



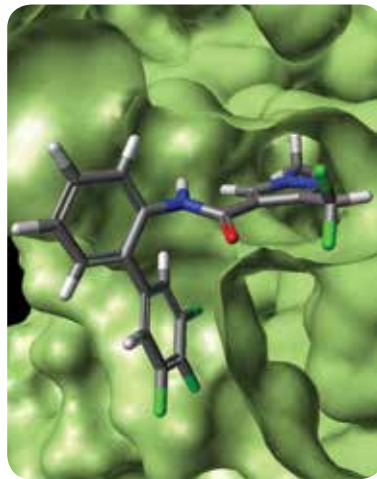
 **BASF**
The Chemical Company

Lexicon™ Intrinsic™ brand fungicide

Lexicon™ Intrinsic™ brand fungicide from BASF was developed by combining the latest in carboxamide technology — **Xemium® fungicide** with the power of **Insignia® Intrinsic™ brand fungicide**. Building on our experience with **Honor® Intrinsic™ fungicide**, BASF has created a new broader spectrum and more active combination fungicide resulting in improved plant health.

Xemium: Key Technical Characteristics

- Active ingredient: Fluxapyroxad
- Mode of action (see right)
- Redistribution and continuous supply of fungicide in the leaf
- Active on multiple fungal development stages

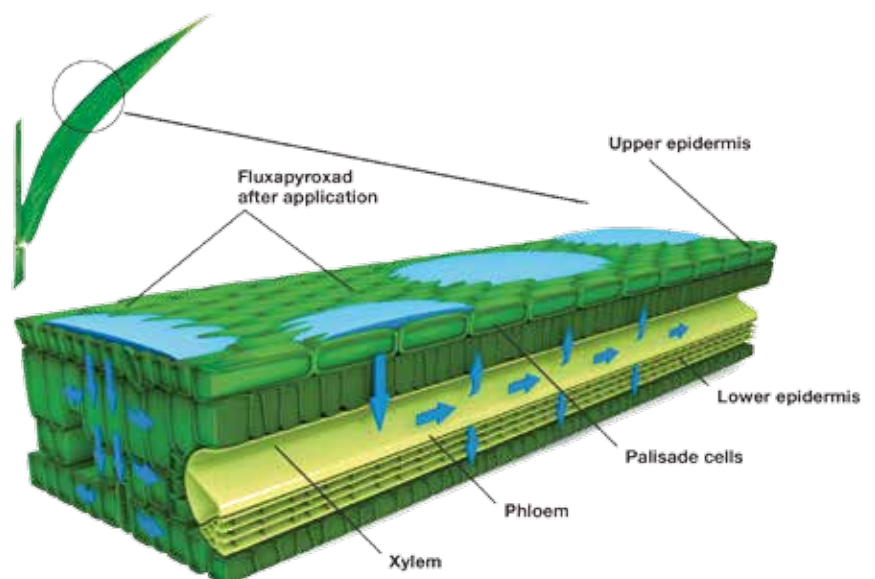


Mode of Action

Fluxapyroxad blocks respiratory Complex II, also known as a succinate dehydrogenase inhibitor (SDHI). Blocking of Complex II disrupts the energy supply and biosynthesis of essential fungal building blocks.

Continuous Redistribution in the Plant

In addition to being tightly bound to the waxy leaf surface, making it rainfast, fluxapyroxad is redistributed from the wax to areas of the leaf that are not directly sprayed. Its unique molecular design lets it enter the transpiration stream and travel systemically within the leaf. This redistribution along with its high level of activity, ensures long-lasting preventative and curative effects from fluxapyroxad — thus resulting in reliable more consistent disease control.



When Failure is not an Option

When failure is not an option, trust **Lexicon™ Intrinsic™ brand fungicide** — the cornerstone of your healthy fungicide program. **Lexicon Intrinsic brand fungicide** is the most effective, broadest spectrum turf fungicide and provides the ultimate protection and plant health for your turf. See for yourself and make **Lexicon Intrinsic brand fungicide** your product of choice for foundation and holiday sprays.



Advanced Disease Control

- Combines a next generation carboxamide with enhanced systemic properties for continuous protection with the proven performance of **Insignia™ SC Intrinsic brand fungicide**

Advanced Plant Health

- Delivers Advanced Plant Health for increased photosynthesis, stronger roots and improved turf vitality, creating resilience
- The cornerstone of your longer-lasting, more consistent fungicide program

Research Results:

Research has shown that using **Lexicon Intrinsic brand fungicide** as the foundation of a healthy fungicide program can deliver superior disease control and plant health.



Diseases treated by Lexicon:

- Anthracnose; *Colletotrichum graminicola*
- Bentgrass dead spot; *Ophiosphaerella agrostis*
- Bermudagrass decline; *Gaeumannomyces graminis var graminis*
- Brown ring patch; *Rhizoctonia circinata* var. *cincinata* (previously called 'Waitea patch')
- Brown patch; *Rhizoctonia solani*
- Dollar spot; *Sclerotinia homoeocarpa*
- Fairy ring various; *Basidiomycete fungi*
- Gray leaf spot; *Pyricularia grisea*
- Large patch of warm season turfgrasses, including Zoysia patch; *Rhizoctonia solani*
- Leaf spots; *Bipolaris*, *Drechslera*, and *Exserohilum* spp.
- Pink patch; *Limonomyces roseipellis*
- Pythium blight; *Pythium aphanidermatum*, *Pythium* spp.
- Pythium root dysfunction; *Pythium volutum*, *Pythium* spp.
- Rhizoctonia leaf or Sheath blight; *R. oryzae*, *R. zea*
- Snow mold, gray and pink; *Typhula incarnata* or *T. ishikariensis* and *Microdochium nivale* or *Monographaella* spp.
- Summer patch; *Magnaporthe poae*
- Take-all patch; *Gaeumannomyces graminis var. avenae*

*See label for a complete list of diseases treated.






Use Sites: All major turfgrass use sites, including:

- Golf courses
- Sports and athletic fields
- Parks and recreational areas
- Residential lawns
- Commercial and municipal lawns
- Institutional lawns
- Cemeteries
- Sod farms
- Other maintained turfgrass areas

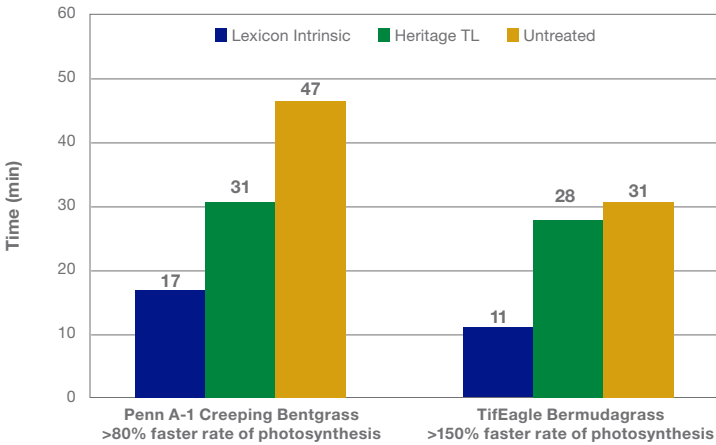
For maximum results apply **Lexicon Intrinsic brand fungicide** at least four times per year targeting high stress times such as spring, summer and fall holidays. For more detailed program recommendations and to target a specific disease problem, please refer to the BASF Fungicide Program Guide or call your local BASF Sales Specialist.

The Evolution of Intrinsic

Intrinsic is the umbrella brand for any BASF fungicide that combines disease control with plant health. **Intrinsic** has been an ever-evolving brand which now includes **Lexicon Intrinsic**, our most advanced plant health product. With the addition of the active ingredient in **Xemium** to the active ingredient in **Insignia SC**, users will see enhanced photosynthesis plus increased root mass.

PLANT HEALTH	ADVANCED PLANT HEALTH
Based on active ingredient Insignia SC	Next generation Intrinsic bolstered by additive effect of fluxapyroxad
	
2010	2014
 	

Enhanced Photosynthesis



Bentgrass had 80% faster rate and TifEagle had 150% faster rate of photosynthesis, which leads to healthier turf.

Rooting of 'Apache' Tall Fescue

Turf grass was placed in a chamber where roots were routinely misted throughout a 24 hour period. An initial application of fungicides were applied at the label rates, and a second application was made two weeks later at the same rates. The photograph at right compares rooting of the turf grass 28 days after the second treatment. **Lexicon Intrinsic brand fungicide** treated turf provided the greatest root mass and greatest root length when compared to Heritage® TL and the untreated turf.



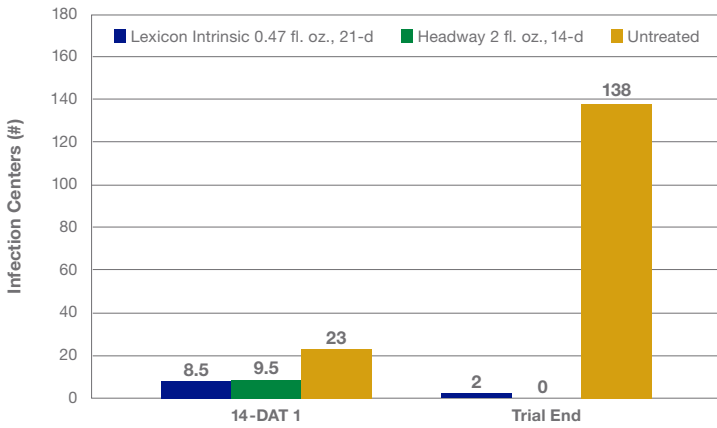
Float time 50 test indicates faster photosynthesis in blade segments treated with **Lexicon Intrinsic brand fungicide**



Lexicon Intrinsic brand fungicide provided the greatest root mass and root length

Location and photo: BASF Corp., Research Triangle Park, NC.

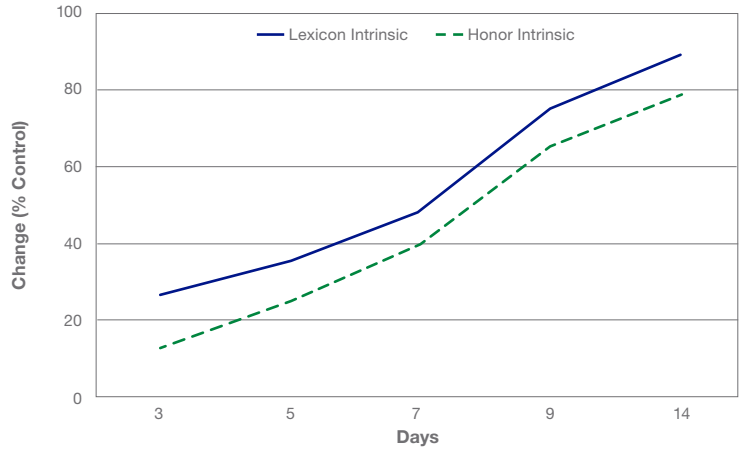
Dollar Spot Efficacy with Fewer Applications



Applications initiated June 12th and last 14-d application made on August 21, 2013 (8 total applications). Lexicon Intrinsic at 21-d interval had 4 applications. Creeping Bentgrass green. Location: North Carolina State Univ.; J. Kerns, 2013

Using **Lexicon Intrinsic brand fungicide** on a 21-day interval produced the same Dollar Spot control as using Headway— with half the applications!

Curative Dollar Spot: Speed of Control

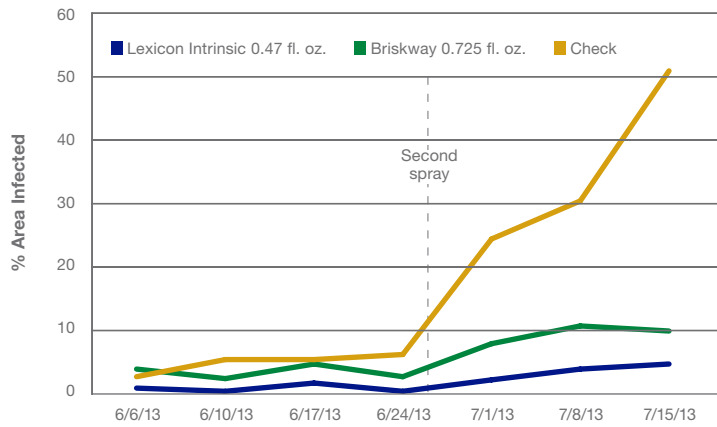


Summary of 4 Trials (first 14-days)
Locations: MO, NC, PA, SC 2012

Avg 31% disease 8-10-DAT

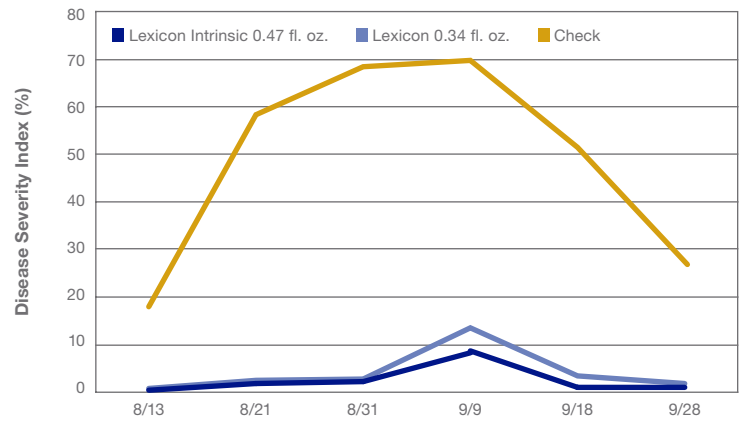
In the first three days, **Lexicon Intrinsic brand fungicide** demonstrates 50% faster control of Dollar Spot.

Consistent Brown Patch Control from Two Applications



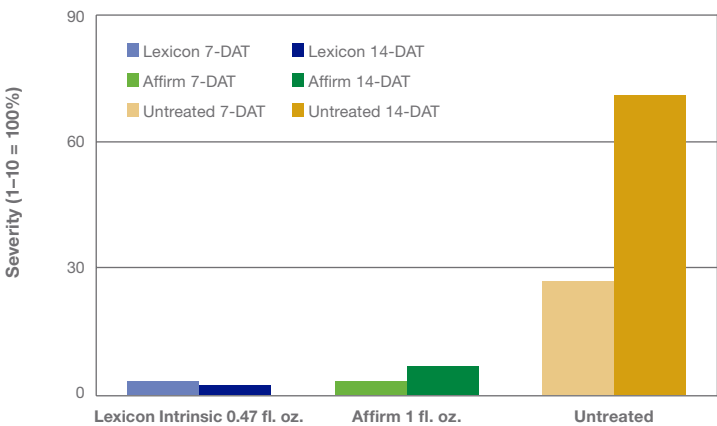
Two applications May 23 and June 23, 2013; 28-d interval. Selected treatments shown. Location: Clemson Univ.; B. Martin, 2013

Summer Patch Control



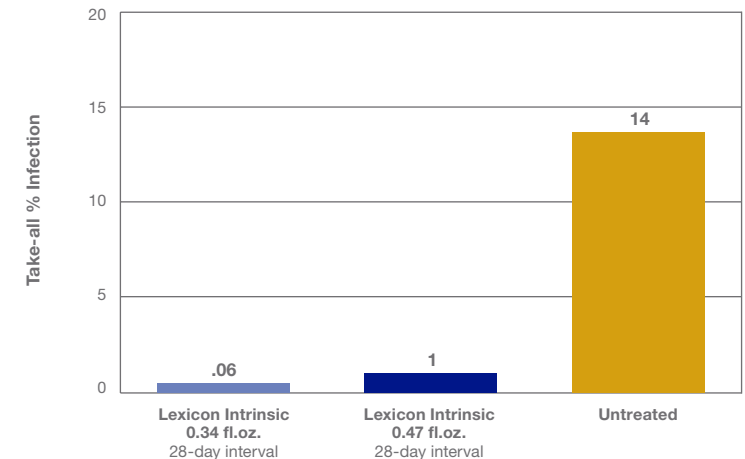
*Four applications 5/26, 6/17, 7/8, 7/29 on a 21-day interval made to Kentucky bluegrass inoculated with *Magnaporthe poae*. Location: Rutgers Univ.; B. Clarke, 2009

The Lexicon Intrinsic Difference: Curative Brown Ring Patch Control



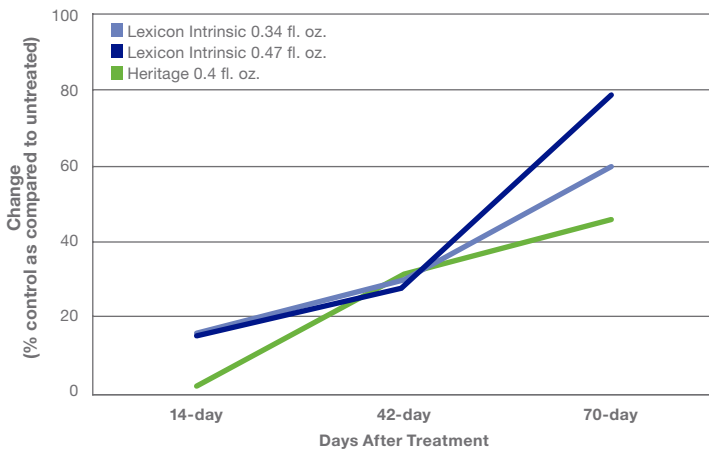
Location: Univ. of CA Riverside; F. Wong, 2009

Take-all Patch Efficacy



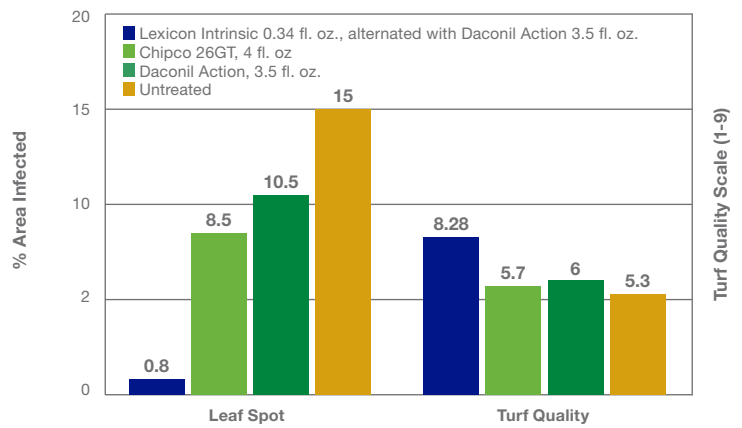
Trial results shown are at 79 days after trial initiation on bentgrass green. Selective treatments shown. Location: University of Wisconsin; Dr. J. Kerns, 2011

Speed of Curative *Bipolaris* Leaf Spot Control



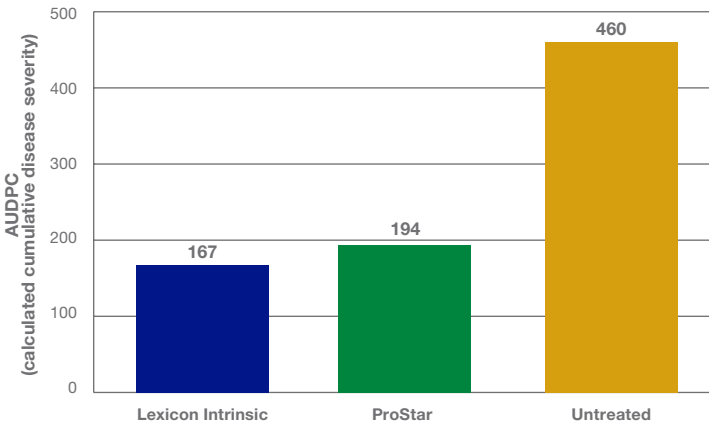
Avg. 27% leaf area infected at first application
Location: Clemson Univ.; B. Martin, 2012

Control of *Bipolaris* spp. leaf spot on TifDwarf Bermudagrass Green



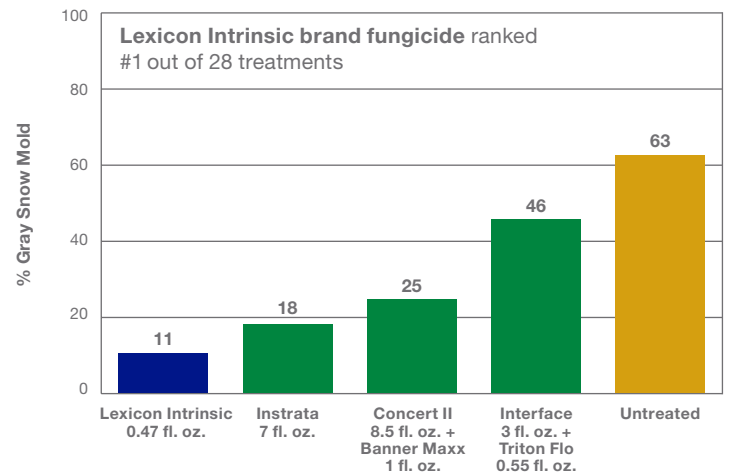
Applications initiated 8/22/12. Lexicon Intrinsic brand fungicide alternated with Daconil Action, solo. Daconil Action and solo Chipco 26GT on 14-d interval. Data shown October 10, 2012
Location: Clemson Univ.; B. Martin, 2012

Fairy Ring Efficacy on Tall Fescue Rough



Lexicon Intrinsic applied 7/2, 7/23 and 8/13 and Prostar 7/2 and 8/13 only to fairy ring species *Agaricus campestris* and final observations taken in October.
Location: Penn State Univ.; M. Fidanza, 2012

Snow Mold Efficacy on Annual Bluegrass Fairway



Applications on 11/17/12; data taken on 3/10 with 85 days of continuous snow cover.
Location: Sustainable Pest Management Solutions, ID; H. Wetzel, 2013

Lexicon Intrinsic brand fungicide as part of a Bentgrass Summer Stress Program



Photo courtesy of North Carolina State University. Taken on August 14, 2013, 14 days after application No. 8 in the rotation. End of the trial.

- 2 Strobilurin Applications
 - 2 StressGard®
 - 2 Dyes (Fore® Rainshield®)
 - 1 Daconil Ultrex®
- 10 Unique Active Ingredients
15 Total Products

- 5 Strobilurin Applications
 - 8 Dyes (Appear™ fungicide)
 - 7 Daconil Action™
- 8 Unique Active Ingredients
25 Total Products

- 2 5 Strobilurin Applications
 - 11 StressGard
 - 4 Daconil Action
- 9 Unique Active Ingredients
18 Total Products

Photos courtesy of and location: North Carolina State Univ.; J. Kerns, 2013



 **BASF**

The Chemical Company

Technical Profile for Lexicon Intrinsic Brand Fungicide:

- **Lexicon Intrinsic:** fluxaparoxad 14.33% + pyraclostrobin 28.58%
 - **Fungicide Class:** Group 7 (SDHI) and Group 11 (Strobilurin)
 - **Formulation:** Suspension concentrate (SC)
 - **Packaging:** 4 x 21 fl. oz.
 - **Rates:** 0.34 fl. oz./1000 sq. ft. to 0.47 fl. oz./1000 sq. ft. on 14–28 day intervals
 - **Signal Word:** Caution
 - **REI:** Wait until sprays are dried for all uses other than sod farms. On sod farms REI is 12 hrs.
 - **PPE:** Long sleeved shirt and pants/chemical resistant gloves/shoes plus socks
- **Use Sites:** All major turfgrass use sites, including:
 - Golf courses
 - Sports and athletic fields
 - Parks and recreational areas
 - Residential lawns
 - Commercial and municipal lawns
 - Institutional lawns
 - Cemeteries
 - Sod farms
 - Other maintained turfgrass areas
-

Always read and follow label directions.

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