



# TURFnews

The Kansas Turfgrass Foundation Newsletter

April, 2015

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## Jim Heinze Selected as 2015 College of Ag Alumni Fellow



The goal of the Alumni Fellows program is to create opportunities for successful alumni to interact with our students.

Jim Heinze is the Director of Sales, North America for the Commercial Division of The Toro Company. He serves on the management team contributing to business strategies for revenue growth, new products, and market development. He directs a team of sales professionals delivering innovative product solutions and exceptional customer service through the industries' leading distribution channel. Upon graduating from K-State, Heinze managed a landscape business and Toro distributor in the K.C. area.

An accomplished sales professional and industry contributor, Heinze served on the Kansas Turfgrass Foundation board and the Heart of America GCSA. He joined Toro in 1993, achieved positions of increasing responsibility, promotion to Director of Commercial Sales in 1999, and responsibility for North America in 2012.

Heinze is from Lincoln, Kansas, earned his Bachelor of Science degree in Horticulture in 1977 and Certified Sales Executive certification in 2007. He is a contributing member to the K-State College of Agriculture Dean's Advisory Council. Heinze and his wife D. Lynn have three children and reside in Apple Valley, MN.

## Kansas Turf & Ornamentals Field Day - August 6

Mark your calendars to attend the 2015 Kansas Turfgrass Field Day on Thursday, August 6 at the K-State Research & Extension Center in Olathe.



## Message from the President



I hope your spring season is going well and your business is off to a great start in 2015! The transition from winter into spring always presents many unforeseen challenges, much too numerous to list. It still never ceases to amaze me how easily the best laid plans can change in an instant this time of the year based on the fluctuating weather. And once you fall behind due to one of Mother Nature's curveballs, good luck ever catching back up. Oh well;

soon enough the dog days will be upon us and we will all be wishing for hard freezes and frost delays!

Speaking of the dog days, make plans now to attend the Kansas Turf and Ornamentals Field Day on August 6. This year the Field Day rotates back to the K-State Research and Extension Center in Olathe. Come see the latest in research and what's new with the many vendors that support this very important event. Personally, I am hopeful FAA regulations might allow Dale to demo a drone that day!

Prior to all the hub bub on August 6, your KTF Board, along with KSU staff, will be meeting on August 5 to discuss plans for this year's KTF Conference and Show. There are some exciting changes and collaborations on the table that we hope to get hammered out at that time. As always, if you have any suggestions to improve the conference, please feel free to contact any board member with your suggestion!

*(Jeff Eldridge, CGCS)*

## HAGCSA Donates to KSU Research

The Heart of America Golf Course Superintendents recently funded two research studies at K-State. We appreciate the support the HAGCSA provides!

Large Patch Zoysiagrasses—\$2,500  
Turf Colorants/Water Conservation—\$2,500

## Turfgrass Weed Control



There is a great resource to all the turfgrass professionals out there. It is called "Turfgrass Weed Control for Professionals – 2015 Edition" by Purdue University. It is only \$12 for a print copy and you can download it in a PDF file for only \$10. I highly suggest getting one for reference.

[https://mdc.itap.purdue.edu/item.asp?item\\_number=ay-336#.VQsaut4aj8s](https://mdc.itap.purdue.edu/item.asp?item_number=ay-336#.VQsaut4aj8s)

Always remember to READ THE LABEL for the correct rate, turfgrass tolerance, and specific instructions before application! *(Jared Hoyle)*

\*\*\*Mention of trade names or commercial products in this article is solely for identification purposes and does not imply recommendation or endorsement, nor is criticism implied of similar products not mentioned by Kansas State University.\*\*\*

Check out the K-State Turfgrass Blog at:

[www.KSUTurf.org/blog/](http://www.KSUTurf.org/blog/)



## “Why are You Doing Research on Buffalograss?”

Every once in awhile, when I am talking with people about the current research that is going on in the turfgrass program here at Kansas State University, I get the question or comment... *“Why are you doing research on buffalograss? No one cares about buffalograss. You are wasting your time.”*

Here is your answer. First of all, we do more than just work on buffalograss, but here are some myths and facts about buffalograss and management.

**Fact:** Buffalograss is one of the most drought tolerant turfgrass species cultivated for use on golf courses.

**Fact:** It grows well in Kansas with a minimal maintenance.

**Myth:** You are always going to have enough water to maintain your turfgrass.

**Fact:** It is not “if” the water will be restricted and limited, it is “when” is the water going to be limited for turfgrass use.

**Myth:** We know how to properly manage buffalograss with limited irrigation.

The reality is that when we start to reduce irrigation, our other management practices might have to change as well. So, do we want to be playing catch-up when the water gets cut off, or do we want to be ahead of the curve and have options to produce a quality, low input, playable turfgrass system that meets our requirements? On April 1, **2015 (?)** the Governor of California, Jerry Brown, issued a mandated executive order for substantial reduction in water to a number of areas. Specifically, he mentioned “golf courses, lawns, universities...” And so it stated, the water is getting cut off. This will happen here as well if we are not careful. Not to mention with all the budget cuts everyone is experiencing, doing more with less will eventually hit a wall and stop.

See more about the California Drought Mandatory Water Reductions Executive Order here:

<http://www.usatoday.com/story/news/nation/2015/04/01/california-drought-mandatory-water-reductions/70780554/>

<http://news.yahoo.com/drought-stricken-california-set-measure-snowpack-075412264.html>

To stay ahead of the curve, we are conducting research projects that will address this issue. KSU turfgrass graduate students, Jake Reeves and Evan Alderman are both working on buffalograss. Jake’s projects are concentrating on establishment and Evan’s projects are concentrating on management. Since the US Open at Pinehurst, North Carolina in 2014, all we hear now is, “Brown is the new green”. This was one of the first times in the modern day where it was acceptable to have wilting, brown turf. Where are we suppose to go from here? Water will be limited so how can

we reduce water inputs but have an acceptable quality turf to play golf on that is not brown?

One way may be the use of buffalograss. There is limited research out there showing how to manage buffalograss, and more importantly how to manage it on a golf course (not to mention the new varieties). Newer varieties may require different management practices like many of the other turfgrass species. As I travel across Kansas, I see more and more buffalograss used on golf courses. We do not have a grasp on how to effectively manage buffalograss when it is subjected to the wear and tear of golf carts, golfers, animals and pests. We don’t know until we look into it. This is how we try and stay ahead of the curve. Who knows? It may or may not be a viable option for some golf course superintendents, but if it can save golf courses from closing due to water constraints, then in return it will have an impact on saving jobs, revenue, recreation, well-being and the game of golf.

Now that we know this is an important issue, let’s talk about some of the research that we are conducting on buffalograss. Divot injury is one of the most common damages that affects turfgrass on the golf course. It can lead to weed encroachment, decreased aesthetics, and unacceptable playability. We are exploring the influence of nitrogen fertilizer sources and rates on the recovery of divots in a buffalograss fairway with limited irrigation. With reduced water, typical fertilizing practices might not work quite as well. Three independent research studies were conducted last year at Rocky Ford Turfgrass Research Center in Manhattan, KS and Council Grove Country Club in Council Grove, KS. No previous fertility was applied to these research areas and the mowing height of the buffalograss fairways were approximately ¾”. We did apply some weed control options as needed when weeds started to encroach in the research plots. The treatments for these research trials included two difference sources; a 46-0-0 Quick Release Urea and a 43-0-0 Polymer Coated Urea. Each of these fertilizers were applied at 0, 1, 2 and 3 lbs N/1,000 ft<sup>2</sup>. Three divots were made with a modified lawn edger (Figure 1). Evan replaced the edging blade with 13 circular saw blades so he could make a divot the same size in every plot (5.5” x 2.13” x 0.125”).

After the divots were made, we filled them with the same amount of sand. As you can see, we used pink sand. We did this because it helped us with some of the rating methods to determine the exact recovery. After all the treatments were applied, it was irrigated to water in the fertilizer and then only irrigated after that to prevent drought stress. Irrigation was only applied 3 times (with 0.5”) throughout the study. Initially, we found that there was an interaction between the fertilizer source and rate. After all the data was collected, Evan took the data and analyzed the recovery numbers to find how many days it took to get to 50% recovery. He did this using a 3 parameter sigmoidal regression model (Figures 2 & 3). Currently, he is working on analyzing the data to find how many days to achieve 90% recovery. Once he did that, he now had estimates and standard errors to show which treatments worked best (Figure 4). Ultimately, he found that the slow release nitrogen source did not increase divot recovery speed. In a low input turfgrass management sys-

## “Why are You doing Research on Buffalograss?” (continued)

tem, with limited irrigation like buffalograss, the lack of water can restrict the release of slowly available nitrogen carriers and not improve the recovery of the divots. The application of a quick release nitrogen urea decreased duration of divot recovery. 50% divot recovery was achieved 6.3 days faster using 1 lbs N/1,000ft<sup>2</sup> of a quick release urea fertilizer compared to the control treatments (0 lbs N/1,000ft<sup>2</sup>). This treatment also increased the quality of the buffalograss. This allows golf courses to maintain an acceptable turfgrass while reducing management inputs like fertilizer and irrigation (Figure 5).

Now we know that there is potential for the use of buffalograss in a golf course setting while reducing inputs and saving water, all while being stewards of the environment. I know that this might not directly impact everyone, but it is one piece of the pie, one small step, one portion of the golf course industry. However, it does indirectly impact the industry, the economy and every turfgrass manager if golf courses continue to close across the nation. Therefore, with continued research like this, turfgrass managers have options to consider in the future when the water gets cut off. (*Jared Hoyle and Evan Alderman*)



Figure 1. Modified lawn edger.

Divot after use of edger.

Divot filled with sand.

## Sigmoid Parameter Estimates for Slow Release Fertilizer Treatments

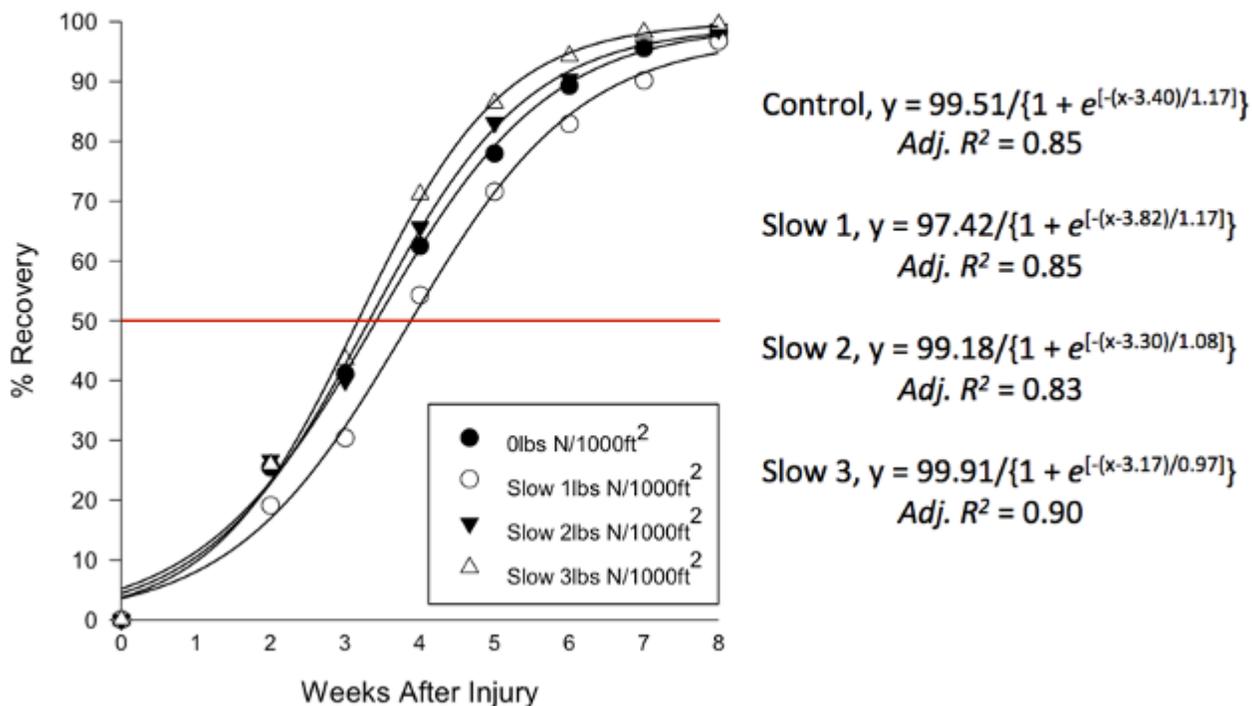


Figure 2. Sigmoid regression model to estimate 50% buffalograss divot recovery influenced by slow-release nitrogen fertilizer.

# Sigmoid Parameter Estimates for Quick Release Fertilizer Treatments

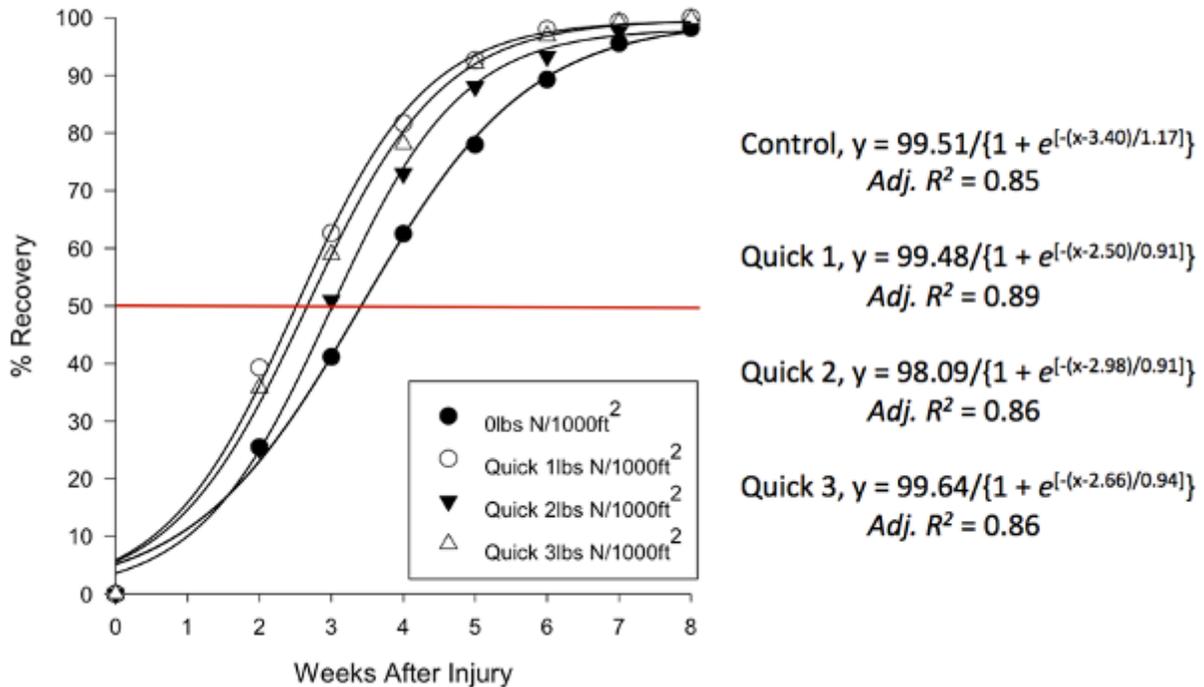


Figure 3. Sigmoid regression model to estimate 50% buffalograss divot recovery influenced by quick-release nitrogen fertilizer.

## Effect of Nitrogen Source and Rate to Reach 50% Divot Recovery

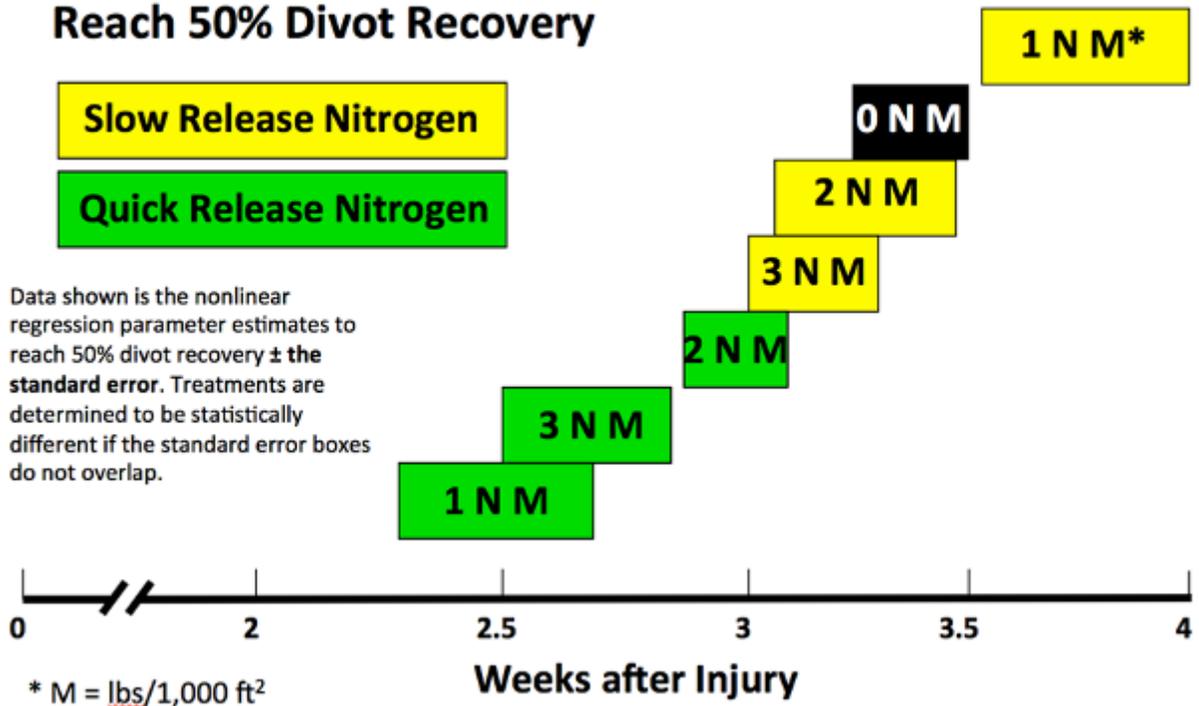


Figure 4. Effect of nitrogen source and rate to achieve 50% buffalograss divot recovery  $\pm$  the standard error. Green, yellow and black bars that overlap are not significantly different.



Figure 5. Buffalograss fairway at Council Grove Country Club, Council Grove, KS.

## Hustler Turf Equipment Donates Mower to Olathe Research & Extension Center



Mowing just got a little easier for Mark Willmore, Turf Technician at the K-State Research & Extension Center in Olathe. Hustler Turf Equipment donated a 104" Super Z Hustler mower. They also donated three walk-behind greens mowers to Olathe and Rocky Ford Turf Research Centers. Thanks to Mike Kellogg and Hustler Turf for their generous support of our research efforts!

## Faculty of the Semester



Steve Keeley, Professor of Turfgrass Science, was awarded Faculty of the Semester from the College of Agriculture. Congratulations, Steve!



### Mark the Dates!

**June 29, 2015**

**KGCSA Scholarship &  
Research Golf Tournament  
Rolling Hills CC  
Wichita**

**August 6, 2015**

**Turfgrass Field Day,  
Olathe**

**December 1, 2 & 3, 2015**

**Kansas Turfgrass Conference,  
Topeka**

## Rocky Ford Update



Signs of spring are everywhere. The trees and shrubs are in bloom, the grass is turning green, and the zoysia and bermuda show just a little sign of green. I love this time of year.

The greens at Rocky Ford have been aerified, verticut and topdressed. I'm ready to fertilize and apply pre-emergent where needed, and spray a little broadleaf herbicide.

I have seen some activity out here with some new research being started and research from last year coming to life.

We are still working on getting the river pumps going. Hopefully, all the funds fall in place to get this project completed. It is sorely need .

As most of you have heard, my good buddy Mark Willmore is now at the Olathe research center. He is working hard over there. I know there are things he needs to get the research area back into shape, so contact Mark to see what he needs to get things going. Many of you have stepped up to help us here at Rocky Ford, which helps immensely. Please do the same for Mark and the Olathe Research Center. The Turf & Ornamentals Field day will be held there this summer on August 6.

Once again, thank you to all the distributors that have stepped up to help us with equipment and products to help with the research that goes on. We can never thank you enough.

Have a great grass growing summer and a great year selling equipment and products. *(Cliff Dipman)*



### Equipment Dealers that Support K-State Turf for Use at Rocky Ford

#### Excel Sales/Hustler Turf Equipment

Out-front Rotary Mower

#### Z-Spray Sprayer/Fertilizer Spreader

John Deere Landscapes & L.T. Rich Products, Inc.

#### Kansas Golf & Turf

Electric Greens Mower  
Smithco Sprayer

#### Professional Turf Products

Toro Triplex Greensmower

#### RMI Golf Carts

Utility Cart

#### Van Wall Equipment Co./John Deere

John Deere Triplex Tee Mower

If your company is interested in supporting K-State turfgrass research by providing equipment, contact Cliff Dipman at (785) 539-9133.

## Kansas Turfgrass Conference

The Kansas Turfgrass Conference will be held **December 1, 2 & 3** at the Kansas Expocentre in Topeka, KS.

The conference is an excellent way to learn about turf and landscape management, visit with old friends, network with new ones, and see all the latest and greatest equipment and supplies from local and national vendors. Pesticide recertification credit in 3A & 3B will be available.

We have several excellent out-of-state speakers lined up so far for this year's conference: Dr. Brandon Horvath, Plant Pathologist, University of Tennessee, Dr. Bill Kreuser, Assistant Professor, Agronomy & Horticulture, University of Nebraska-Lincoln, and Dr. Jay McCurdy, Turfgrass Specialist at Mississippi State University.

Mark the date on your calendar to attend the annual Kansas Turf Conference!

## What's Wrong With My Plant?

It's April, and everything is looking fresh and green, with forsythia, quince, redbud, pear, and crabapple blooms brightening our landscapes. On the turf side, our cool-season grasses are in one of their best moods, with optimal temperatures. The warm-season grasses will be waking up soon. Unfortunately, at some point, plant diseases may come along to disrupt this happy picture.

Where can you turn when things go wrong? First, you can always contact your local K-State Research and Extension office (use the map here: <http://www.ksre.ksu.edu/Map.aspx>) or email me at [kennelly@ksu.edu](mailto:kennelly@ksu.edu). In addition, if you aren't already signed up, I encourage you to sign up for the K-State Turf and Landscape e-news/blog. It's a great way to keep up on what is going on around the state. To sign up, just shoot me a quick email. I'll highlight a couple of other references below, as well as describe how to submit samples.

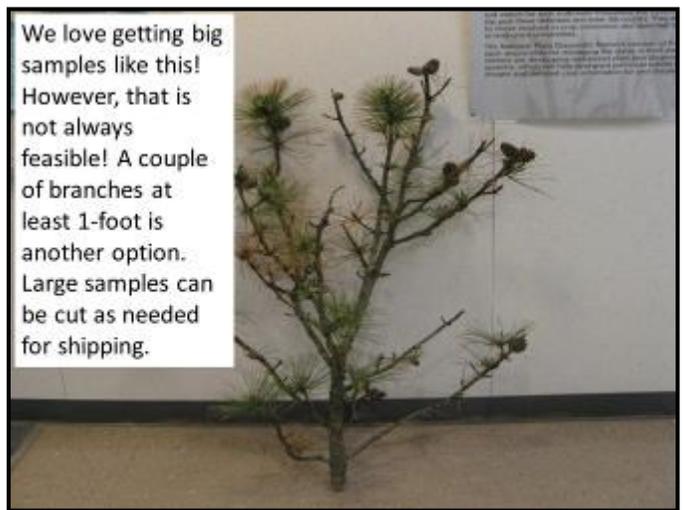
When it comes to turf, a great all-in-one resource is the *book Identification and Management of Turfgrass Diseases*. You can order copies here: <http://extension.missouri.edu/p/IPM1029> or download the whole thing as a pdf. For turf fungicide information, one of my favorite resources is the annual guide from University of Kentucky: <http://www2.ca.uky.edu/agc/pubs/ppa/ppa1/ppa1.pdf>

If something doesn't look quite right on your trees and shrubs, you can check out our new publication, *Tree and Shrub Problems in Kansas: Diseases, Insects, and Environmental Stresses*. It is available as a pdf here: <http://www.ksre.ksu.edu/bookstore/pubs/MF3132.pdf> Alternatively, you can order copies by calling the KSU Extension Bookstore at (785) 532-5830. There are over 100 color photographs, text descriptions, and a big table of information. All the sections are cross-referenced with each other. Still need help? You can submit a sample to your local K-State Research and Extension Office (use the map here: <http://www.ksre.ksu.edu/Map.aspx>) and/or to the KSU Plant Disease Diagnostic lab:

Plant Disease Diagnostic Lab  
4032 Throckmorton  
Kansas State University  
Manhattan, KS 66506

What to send? Since trees are big, it's not always obvious what to send. You can always start with digital photos. Take one or two of the whole tree, then focus on an individual branch or two, then close-ups of leaves. You can email them to [clinic@ksu.edu](mailto:clinic@ksu.edu) or [kennelly@ksu.edu](mailto:kennelly@ksu.edu). When it comes to physical samples, more is better. Several branches, at least a foot long, with leaves is a good start. Choose branches at the beginning stages of decline. It's hard for us to work with samples that are totally dead and dry. You can always cut the branches to make them fit in the box or envelope.

With turf, digital photos are helpful there, too. Take a photo of the whole stand, then a series of close-ups at different ranges. Just like with trees, you can email them to me or to the clinic address above. For physical samples, just like with trees, "more is better." Ideally, we'd like a sample that is several inches across and deep enough to get the whole root-zone.



At golf courses they usually use a cup-cutter, so that is a good image to have in mind for size. Take it at the edge of the damage so it includes both healthy and damaged grass. I hope you have smooth sailing this year and do NOT need any of these resources. Every year at the turf conference in December, a couple of folks say things like, "Don't be offended – but I'm glad I didn't need to email you this year and I hope I don't have to next year either!" No offense taken. But, I'm here, and these resources are here when you need them! And don't forget to sign up for the e-newsletter/blog! (Megan Kennelly)



# Turf Field Day—Blast from the Past

How many former K-State turf researchers can you identify?  
(Key on page 10)



# The Art of Knowing Your Seed Label



Do you enjoy having a nice green lawn, but didn't have time to get your fall seeding done? Don't fret, there is still time. Although the optimal time of year to seed cool-season grass species is during the fall months, there is still time for you to get a great looking lawn for this summer. But before you go to your local garden supply store and pick up some seed, there are several things you should take

into account before making your purchase. The art of knowing your seed label begins now.

## Turfgrass Species and Cultivar

So, you walk into your local garden supply store and you look at all of your options for potential seed you can use and you say to yourself, "I really want a lush, green lawn fast." So you pick up a bag that says something along the lines of "quick establishment," since that is what you want. Although this bag of seed sounds like a great option, you probably should check out the seed label before making this purchase. In the image is a picture of a seed bag with those claims. As you can see this bag contains 90.50% annual ryegrass (*Lolium multiflorum*) and only 5.97% perennial ryegrass (*Lolium perenne*). Now, as a turfgrass scientist, I can assure you that you may have a great looking lawn temporarily, but annual ryegrass should not be a long term solution. This is why **Rule #1** for the art of knowing your seed label is knowing what turfgrass species performs best in your area. For much of the state of Kansas, tall fescue (*Festuca arundinacea*) is the predominant species in most home lawns. Tall fescue is able to handle most of the drought conditions that Kansas likely endures.

**Rule #2.** The art of knowing your seed label is also knowing which species cultivars grow best in your area of the country. One of the best options for knowing which turfgrass cultivars perform best in your area is the National Turfgrass Evaluation Program ([www.ntep.org](http://www.ntep.org)). On their website, there is data available for homeowners to look at from many different university studies involving different turfgrass species and cultivars. This information will help you make an informed decision on what turfgrass species and cultivar will work best for you. This is a step in the right direction for achieving that lush green lawn you are wanting.

## Other Seed Label Information

Although some of the most important information on the seed label is the turfgrass species and variety, there are

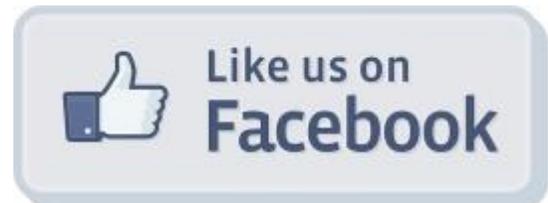
several other pieces of information on the label that can be helpful. **Rule #3**, look at the percent germination for all turfgrass species on the seed label. Just because that type of seed is on the label, doesn't mean all of it will germinate. Thus, it is important to look at the germination rate and chose a bag of seed that has a high germination percentage.

**Rule #4.** Although the bag of turf seed you are going to buy mostly contains grass seed, bags of seed can also contain weed seed. It is very important to look at the percentage of weed seed in your bag of seed. If that percentage is high, I would probably pass on that bag and look for another one with a lower percent of weed seed. If a seed label has 0.5% weed seed, then that equals approximately 12 to 16 weeds being planted per square foot. A seed label with <0.01% weed seed is good, but 0% is best. This also applies to the "other crop" section of the label.

Lastly, **Rule #5.** Consider the seed testing date on the seed label. As with anything, turfgrass seed can get old. This will highly effect the germination percentage from that bag of seed. It is recommended to use newer seed and avoid anything over one year past the testing date.

Utilizing these five rules will help you make an informed decision for planting a lush, green lawn this spring.

(*Evan Alderman, KSU Turfgrass MS Student; Ross Braun, KSU Turfgrass PhD Student; and Jared Hoyle, KSU Turfgrass Research and Extension*)



<http://www.facebook.com/pages/Kansas-Turfgrass-Foundation>

## **Turf Field Day—Blast from the Past Key**

1. Dr. Ray Keen
2. Dr. John Pair
3. Dr. Ned Tisserat
4. Dr. Bingru Huang
5. Dr. Roch Gaussoin
6. Dr. Ron Campbell
7. Dr. Bob Carrow
8. Dr. Matt Fagerness



The month of April is designated as National Lawn Care Month and The Lawn Institute and the National Association of Landscape Professionals (formerly PLANET) want to heighten public awareness regarding the many environmental and health benefits of natural grass.

Knowing how important it is to promote lawn care and educate consumers a toolkit has been created which includes a logo, infographic, photos, a press release, facts and resources, and promotion suggestions that professionals can use in their own client materials. The National Association of Landscape Professionals also promotes National Lawn Care Month on its consumer website <http://www.loveyourlandscape.com> and in national consumer media outreach.

“We encourage the entire industry to come together to promote National Lawn Care Month,” said Sabeena Hickman, CAE, CMP, NALP CEO. Melanie Stanton, Executive Director of TPI and The Lawn Institute shares those sentiments. “The National Association of Landscape Professionals has achieved a tremendous amount of awareness with this campaign for many years and anything we can do to better educate consumers and provide viable information to key decision-makers will benefit the communities in which we live and the world as a whole,” said Stanton.

“We are thrilled to be partnering with The National Association of Landscape Professionals to promote National Lawn Care Month in April and broadening the message, both nationally and internationally, of the many environmental and health benefits natural grass lawns have to offer,” added Stanton.

Visit <http://www.landcarenetwork.org/PLANET/National-Lawn-Care-Month.aspx> or: <http://www.thelawninstitute.org/pages/april-is-national-lawn-care-month/> for free materials to promote National Lawn Care Month.

The National Association of Landscape Professionals represents more than 100,000 landscape industry professionals, who create and maintain healthy, green living spaces for communities across America. NALP members are committed to the highest standards in industry education, best practices and business professionalism. Many of NALP’s professionals have attained the status of becoming [Landscape Industry Certified](#), achieving the greatest level of industry expertise and knowledge. Visit <http://www.landcarenetwork.org/>.



## **KTF Founders Society Members**

*Bayer Environmental Science  
Flint Hills National Golf Club  
Floratine Midwest  
Gard’N Wise  
Merrin Godfrey  
Heart of America Golf Course Supt. Assn.  
Kanscapes, Inc.  
Kansas City Country Club  
Kansas Golf Association  
Kansas Golf Course Superintendents Assn.  
McPherson College*

*Prairie Dunes Country Club  
Professional Grounds Management  
Ryan Lawn & Tree  
Syngenta  
Gregg Snyder  
Syngenta  
Don Tannahill  
Turf Professional Equipment  
Williams Lawn Seed*

A \$1,000 contribution (at once, or over time) is all that is required to become a KTF Founder. Our goal is to recruit a total of 100 Founders over the next several years. These funds are untouched with hope that one day accumulated interest will help to support turfgrass research.

For more information on how to become a KTF Founders Society member, contact Jack Fry, Horticulture Division, Throckmorton Hall, Kansas State University, Manhattan, KS (785) 532-1430 [jfry@ksu.edu](mailto:jfry@ksu.edu)