

The BioAg Alliance readies new microbial solution to improve corn harvests

07 January 2016 | News | By BioSpectrum Bureau

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The BioAg Alliance, Novozymes' and Monsanto's collaboration to improve crop harvests through naturally-occurring microbes, announced results from its 2015 field trial program.

Those results included a corn inoculant product, which increased yields by an average of 4 bushels per acre in US field tests.

The product is based on a fungus found in soil and researchers from the two companies have found a way to coat the microbes on corn seeds without harming the microbes' performance or longevity.

The Alliance plans to launch the new solution in the United States in 2017.

"The BioAg Alliance is focused on identifying ways that soil microbial solutions can deliver improved harvests from existing land," said Mr Brad Griffith, Vice President of Global Microbials for Monsanto. "This work is critically important to farmers as they work to meet demands and preserve their soil system. This breakthrough collaboration is unlocking new insights into soil microbial candidates to benefit farmers and our work with this corn seed inoculant is a great example of the results of our combined research."

World's largest microbe research program

Microbial-based solutions are derived from various microbes such as bacteria and fungi.

The BioAg Alliance markets two types of microbial products: Inoculant products, which help plants with nutrient uptake, and biocontrol products, which help protect plants against pests and diseases.

The products can be applied to seeds before planting, applied to growing crops or applied to soil in-furrow.

The companies said that they can be used by farmers that grow broad acre crops such as corn and soy, and on fruits and vegetables.

Microbial products can increase crop yields and can complement or replace agricultural chemicals and fertilizers.

The BioAg Alliance is currently running the world's largest microbial research program to develop the next generation of these products.

In 2015, the Alliance tested more than 2,000 microbial strains across 500,000 field trial plots in more than 50 locations in the United States.

The companies said results from its US field trial program showed its top new microbes increased corn yields by an average of 4-5 bushels per acre and soy yields by an average of 1.5 bushels per acre.

The BioAg Alliance expects to continue testing thousands of strains across a broad range of environments in extensive US field trials in 2016.

"I believe we will witness a microbial revolution in agriculture", said Dr Thomas Schpfer, Vice President of BioAg research at Novozymes. "The world needs to produce more crops from our arable land while using fewer resources. The more we learn about microbes and their symbiotic relationships with plants, the more we realize how key they are to this challenge."

Today, The BioAg Alliance's products are used on around 65 million acres, but Monsanto and Novozymes envision that their products will be used on 250-500 million acres globally by 2025.

The agricultural market for microbials is estimated at \$1.8 billion, while the market for traditional fertilizers and pesticides totals \$240 billion.