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PRESS RELEASE

Bionetix® Presents Biological Farming Technologies for Better Fruit and Vegetable Yields

As the Northern Hemisphere growing season approaches, it is important for fruit and vegetable growers to reevaluate their crop maintenance techniques and consider new ways of fostering healthy crops. Instead of using pesticides, fungicides, and inorganic fertilizers, farmers can opt for more natural methods of boosting crop health. Bionetix® International helps growers do so through the use of biological farming technologies to boost fruit and vegetable growth.

Key Factors Affecting Plant Growth and Health

To understand how Bionetix® biologicals work, it is good to think about the keys to a healthy crop. Water, soil, and nutrients are some of the basic ingredients that support plant growth. However, many underlying issues can affect the ability of fruits and vegetables to take advantage of these resources. For instance, drought may put a strain on plants by limiting the amount of water

available. Soil may be deficient in organic matter and nutrients by its nature or from excessive farming. In addition, excessive use of fertilizers affects soil quality by the accumulation of excess nitrogen and phosphorus, which also reduces water quality and leads to eutrophication of lakes and rivers. Sometimes, existing nutrients are simply not in bioavailable form for plants to use.

Natural Biotechnologies in Action

Bionetix® employs naturally-derived ingredients to counter these problems. In addition to using natural fertilizers and soil amendments to stimulate microbial activity (biostimulation), Bionetix® adds beneficial non-pathogenic bacteria and enzymes to the soil (bioaugmentation) to help fertilize it in three ways:

- By digesting debris
- By creating more humic/fulvic acids
- By increasing bioavailability of macro and micronutrients
- By increasing nitrogen fixation

The same bacterial action can also improve soil structure for better root aeration. Other natural ingredients Bionetix® has used in agricultural products include beneficial fungi (e.g., mycorrhizae) that form a symbiotic relationship with roots, natural PGPR (plant growth-promoting rhizobacteria) that help plants grow, and natural wetting agents to reduce surface tension so plants can use water more efficiently under stress. The exciting benefits of Bionetix® biologicals go on to many other natural mechanisms that may show signs of improving disease resistance and boosting crop health.

Biostimulation with ORGANIC PLUS™

One highly effective all-natural plant biostimulant and soil microbial enhancer is ORGANIC PLUS™. It boosts the natural fertility of the soil by adding a high concentration of humic and fulvic

acids, marine plants, and other micronutrients, which help stimulate bacterial activity and play other beneficial roles such as

- Fertilizing soil
- Enhancing seed germination
- Promoting plant health
- Chelating and colloidalizing fertilizers (to promote better nutrient uptake)
- Enhancing root formation
- Enhancing bacterial activity
- Improving water availability

ORGANIC PLUS™ is also available with rhamnolipids (RH version), which add their own beneficial natural mechanisms to tackle various crop threats. Rhamnolipids have been shown to fight some fungal diseases in plants. ORGANIC PLUS™ should be applied early in the crop growth cycle as well as at five-day increments throughout the growing season for best results. It can also be used as a seed soak/dip or added to hydroponics water.

Bioaugmentation with SOIL-BAC™

SOIL-BAC™ takes a more proactive approach to agriculture health by adding both beneficial microorganisms and nutrients directly to the soil to increase active biomass and ensure healthy growth. As the microorganisms digest raw organics in the soil, more nutrients become available to help the plants grow, causing SOIL-BAC™ to function as a biofertilizer. SOIL-BAC™ contains mycorrhizae, fungi that form a symbiotic relationship with plant roots to improve nutrient and water absorption, and PGPR. SOIL-BAC™ can also help with nitrogen fixation and phosphorus solubilization and provides many other benefits to support plant production, health, and disease-resistance. Eight applications of SOIL-BAC™ are recommended throughout the season with the option of increasing the frequency and rate of SOIL-BAC™ additions for even more benefits.

ORGANIC PLUS™ and SOIL-BAC™ in Action

In the summer of 2018, a soybean and potherb mustard farmer in Japan decided to trial SOIL-BAC™ and ORGANIC PLUS™. The farmer was used to planting two crops per year, which put a strain on the soil and resulted in a very low 30 percent overall production rate on 12 acres (4.9 hectares) of land. The farmer wondered if SOIL-BAC™ and ORGANIC PLUS™ could suppress replant failure and chose half an acre (0.2 hectare) of a particularly bad field on which to test the two products.

Treatment of the field resulted in a finer, more stable soil aggregate with a higher oxygen content. Fewer weeds and no mold-like microorganisms were found growing. The soybeans in the test zone had extremely good germination and growth rates in spite of high temperatures, excessive drought, and soybean blight in other fields. Approximately seven acres (2.8 hectares) of soybeans withered outside the test zone, and replant failure was approximately 40 percent. In one field, replant failure was so high that 60 percent of the crop had to be discarded. These factors made it all the more amazing that the biologically treated area produced a 100 percent yield in a similar environment.

Take the Natural Path to Healthier Fruit and Vegetable Crops

While fruit and vegetable growers aim to have the most productive crops possible, it is good to be able to reduce the amount of pesticides and chemicals used. Bionetix® ORGANIC PLUS™ and SOIL-BAC™ make that possible by going beyond the benefits of inorganic fertilizers to harness natural biological mechanisms that enhance the fertility of the soil and support natural growth and disease-resistant processes. Contact Bionetix® today to learn more about these two specific natural plant health boosters for fruits and vegetables:

https://www.bionetix-international.com/contact-us/

Keywords: Bionetix, biological farming, better fruit and vegetable yields, natural fertilizer, natural soil amendment, biofertilizer, plant growth promoting rhizobacteria, boosting crop health, mycorrhizal fungi benefits, fruit and vegetable growers

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Bionetix® International is a Canadian-based company that produces biological products used in thousands of field applications worldwide. We promote a healthy environment by providing superior, environmentally friendly alternatives to current treatment methods. Our customers are able to clean and remediate contaminated systems or boost agricultural productivity in a cost-effective, natural, and non-intrusive way through the application of our biological products. Headquartered in Quebec, Canada; Bionetix International is a subsidiary of Cortec® Corporation. ISO 9001:2015 Certified.

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