



Insight

## Nitrogen Claims



# Managing nitrogen levels in agriculture through the use of biostimulants

Using Maxstim products means you can save money by using less fertiliser.

A plant's nutrient use efficiency can be improved whilst reducing the reliance on unsustainable levels of nitrogen-based fertiliser.

Nitrogen is a vital element, and one that is a key component in plant physiology, structure and in its processes, such as photosynthesis. It is a fundamental macronutrient. Ensuring there is adequate available nitrogen is essential for plant survival & achieving a good crop yield for the grower.

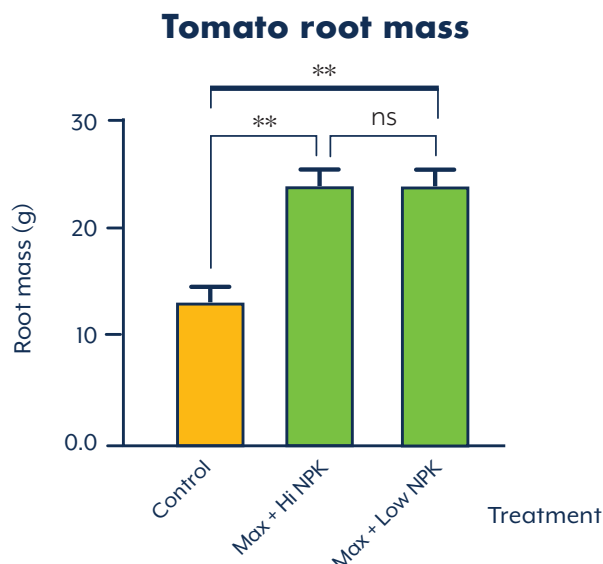
But there can be too much of a good thing. Its overuse can have a devastating effect on the environment. Maxstim has developed complex biostimulant formulas designed to aid plants in the efficient use of available nitrogen compounds, reducing the need for additional fertiliser inputs and subsequently protecting the environment from the disastrous effects of chemical leaching.

### The negative effects of nitrogen excess

1. Nitrogen pollution from soluble nitrogen compounds being washed through soil and leaching into the land and waterways
2. Increased greenhouse gas emissions from the production of synthetic nitrogen fertiliser on an industrial scale
3. Excess use of fertiliser reduces the diversity of soil microbes and therefore diminishes soil health

## How Maxstim is providing a solution

We have demonstrated that we can reduce nitrogen fertiliser inputs by up to 50% when Maxstim complex biostimulants are used. Our products encourage more efficient uptake of nitrogen into crops, removing some excess from the soil, and reducing the need to apply additional fertiliser inputs.



### The graph above shows it is possible to use lower levels of NPK:

- ✓ When treated with Maxstim, root mass is significantly increased
- ✓ There is no difference between the Maxstim treated crops with access to high levels of NPK and the crop group with a low access to NPK

Maxstim complex biostimulants work by providing plants with necessary micronutrients, as opposed to the macronutrients delivered by fertiliser. These micronutrients alter the plant physiology to improve plant health and efficiency in its life cycle. This includes improved access, use and metabolism of available nitrogen in the soil through better root structures, which subsequently improves the photosynthetic structures of a plant.



To find out more about Maxstim's economic and environmental benefits please contact:

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**Maxstim**  
Creating New Standards in Biostimulants