

Insignia® SC Intrinsic™ Brand Fungicide

 **BASF**
The Chemical Company

New Liquid Formulation Delivers Both Disease Control and Plant Health Benefits

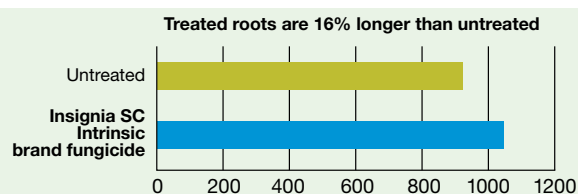
Insignia® SC Intrinsic™ brand fungicide controls an exceptionally broad spectrum of turf diseases with long-term results. In fact, **Insignia SC Intrinsic brand fungicide** has shown excellent residual control on many turf diseases, helping to reduce your labor costs and enhancing peace of mind. **Intrinsic** is a brand of products from BASF that provide disease control and plant health benefits.

As such, in addition to disease control, **Insignia SC Intrinsic brand fungicide** also offers plant health benefits. Research shows turf treated with **Insignia SC Intrinsic brand fungicide** provides improved plant health in the form of stress management. This includes drought/moisture, temperature extremes and mechanical stress such as aeration.

In addition, research also shows turf treated with **Insignia SC Intrinsic brand fungicide** has increased root length and density. **Intrinsic** brand fungicides prime the immune system of the turfgrass before an event. This helps the plant and root system endure the stress event and overcome the stress through root system retention. When used as directed, **Insignia SC Intrinsic brand fungicide**:

- Controls key turf diseases for up to 28 days
- Delivers better control of the top 5 diseases
- Is rainfast within one hour
- Easier handling and mixing
- BASF is the first company to have fungicides in the turfgrass market with plant health benefits on the label

BENTGRASS TOTAL ROOT LENGTH (cm) Under Drought Stress



6 US trials: A-1, Penncross, Colonial and SR1119 creeping bentgrass
CA, IL, TN in 2009

Use Sites:

Turf: Golf courses

(refer to product label for information on other use sites)

Formulation: SC (Suspension Concentrate)

Packaging: 4 x 30.5 oz., 4 x 122 oz., 2 x 2.5 gal., 1 x 5 gal.

Active Ingredient: Pyraclostrobin

Chemical Family: Strobilurin

Mode of Action: Affects the QoI site in fungal cell mitochondria, inhibiting electron transport and respiration, resulting in cessation of fungal growth.

Behavior in Plant: Acts as a penetrant with translaminal movement following foliar applications. Active ingredient is absorbed and held tightly in lipophilic layer and released slowly over time to provide long-term control. **Insignia SC Intrinsic brand fungicide** has shown to be active on foliar and root diseases through spray and drench applications (root and crown diseases only).

Use Rates: 0.4 to 0.7 fl. oz. per 1,000 sq. feet

Signal Word: WARNING

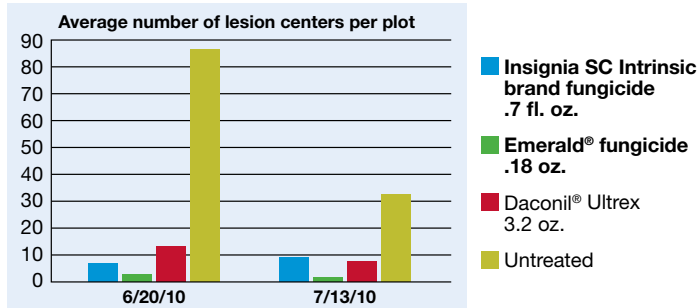
REI: 12 hours

PPE: Long-sleeved shirt and long pants;
chemical-resistant gloves;
shoes and socks

 **Insignia® SC**
Intrinsic™ brand fungicide

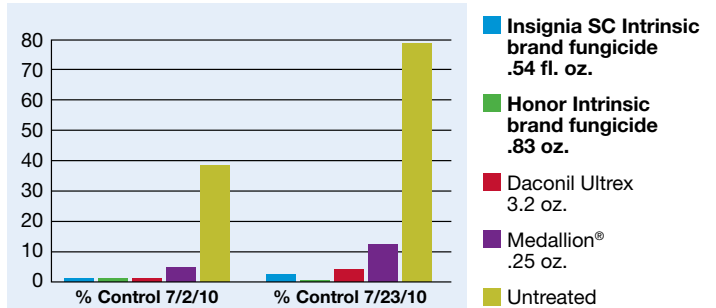
Insignia® SC Intrinsic™ Brand Fungicide Gets Results

Insignia SC Intrinsic Brand Fungicide Provides Excellent Dollar Spot Suppression on a Bentgrass Green



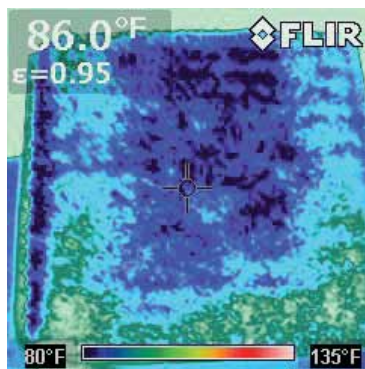
Products applied on a 14-day schedule
Initial application made on 5/27/10
Rates are in oz. of product per 1000 sq. ft.
Rutgers University, 2010

Insignia SC Intrinsic Brand Fungicide Provides Excellent Brown Patch Control On A Colonial Bentgrass Fairway

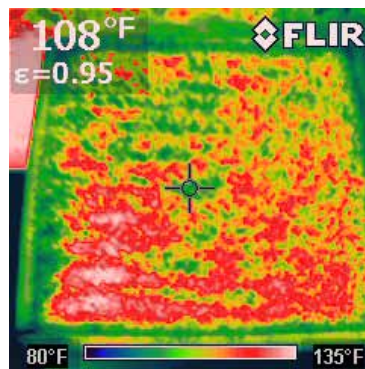


Products applied on a 14-day schedule
Initial application made on 6/3/10
Rates are in oz. of product per 1000 sq. ft.
Rutgers University, 2010

INFRARED PHOTOGRAPHY AFTER SIX DAYS OF DROUGHT ON BENTGRASS TURF SHOWS A 22° F DIFFERENCE IN CANOPY TEMPERATURE



Insignia SC Intrinsic brand fungicide



Untreated

The Insignia SC Intrinsic brand fungicide treated turf is able to tolerate the drought stress and cool itself through normal evapotranspiration. The untreated turf shuts down, not allowing for normal cooling, causing an elevation in canopy temperature.

Average Temperature of Canopy - Photos taken on same date.
Trial Work in Center Valley, CA - 2010. Photo courtesy of Buzz Uber.

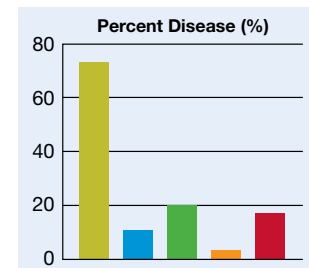
Diseases Controlled*

Insignia SC Intrinsic brand fungicide controls key diseases up to 28 days, reducing labor and materials costs. This broad spectrum of diseases includes:

- Anthracnose
- Bentgrass Dead Spot
- Brown Patch
- Brown Ring Patch
- Fairy Ring
- Fusarium Patch
- Gray Leaf Spot
- Gray Snow Mold
- Leaf Spot
- Melting Out
- Necrotic Ring Spot
- Pink Patch
- Pink Snow Mold
- Powdery Mildew
- Pythium Blight
- Pythium Root Dysfunction
- Rapid Blight
- Red Thread
- Rhizoctonia leaf or sheath spot
- Rust
- Summer Patch
- Take-All Patch
- Yellow Tuft
- Aids in Control of Bermudagrass Decline
- Dollar Spot Suppression

*Consult label for details on any diseases you encounter.

Creeping Bentgrass Brown Patch Control



Dr. S. Bruce Martin, Clemson Univ.
6 applications June-August 2009, 14-d interval; Evaluated August 12, 2009

- Untreated
- Insignia SC Intrinsic brand fungicide .54 fl. oz.
- Trinity SC fungicide 1.0 fl. oz.
- Insignia SC Intrinsic brand fungicide + Trinity SC fungicide .54 + 1.0 fl. oz.
- Signature + Daconil Ultrex 4.0 + 3.2 oz.



Insignia SC
Intrinsic™ brand fungicide

Always read and follow label directions.

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