



BIOSTART: HARNESSING MICROBES TO SUSTAINABLY INCREASE YIELD

BioStart, a leading New Zealand AgriTech company, began developing their microbe-based products to help farmers with productivity and environmental issues 26 years ago. By backing up their biological approach with extensive trialling and scientific research they now have a range of products that harness naturally occurring microbes to improve plant and animal health and yields and help the environment.

Like so many Kiwi businesses, BioStart was started by a farmer with an original idea, a 'give it a go' attitude and a spare corner in the shed. In the 26 years since they started, their product range has broadened to include animal health prebiotics, silage preservatives, soil biostimulants, plant protection products and more.

BioStart's plant biostimulant range has long been shown to improve soils and yields in vegetable crops, and recent trials have further reinforced just how useful these products are for bringing the soil back to life for growers. The biostimulant products are based on fermentation extracts that activate the naturally occurring microbes in the soil or on leaves. The products were developed with growers so they can be used in existing programmes, which means growers can easily add a biological edge to their enterprise.

Chief executive and scientist Dr Jerome Demmer explains the link between microbes and plant growth and health: "Plants cannot grow without the help of microbes to absorb nutrients from the soil. There are naturally occurring microbes living in the root zone, inside the plant and on plant surfaces. They are essential to the plant's survival, but getting the right mix of microbes is key to increasing productivity or plant health."

BioStart's key soil biostimulant, **Mycorrcin**, is applied to soil around plants to improve plant health and resilience by stimulating soil microbes, including mycorrhizal fungi. Plantlets establish faster, with greater root growth leading to earlier cropping and higher yields. Additionally, mycorrhizal fungi help aggregate soils to improve structure.



Same age brassica seedlings where the upper row has been Mycorrcin treated

Their foliar biostimulant, **Foliacin**, enhances plant growth through stimulating the microbes on plant foliage to help improve recovery from chemical and environmental stress. Further, Foliacin optimises photosynthesis by aiding green leaf retention leading to greater growth, less rejects and higher yields.

Digester was developed to speed up the breakdown of crop trash or sprayed out cover crops. It activates naturally occurring saprophytic microbes which break down lignified cell walls. Digester speedily returns soil nutrient and improves cation exchange, soil moisture holding capacity as well as reducing disease transfer between crops, contributing to a better yield in the next crop.

The latest trials on broccoli and lettuce showed that applications of these biostimulants resulted in a yield improvement ranging from 8 to 11% with better crop uniformity and less rejects. In potatoes yields were increased an average of 11% over eight trials, whereas carrot and red onion yields were lifted by 15%.

Twenty-six years of developing products, scientifically testing and trialling them with commercial growers puts BioStart in the position of being able to support horticulture to be more productive while protecting and improving the environment. ●

For more information on BioStart products call **0800 116 229** or visit www.biostart.co.nz