

# STERLING®

GeneResponder® Nutrient Technology

Foliar Application Only – for turf, flowers trees & Shrubs

## Guaranteed Analysis:

Total Zinc as (Zn) . . . . .	0.40 %
0.40% water soluble zinc	
Total Manganese as (Mn) . . . . .	0.75 %
0.75% water soluble manganese	
Total Iron as (Fe) . . . . .	0.50 %
0.50% water soluble iron	
Total Copper as (Cu) . . . . .	0.12 %
0.12% water soluble copper	
Total Sulfur as (S) . . . . .	1.20 %
1.20% combined sulfur	

Derived From: Zinc Sulfate, Manganese Sulfate,  
Ferrous Sulfate and Copper Sulfate

Micronutrients above allow plants to utilize the formulation in building the defense mechanism within the plant. The nutrients drive the blend of propriety ingredients into the plants.

## Additional Ingredients:

- Blend of propriety bacterial fermentation
- Plant specific amino acid
- Plant enzymes
- Biopolymers for plant affinity
- Surfactants

Store between 40° - 110° F

**F1650**

**SHAKE WELL BEFORE USING**

## Direction for Use:

Sterling® is a GeneResponder® chemistry that works within the plant to improve its overall health and natural defense mechanisms against diseases. Plants in general defend themselves against natural pathogens in the environment. However, pathogen populations typically change forms and constantly challenge the natural defense mechanisms of plants. Sterling GeneResponder Nutrient Technology aids plants to develop its' natural proteins that aid in the defense mechanisms of plants and works naturally to defend against pathogens. Healthier plants are better suited to withstand environmental stress, while resisting pathogens. Sterling targets the overall health of both monocots and dicots while ignoring the pathogens that attack the plants.

Sterling does not perform on the pathogens. It strictly focuses on the host (plant). Sterling is systemic throughout the plant and leaves no residues on the surface or in the plant to challenge the environment.

**Diseases that attack turf** - to include bentgrass, fescue, bermudagrass, zoysiagrass, St. Augustine, ryegrass, bluegrass, bahiagrass, centipede and other monocots (nursery and landscape plantings) are generally as follows:

- |               |                           |                     |
|---------------|---------------------------|---------------------|
| • Dollar spot | • Take-All patch          | • Anthracnose       |
| • Fusarium    | • Leaf spot               | • Zoysiagrass patch |
| • Brown patch | • Cool season Brown patch | • Gray leaf spot    |

Turf is generally susceptible to diseases caused by pathogens when the resistance potential protein within the plant is at a minimum. Sterling GeneResponder Nutrient Technology improves the health of the plant which maximizes its' resistance potential against disease causing pathogens. Protein in the plant that centers on the resistance (R) gene improves the mechanism to defend itself from common virulence mechanisms of pathogens, such as adhesion, penetration, and invasive growth. The only natural mechanism the plant has is to become healthy and avoid the unnatural application of a fungicide.

Nursery, landscape plantings, trees and seasonal color beds are all susceptible to foliar diseases when conditions are ideal or the plants themselves (host) are not nutritionally balanced which inhibits the resistance mechanism within the plant. Like monocots, dicots that are maintained with the best health naturally resist diseases and continue to grow without the negative effects from diseases.

### Diseases that attack leaf surfaces in landscapes and nurseries:

- Powdery mildew
- Blossom rot
- Anthracnose
- Cercospora
- Rust
- Leaf spot
- Alternaria
- Botrytis
- Cylindrocladium
- Rhizoctonia, stem and leaf
- Scab (Venturia)
- Septoria leaf spot

Sterling is designed to be applied and absorbed through the leaf surface. Sterling is not intended to be applied to soil surface, subsoil or blended in a soil mixture. Sterling performs through green surface tissue of the plants. Sterling will reduce the effect of stress on the plant due to high temperature, drought and nutrient imbalance within the plant. Sterling does not perform on plants that are dormant. The plant, while treated with Sterling, will defend against diseases that often attack plants under stress.

### Sterling Application Rates:

Grasses and Monocot Application– Commercial turf, golf courses (greens, tees and fairways), residential turf, sports turf and ornamental grasses in landscape and nursery plantings.

Make a foliar application of Sterling at 16 – 20 ounces per acre. Apply Sterling every 30 days during the growing season, or more often, if desired. Sterling should never be applied less than 16 ounces per acre or (.37 oz. per 1,000 sq. ft.) during any application time. Specific amounts and timetables must be followed to gain results.

(Dicots) Nursery, Landscape plantings, trees and flowers– Apply 16 – 32 ounces per 100 gallons of spray mixture. The 100 gallon of spray solution should be applied to wet, not runoff, on approximately 1 acre in nursery plantings. Spray to wet not runoff. Sterling will be absorbed into the foliage and develop a unique GeneResponder mechanism to improve the overall health of the desired plants. Sterling Nutrient Technology is a blend of specific amino acid, enzymes, and micronutrients that are used to drive the product within the plant, thus creating the GeneResponder mechanism. The product moves rapidly throughout the system of the plant to produce healthy plants that naturally defend themselves against

pathogens. As stated above, Sterling does not control the pathogen, but works throughout the plant improving the plant's natural defense system. Sterling targets the overall health of the plant while ignoring the pathogen that affects the plant.

**Notice to User:** Monarch Scientific provides the information contained herein in good faith but makes no representation as to its' comprehensiveness or accuracy. Plant tolerance to Sterling has been found to be acceptable on all turf grasses, trees, flowers and shrubs on which it has been tested. Due to the large number of species and varieties of turf grasses and other plants, it is impossible to test every one for tolerance to Sterling or in all states or under all conditions. Neither the manufacturer nor the seller has determined whether or not Sterling can be used safely on plants not specified on this label. Users should test specific plants or location to determine the suitability of this information for their particular purpose (e.g., if you are not sure of the application method, plant or conditions). The professional user should determine if Sterling can be used safely prior to commercial use. In a small area test the recommended rates on a small number of plants for phytotoxicity prior to widespread use. Before using Sterling in tank mixture with other products, test the mixture on a small number of plants for phytotoxicity prior to widespread use.

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