

## MACRO-SORB® FOLIAR

Macro-Sorb Foliar delivers high-concentration free amino acids in a formulation specifically designed to promote plant health benefits while enhancing the performance of tank mix products.

- ◆ Biologically active free amino acids are immediately available to support critical plant functions
- ◆ Enhances photosynthetic capacity and increases a plant's tolerance to stress
- ◆ Pharmaceutical-grade manufacturing process guarantees consistent ratios of free L-amino acids
- ◆ Improves the efficiency of nutrients and other products by enhancing their foliar absorption and translocation



### Guaranteed Analysis

Total Nitrogen (N).....	2.00%
0.1% Nitrate Nitrogen	
1.9% Other Water Soluble Nitrogen	
Boron (B).....	0.02%
Manganese (Mn).....	0.05%
0.05% Water Soluble Manganese (Mn)	
Zinc (Zn).....	0.06%
0.06% Water Soluble Zinc (Zn)	

### Amino Acid Content

Free Amino Acids (Total).....	9.30%
Natural Amino Acids (Total).....	12.00%
Organic Matter.....	14.80%

Derived from: Protein Hydrolysate, Boric Acid, Manganese Sulfate, and Zinc Nitrate

### Rate:

Apply 1–2 oz. per 1,000 sq. ft. every 7–14 days throughout the growing season. During prolonged periods of stress, apply 2 oz. per 1,000 sq. ft. weekly.



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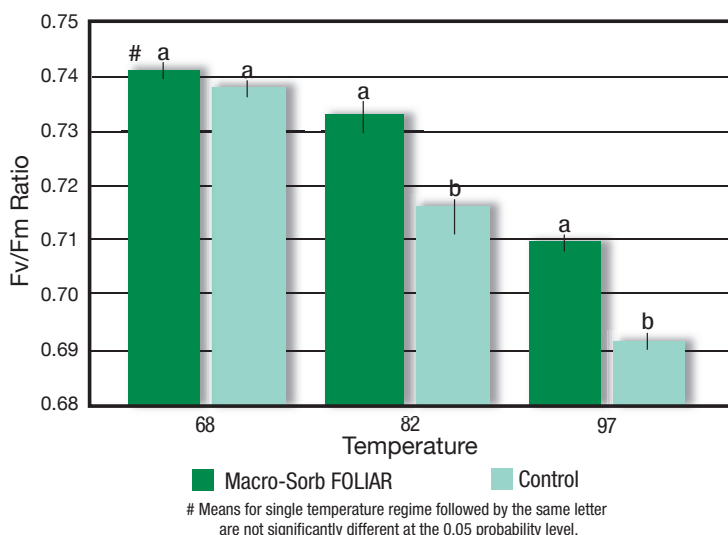
# MACRO-SORB® FOLIAR

## WHEN TO USE:

- ◆ Prior to abiotic stress - enhances photosynthetic capacity leading to greater carbohydrate production
- ◆ During applications of PGR's, systemic fungicides, herbicides and fertilizers - improves the performance of all systemic agrichemicals
- ◆ During periods of intense stress including heat, drought, and cold - helps the plant conserve energy and survive during extreme abiotic stresses

## Improves Heat Stress Tolerance

### Increased Photosynthetic Efficiency



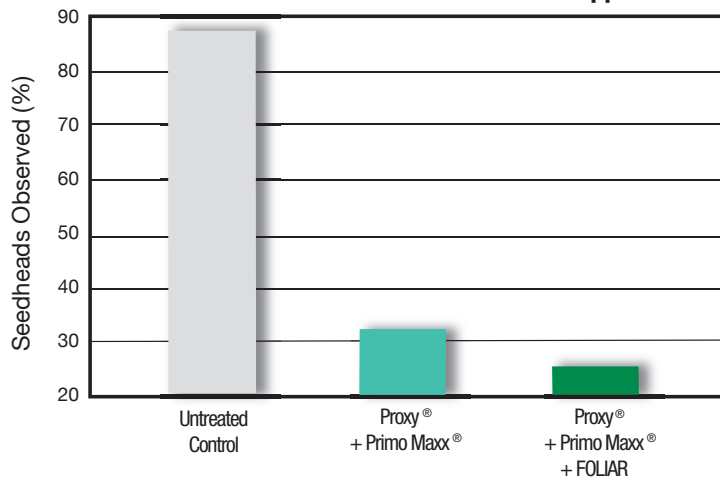
This study, which was published in the peer-reviewed scientific journal, *Crop Science*, demonstrates how Macro-Sorb Foliar improves the ability of turfgrass to photosynthesize during heat stress, compared to control (no amino acids) turfgrass plants.

**When turf undergoes heat stress, Macro-Sorb Foliar improves the ability of the plant to photosynthesize, a critical function for the survival of the plant during stressful periods.**

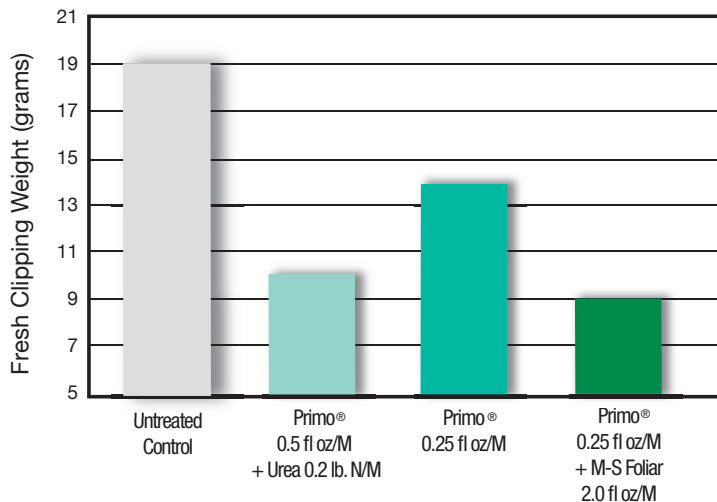
Chart at left: "Effects of a Biostimulant on the Heat Tolerance Associated with Photosynthetic Capacity, Membrane Thermostability, and Polyphenol Production of Perennial Ryegrass" Published in *Crop Sci.* 47:261-267 (2007). Turfgrass Science © Crop Science Society of America

## Enhances Performance of Foliar-Applied Agrichemicals

### Macro-Sorb Foliar Enhances Seedhead Suppression



### Macro-Sorb Foliar Improves PGR Efficacy



When Macro-Sorb Foliar is tank mixed with Plant Growth Regulators, enhanced effects are observed. When using Proxy/Primo for annual bluegrass seedhead suppression, a 25% increase in seedhead suppression is observed when Foliar is added, compared to Proxy/Primo alone (Left Graph). When Macro-Sorb Foliar is tank mixed with a half rate of Primo, growth suppression is equivalent to a full Primo rate without Foliar (Right Graph).

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