Media Contact
Greg Leaf
(651) 271-2511
greg@groupleaf.com

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FOR IMMEDIATE RELEASE

Crop Microclimate Management to patent powerful new stress relief technology

Building upon its PHOTON® foliar spray abiotic stress relief technology launched in 2015, Crop Microclimate Management announces a patent-pending technology combining PHOTON with a second active that impacts a separate plant pathway.

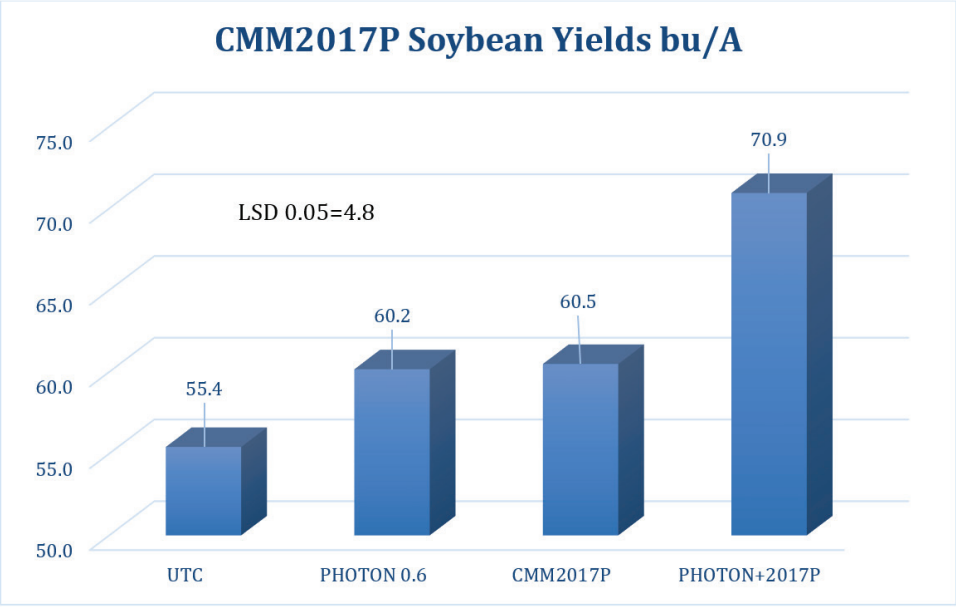
This dual mode-of-action combination affects two separate pathways that trigger stress responses and signals the plant to defend against the perceived stressors, improving plant vigor, yield and crop quality. The two pathways are the nitric oxide (NO) and reactive oxygen (ROS) channels.

"These combined pathways interact in a complex fashion in the plant," says Crop Microclimate President Chuck Kupatt, PhD. "Our proprietary blend of two compounds take advantage of the interaction to reduce the impact of adverse environmental conditions to increase crop yields and improve the quality of grain, fruits and vegetables."

Dr. Kupatt notes this new technology will be available to U.S. producers in 2019 or 2020. A patent application covering various synergistic mixtures has been submitted to the USPTO.

Research

Research trials conducted in North Carolina and replicated in the Southern Hemisphere in row and horticultural crops confirm a synergistic relationship between PHOTON and CMM2017P compound.



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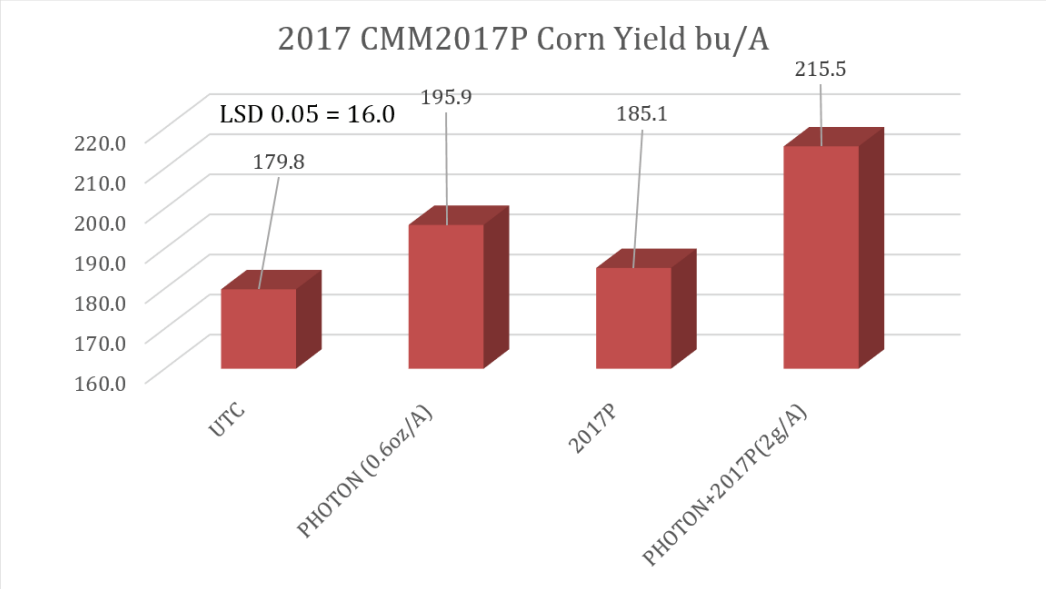

Compounds were applied at between V5-6 growth stage in both soybeans and corn. PHOTON was applied at 0.6 oz./A. The trials were randomized complete block design with five replications.

The combined product showed soybean yield increase to 70.9 bu/ac, a more than 10 bu/ac increase over PHOTON and 15 bu/A over the control. In corn, similar advantages showed 215.5 bu/ac over 195.9 (PHOTON) and 179.8 for the control.

Preliminary results from Southern Hemisphere trials in apples, tomatoes, table grapes, potatoes and corn and soybeans have shown similar results.

What is PHOTON?

CMM's exclusive G3 technology found in PHOTON® is based upon a class of natural plant compounds, dicarboxylic acids. Effective at very low rates – just 4-8 grams/A of the active ingredient – this globally proven technology provides a low-cost, efficacious and naturally occurring non-pesticide alternative to existing yield-enhancing products.

PHOTON temporarily stimulates key stress sensing enzyme systems in plants, so that they are prepared to react quickly and effectively to yield-robbing environmental stresses. This includes excessive temperatures, drought, salinity and high radiation.

A foliar spray, PHOTON is a blend of dicarboxylic acids--compounds that occur naturally in plants. PHOTON is taken up by the plant within 24 hours of application. In row crops, a single timed application increases crop yield and quality. In horticulture, this product should be used as a season-long program to continually maintain protection against abiotic stress.

What is CMM2017P?

CMM2017P is one of a group of compounds that alter the content of NO levels in plants. It is a modified amino acid, with low toxicity and is applied at low rates in combination with G3 Technology. These compounds generally do not provide abiotic stress management activity when applied alone. CMM is working on a finished formulation containing the two technologies.

For more information, please visit photonyield.com.

About Crop Microclimate Management

Crop Microclimate Management is based in Apex, N.C. Learn more at www.cropstress.com