LeSage in action in (from left to right) “Dracula,” “The Sunshine Boys” and “The Hollow.”

“I did that part, and I’ve been on stage ever since,” LeSage says.

The rest was history. Acting was natural for LeSage. He dabbled in a few roles while living in New Jersey, where he was the golf course superintendent for White Beeches Golf and Country Club in Haworth. But he credits the course as the place where he picked up much of his stage presence.

“You’re on a stage all the time when you’re a golf course superintendent,” LeSage says. “You have to play the role a little bit. Every time you attend a board meeting, you’re on stage giving your report.”

The sentiment is spot on for a man who spent his career acting through an allergy to grass. Now LeSage revels in his acting as he checks casting sites and takes trips to Los Angeles for auditions. He couldn’t be happier.

“My inspiration was, ‘Wow I can do this,’” he says. “I can make people believe what I’m telling them. I can make them laugh or cry or just change the way they think. What a wonderful thing to do.”

LeSage has 16 parts in theater, film, voiceover and radio within a two-year span. His favorite roles are Al Lewis in “The Sunshine Boys” and the quirky Mr. Fezziwig, which he plays every year as part of the “Christmas Carol.” Both roles are played with the Lake Arrowhead Repertory. However, based on the range of parts he’s played, his breakout role might have been Dr. Scott in “The Rocky Horror Picture Show.”

“You’re on a stage all the time when you wear pantyhose,” LeSage says of the role of Dr. Scott.

The fan club of little old ladies could have been the hole-in-one, however; LeSage says he has a following of good-looking females.

“That role led me to more auditions,” he says. “I’ve been auditioning for many parts in which I have to use a wheelchair and dance sometimes,” LeSage says. “When people see that, it’s a calling card because everyone relates to Rocky Horror.”

In a roundabout way, LeSage’s years on the course have added to his success as an actor.

“You go into an audition, and they might say we want you to play an 85-year-old crotchety man who’s grumpy and nasty,” he says. “You have a grumpy character, and you have to get your whole body into it. It’s amazing what people who I’ve met over the years think about that. I’ve met many of them at the golf course.”

But at the end of the day, LeSage hasn’t forgotten his roots or what brought him to the stage. It’s this reflection that helps him understand what has changed in the industry and what advice he has for the next class of superintendents.

“Other superintendents should do things such as acting,” LeSage quips. “Get involved in your community. Don’t just isolate yourself at the golf course. Give yourself a bit of a break and meet people of different walks of life. It’ll make you a better superintendent, individual, dad or mom and give you a well-rounded life.”

You’ll still see LeSage on the course and at industry events, but with the current state of his handicap, you’ll enjoy his performance on stage more. ■

Magazine journalist Katy Ibsen is based in Lawrence, Kan.
Rhizoctonia Leaf & Sheath Spot: A Problem on Bermudagrass Greens

BY CLARK THROSSELL, PH.D.

Phil Harmon, Ph.D., is an associate professor of plant pathology at the University of Florida-Gainesville and spends a portion of his time investigating diseases of warm season turfgrasses. He can be reached at pfharmon@ufl.edu.

Q Which is the correct name for the disease, rhizoctonia leaf and sheath spot or mini-ring disease?

Rhizoctonia leaf and sheath spot is the name used by plant pathologists because it most accurately describes the range of symptoms caused by *Rhizoctonia zeae* and *Rhizoctonia oryzae*.

Symptoms of the disease include a bronzing of leaves, thinning of turf and patches or rings of dead turf. In only about 1 percent to 5 percent of cases of rhizoctonia leaf and sheath spot outbreaks are mini-rings present.

Q Has the disease increased or decreased in severity and incidence over the last few years? Why?

Based on the number of samples submitted to our diagnostic lab, both the severity and incidence of rhizoctonia leaf and sheath spot has increased on golf courses in the last few years. We have identified the disease on bermudagrass greens throughout the Southeast. We have also identified the disease on zoysiagrass and seashore paspalum.

As for why, our observations led us to believe that as superintendents lower the mowing height and decrease nitrogen fertilization of putting greens, rhizoctonia leaf and sheath spot increases. More stress on the grass, more rhizoctonia leaf and sheath spot.

Q Can you describe the disease cycle for our readers?

The fungus infects plants during periods of warm weather, from May to September, depending on geographic location.

In the first year of infection, symptoms are usually seen in late summer or early fall as bermudagrass growth begins to slow and stress on the grass becomes apparent.

In the second and subsequent years of infection, symptoms may be seen beginning in the spring and last throughout the year.

In some cases, symptoms that appear in fall remain all winter and spring, since the bermudagrass is not growing fast enough to recover from the damage caused by rhizoctonia leaf and sheath spot.

Q What is the most effective fungicide control strategy?

A preventive fungicide program based on the use of QOI, flutolanil and DMI fungicides works best to improve overall putting green performance and control rhizoctonia leaf and sheath spot.

A curative fungicide program will work, but higher rates of fungicides applied at shorter intervals are needed, which makes the curative program about the same cost as a preventive program. Plus, the preventive program provides for improved playing quality throughout the season.

Use caution before applying a DMI fungicide to a bermudagrass green in hot weather. The DMI fungicide can cause the turf to go off-color and will have a growth regulating effect on the turf. For these reasons we do not recommend DMI fungicides be applied to bermudagrass greens in the summer months in Florida.

Q What cultural practices reduce rhizoctonia leaf and sheath spot?

Reduce stress on the grass by increasing the mowing height and increasing the nitrogen fertilization rate. Implement any practice that provides the desired putting speed without lowering the mowing height.

We observe rhizoctonia leaf and sheath spot on all cultivars of bermudagrass. Low mowing heights dictate the disease’s incidence and severity.

Q Is there anything else you would like to add?

Rhizoctonia leaf and sheath spot is a difficult disease to diagnose in the field. It can be confused with fairy ring and large patch, among other diseases.

The only way to correctly identify the disease is to send in samples to a disease diagnostic lab that will culture the fungi on plates and properly identify the presence of *Rhizoctonia zeae* or *Rhizoctonia oryzae*.

Clark Throssell, Ph.D., loves to talk turf. He can be reached at clarkthrossell@bresnan.net.
Low-Temperature Nitrogen Uptake

By Daniel T. Lloyd, Douglas Soldat, Ph.D., and John Stier, Ph.D.

In temperate climates, fall is widely considered the most important time for nitrogen fertilization. Half of the nitrogen applied annually is typically applied in the fall. (Bauer et al., 2012). The belief is that fall’s cooler temperatures allow more assimilated nitrogen to be used for carbohydrate accumulation and root and rhizome development instead of being partitioned into shoot growth (Bowman, 2003).

However, research evaluating the benefits of late-fall nitrogen fertilization has yielded mixed results — likely due to regional, temporal and climatic variability (Bauer et al., 2012). Improved color responses in the fall, winter or spring have been observed consistently in the Midwest and Northwest and along the East Coast. Root growth response to late-fall nitrogen fertilization has been less consistent. Some researchers have found greater root mass in the fall or spring, while others have found negative or insignificant root responses to nitrogen applied in the fall.

Just how much turfgrass can assimilate nitrogen in late fall is unclear. Research has shown that for many other plants, nitrogen uptake is greatly inhibited in temperatures below those of optimal growth, due to limited xylem flow and down-regulated transporters responding to decreased plant demand (Dubey and Pessarakli, 2002).

To what extent low temperatures inhibit a turfgrass’s nitrogen uptake often depends on environmental factors and the turfgrass species. When turfgrass uptake and nitrogen immobilization decline, high rates of nitrogen fertilization increase the potential for fertilizer loss through denitrification and leaching — especially considering late fall often brings high precipitation and low evapotranspiration (ET) rates. Excess nitrogen fertilization in late fall therefore can pose an economic and environmental burden.

Much of the research on late-fall nitrogen fertilization was performed in field settings. That fact may limit the transferability of the results. In fact, no controlled environment research on evaluating low-temperature nitrogen uptake, metabolism and utilization of turfgrass could be found. Controlled environment research on the response differences between nitrogen rate, application timing and turfgrass species in cool temperatures also couldn’t be found.

Because fall fertilization is important, the agronomic significance of it should be evaluated through controlled environment research accounting for climatic and spatial variables — including temperature, photoperiod, nitrogen rate and turfgrass

Continued on page 34
With a climate-controlled environment, researchers could observe responses to various cool-season turfgrass species to variable nitrogen rates and temperature regimens.

Continued from page 33

species composition.

This study aimed to evaluate nitrogen uptake potential and utilization in a climate-controlled environment to see the responses of various cool-season turfgrass species to variable nitrogen rates and temperature regimens.

Materials and methods

“Midnight” Kentucky bluegrass, “Penncross” creeping bentgrass and “True Putt” annual bluegrass were established from seed in a greenhouse set to 75 F/64 F day/night temperatures with a photoperiod of 14 hours. Plants were grown in a USGA-recommended root zone mix in 4-inch diameter, 12-inch depth PVC tubes. Full details of the grow-in program are reported by Lloyd et al. (2011).

Plants were clipped using hand shears three times weekly to the height of 0.5 inch until nitrogen treatments were applied. Fourteen weeks after seeding, the plants were transferred from the greenhouse into a growth chamber for cool temperature acclimation.

The three grass species were fertilized with one of four nitrogen treatments (0, 0.5, 1.0, and 2.0 lbs. N/1,000 sq. ft.) and acclimated to one of three simulated climate regimens corresponding to September 15th (with an average high of 72 F, an average low of 52 F and 12.5 hours of light); October 15th (with an average high of 59 F, an average low of 44 F and 11 hours of light); and November 15th (with an average high of 40 F, an average low of 27 F and 9.6 hours of light). They were fertilized in Madison, Wis. and the temperatures were based on 40-year averages.

Treatments were arranged in a randomized design in climate-controlled chambers at the University of Wisconsin-Madison Biotron Facility. The experiment was conducted twice under identical conditions. Upon entering the growth chamber, plants were allowed to acclimate for 16 days through staggered decreasing temperature regimens, where the temperature was lowered by 4 F to 7 F every four days until temperature reached the appropriate set points. Following the acclimation period, plants were fertilized with one of the four nitrogen rates using a liquid solution of ^15^N-labeled ammonium sulfate (10 atom % ^15^N). Plants were irrigated after application.
and then every three days to 80 percent of pot moisture capacity based on weight to eliminate the potential for leaching losses.

Plants were destructively harvested 10 days after labeled nitrogen applications. They were separated into root biomass and verdure biomass (shoots and crowns) for isotopic ¹⁵N analysis using an automated carbon-nitrogen analyzer.

The experiment was a completely randomized design with three replications. It was conducted twice, in separate “runs,” which were treated similarly to a year or location effect in the statistical model. This summary reports the first of the “runs.” For more information on the statistical methods and full results see Lloyd et al. (2011).

**Results and discussion**

There were very few important differences in plant responses to temperature and nitrogen among the three species. Therefore, for brevity, we will discuss the responses of the three grasses averaged together. We observed a lack of growth response to nitrogen in October and November temperature regimens (Table 1), consistent with previous research suggesting a minimal shoot growth response to nitrogen in temperatures below 50 F (Powell et al., 1967; Wilkinson and Duff, 1972).

As noted in the introduction, the convention for the past several decades has been to recommend nitrogen application in the fall. Continued on page 36
Effect of temperature regimen and nitrogen application rate on $^{15}$N fertilizer recovery in roots and roots + verdure (total) for (A) run No. 1 and (B) run No. 2. Roots and verdure were harvested 10 days following nitrogen application. Temperature regimens correspond to Sept., Oct., and Nov. 15th in Madison, Wis.

Continued from page 35

around the time when active shoot growth stops. Our results indicate that actively growing turfgrasses, such as in the September treatment, absorb applied nitrogen very efficiently (65 percent to 83 percent of applied nitrogen) regardless of nitrogen rate (Fig. 1). Fertilizing when shoot growth becomes unresponsive to nitrogen application (in October) still was relatively efficient (46 percent to 72 percent of applied nitrogen), especially at the lowest application rate. However, fertilizing when air temperatures approach 32 F resulted in low and variable uptake of applied nitrogen (15 percent to 60 percent of applied nitrogen).

These results build upon the work of Bowman et al. (1989), who quantified the uptake potential of cool-season grasses by monitoring the rapid depletion in the soil of applied fertilizer. That study demonstrated the nitrogen uptake potential under ideal growing conditions in the field, while our study demonstrated the extent of nitrogen uptake under cool temperatures.

Root accumulation of $^{15}$N was markedly different between runs. In the first run, we observed significantly greater recovery of
15N in the November regimen compared to the September and October regimens (Fig. 1A). However, the opposite occurred in run No. 2 (Fig 1B). Root fertilizer nitrogen concentrations accounted for an average of 17 percent of total nitrogen taken up, averaging 0.1 lbs. nitrogen per 1,000 sq. ft. (data not shown).

Additionally, root growth was not consistently affected by nitrogen application rates (Table 2), indicating that although root growth may increase in response to cooler soil temperatures, this trend is not stimulated further through nitrogen fertilization.

Our finding is consistent with previous research (Powell et al., 1967; Kussow, 1988; Mangiafico and Guillard, 2006). It may not be surprising that we found few differences in root growth among the treatments, because only 10 days passed between application and harvest. While additional longer-term or field research would be desirable to test the hypothesis that fall nitrogen does not affect root growth, our data preliminarily indicate that nitrogen applied at these rates in these temperature regimes has little effect on short-term root growth.

We were unable to conclusively document the effect of nitrogen partitioning between shoots and roots for nitrogen applications in cold temperatures. It appears that shoot:root partitioning was not significantly different between the September and October temperature regimens. However, in run No. 1, strong partitioning of nitrogen to roots was observed in November, while in run No. 2 it wasn’t.

**Conclusion**

Our results suggest that some of the widely held views on the importance of fall fertilization may not be as understood as thought. The nitrogen uptake capacity of creeping bentgrass, annual bluegrass and Kentucky bluegrass declines substantially as temperatures decrease, although nitrogen uptake potential appears to be relatively high after shoot growth stops.

Waiting after this period greatly reduces nitrogen uptake potential. Because of the increased risk of fall nitrogen loss in humid, temperate regions with seasonally high precipitation rates and low evapotranspiration rates, agronomic recommendations for late-fall fertilization need to be re-evaluated. Additional field research is required to confirm the results of this controlled environment evaluation.

Editor’s note: The units for aboveground and root biomass in Tables 1 and 2 were intentionally left as grams/metered squared.

Daniel T. Lloyd is a former research assistant and Douglas Soldat, Ph.D., is an associate professor at the University of Wisconsin-Madison. John Stier, Ph.D., is a professor at the University of Tennessee-Knoxville. Doug Soldat can be contacted at djsoldat@wisc.edu.

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**Ad Index**

**Advertiser** | **Page**
--- | ---
Amvac Environmental Products | 1
The Andersons | 9
BASF | CV5
Dow AgroSciences | 13
Green-Jacket (Bio-Cote Products) | 4
Grigg Bros | CV2
Hunter Industries | 3
Jacobsen/Textron | 11
Smithco | 15
Standard Golf | 18-19
Toro Co | 5
Turfco | CV4

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The Company Line

NEW PRODUCTS FOR SUPERINTENDENTS

Turf colorant
To address the needs of superintendents and turf professionals wanting a high-performance turf colorant for spray applications, Becker Underwood has introduced Vision Pro HD as the next class of high-definition turf colorant. The company says that Vision Pro HD and its formulation technology represent the best of the best in turf colorants, and is the closest match to a natural turf color produced outside of the plant itself. As the next generation of the Vision Pro product offering, Vision Pro HD is ideal for green and tee spray programs. It provides a complementary color to spray mix applications, which are designed to promote overall plant health and protect against pests. A new addition to the Green Lawnger brand of products, Vision Pro HD turf colorant is built with ColorLock technology, a formulation process that “locks” in the color for the greatest consistency, durability, and increased longevity. Beckerunderwood.com

Herbicide
Dow AgroSciences received federal registration of Defender specialty herbicide, a new postemergence product designed to be applied early in the season in cool weather to eliminate unsightly dandelion blooms and control clover and other winter annual and perennial weeds. It can be applied at the same time as the first preemergence applications of the season, giving a head start on broadleaf weed control and more flexibility when scheduling applications. Typically, these timings are too cold for other postemergence herbicides to be effective on difficult-to-control annual and perennial broadleaf weeds. The product is expected to be available in the marketplace in early 2013. DowAgro.com

Small tractor
The new GC1700 Series tractor from Massey Ferguson includes four models that replace the previous GC range. The GC1705 and GC1710 TLB are rated 22.5 gross engine horsepower and the GC1715 and GC1720 TLB are rated at 24.5 gross engine horsepower. The GC1700 Series sub-compact tractors effortlessly undertake a vast number of projects, powered by the fuel-efficient, three-cylinder, liquid-cooled diesel engine. The high-torque engine is protected under a very functional, solid metal hood with a tilt-up design that makes access to the engine quick and easy. All four models feature a low-rated engine rpm that reduces vibration and noise to improve engine life and decrease fuel consumption. A wide-open, clutter-free platform allows the operator to move on and off the tractor with ease and offers plenty of space for natural leg movement. The new seat is ergonomically designed with adjustments to custom fit any body profile for exceptional driving comfort. Masseyferguson.com

Fall program
Bayer’s Fall Solutions Program has returned for 2012. Bayer’s Fall Solutions Program is a unique online system that offers customers who are on the go a hassle-free way to take advantage of deals on herbicides, fungicides and insecticides. Superintendents now can participate online at http://BayerFallSolutions.com, or via traditional mail. Submission and order forms are available online, and Bayer’s exclusive “acreage-treated” calculator allows customers to easily determine the amount of products they need. Bayerfallsolutions.com

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Snowblower
Sheyenne Tooling and Manufacturing has introduced its 600CT snowblower for compact tractors. It features the industry’s first concentric-axis design, meaning the impeller and auger rotate on the same shaft to improve performance and reduce maintenance concerns. The 600CT has a 74-inch cutting width and a 28-inch cutting height for managing tall drifts and snow piles. The 18-inch, four-blade impeller rotates the same direction as the auger to effectively direct snow into the discharge chute. To power the unit, the 600CT comes with a hydraulic pump, which installs on the tractor’s mid-mount PTO shaft and uses oil from the loader circuit of the tractor. The blower also comes with a solenoid valve for electric-over-hydraulic control of the discharge chute and deflector. Once the system is installed, an operator can remove the 600CT and switch back to the loader bucket in just a few minutes. Sheyennemfg.com
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Junior Storie
Superintendent, Centennial Valley CC, Conway, Ark.

What are you drinking? I love unsweet tea — I don’t add sugar.

So you won the Rain Bird/North Coast Media grand prize, the trip for two to see the Intelligent Use of Water film competition in Beverly Hills, Calif. How has the experience been? The experience was awesome. I’d never been to L.A. at all. We did all the touristy stuff, got on the tour buses, saw the celebrity homes, Santa Monica Pier.

So are you ready to move to Los Angeles now? No — that traffic is horrible!

What’s your favorite thing about Centennial Valley CC? We’re all treated the same — members, workers — it’s just a nice club. The homeowners invite me up for burgers on their back patio when I’m out driving around the course. It’s just a very inviting atmosphere.

What teams do you root for? The Razorbacks, that’s where I’m from. But I still root for Oklahoma State, my alma mater, and the Thunder. Most pro teams I don’t watch, I’ve lost interest — the players are all too into themselves.

What’s your favorite book? “The Seven Habits of Highly Effective People” by Stephen Covey. Real big fan of that, and also “How to Win Friends and Influence People.”

You’ve been active volunteering on GCSAA committees, right? I was on the GCSAA government relations committee three years, and the strategic communications committee for one year. I got to go to the first National Golf Day. I just like to be involved.

Do you have any kids? I’ve got three kids, 11, 9 and 7. Two girls and the youngest is a boy. The oldest is into volleyball, the middle one is creative, and the youngest is into baseball. Once he gets into basketball and football I’ll coach. I’m not too keen on soccer and baseball.

If you could have three guests over for dinner, any person, living or dead, who would you invite? My father, he passed away when I was 18. I missed that connection you get later in life… I do consider myself a student of my faith, so Jesus Christ. And lastly my wife (Julie), definitely. We’ve been married 12 years.

So besides this trip to Beverly Hills, have you won anything else before? The only other thing I’ve ever won was a bottle of Coke.

As interviewed by Seth Jones on Thursday, October 18th, 2012.