yield following the use of Tiros and Voltek Bio.

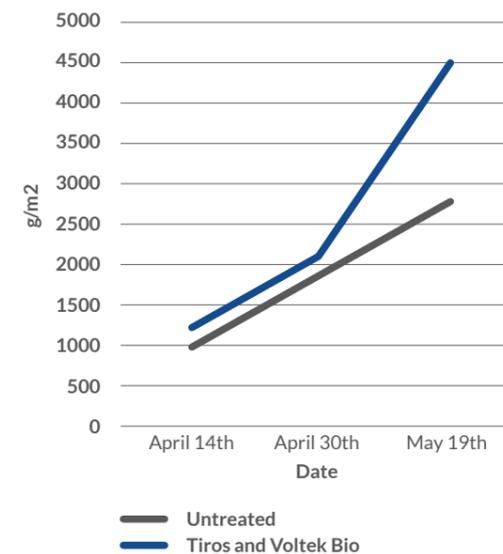
Impact on yield in winter wheat



Head of Research and Development, Craig Morgan said: "This seed treatment duo really is the ultimate in early nutritional support. Not only does it improve available nutrition, but it also improves the crop's ability to absorb it too. All direct to seed, from day one."

Demonstrating the improvement in shoot biomass, a winter wheat trial on Saki variety in Bedfordshire in 2020 shows an increase in g/m² when seed is treated with Tiros and Voltek Bio.

Winter wheat establishment - plant biomass g/m²



Application

Crop	Rate	Application
Cereals (including mobile seed dressing)	1.0l/t per product	Seed treatment

Other features

- Liquid formulation
- Fully genome mapped; no mammalian toxicity
- Can be applied either at seed plant or via mobile unit

Contact your local Agrovista agronomist today, to discuss our Innovation Range and how these exciting new products can support you.



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