MACRO-PHITE®

PERFORMANCE PHOSPHITE

Macro-PHITE is a double-action fertilizer formulated to increase a plant's resistance to biotic and abiotic stresses.

Macro-PHITE contains phosphite derived from potassium hydroxide and phosphorous acid, along with a specific complex of Macro-Sorb L-amino acids for added plant health benefits and improved product performance.

Guaranteed Analysis

Total Nitrogen (N)..... 1.00%
1.00% Water Soluble Nitrogen
Soluble Potash (K_2O)..... 20.00%

Amino Acid Content
Free Amino Acids (Total)..... 4.00%

Derived from: Potassium Phosphite and Protein Hydrolysate

Rate:

Apply 1.0 - 1.5 oz. per 1000 sq. ft. every 14-21 days for maintenance applications before the onset of biotic or abiotic stresses. Apply 1.5 - 2.0 oz. per 1000 sq. ft. every 7-14 days when environmental conditions favor turfgrass stress. Apply with enough water to uniformly distribute Macro-PHITE to turf canopy.

MACRO-SORB® TECHNOLOGIES LLC™

Macro-Sorb Technologies LLC
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ADVANCED AMINO ACID NUTRITION™

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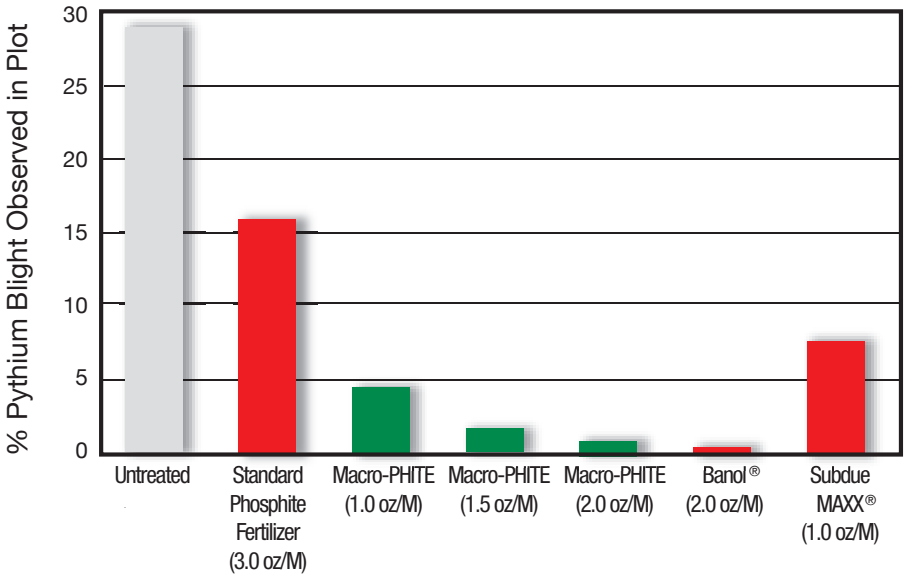
Key Benefits:

- Taken up by plant roots or shoots – Highly mobile within the plant
- Macro-Sorb amino acids promote efficient phosphite ion uptake and elevate natural defense mechanisms within the plant
- Excellent tank mix compatibility
- Amino acid complex helps prevent phosphite oxidization to provide a more stable compound compared to standard phosphite fertilizers

Pythium Blight Observed Following Treatments



Treatments were applied as a foliar spray application (at given rates) every 14 days to Perennial Ryegrass maintained at fairway mowing heights. Macro-PHITE provided exceptional plant health results compared to the standard potassium phosphite fertilizer treatment.

Phosphite Fertilizer Evaluation, 2015, Steve McDonald, MS, Turfgrass Disease Solutions LLC

Banol is a registered trademark of Bayer Crop Science LP.
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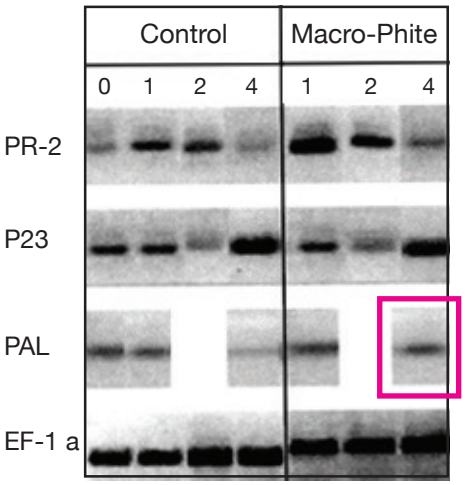
Real-time PCR to Determine Defense Gene Expression



Defense gene expression 1,2, and 4 days following Macro-Phite application

PCR is a common analytical method for determining gene expression in plants. Following applications of Macro-PHITE, defense genes were expressed, particularly at 4 days after treatment. Notice how the gene PAL is expressed 4 days after treatment of Macro-PHITE compared to the untreated control. PAL (Phenylalanine ammonia-lyase) is a well-known gene that promotes many natural defense mechanisms in plants.