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Proven Results™

TECHNICAL BULLETIN

USING GRIGG™ PROVEN FOLIAR® NUTRIENTS FOR NUTRITIONAL IPM AND SUMMER STRESS MANAGEMENT

An Overview of Nutritional IPM (Integrated Pest Management)

The primary goal of Nutritional IPM is to create healthy turf plants that require less chemical inputs to withstand pressure from diseases, nematodes, insects and weeds. The focus is on maintaining optimum plant health, particularly during periods of environmental stress, while using pesticides correctly. This is accomplished by maintaining complete and balanced mineral nutrition and other technologies to enhance plant resistance to both abiotic and biotic stress.

In recent studies, the use of GRIGG Proven Foliar nutrients on a program basis has demonstrated outstanding turfgrass performance in the presence of fungal organisms that cause pink snow mold, anthracnose and pythium, as well as damaging nematodes. Proven Foliar nutrients provide unsurpassed nutrient uptake efficiency that optimizes agronomic performance and visual quality of the turf, without the added expense of costly chemical protectants.

GRIGG's Nutritional IPM and Summer Stress Program is an optimized training program for the turf and utilizes specially formulated and targeted nutrients, hormones, and proprietary GRIGG™ Elicitor® compounds.

References

Gaussoin, R., C. Schmidt, K. Frank, T. Butler, H. Liu, W. Jarvis, and C. Baldwin. 2009. Foliar uptake of nutrients applied in solution to Creeping Bentgrass (*Agrostis palustris* Huds.), Annual bluegrass (*Poa annua* var. *reptans* (Hauskn.) and Ultra-Dwarf Bermudagrass (*Cynodon dactylon* x *C. transvaalensis* Burt- Davy). *International Plant Nutrition Colloquium* (University of California Davis). Paper 1396.

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GRIGG™ Proven Foliar® Nutrients

GRIGG Proven Foliar nutrients are formulated with a proprietary blend of natural organic compounds that chelate and complex the nutrients. This assists in the vascular transport of nutrients and keeps them mobile and available for plant use. Proven Foliar nutrients have been proven to increase nutrient use efficiency (Gaussoin, 2009), which enhances plant nutrient utilization and performance and limits nutrient leaching. Proven Foliar nutrients also provide maximum compatibility and plant safety.

Not all phosphite containing products are created equal, and turf managers should select products proven to get results. GRIGG Proven Foliar nutrients such as GRIGG™ P-K Plus® provide effective, efficient and safe nutrient and phosphite sources (Gaussoin et al., 2009).

GRIGG Summer Stress Nutrition Program

This program is designed for use on golf course putting greens and tees, and also sports fields. The following GRIGG Proven Foliar nutrients should be applied every 7-14 days:

- **GRIGG™ Ultraplex®** - 3 fl oz / 1,000 FT²
- **GRIGG™ PK-Plus®** - 6 fl oz / 1,000 FT²

Ultraplex is a foliar 5-0-3 with 1.0% Fe, 0.1% Mn, plus a buffering agent, non-ionic surfactant and biostimulant package. The buffering agent allows the spray tank solution to resist changes in pH, while the surfactant maximizes application intake. The biostimulants enhance turfgrass tolerance to abiotic stress.

P-K Plus is a foliar 3-7-18 and 14% phosphite formulations. The nitrogen, phosphorous, potassium and phosphite improve plant health. Phosphites also stimulate antioxidant and phytoalexin production, which enhance plant defense mechanisms.