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ENVIRONET



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Introducing Magnum's new netting line, **EnviroNet**. This line offers all the advantages of a classic polypropylene net without the unwanted lingering of the plastic net after installation. EnviroNet uses a special formulation that allows it to perform at the highest quality during the growing stage of the turf until it is no longer needed, which is when the net begins to degrade.

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IN THIS ISSUE

FEATURE ARTICLES

FOCUS: Annual Seed & Vegetative Stock Issue

12 Jimmy Fox—Forever on a Mission

Meet your new President, his family, business and philosophy. He is on a mission to promote natural grass and gain world-wide recognition for those who produce it.

18 Seed & Vegetative Stock—New Varieties

See what new varieties TPI supplier members have in store for you in the coming year.

23 Seed & Vegetative Stock—Source Listing

Contact these TPI supplier members for your seed and vegetative stock needs.

26 Seed & Vegetative Stock—Crop Predictions

Read what the producers are predicting for the crop this year based on current information.

29 Seed & Vegetative Stock Listings Available by Company

Supplier companies were invited to provide a list of available varieties and website for more details.

36 Cool - & Warm-Season Grasses Overview

Kevin Morris, executive director, National Turfgrass Evaluation Program (NTEP), summarizes the data collected in the NTEP trials.

50 'Grass Roots' Opens at Maryland SoccerPlex

See how 'Grass Roots' is reaching out to over 600,000 soccer fans just 40 miles from Washington, D.C. telling the story of the importance of natural grass.

52 Jim Novak Retires

Turf News takes this opportunity to honor long-time TPI communicator Jim Novak as he retires.

56 Jim Novak's Letter to Members

Read some of Jim's thoughts as he rode off into the sunset.

57 TPI After 50 Years

Looking back and looking forward on TPI's 50 & Fabulous Anniversary.

58 Innovation and Generations

This first in a series of articles showcases Warren and Clark T. Bell and how they are working together to grow the family business.

61 Green Street Challenge Comes to U.S.

How John Coombs, Sr. took advantage of a Conference presentation and contact to do what he could to help grow the industry.

63 Natural Grass Wins out on Martha's Vineyard

After lengthy debates, Martha's Vineyard decides on natural grass surfaces for sports field renovations.

PLUS	BONUS
TPI News6	TLI Helpful Hints Pass-Along11
Turf Industry News67	Meet the New Board Members8
DEPARTMENTS	Association Updates64
President's TURF2	Classified Ads70
Executive Director's TURF4	Advertisers Index71
Welcome New & Returning Members71	Turf Industry Calendar72
The Lawn Institute News	

PRESIDENT'S TURF

A Strong Future



Jimmy Fox

I'm honored and humbled by the opportunity to serve as your President. As TPI enters our 51st year, it's amazing to see how far we've come as an association and an industry.

Yet we have an identity crisis. As turfgrass sod producers we should be the leader in championing natural grass.

The Lawn Institute (TLI), TPI's foundation, offers an array of resources and many do go to TLI for information. Yet a lot of associations in the horticultural industry don't know who we are and what we do.

Your Board of Trustees has developed a vision for TPI that can, and will, change that—with your help. We need your input and your support.

Action started with the introduction of the new logo created to help others visualize that natural grass is what we produce. It continued with the hiring of key staff members.

I'm excited to have Dr. Casey Reynolds as Executive Director and Karen Cooper as Associate Executive Director. They're both very passionate about the turfgrass industry and the TPI vision. They're eager to lead and support you, our members. Both have experience working with associations and teaming with Sandy Reynolds in the Director of Operations/Director of Meetings role will give them the insight into the TPI background and organizational structure that will keep TPI strong and moving forward.

Your leadership team is working to establish strong relationships with national allied industry associations to take on the challenges to natural grass. They are many, ranging from the turfgrass limitations with LEED to water issues across the world. While TPI does not have its own lobbyist, united with allied industries, we bring a strong voice to governmental policymakers.

Within the United States, we'll be reaching out to the state associations. Internationally, we'll be working to build and strengthen relationships with allied associations to better serve our international members.

We also will be building on the relationships TPI has already established. We'll continue to network with the Sports Turf Managers Association (STMA) on multiple levels from the sharing of information to collaborative projects.

Thanks to the collective efforts of TLI, TPI, the Irrigation Association (IA), Outdoor Power Equipment Institute (OPEI), the National Hispanic Landscape Alliance (NHLA) and the leadership of the National Association of Landscape Professionals (NALP), the 2017 National Lawn Care Month campaign promoted the importance of natural grass to a world-wide audience. We'll be continuing that collaboration in 2018.

I thank God for the team of leaders who stepped up to guide TPI through challenging times. Special thanks go to Past President Linda Bradley for the great job she did of filling in the gaps during our lack of a full-time executive director and to incoming Vice President Eric Heuver for leading the executive director search committee. Jimmy to

May God continue to bless your family and your business.

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EXECUTIVE DIRECTOR'S TURF





Casey Reynolds

Sandy Reynolds

A Bright Future for TPI

While 2017 has already proven to be a momentous year with the 50th Anniversary Celebration, Jim Novak's retirement after twelve years, a new TPI website and a new interactive TPI membership database, the future is only getting brighter for TPI with the addition of Casey Reynolds as the Executive Director and Karen Cooper as the Associate Executive Director. It has been a great honor to serve as the Interim Executive Director over the last 13 months and I am very excited to transition into a new era of leadership and collaboration.

The new TPI team assembled brings a rich and diverse skill set to the table. For Casey this has been a journey that began in 2011 when he managed the seed test plot program at the 2012 TPI Summer Convention & Field Day at Turf Mountain Sod in Hendersonville, NC. Casey recalls thinking at the time what a great day to be on a beautiful property surrounded by people with a passion for farming, service, and producing a crop that brings utility and enjoyment to so many people. Fastforward five years, 1,200 miles, and a four year stop at Texas A&M University, and he will now be attending the next TPI summer program in New Brunswick, NJ as a member of the TPI family.

Casey put it best when he said "Sandy's steady hand and extensive knowledge of TPI's history and inner workings will allow Karen Cooper, the newly appointed associate executive director, and I the opportunity to focus on merging our previous work experience, strengths, and industry relationships into opportunities for us to make immediate contributions to TPI and its members. Initiatives on our short and long-term agenda include a new member benefits package, enhanced visibility through participation in industry events such as STMA, GIS and regional turfgrass shows throughout the country, increased collaboration with universities, a new website for The Lawn Institute including new marketing materials that promote turfgrass, and collaboration with allied associations and others."

As we move forward into 2017 and beyond, the TPI staff's mission will continue to be to provide service and value to TPI members and to promote the use of natural turfgrasses and their benefits in urban environments. As Casey points out, "In 2008 for the

first time in human history the world's population became evenly split between rural and urban environments. By 2050, the United Nations projects that this will likely shift even further where up to 66 percent of the world's population could be living in urban environments, which means the addition of another 2.5 billion people. As this occurs, turfgrasses will continue to play an essential part of the success, comfort, health, and social well-being of millions of people living in urban environments, and we will work tirelessly on behalf of TPI and its members to secure their role."

Please don't hesitate to reach out to us, and we look forward to working with each of you on our shared mission. Here's to another 50 years, and thanks for all you do!

Until next time,

Casey Reynolds, PhD

Sandy Reynolds, CMP

As we move forward into 2017 and beyond, the TPI staff's mission will continue to be to provide service and value to TPI members and to promote the use of natural turfgrasses and their benefits in urban environments.

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Relationships are what we like to grow most.





TPI NEWS

WHAT'S HAPPENING **NOW**

TPI MEMBERSHIP DUES

Don't delay—July 31 is the deadline by which payment must be received to secure your company's listing in the 2018 Membership Directory.

SECONDARY FARMS

Don't forget to renew or add your multiple locations to our website and 2018 Membership Directory.

CALL FOR PRESENTATIONS FOR THE 2018 INTERNATIONAL EDUCATION CONFERENCE & FIELD DAY

Do you have something of interest that's informative, beneficial, and worth sharing with turfgrass producers? TPI is inviting members, manufacturers, educators, researchers, and others to submit presentation proposals for TPI's 2018 International Education Conference & Field Day in Tucson, Arizona, February 12-15. Visit the TPI homepage to learn more or use this link to submit your proposal today! All submissions are due electronically to TPI by September 1, 2017. Please contact Karen Cooper at 847-737-7631 or email, kcooper@TurfGrassSod.org, if you have any questions about presenting.

MARK YOUR CALENDAR



TPI 2018 INTERNATIONAL EDUCATION CONFERENCE & FIELD DAY

February 12-15, 2018 in Tucson, Arizona – USA Westin La Paloma Resort Field Day Host: Evergreen Turf, Inc.

The TPI International Education Conference & Field Day provides you with an opportunity to interact with turfgrass professionals from around the world and includes cutting-edge education sessions, informative exhibits, live equipment demonstrations, business meetings, and social activities. You cannot afford to miss this premier industry event!



TPI NEWS

WHAT TO **KNOW**

URGENT: DUES RENEWAL DEADLINE IS JULY 31, 2017

Secure your company's listing in the 2018 Membership Directory.

Payment must be received no later than July 31. Payments can be completed online using the new TPI website/membership database, faxed, or mailed to the TPI office.



If you have not received your dues statement, please contact Geri Hannah at 847-649-5555, ext. 100 or ghannah@TurfGrassSod.org.

ATTENTION SOD PRODUCERS WITH SECONDARY FARMS

SECONDARY FARMS



Ensure that your local customers can find you.

Turfgrass producers who own and operate multiple farm locations can purchase a membership for their secondary farms for only \$150. Secondary farm locations will receive the same benefits as primary locations including *Turf News* and a separate listing online and in the TPI Member Directory. Customers use the online listing to search by postal code, so be sure to list all of your locations to secure their business.

TPI HEADQUARTERS MOVED

On June 1, TPI moved to new headquarters. The new mailing address is Turfgrass Producers International, 444 E. Roosevelt Road #346, Lombard, IL 60148. The phone numbers all remain the same. 847-649-5555 or 800-405-Turf (8873), Fax 847-649-5678

TWITTER

Keep up-to-date on TPI, TLI, and industry news by following our us at @TPITurfTalk and @TLIhealthylawns.

FACEBOOK

Be sure to visit TPI's Facebook page at: https://www.facebook.com/TurfgrassProducersInternational.



PHOTOS OF TPI EVENTS AVAILABLE ON SMUGMUG

Did you know that TPI members can view pictures from past conventions and conferences on Smug Mug?

Visit: www.tpiphotos.smugmug.com/to take a journey down memory lane.



INTRODUCING YOUR NEW TPI BOARD OF TRUSTEE MEMBERS

Two new TPI Board of Trustees members were elected at the last TPI annual meeting and they officially took office on July 1. We are pleased to provide some background information on each of these gentlemen.

KEITH WITTIG



Keith is the owner of Central Turf Farms, Inc. located in Wharton, TX. He has been involved in the turfgrass industry for nearly his entire life and can recall driving tractors and mowing from an early age. Prior to leaving for college, his responsibilities expanded to include many more aspects of farming operations. Keith attended Texas A&M University and received a Bachelor of Science degree in Agricultural Systems Management before being approached by Bethel Farms in Arcadia, FL. Keith says, "The opportunity to return to the turfgrass industry was one I just could not pass up. My experience there opened up a whole new level of turfgrass farming to me." In 2013, he returned to the family farm and became a

grower partner of Bethel Farms in the Harmony Outdoor Brands program. His operation focuses on turfgrasses adapted for Texas including Bermudagrass, St. Augustinegrass, and Zoysiagrass in rolls and slabs. He also has managed to be active in the Turfgrass Producers of Texas (TPT) and served on the board of directors from 2011 to 2016. In his personal time, he enjoys working with local organizations that serve his community, particularly those that allow him to interact with youth. Keith also enjoys fishing and hunting but says, "With the responsibilities of farming, I don't often get to go. But I squeeze in a trip here or there when I can." He is married to Kimberly Wittig. They have two daughters, Aubrey age 12 and Alleigh age 5.

JIM KEEVEN



Jim Keeven is the co-owner of SelecTurf, Inc. which he founded in 2011 in Jefferson City, MO with his wife and business partner Kathy. However, his roots in farming and turfgrass grow much deeper than that. Jim's parents, Ed and Vivienne Keeven, began installing sod in Florissant MO in 1951 when they were doing business as Ed Keeven Sod Co. Inc. In 1963, they founded a 120-acre turf farm in O'Fallon, MO and only 10 years later had grown the operation to 400 acres. In 1984 Jim and his two brothers, Eddie and Tom, purchased Ed Keeven Sod Co., Inc. and started doing business as Emerald View Turf Farms. One year later, Jim and Kathy moved to Jefferson City to

expand the family business. Today, SelecTurf serves Jefferson City and Columbia, MO with over 550 acres of bluegrass, fescue, bermudagrass, buffalograss, and zoysiagrass. Jim has proudly been a member of TPI for 33 years. He also has found time to stay active in his church, raising funds for Suicide Prevention, and to serve as co-chair of the Lewis and Clark chapter of the Rocky Mountain Elk Foundation. Jim has remained involved in various turfgrass industry associations including: the Missouri Turf and Ornamental Council, STMA, and GCSAA. He has served on the Missouri Pesticide Safe Education Program committee. He enjoys hunting, fishing, traveling, and most importantly spending time with his family. He and Kathy have three children, Clint, Kelsey, and Joe, and have recently welcomed the addition of their first grandchild Allison. They also anticipate the arrival of their first grandson this September.

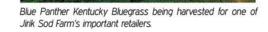
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The first field that Pete planted was only three acres in size. Today, this 35-year old business is run by Pat Jirik and Troy Nuebel, and serves the entire Minneapolis / St. Paul metro and surrounding areas. Jirik sod has some very important and demanding customers, including some of the best lawn and garden retailers in the USA.

Troy and Pat sell their sod under the Highland Turf brand name. Since Jirik can't afford to fail even once, they spend a good deal of time researching the Kentucky Bluegrasses they use. Jonathan Green's Blue Panther varieties, such as Krypton Kentucky Bluegrass, have been consistent performers for Troy and Pat. We are proud to play a small part in the great success of this first class Minnesota sod business.







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The Lawn Institute sincerely thanks all members that have donated to The Foundation in 2017. In recognition of the Forever Green, Gold Partner, Green Partner and 500 Club members, the lists below recognize those who have donted as of 6/1/17. For more information on how you can support TLI go to http://The LawnInstitute.org/and click on SUPPORT TLI.

Forever Green



FOREVER GREEN

Hank and Mary Kerfoot (Modern Turf)

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For more information go to:

www.TheLawnInstitute.org/page/forevergreen/ to donate for 2017!

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Contributions made to The Lawn Institute help support turfgrass research, education and scholarships. Donations made in the calendar year determine

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- · Recognition in our publications
- · Personal recognition in the Lawn Institute booth

Visit *TheLawnInstitute.org* to make your donations for 2017!

Personalize the next page (Helpful Hints from The Lawn Institute) Insert your company's business address and contact information by going to www.TheLawnInstitute.org/pages/helpful-hints-from-the-lawn-institute/ to access The Lawn Institute's easy-to-use template. Then print and share with your customers—it's free!





Helpful Hints from THE LAWN INSTITUTE

SITE PREPARATIONS



Whether you are replacing an area in an established lawn or starting a new lawn, proper site preparation is important for turfgrass establishment and longevity. "The beauty is in the blades, but the 'action' is in the roots," is a good adage to remember when planning either of these projects.

Proper site preparation and soil improvement, before any planting takes place, will make it easier for the grass roots to penetrate deeply and evenly. Deep roots will make the lawn more drought resistant, a more efficient water and nutrient user, and denser as new grass plant shoots emerge. A dense lawn crowds out weeds and resists insects and disease.

Follow the steps below for a beautiful, healthy and trouble-free lawn:

Clear the site of all building materials (wood, cement, bricks, etc.), as well as any buried stumps, rocks, stones or other debris that is larger than 2-3 inches (4-5 cm) in diameter.

Rough grade the entire area to eliminate any drainage problems. This would include sloping the grade away from building foundations; eliminating or reducing severe slopes; removing soil from mounds or ridges; and filling in low-lying areas.

For large areas, use a tractor-mounted box blade to move the soil for rough grading or hire an experienced lawn care specialist to take on this step for you. For small areas, use a combination of hand tools, including shovels, hoes and bow rakes. Rough grading may uncover more debris to be removed.

Initial tilling, to a depth of at least 2 inches (5 cm), should be completed prior to adding any topsoil or soil amendments. This will control most annual weeds; alleviate subsoil compaction; permit a bonding of the topsoil to the subsoil; and improve root penetration and water movement.

Add topsoil to achieve a total topsoil depth of 4-6 inches (10-15 cm), after firming. The soil type should be loamy sand, sandy loam, clay loam, loam, silt loam, sandy clay loam or other soil suitable for the area. To the extent possible, practical, affordable and available, incorporate humus (fully decomposed organic matter) into the topsoil.

Conduct a Soil Test. The test results will give you a report on the nutrient levels, CEC (Cation Exchange Capacity), and pH along with recommendations on correcting any deficiencies. Following the recommendations may include correcting acid or alkalinity levels, adding soil amendments and/or adjusting fertility.

If amendments and fertilizer are added, work them into the top 3-4 inches (7 to 10 cm) of the soil.

Finish grade the entire site, maintaining the rough grading contours and slopes, using a tractor-mounted box blade on large areas or a heavy-duty rake on smaller sites.

Roll large areas with a lawn roller one third full of water to firm and settle the surface and reveal any low spots that should be filled to match the surrounding grade surface of the soil. For small areas, use a hand-held tool, such as a tamp. If time permits, allow the area to settle further with rainfall or by applying irrigation water. Level any high or low spots the settling reveals.

The site is now ready for installation of the sod, plugs, sprigs or seed.

Follow the recommended installation practices and postinstallation procedures to ensure your new lawn area is off to a good start.



For more information on lawn care and helpful "How to" tips, visit The Lawn Institute at http://www.TheLawnInstitute.org.

JIMMY FOX— FOREVER ON A MISSION



The family that shoots together better get along. Front row left to right, Daughter Shannon, Taze, TJ (her husband), Tylee, Tanin, and Kynlee, back row – Josh, Lora, Jimmy, Nikki and her husband Sean, then Sean's father.

By Suz Trusty

Jimmy Fox steps into his newest role, President of Turfgrass Producers International (TPI), on a mission to promote natural grass and gain recognition for the world-wide network of those who produce it.

President of Evergreen Turf based in Chandler, AZ, Fox and partner Jeff Nettleton have built a multistate company that has successfully put natural grass in the spotlight for high profile sports field customers such as the Arizona Cardinals and over 300 golf courses. They've provided elite, golf-quality natural

grass to thousands of homeowners. And they've built a reputation of completing even the most complex projects on target and on time—mission accomplished.

Missionary Kid

Fox grew up as a missionary kid, along with his 3 brothers, living in Thailand from the age of 7 to 17. "My Dad was an Engineer for National Gypsum who got tired of the corporate world and wanted to teach others about Jesus," says Fox. "Learning the language and the culture and connecting with the people was an incredible experience.

"We needed to leave Thailand every two years to renew our visas and return to the U.S. every three years. My parents took advantage of those periods to engage our family in overseas travel. We visited Japan, Korea, the Philippines, and traveled throughout the Holy Land and Europe. I also played a lot of sports and would go to Laos to compete in swimming and to Malaysia, Singapore and Hong Kong for basketball, volleyball, and baseball."

The schools in Thailand are part of the Bangkok International School System, one of the top educational schools in the world. So Fox's high school education was closer to the college level than the traditional U.S. high school level. "There could be 50 or 60 nationalities at school and most of them spoke three to five other languages. A lot of those kids' parents were in the UN or were high ranking military personnel or IBM executives. Thanks to Facebook, I still keep up with friends in Pakistan, Israel, France, New Zealand and Australia. Many have gone on to high-level leadership positions."

The international experience made Fox more aware of, and sensitive to, other cultures. And it sparked what would become a life-long mission to keep learning.

Finding His Path

His parents returned to the states for several years to "get their boys in college." Fox started at the University of Arizona as a geological engineering major, but hated upper division math. He dropped out before earning a degree, taking a position fixing office copy machines.

At 21, he joined Arizona Nursery Supply, selling to nurseries and garden centers. New to the industry, he says, "I was eager to learn everything about turfgrass and seed, fertilizer and chemicals." He started attending seminars, reading, asking questions—and he's never stopped. In five years he was sales manager for the company's golf and landscape division, selling and supervising five other salespeople. Then the U.S. economy went through the savings and loan crisis and the company closed.

In 1990, Fox went to work for another distributor, Garden West, as a sales representative covering Arizona and New Mexico in their golf and landscape division, which also served the sod farms. "My sales reached the point where they couldn't pay me directly without impacting cash flow so they offered me equity in the company as part of my compensation package," says Fox.

Starting as a minority partner, he earned his way to equal partner.

He continued his mission to learn how to help other people grow grass better through seminars and classes. Garden West sponsored an annual event to help customers get their CEUs. They'd bring in the fertilizer and chemical company specialists and university turfgrass specialists, including Dr. Joe Vargas from Michigan State University; Dr. B. J. Johnson, now professor emeritus, University of Georgia; and Dr. James B Beard, now professor emeritus, Texas A&M. "I'd have the opportunity to spend two or three days with them each year, tapping into some great discussions as well as their presentations," says Fox. "They may not remember me, but I sure remember them. I didn't get formal turfgrass training, but gained a wealth of education from them."

Starting a New Venture

Fox says, "We had just sold Garden West, but had not yet announced it publicly, when I got a phone call from Jeff Nettleton. I'd connected with him when he was farm manager for Al Gardner at Gardner Turfgrass' Arizona operation. Jeff wanted to start a sod farm and asked if I might know a guy who would be interested in a partnership, primarily in exchange for providing the financial backing for the farm. I told him that guy might be me."

Fox and Nettleton come from two very different and unique backgrounds. Nettleton got an early start in the sod business, working for Darwin McKay in Idaho during his college years at Boise State University. He'd worked in Texas for Ike Thomas and the Thomas brothers and then for Turfgrass America. He'd worked for Gardner and also spent some time in Australia, working with Rob Davies of Evergreen Turf.



This picture has a million dollars' worth of equipment in view.

By 1998, Garden West had grown to the region's largest golf fertilizer and seed supplier. Their high-volume sales included 10 million pounds of perennial ryegrass for overseeding. Their success drew a buy-out offer that the partners seriously considered and then accepted.

Fox says, "He'd gained a wealth of knowledge and experience, working for successful sod producers who were also influential people in the turfgrass industry and leaders within TPI."

What they shared was the understanding that—no matter how large or small—each project is the



Lora and Jimmy with the three older grandkids, Tylee, Kynlee and Tanin.

most important in the eyes of the customer. They agreed that great customer service would let each customer know they felt the same way. To accomplish that, they would need knowledgeable, dedicated employees who not only provided service on target and on time, but who also projected the company attitude to each customer. They agreed that sod production needed to have operational efficiency in its set up and flow to maximize use of time and equipment and make a profit.

Fox says, "Ninety days after Jeff's call we were plowing dirt."

That was April of 1999. Evergreen Turf started as a 120-acre sod farm near Chandler, Arizona, focused on supplying homeowners and landscape contractors with an elite, golf-quality turfgrass product. "I was president, but Jeff ran it," says Fox. "From the beginning it was his decisions and drive and direction that put our master plan into action. By 2001, Evergreen Turf hit our five-year projections."

Choosing a Focus

At that point Nettleton told Fox he needed some help and they were going to have to hire a controller. Fox says, "I was selling a bit of our sod on the golf side, but I'd started another marketing and sales company, Total Turf Resources, and had three partners in that. I'd been splitting my time between the two and knew I needed to pick one and focus on it. I chose Evergreen Turf. I took over sales, marketing and installation, which we view as an extension of sales, and Jeff concentrated on the operations. We play to each other's strengths and weaknesses."

Drawing on the insight he'd gained on the business operations of landscapers, nurseries and garden centers, Fox started building a distributor network. He knew Evergreen Turf would have to establish very strict pricing guidelines to allow wholesale customers to make the margins they required to sell sod profitably if he also would be selling directly to the homeowner and contractor. "That put us in the unique position of selling to all the levels: the resellers, such as Ewing, SiteOne and Horizon; the retailers; and the end users," he says.

With more time to fine-tune operations, Nettleton "brought increased efficiencies to the table," reports Fox. "His goal was—and still is—to automate as much as possible in everything from equipment to computer systems to communications. For example, when buying mowers, he'll look for the largest cutting capacity we can use effectively. A few more inches cut with each pass really add up when you have acres to mow."

Evergreen Turf joined Turfgrass Producers International (TPI) in 2001, tapping into the resources it offers, including connecting with other growers. Fox was active in the Arizona Nursery Association and the Cactus and Pine Golf Course Superintendents Association and has served on the boards of both.

They also started working with sports fields. Fox dug in to learn how best to serve another highlyspecialized market. "Like golf course superintendents, sports turf managers are professionals who know their turfgrass and what they expect from it. Their packed fielduse schedules make the timeframe for field installation or renovation incredibly tight. We understand that and deliver what we promise. That segment of our business really took off and keeps growing."

What started as a 120-acre farm in 1999 had become a 1300 acre farm by 2006. They had eight installation crews and were shipping 30 to 35 trucks of sod a day.

Always seeking greater efficiency, in 2006 and 2007, Nettleton worked with Mark McWhorter of NG Turf in Georgia to develop a harvest and dispatch software program. With the computerized system, when an order is entered it generates a harvest sheet (or cut sheet), assigns it to a farm and then it is automatically dispatched. Fox says, "It takes about an hour working on the computer to organize this and then manually make any tweaks it needs. It makes life so much easier for the farm and dispatch people."

They've been providing hydrosprigging for fairway grassing on golf courses as well as mechanical planting and, of course, sodding. Fox adds, "We also offer fairway conversions and transition sprigging, all enhanced with our exclusive stolon handling system. Keeping up with technology is a must to survive in farming."

The Crash

Like any other business, sod farms have to adapt to changes in the economy. Fox and Nettleton had become "pretty good" at analyzing the market and basing their production on what they anticipated their needs would be. But no one was prepared for the crash of 2008. Fox says, "We lost 40 percent of our business, almost overnight."

So they made "a few" adjustments. Initially they took some fields out of production, but kept most of them in turfgrass at a maintenance level.

Fox says, "We changed crops on about 100 acres, growing alfalfa at what turned out to be the right time, while the market was strong for it. As other farms grew more alfalfa and prices dropped, we put those acres back into turfgrasses.

"Jeff had just begun working with Harmony Outdoor Brands, helping get that program established in the western U.S. and he focused more time on that. While we'd been serving independent garden centers all along, joining the Harmony program brought us sales with Lowe's and Home Depot."



Jeff and Jimmy dress in team gear to attend an Arizona Cardinals game.

Growing Again

Now that the sod business has ramped back up, Evergreen Turf has too.

They've recently expanded into California, taking over the management of what was American Sod Farms in Escondido, just outside San Diego. Fox now handles sales and operations for Arizona and California. Nettleton does the same for their two New Mexico operations. The McIntosh location serves the Albuquerque market and beyond. The Santa Teresa farm covers the Las Cruces, New Mexico, and El Paso, Texas, markets.

Seeking help in tackling day-to-day operations in areas new to him, Fox attended his first TPI International Education Conference and Trade Show in January of 2011, held in Reno, NV. "Members welcomed me, and my questions, providing great advice that we've incorporated to make changes more effectively and improve our operations. The open invitation to tap



Volleyball is also a family activity as they win a championship. That's Jimmy on the left next to TJ and Shannon with Sean and Nikki on the right.

into those networking resources, to call any time we'd like another sounding board is amazing," he says. "I had to get involved so I could give back by helping others."

Evergreen Turf has farm managers for each site and a core staff for each location, with a total of about 120 employees. Fox says, "So much of our success has come because of our extraordinary people who are dedicated to our overriding commitment to our customers."

Combined sod production for all Evergreen Turf locations is close to 3,000 acres. Fox calls that "a moving target. Arizona is still our largest producer, now with around 1,100 acres."

Each farm initiates the contacts and generally handles the production, harvest, delivery, and installation for their own geographic region, except for large projects, Fox reports. "Our intercompany network supports overall sales. We do ship from one farm to another when needed."

Evergreen Turf can't centralize because conditions vary so greatly from site to site in soils, water and climate fluctuations. "A couple of our locations have poor quality water. We've learned to make the right adjustments to grow great grass with bad water. Our other farms don't need those practices."

Governing bodies also vary from site to site. "Every state has its own environmental policies. Many cities have developed ordinances that impact everything from the movement of equipment and noise to water use," says Fox.

Fox has been amazed at how different the culture is on each of their farms. "Will Nugent (TPI past president, president of Bethel Farms and the mastermind behind Harmony Outdoor Brands) cautioned me to expect the culture adjustment," says Fox. "I do understand it's hard for many people to adjust to changes. Those working together on a farm have all evolved to where they are because of the circumstances they deal with, the work they do, and the kinds of customers they serve."

So it was a huge change for the California operations when Evergreen Turf took over this year and brought automated harvesters to them. "They had still been hand stacking," says Fox. "In today's economy, with today's labor, it's hard to depend on hourly personal, especially for an essential task. The change had to be made. We like to have at least two automated harvesters at each farm. With warmseason turfgrasses, we can harvest two different grasses at the same time, and we have back-up when one machine breaks down."

Evergreen Turf owns trucks and employs truck drivers. They also rent trucks and they contract for trucks and drivers with outside companies. For efficiency, and to control costs, they try to balance the ratio so they're not overloaded with trucks but still have trucks available when they need them. Fox says, "We can run 15 to 20 trucks a day, but that varies. In late April, our Arizona farm shipped 17 trucks on a Thursday and only four that Friday. We rent a truck for a week to lock it in, even though we may not use it every day. Not being able to ship a truckload when a customer needs it is much more costly than the rental."

The multiple sites and differing conditions allow Evergreen Turf to grow a broader range of grasses. Keeping with their desire to produce golf-quality turfgrass sod, most of these are proprietary, licensed,



The group gathered for a photo op during an Evergreen Turf managers meeting.

varieties. Some are specific to one market segment; others are shared across all markets. The current list includes: Latitude 36, Midiron, MiniVerde, TifEagle, Tifgreen 328, TifGrand, TIFTUF, Tifway 419, Aloha Paspalum, Palmetto St. Augustine, Celebration, Tall Fescue, and Bluegrass.

Fox says, "We like to be on the leading edge with the best turfgrass varieties. But we do try to test a new variety for a few years to make sure it performs well in our conditions before we introduce it to our customers."

Family Ties

Jimmy Fox doesn't completely immerse himself in Evergreen Turf. He has a getaway spot in the home he shares with his wife Lora in Apache Junction, Arizona. It's a place filled with faith, love and laughter—and usually at least one or two of their seven grandkids.

Fox says, "When Lora and I married, one of our goals was that once we started having kids she'd become a stay-at-home mom to raise them. We didn't anticipate that she'd get pregnant six months after we married, but we made it work and are both so glad we did. I thought she'd be looking forward to restarting a career now that all three of our kids are married with kids of their own. But she came up with an even better idea. She's now a stay-at-home grandma—and she loves it."

Jimmy and Lora are living every grandparents dream; with their entire family not only nearby, but also so close knit they see all of them almost every week. "Our kids were into sports growing up and we went to all their events. Now we're getting to do that again with the grandkids," says Fox.

Their son Josh runs Evergreen Turf's installations in Arizona, serving as project manager. He is married to Andrea and they have two girls, Paisley and Cheylynn.

Their oldest daughter Shannon is a stay-at-home mom who plays and coaches volleyball and does photography. She and her husband TJ are the parents of two girls, Tylee and Tru, and a boy, Taze.

Their middle daughter Nikki is a professional seamstress who designs and sews upholstery for an outdoor furniture company and also does photography. She and husband Sean have a boy, Tanin and a girl, Kynlee.

And, great grandpa and grandma live next door. Fox says, "After all four sons were on their own, my Dad and Mom went back overseas for another 15 years, preaching and teaching in Thailand, Laos, Cambodia and Burma/Myanmar. They love being so close to us now, but they'll always be missionaries. They still go back overseas two or three times a year to work with their churches."

Promoting Natural Grass

Fox sees the growth in youth soccer as a great thing, especially because soccer hates playing on plastic surfaces (synthetic turf). "People who want to play on natural grass are some of our best advocates," he says. "Soccer players don't like sliding on synthetics and they love NOT eating the crumb rubber. A synthetic turf field is no fun at face level."

An upcoming project gives Evergreen Turf another opportunity to put the spotlight on natural grass. "We'll be using Latitude 36 for the professional soccer team Los Angeles Football Club in their new stadium in Los Angeles and their practice facility," Fox says.

They also will be sodding all the fields for a ten-field complex in El Paso later this summer. That will take about 25 acres of Tifway 419. They'll be renovating several football fields in Phoenix, two in conjunction with the Arizona Cardinals. And they recently harvested the first sprigs from their TIFTUF field in California—another new grass for them.

Evergreen Turf is sharing news of these projects and the benefits of natural grass by Facebook and Twitter, an outreach to those who receive most of their information via social media—soccer moms and millennials. And the mission continues.

Suz Trusty is co-editor of *Turf News*.

All photos courtesy Evergreen Turf/ Jimmy Fox.



TAMANET (USA) INC.

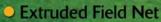
Big Roll Netting

FIELD Netting

- TAMA Reinforced Knitted Net
- 22,000 ft. X 17 ft.
- Steel Core

- TAMA Big Roll 13,200 ft. Length
- Red Mark for Roll End
- 9 30", 40" Width





- Standard & Heavy Duty
- 17 ft., 20 ft. Width
- Now Available as Degradable Net
- Extruded Big Roll
- Standard & Heavy Duty
- 23", 29", 40", 46" Width
- Now Available as Degradable Net

NEW VARIETY PREVIEW

Use this guide to learn about the new varieties that your supplier member companies are introducing for your consideration.



BENTGRASS



TourPro creeping bentgrass quickly produces an elegant, low growing turf with a medium fine-leaf surface that is durable. TourPro was selected for improved disease resistance to Dollar Spot and Pink Snow Mold. TourPro has high shoot density and great density during the growing season which helps crowd out and control poa annua.

Columbia Seeds

BERMUDAGRASS



Ardan 15 certified hybrid bermudagrass is a good quality turfgrass with excellent color and superior early spring green-up! It is a two-clone intraspecific hybrid that provides a more uniform turf compared to other seeded cultivars. Arden 15 is suitable for golf courses, parks, playgrounds, cemeteries, athletic fields, home lawns, and erosion control.

Pennington Seed, Inc.

KENTUCKY BLUEGRASS



Bolt Kentucky bluegrass jumps out of the ground faster than any other Kentucky bluegrass in the recent NTEP trials. Bolt ranked first in seedling vigor and percentage establishment. Its rapid germination and fast establishment allow it to crowd out weeds, suppress poa, and form a dense sward. Bolt's top NTEP turf quality and fine bladed texture make it an ideal choice for all applications. Bolt has excellent disease resistance and is well adapted to both high and low maintenance uses. Bolt's quick establishing ability makes it a great choice for sod farms, sports fields and home lawns. **Mountain View Seeds**

KENTUCKY BLUEGRASS



Jackpot Don't gamble with a lessrounded variety when you can WIN with Jackpot Kentucky bluegrass. Jackpot Kentucky bluegrass brings you the green in more ways than one: it is a cost saving variety with attractive medium-dark green genetic color, early spring green-up and terrific spring and fall performance. Jackpot was selected as a great fit to blend with elite Jacklin 5-Steps Above™ varieties, especially for sod production. It successfully competes with BMVG and Mid-Atlantic type varieties but it is newer and shows better overall turf qualities. Jackpot shows diversification without sacrificing important turf characteristics that have made Jacklin Seed bluegrass varieties popular around the world. Its superior seedling vigor allows Jackpot to jump off to a quicker start than many Kentucky bluegrasses with faster germination and establishment. Jackpot was bred for tolerance against many strains of rust and powdery mildew. Another exciting bonus is that Jackpot exhibits wear tolerance under traffic stress making it a good choice for sports fields and turf areas where foot traffic is expected.

To claim Jackpot for your bluegrass turf production, see your Jacklin representative.

Jacklin Seed by Simplot



Krypton When you think of darkgreen turf ... think Krypton! Krypton Kentucky bluegrass is a favorite among sod growers because of its rich, robust, deep green color that epitomizes what a sod lawn should look like. Krypton also has a uniform, upright growth pattern that truly makes the turf resemble a thick carpet, Krypton (K10-114) Kentucky bluegrass also is extremely cold tolerant due to the fact that one of the parent plants comes from Siberia. This line, named (Poa Siberica P.I. 369301), was collected in Novosibirsk, Siberia, in 1971. Jonathan Green & Sons, Inc. /

Cascade International Seed Co.



Merlot Kentucky bluegrass, a new introduction from Lebanon Turf, will have limited availability in the fall of 2017. Merlot exhibits fast germination and establishment, as well as excellent tillering. It has both high density and high wear tolerance. Merlot has good spring green-up and improved summer performance. Dark green color is another strong attribute of Merlot. Lebanon Turf



SR 2150 Kentucky bluegrass was in the 2012 to 2016 NTEP test as SRX 5321. It originated as a Shamrock X America cross with the seed yield and seed size of a Shamrocktype, but with superior turf quality. Perfect for sports fields, SR 2150 has demonstrated excellent wear tolerance in New Jersey and Michigan and performs more like an aggressive-cultivar in many trials. It is in the top group in turf quality in both Northeast and North Central, which are the major use areas for bluegrass, SR 2150 has shown superior Summer Patch resistance and high resistance to Brown Patch, Typhula, Leaf Spot, Dollar Spot and Bipolaris. It has a high percentage of living ground cover in all seasons and shows low weed and Poa annua invasion.

Seed Research of Oregon

FINE FESCUE

Blue Mesa Sheep's Fescue is a true Sheep's, which is very limited in the market these days. It offers good drought tolerance and an attractive, soft blue-gray leaf color.

Columbia Seeds



Cardinal II creeping red fescue scored high in all turf quality ratings of the NTEP, including color. It is a dark green cultivar that has excellent low mow ability and improved salt tolerance.

Mountain View Seeds



Compass II chewings fescue has excellent shade tolerance. It ranked at the top of the turf quality ratings under low mow conditions. Compass II has excellent disease resistance and improved salt tolerance.

Mountain View Seeds



Jetty hard fescue ranked highest in the NTEP for shade tolerance. It can withstand low mowing and is one of the darkest hard fescues available. In addition, it has excellent disease resistance and drought tolerance. Mountain View Seeds



SeaMist slender creeping red fescue has excellent turf quality, ranking #1 in the recent NTEP trial. SeaMist is very dense and is highly salt tolerant. SeaMist also has early spring green up. Mountain View Seeds

TALL FESCUE



Birmingham tall fescue was carefully selected from plants found surviving harsh conditions in the Deep South. These plants were crossed with elite genetics and then carefully screened for finer leaf texture, good lateral growth, and most importantly, excellent drought resistance. This combination of traits has made Birmingham a grass adapted to a wide region with outstanding performance.

Grassland Oregon



Bonsai 2X 2017 introduces to the world the fifth incarnation of the famous "Bonsai" series of tall fescues. Bonsai 2X tall fescue is the culmination of more than 20 years of breeding desirable dark green plants, with reduced upright growth, while improving disease and drought resistance. This will be the first in the "Bonsai" series that has been qualified by the Turfgrass Water Conservation Alliance (TWCA). Bonsai 2X is so designated because it will maintain its attractive turf with only two waterings each week. TWCA qualified grasses can save as much as 40 percent water over nonqualified varieties.

Turf Merchants, Inc. (TMI)



Copious tall fescue has a unique dark green color, with an exceptionally fine textured leaf for superior turf quality. Copious has shown increased disease resistance to Brown Patch and improved heat tolerance. Copious is extremely dense to aid in the repair of small areas of damaged turf. SiteOne's two new turf-type tall fescues show promising advancements in drought resistance, and are showcased in the 2016 NTEP Water Use & Cool-Season Drought Trials.

SiteOne Landscape Supply



Corbett tall fescue (tested as 304) is a new Rutgers-developed variety that is very well adapted to hot summers, lower fertility soils, shade, and tough use situations. It has excellent summer performance and excellent stress tolerance. Trials at Rutgers in New Jersey have demonstrated the broad overall disease resistance and stress tolerance of Corbett. It has very good resistance to brown patch, leaf spot, Pythium and stem rust. Corbett has performed very well in high traffic trials once it is well established.

Vista Seed Partners



Olympus is a fine leafed tall fescue, which was selected for its dark color and year-round turf density. This lush turf makes for a very durable surface that has shown good results in traffic simulations throughout the year. Olympus is the right choice, no matter if you plant it by itself, as part of a tall fescue mixture, or with Kentucky bluegrass. That's why Olympus is a tall fescue worthy of the Gods.

Grassland Oregon



Padre 2 tall fescue is proving to have rapid germination with superior seedling vigor. Padre 2 is dark green with a unique compact (dwarf-type) growth habit and improved shade tolerance. Padre 2 has a spreading growth habit to aid in repair of small areas of damaged turf. SiteOne's two new turf-type tall fescues show promising advancements in drought resistance, and are showcased in the 2016 NTEP Water Use & Cool-Season Drought Trials.

SiteOne Landscape Supply

TALL FESCUE



Siesta tall fescue is a fine-textured tall fescue that works great for blending with elite Jacklin Kentucky bluegrasses for quality sod. Jacklin's newest notably fine-textured, dense, dark green variety, Siesta was selected for breeding traits that will allow a look and feel much better than older varieties—with less time and effort. Get ready for Siesta time and enjoy all the extra time you'll be saving!

For sod production, mix 80 to 90 percent Siesta with 10 to 20 percent Jacklin elite Kentucky bluegrass to improve sod strength and give you a better match-up with the bluegrass than older tall fescue varieties ever have.

Siesta is able to thrive under diverse weather conditions and boasts a wide range of uses, from golf course roughs to parks and home lawns. For permanent turf, it performs best at heights of 1.5- to 3-inches (37 to 75 mm), but is adapted to mowing heights as low as one-half-inch (13 mm). Don't sleep on getting Siesta tall fescue for your turf production; contact your Jacklin representative today.



Supersonic tall fescue has ranked at the top of the NTEP in all categories. It has improved drought resistance and has shown excellent performance in the Southeast region. Supersonic has fine leaf texture and early spring green up, along with excellent brown patch resistance. It also exhibits high seedling vigor. Mountain View Seeds



Toltec tall fescue is similar to other Black Beauty varieties. Toltec exhibits a dark-green color with thick, tight density. Toltec is the finest bladed of the Black Beauty family and, like all of its relatives, does NOT shred when mowed. Toltec is a favorite among our sod growers and is perfect for municipal athletic fields and homeowner lawns.

Jonathan Green & Sons, Inc. / Cascade International Seed Co.



Valkyrie The newest variety in the Lateral Spread line, Valkyrie tall fescue is a top NTEP performer. Valkyrie has excellent wear tolerance and holds up to traffic very well. In addition, its fine leaf texture and dark green color make it an ideal choice for premier turf needs. High seedling vigor allows it to out compete weeds. Mountain View Seeds



Wichita tall fescue has solid yearround quality, coupled with strong
resistance to brown patch, which
make this tall fescue an excellent
choice in turf. Whether by itself, in
a blend with other tall fescues or
Kentucky bluegrass, this turf will
make you click your heels together.
Dark green color, along with a
dense growth habit, make Wichita
a top performer in the transition
zone. Planting Wichita will have
you saying, "There is no place like
home."

Grassland Oregon

ANNUAL RYEGRASS



Quickdraw turf-type annual ryegrass is darker green with a finer leaf texture and higher density than earlier annual ryegrasses. Yet it still retains the advantages of annual ryegrasses of temporary cover and faster establishment. This makes Quickdraw perfect for many uses from warm-season grass overseeding to a nurse grass for many turf sites. Annual ryegrasses also can germinate better when the soil is cold to extend your planting season, or to make repairs most times of the year. Use alone where you want a temporary cover or early transition, or with other turf cultivars as a nurse grass, Quickdraw expands vour options.

Pickseed

INTERMEDIATE RYEGRASS



TransAction turf-type intermediate ryegrass provides rapid germination and guick cover. It germinates under cold soil conditions for repairs and late overseeding. It has a dark green color that is comparable to perennial ryegrass. It forms a uniform, high quality turf, especially in overseeding, either alone or with perennial ryegrass. When used for overseeding, it makes a smooth transition with little straw cover. Overall it is excellent for overseeding, as a high-quality nurse crop for turfgrass mixtures, or in repair of sports fields.

Seed Research of Oregon

PERENNIAL RYEGRASS



Black Pearl perennial ryegrass has very high turf quality. It is extremely fine bladed and is very dark green in color.

Mountain View Seeds



Commander ST perennial ryegrass features genetics from our former LESCO Commander perennial ryegrass cultivar. The genetics have been improved for salt tolerance and increased heat tolerance. Commander ST is a refined, medium dark green color with rapid germination and establishment. SiteOne's two new turf-type perennial ryegrasses have shown superior qualities for overseeding and permanent turf. Commander ST was entered into the 2016 NTEP Overseeding Trial.

Tegato

SiteOne Landscape Supply

Legato perennial ryegrass has remarkable disease resistance and improved drought and traffic tolerance. It provides a stand of turfgrass that has exceptional year-round color and density! Legato is recommended for home lawns, parks, athletic fields, and landscapes. Pennington Seed, Inc.

Molalla ∅ Perennial Ruegrass

Molalla perennial ryegrass - Molalla, Oregon, received its first traffic light in 2005, but unlike the intersections of Oregon Routes 211 and 213, Molalla—the newest perennial ryegrass from Vista Seed Partners won't be slowing down any time soon! Molalla (tested as PST-2ETS) is an elite, fast starting new perennial ryegrass. It produces a very stress tolerant perennial turf surface. Developed by the breeders at Pure Seed Testing and licensed to Vista Seed Partners, Molalla is the perfect fit for any seeding application! **Vista Seed Partners**



Peridot perennial ryegrass is an elite perennial ryegrass with superior vigor and delicate refined leaf structure. Peridot is a vibrant dark green color and has improved gray leaf spot resistance. Peridot has increased spreading capabilities that allow for excellent density and small repairs for damaged turf. SiteOne's two new turf-type perennial ryegrasses have shown superior qualities for overseeding and permanent turf. Peridot was entered into the 2016 NTEP Permanent Trial.

SiteOne Landscape Supply



Pharaoh perennial ryegrass has excellent heat and drought tolerance, along with rapid recovery from drought. It also has excellent Gray leaf spot resistance. Pharaoh shows good salinity and high pH tolerance. Its quick establishment is an attribute that is sure to be appreciated by turfgrass producers. Pharaoh exhibits a very dark green genetic color. It has a high endophyte level. Pharaoh perennial ryegrass also has both cold and heat tolerance. Lebanon Turf

Santiam
Perennial Ruegrass

Santiam perennial ryegrass - The Santiam, a tributary of the Willamette River located in the heart of the Willamette Valley, offers fantastic fly fishing, rafting, and other excitement along its banks as it winds through the heart of the 'Grass Seed Capitol of the World' in both Linn and Marion Counties. Full of the same vigor the river is known for, Santiam (tested as PR 12) perennial ryegrass is a versatile, fast starting, endophyte enhanced variety that produces an attractive perennial turf surface in the north and an excellent quality overseeded turf surface in the south. Vista Seed Partners



Tetradark tetraploid turf-type perennial ryegrass combines the benefits of a tetraploid perennial ryegrass, including large seed for rapid germination, the ability to germinate with colder soil temperatures and superior cold and drought tolerance, with a dark green color. It is less dense than current diploid ryegrasses, which makes it the perfect companion to blend with tall fescue, Kentucky bluegrass and other turf species. Whether you are repairing a sports field or establishing turf early or late, Tetradark increases your options to obtain a high quality sports field or lawn.

Seed Research of Oregon / Pickseed / DLF



Trek tetraploid perennial ryegrass has an incredible dark green color all year long paired with quality performance in high stress environments. This drought and traffic-tolerant variety is perfect for golf courses, parks, athletic fields, and home lawns! It is resistant to disease, including red thread and grey leaf spot. Trek is qualified by the Turfgrass Water Conservation Alliance (TWCA) as a Water Star qualified grass seed.

Umpqua ∅ Perennial Ryegrass

Pennington Seed, Inc.

Umpqua (tested as 02BS3) is a Rutgers-developed, elite, versatile, fast starting perennial ryegrass. It is a "State of the Art" new variety and has been entered in the 2016 NTEP trials. It is very resistant to Gray Leaf Spot. When it comes to a choice in perennial ryegrasses, like the Umpqua River, the choice is crystal-clear. Limited amounts of commercial seed will be available from the 2017 crop.

Vista Seed Partners

TURFGRASS SEED AND VEGETATIVE STOCK SOURCES

The following TPI member companies provided information for the turfgrass seed and vegetative stock listing. Turf News is not responsible for companies that did not submit information by the deadline. You also can use this listing to see the location of company advertisements.

Atlas Turf International

PO Box 4731 LaGrange, GA 30241 Contact: John Holmes Tel. 706-407-1737 Cell 706-881-2430 john@atlasturf.com www.atlasturf.com

Barenbrug USA

P.O. Box 239
Tangent, OR 97389
Contact: Britton (Bo) Lacy, CGCS
Tel. 800-547-4101
Cell 541-619-0186
Fax 541-926-9435
blacy@barusa.com
www.barusa.com

Columbia River Seed

Back Cover

P.O. Box 66 Plymouth, WA 99346 Contact: Paul Hedgpeth Tel. 509-783-4052 Cell 509-832-0287 Fax 509-783-4056 paul@columbiariverseed.com www.columbiariverseed.com

Columbia Seeds

130 NW Hickory St. Albany, OR 97321 Contact: Kirsten Pick Tel. 541-791-7631 Cell 503-507-8904 Fax 541-791-7540 kpick@columbiaseeds.com www.columbiaseeds.com

DLF

175 W. "H" Street P.O. Box 229 Halsey, OR 97348 Contact: Denise DeHart Tel. 800-445-2251 Cell 541-990-2686 Fax 541-369-2640 Ddehart@dlfis.com www.dlfis.com

Doguet Ventures/ Bladerunner Farms Inc.

4406 Merle Drive Austin, TX 78745 Contact: David Doguet Tel. 830-276-4455 Fax 830-276-8618 david@doguetventures.com www.doguetventures.com

Grassland Oregon

4455 60th Avenue NE Salem, OR 97305 Contact: Duane Klundt Tel. 503-566-9900 Cell 503-880-2561 Fax 503-566-9901 duaneklundt@grasslandoregon.com www.GrasslandOregon.com

Jacklin Seed by Simplot

23403 E. Mission, #222 Liberty Lake, WA 99019 Contact: Jim Kinservik Tel. 800-688-SEED Cell 509-995-5381 Fax 509-319-3181 info@jacklin.com www.jacklin.com

Jonathan Green, Inc./ Cascade International Seed Company

Contact: Barry K. Green II P.O. Box 326 Farmingdale, NJ 07727 Tel. 800-526-2303 Cell 908-217-0818 bgreenii@jonathangreen.com ghagen@grass-seed.com www.jonathangreen.com Page 9

Landmark Turf and Native Seed

32320 Brandon Place Avon Lake, OH 44012 Contact: Larry Humphreys Tel. 888-763-8873 Cell 440-785-8873 Fax 440-930-2775 larry@turfproducersselect.com www.turfandnativeseed.com Page 5

Lebanon Turf

1600 East Cumberland St. Lebanon, PA 17042 Contact: Murray Wingate Tel. 800-233-0628 x 325 Fax 585-346-0812 mwingate@lebanonturf.com www.lebanonturf.com

Mountain View Seeds

89555 Sunnyview Rd. NE Salem, OR 97305 Contact: Aaron Kuenzi Tel. 503-588-7333 info@mtviewseeds.com www.mountainviewseeds.com

Pennington Seed, Inc.

P.O. Box 290
Madison, GA 30650
Contact: Russell Chambless
Tel. 706-342-1234
Cell 706-207-6927
rchambless@penningtonseed.com
www.penningtonseed.com
Page 61

Pure Seed

29975 S. Barlow Rd. Canby, OR 97013 Contact: Lucas Solis Tel. 503-651-2130 Cell 503-519-7377 Isolis@pureseed.com www.purseed.com

SiteOne Landscape Supply

300 Colonial Center Parkway, Suite 600 Roswell, GA 30076 Contact: Michelle H Williams Tel. 908-391-9894 mwilliams@siteone.com www.SiteOne.com

Sod Production Services

18161 Sandy Point Road Charles City, VA 23030 Contact: Chad Adcock Tel. 757-345-1120 chad@sodproservices.com www.sodproductionservices.com

Sod Solutions, Inc.

P. O. Box 460 Mount Pleasant, SC 29465 Contact: Tobey A. Wagner Tel. 843-849-1288 Cell 843-224-1435 Fax 843-849-1415 twagner@sodsolutions.com www.sodsolutions.com

The Turfgrass Group, Inc.

1225 Savannah Lane Monroe, GA 30655 Contact: Bill Carraway Tel. 770-207-1500 Fax 770-207-6019 bcarraway@comcast.net Contact: David Bradley Tel. 828-606-7186 dbradley@TheTurfgrassGroup.com www.TheTurfgrassGroup.com

Turf Merchants, Inc. (TMI)

33390 Tangent Loop Tangent, OR 97389 Contact: Nancy Aerni Tel. 541-926-8649 Cell 503-508-6437 Fax 541-926-4435 nancy@turfmerchants.com www.turfmerchants.com Page 3

Vista Seed Partners LLC

PO Box 30 Shedd, OR 97377 Contact: Chris McDowell Tel. 541-491-1019 Fax 541-491-1502 info@vistaseedpartners.com www.vistaseedpartners.com



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CROP OUTLOOK REPORT

Editor's Note: Industry comments for the seed and vegetative stock crop outlook were provided in late May. Please note that weather conditions can impact final yields, and that seed harvests in July and August may differ from the forecasts shared here. These industry perspectives, however, provide insights into the outlook for these valuable crops.

Questions were sent to suppliers to obtain information for this article. This is a compilation of their responses. *Turf News* thanks those suppliers named within the article for their participation.

Weather Impact

Greg Hagen, Cascade International Seed Company, says, "Oregon experienced very wet weather during the fall planting season. This delayed many scheduled new plantings and prevented other fields from getting planted. The delay was costly as germination and establishment were slowed and some fields froze out. Other plantings were at 80 percent stand establishment."

All those responding on the weather's impact in Oregon provided assessments similar to Hagen's. Duane Klundt, Grassland Oregon, adds, "Some perennial ryegrass fields never recovered from the struggle to establish in wet weather, while others were planted a couple times in hopes of some kind of a crop."

Bo Lacy, CGCS, Barenbrug USA, says, "In Oregon, early fall planting was the key to successful establishment this year. The weather pattern, combined with an increase in slugs, weakened the existing grass stands and injured new plantings. This winter, seedling fields were damaged by frost and the record rainfall, which stunted plant growth coming into the spring. Kentucky bluegrass production fields in Eastern Oregon/Washington and Idaho were covered in snow most of the winter. That snow was late coming off."

Nancy Aerni, Turf Merchants, Inc. (TMI), reports, "The Willamette Valley had record-breaking rainfall this year. Normal rainfall is about 45 inches. So far, we've had about 62 inches this growing season. New plantings have suffered and so have any production acreage that had marginal stands."

Larry Humphreys, Landmark Turf and Native Seed, reports, "In western Oregon, record-breaking rains caused the crops to look pretty rough coming out of winter. A mild, though still very wet, spring has allowed most crops to catch up and fill in the thin spots. In eastern Washington, where we grow the majority of our Kentucky bluegrass, the weather pattern was similar, much wetter than usual. But that moisture has done as much good as harm to date there. The crops came through winter in good shape."

Humphreys adds, "Due to the spring rains, Oregon growers have not been able to time fertilizer and pesticide applications as precisely as they'd like." Klundt says, "The other issue this weed control challenge will bring is cleanliness."

Ryan Jeffries, Columbia Seeds, reports, "Northern Minnesota saw significant loss in some areas on perennial ryegrass. Weed pressure is extremely high in all production areas to date."

Tobey Wagner, Sod Solutions, reports, "Last fall, Hurricane Matthew struck the east coast from Daytona Beach, FL to just south of Charleston, SC. Although only a category 2 storm, the flooding and damage to homes and lawns was widespread and devastating. The storm's ripple effect extended throughout the region causing shortages and outages of many turf varieties. A severe drought in Florida and parts of the Southeast in the storm's aftermath is creating additional weather challenges. Many areas have recorded little rainfall since Hurricane Matthew."

Aerni adds, "Weather in the Willamette Valley was erratic at a very crucial time for seed development and viability—the beginning of grass seed pollination."

Humphreys says, "The primary concern now for all Oregon and Washington production areas is that the rains stop and we get some heat units so the crops can pollinate and mature as needed over the next six to eight weeks.

Trends

Wagner says, "Sod Solutions works with over 250 farms worldwide and trends in production and availability vary greatly between the regions. I anticipate an increase in prices due to high demand, low inventory nationwide, and continued increases in production costs. Warmer than average winter temperatures provided an opportunity for sales earlier in the spring than is typical. The perfect storm of the fall elections, economic growth, and early season warm weather has created one of the biggest shortages of turfgrass sod in recent memory, especially in the Southeast. Many growers are expanding production, but in a controlled manner as the memory of the recent recession and oversupply remain in the back of their minds."

Humphreys reports, "The rains have not been all bad. California, which has been nearly out of the market in the last few years due to drought restrictions, now has adequate water. We may see a surge in seed need there, though not to the levels of ten years ago. Housing starts across the country are up after several years of decline, a very positive sign."

Klundt adds, "Just in time inventory continues to be the new norm, which can make supplies limited at times. High-quality seed production acres will continue to dwindle, due to urban growth, and lack of profitable rotations. Seed acres are going into permanent crops like houses, nuts, and berries. As business becomes more competitive, it is imperative that you know and trust your supplier, and that they are willing to partner with you for the long term."

Several of those responding pointed to the growing recognition of the attributes of their varieties by end users and expanded use on golf courses, sports fields and less high-profile sites. Chad Adcock, Sod Production Services, reports many South Carolina landscapers who used to call sod farms asking for Tifway 419 for home lawns are now asking for specific proprietary brands by name.

Wagner adds, "The stock market is at a record high, fuel prices are relatively low, and interest rates are predicted to edge upward. Home building and commercial construction are robust. Golf and sports fields are being built and renovated at a record pace. The outlook for 2017 and 2018 is very strong."

Production

Lacy reports, "While acres for grass seed production continue to be very tight and competitive in the Willamette Valley, Barenbrug is anticipating good availability and quality for our premium brands. The weather may push back harvest a few weeks." Adcock says, "Our production is expanding to new farms in new regions and increasing on existing farms."

Humphreys reports, "In western Oregon, we expect yields to be near average or possibly slightly below average. Quality could be an issue, but that depends on weather conditions from late May through harvest. In eastern Washington, both yields and quality should be good to above average."

Jeffries reports, "The Lower Columbia River Basin (WA/OR) harvest date appears to be on a normal timeline, while Western Oregon's timeline appears normal to slightly late for all crops." Klundt says, "We seem to be on a more normal cycle for harvest than the last two years, when we were weeks early." Aerni anticipates the cool and very wet winter and spring will put harvest on the late side in the Willamette Valley.

Hagen anticipates a good average yield for tall fescue, though with weather-limited weed control, annual ryegrass and poa may be issues. He says, "Creeping red fescue acres are down ten percent, but overall the fine fescues are doing well and an average yield is expected. The Kentucky bluegrass crop looks good, though weed control is always difficult. Acres are up, so the supply should be adequate."

Klundt says, "Production should be adequate, but quality will be an issue due to the weather-related disruption of weed control. Yet the seed industry has been doing this a long time, and growers will figure out ways to get fields cleaned up before seed is bagged for sale. Ask for all the tests on the lot you are buying and, if you are buying a blend/mixture, ask to see the tests of the components used to ensure you have clean seed."

Pricing

Lacy says, "Overall, fall pricing is likely to be stable." Humphreys and Jeffries both anticipate pricing as stable for fine fescue and Kentucky bluegrass; as stable to higher for tall fescue; and as stable to lower for perennial ryegrass. Humphreys also anticipates creeping bentgrass pricing will be stable.

Hagen anticipates stable prices for creeping red fescue and chewing fescue; a little higher prices for hard fescue, bluegrass and tall fescue. He says, "Though perennial ryegrass acres are down about 14 percent according to reports, prices will remain stable and supply is good."

Aerni says, "With little carryover of turf type tall fescue, especially sod quality, anticipate comparable to stronger market values, especially for the cleanest seed that turf farmers should always purchase. Perennial ryegrass supplies appear sufficient, making this specie vulnerable for a weaker market. Fine fescues will remain stable, with certain varieties once again being sold out early. With reduced production acreage and little carryover of bluegrass—whether common or proprietary—this market will remain quite strong until production equals demand. Sod-quality bluegrass will once again be limited."

Wagner reports, "Pricing is steadily increasing across most of the United States and world markets. The extreme shortages of sod in the Southeast have created a ripple effect and impacted farms and markets in regions many states away."

Adcock reports, "While the prices of commodity grasses fluctuate, we're seeing that proprietary grasses command a premium price."

Klundt says, "We might now be at the norm for coolseason turfgrass pricing, which is still a bargain when compared to the scale of economy on other items such as equipment and fuel. Prices should maintain, but pressure from the farming community to cover the cost of producing high quality, clean seed may force a wider price variation between 'Sod Quality' and standard quality seed in the future. You get what you pay for and seed is the cheapest component on the sod farm."



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Turf News invited suppliers to provide a list of turfgrass seed and/or vegetative stock currently offered by their company. Suppliers are listed alphabetically. Lists are in the order supplied by the companies.

BARENBURG USA

For more information: www.barusa.com

BLUEGRASS

Barvette HGT

Barserati

Barimpala

Barrister

Barrari

Barduke

PERENNIAL RYEGRASS

Parkside

Pinnacle

Pinnacle II

Pinnacle III

Barlennium

Piroutte II

Premier II

Peak

Barbeta RPR

Bargamma RPR

Barilibro RPR

ANNUAL RYEGRASS

TerraBar

BarTerra

Panterra

Panterra V

BERMUDA

Maya

Transcontinental

Bargusto

C-291

TALL FESCUE

RTF 9125

Barvado

BarRobusto

Bearcat

Barrington II

COLUMBIA RIVER SEED

For more information: www.columbiariverseed.com

KENTUCKY BLUEGRASS

Blue Coat

Dauntless

Rubix

Corsair

Aviator

Blue Devil

Blackjack

FINE FESCUE

Sword Hard

Gladiator Hard

COLUMBIA SEEDS

For more information: www.columbiaseeds.com

BLUEGRASS

Aviator

Blue Devil

Blue Coat

Corsair

Dauntless

Rubicon Rubix

TALL FESCUE

Black Tail

Diablo

Talladega

Temple

Thor

Thunderstruck

Trinity

FINE FESCUE

Gladiator Hard

Sword Hard

Castle Chewings

Jamestown IV Chewings

Shadow III Chewings

Kent Creeping Red

Blue Mesa Sheeps

PERENNIAL RYEGRASS

Pillar

Premium

Presidio

Primary

Prominent

Provost

Pepper

INTERMEDIATE RYEGRASS

Outlaw

ANNUAL RYEGRASS

Attitude

DLF

For more information: www.dlfis.com

TALL FESCUE

Rhizing Moon

Bloodhound

Houndog 8

Turfway

Unitus

Essential

Garrison

Jamboree

Toccoa

Rhizing Star

Foxhound

Cannavaro

FatCat

KENTUCKY BLUEGRASS

Blue Ghost

Rhythm

Rhapsody

Keeneland

Geisha

Aramintha

Sombrero

Jackrabbit

Fortuna

Fielder

TEXAS X KENTUCKY

Bandera

PERENNIAL RYEGRASS – DIPLOID

Thrive

Aspire

Bandalore

Diligent

Banfield

Hancock

Stamina

Keystone 2 All Star 3

Derby Xtreme

Gator 3

PERENNIAL RYEGRASS – TETRAPLOID

Replicator

FINE FESCUE

Longfellow 3 Chewings

Wrigley 2 Chewings

Chantilly Strong Creeping Red

Class One Strong Creeping Red

Cindy Lou Strong Creeping Red

Eureka II Hard

Shoreline Slender Creeping Red

Quatro Sheep Fescue

ANNUAL TURF-TYPE RYEGRASS

Candidame Quickston

CREEPING BENTGRASS

Cobra 2

COLONIAL BENTGRASS

Puritan

Greentime

VELVET BENTGRASS

Vitagreen

BERMUDAGRASS

Mirage 2 Pyramid 2

Dune

POA REPTANS

Two Putt

MICROCLOVER

Microclover

DOGUET VENTURES

For more information: www.doguetventures.com

BUFFALOGRASS

Density Buffalograss ECO Buffalograss

ST. AUGUSTINE

FJ's Select Turf

ZOYSIAGRASS

Cutlass

JaMur

L1F

Y2

Zeon

GRASSLAND OREGON

For more information: www.GrasslandOregon.com

KENTUCKY BLUEGRASS

Armadillo

Milagro

Prosperity

Skye

TALL FESCUE

Birmingham

Escalante

Memphis

Olympus

Patagonia

PERENNIAL RYEGRASS

Barbados

Belize

Oahu

JACKLIN SEED BY SIMPLOT

For more information: www.jacklin.com

KENTUCKY BLUEGRASS

Action

Award

Beyond

Blue Chip

Blue Chip Plus

Camas

Everglade

Everest

Glacier

Impact

Jackpot

Liberator

Midnight

My Holiday Lawn

NuBlue Plus

NuGlade

Rugby II

PERENNIAL RYEGRASS

Accent

Accent II

Caddieshack II

CSI-Rve

GLY-Rye

GoalKeeper

GoalKeeper II

Infusion

Revenge GLX

Spyglass

Sunrise

Top Gun

Top Gun II

ZOYSIAGRASS

Cathay

Sunrise

CREEPING BENTGRASS

Alpha

L-93

T-1 V-8

FINE FESCUE

Audubon Creeping Red

EcoStar Plus Hard

J-5 Chewings

Lighthouse Slender

Creeping Red

Marco Polo Sheep

TURF TYPE TALL FESCUE

Arid 3

Golden Gate

Inferno

Jaquar 4G

NoNet Spreading

Quest

Siesta

Summer

BERMUDAGRASS

Jackpot

Southern Star

Sun Devil II

Hollywood

SPECIALTY GRASSES

Fults Alkaligrass

Havana Poa Trivialis

Reubens Canada Bluegrass

Troy Kentucky Bluegrass

Ginger Kentucky Bluegrass

JONATHAN GREEN, INC./ CASCADE INTERNATIONAL SEED COMPANY

For more information: www.jonathangreen.com

KENTUCKY BLUEGRASS

Blueberry

Brooklawn

Corsair

Deepblue

Krypton

Madison

Merit

Midnight

Pivot

Prosperity

Wildhorse

TALL FESCUE

Dakota

Dorado

Golconda

Montana

1,10116

Taos

Tara

Toltec

Tombstone

Tonto

PERENNIAL RYEGRASS

Frontier

Pershing

Singular

Spirit

FINE FESCUE

Carson chewings

Custer creeping red

Eugene creeping red

Harpoon hard

Hood chewings

LANDMARK TURF AND NATIVE SEED

For a complete Landmark turfgrass listing and more information, please visit: www.turfandnativeseed.com

BLUEGRASS

Fullback

Hampton

Lunar

Noble

SPF-30

TURF TYPE TALL FESCUE

Maestro

Reflection IRT

Regenerate IRT

Xtender IRT

FINE FESCUE

Marvel Strong Creeping Red

Minimus Hard

Sword Hard

PERENNIAL RYEGRASS

Benchmark

Refine (PST 2RT)

Sox Fan

BENTGRASS

Luminary Creeping

Bentgrass

Memorial Creeping

Bentgrass

LEBANON TURF

For more information: www.lebanonturf.com

KENTUCKY BLUEGRASS

Bordeaux KBG

Champagne KBG

Zinfandel KBG

Merlot KBG

TALL FESCUE

Rembrandt

Masterpiece

DaVinci

Monet

Van Gogh

Cezanne Rz

Leonardo

Michelangelo

Rockwell

PERENNIAL RYEGRASS

Charismatic II GLSR

Exacta II GLSR

Secretariat II GLSR

Seabiscuit

Man 0'War

Pharaoh

FINE FESCUE

Ambassador Chewings Pathfinder Creeping Red

ratiffinder Creeping Re

BENTGRASS

Declaration Creeping

Proclamation Creeping

Independence Creeping

Legendary Velvet

MOUNTAIN VIEW SEEDS

For more information: www.mountainviewseeds.com

KENTUCKY BLUEGRASS

Arrowhead

Blue Note

Bolt

Fahrenheit 90

Legend

Slingshot

Volt

PERENNIAL RYEGRASS

Apple GL

Apple SGL

Blackcat II

Confetti III Fastball RGL

Flash II

Grandslam GLD

Homerun

Slugger II

Stellar 3GL

INTERMEDIATE RYEGRASS

Solstice II

TALL FESCUE

Ares

Avenger II

Dynamite LS

Firecracker SLS

Screamer LS

Spyder LS

Stingray

Supersonic

Titanium LS

Titanium 2LS

Valkyrie

Raptor III

POA TRIVIALIS

Starlite II

FINE FESCUE

Beacon Hard Jetty Hard Blueray Blue Hard Cardinal II Creeping Red Navigator II Creeping Red

Compass II Chewings Radar Chewings

Orbit Creeping Red

Sonar Chewings

BENTGRASS

Barracuda Creeping Piranha (DC-1) Creeping Muskat Colonial Shark Creeping

BERMUDAGRASS

Jubilee Riviera

PENNINGTON SEED INC.

For more information: www.penningtonseed.com

ANNUAL RYEGRASS

Passerel Plus

PPERC2

FINE FESCUE

Survivor Chewings Razor Creeping Red Predator Hard

KENTUCKY BLUEGRASS

Mallard

Monte Carlo

Ridgeline

Aries

Oasis

Wild Horse

PERENNIAL RYEGRASS

1G Squared 1G2

Applaud II

Integra

Integra II

PENN APR2105

PENN APR2190

PENN APR2154 PENN APR2237

Shining Star

Sonata

Soprano

FORAGE TALL FESCUE

Jesup Minus Texoma Max Q II

TALL FESCUE

Brockton

Greystone

Justice

Pedigree

PENN ATF1254

PENN ATF1258

PENN ATF1376

PENN ATF1736

Penn RK4

Rebel Advance

Revel V

Rebel XLR

Rebel Xtreme

Virtue II

PICKSEED

For more information: www.pickseed.com

TALL FESCUE

Nightcrawler

Mustang 4

Crossfire 4

Firewall

Bladerunner II

Fayette

Crossfire 3

Corona

Shortstop 3

KENTUCKY BLUEGRASS

Armada

Langara

Touchdown

Granite

Mercury

Blue Velvet

Fielder

TEXAS X KENTUCKY

Bandera

PERENNIAL RYEGRASS – DIPLOID

Wicked

Karma

Fiesta 4

Dasher 3

Cutter II

Blazer 4

Mighty

Express II

PERENNIAL RYEGRASS – TETRAPLOID

Tetradark

Replicator

FINE FESCUE

Windward Chewings

Garnet Strong

Creeping Red

Jasper II Strong

Creeping Red

Spartan II Hard

SeaLink Slender

Creeping Red

Shoreline Slender

Creeping Red

Quatro Sheep Fescue

INTERMEDIATE TURF-TYPE RYEGRASS

Transit 2600

ANNUAL TURF-TYPE RYEGRASS

TXR

Quickdraw

CREEPING BENTGRASS

Focus

MacKenzie

Ninety-six-Two

Mariner

COLONIAL BENTGRASS

Puritan

VELVET BENTGRASS

Vitagreen

BERMUDAGRASS

Yukon

POA REPTANS

Two Putt

MICROCLOVER

Microclover

PURE SEED

For more information: www.pureseed.com

PERENNIAL RYEGRASS

2M20 GT24 Gray Hawk Silver Dollar Carly

TALL FESCUE

Tarnation GT Rain Dance

FINE FESCUE

Enchantment chewings Seabreeze GT hard Bighorn GT hard Soil Guard hard Xeric creeping red

KENTUCKY BLUEGRASS

Desert Moon Tirem Right

SEED RESEARCH OF OREGON

For more information: www.sroseed.com

TALL FESCUE

Grand 3 Rebounder Rowdy SR 8650 Guardian 41

Speedway Blackwatch Blackwatch 2

Guardian 21

KENTUCKY BLUEGRASS

SR 2150 Arcadia Fielder Granite SR 2284 SR 2100 Mercury

TEXAS X KENTUCKY

Spitfire Bandera

PERENNIAL RYEGRASS – DIPLOID

Sideways SR 4650 SR 4660ST SR 4600 Mighty Harrier

PERENNIAL RYEGRASS TETRAPLOID

Tetradark

FINE FESCUE

SR 5130 Chewings Ruddy Strong Creeping Red SR 5250 Strong Creeping Red SR 3150 Hard

Shoreline Slender Creeping Red

Quatro Sheep Fescue

INTERMEDIATE TURF-TYPE RYEGRASS

TransFix TransAction

ANNUAL TURF-TYPE RYEGRASS

Annuity

CREEPING BENTGRASS

777 007 Flagstick Tyee MacKenzie SR 1150

COLONIAL BENTGRASS

Puritan SR 7150

VELVET BENTGRASS

Vitagreen

BERMUDAGRASS

Yukon Royal Bengal

POA REPTANS

Two Putt

MICROCLOVER

Microclover

SITEONE LANDSCAPE SUPPLY

For more information: www.SiteOne.com

PERENNIAL RYEGRASS

Align
Evolution
Evolve
Peridot-Experimental
Commander
ST-Experimental

Notable II

TALL FESCUE

Catalyst
Copious
Compete
Kingdom
Padre

Padre 2-Experimental

Stetson II Technique

KENTUCKY BLUEGRASS

Shamrock Gladstone

INTERMEDIATE RYEGRASS

Midpoint

FINE FESCUE

Resolute Hard Lacrosse Chewings Foxfire Creeping Red

SOD PRODUCTION SERVICES

For more information: www.sodproductionservices.com

BERMUDAGRASS

PremierPRO

SOD SOLUTIONS

For more information: www.sodsolutions.com

ST. AUGUSTINE

Palmetto Sapphire Captiva

ZOYSIAGRASS

EMPIRE Geo

BERMUDAGRASS

Celebration

Discovery

Latitude 36

NorthBridge

ULTRADWARF BERMUDAGRASS

Sunday

BLUEGRASS

Bella

HGT

PERENNIAL RYEGRASS

RPR

CENTIPEDE

Covington

Santee

THE TURFGRASS GROUP

For more information: www.TheTurfgrassGroup.com

BERMUDAGRASS

TifGrand

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CENTIPEDEGRASS

TifBlair

ZOYSIAGRASS

L1F Zoysia

Zeon Zoysia

TURF MERCHANTS INC. (TMI)

For more information: www.turfmerchants.com

KENTUCKY BLUEGRASS

Bedazzled

Bewitched

Blueberry

Breve

Bonaire

Brooklawn

Midnight

Waterworks

TALL FESCUE

Aquaduct

Aquavita

Aztec II

Bonsai 3000

Bonsai 2X

2nd Millennium

3rd Millennium

4th Millennium

Rhambler II SRP

Traverse 2 SRP

PERENNIAL RYEGRASSES

Aquarius 4

Allaire 3

Evening Shade

Laredo II

Manhattan 6 GLR

Nomad 4

Paragon GLR

Pizzazz 2

Patriot 4

Rainwater

FINE FESCUE

Intrigue

Heathland

Celestial

Nanook

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CREEPING BENTGRASS

Chinook

KENTUCKY BLUEGRASS

Ashland

Ouartz

Mazama

FINE FESCUE

Ambrose Chewings Viking H2O Hard

ANNUAL RYEGRASS

Madrone Turf Type

INTERMEDIATE RYEGRASS

Rogue

PERENNIAL RYEGRASS

Deschutes

Metolius

Molalla

Santiam

Umpqua

TALL FESCUE

Amity

Corbett

Renegade DT

Dallas

SunDial

Tribute II















COOL-SEASON AND WARM-SEASON

GRASSES OVERVIEW

By Kevin Morris

Editor's Note: Each year, Kevin Morris provides an update on the data collected on commercial varieties and experimental turfgrasses entered into the National Turfgrass Evaluation Program (NTEP). This information helps turfgrass producers choose the varieties that will best perform in their particular growing area and management programs. TPI and Turf News wish to thank Mr. Morris for the significant amount of time and effort in providing this valuable overview.

At any one time, the National Turfgrass Evaluation Program (NTEP) is evaluating over 600 cultivars and experimental selection in nationwide tests. Data collected and summarized from these trials can be obtained directly from NTEP or from our website (www.ntep.org). Our data is also published on a CD, in exactly the same format as the NTEP website. The CD is read like any informational CD on your computer. The advantages of the CD include its portability, its search features and taking up less space on your bookshelf than hard copy reports. We still have however, printed copies of reports available on request.

NTEP Data Presentation

NTEP information includes data collected on many descriptive and performance characteristics. Descriptive characteristics describe the entries tested, i.e. genetic color, leaf texture and density characterize a grass' appearance. Performance characteristics document the response to various stresses, such as disease, cold and drought. For instance, the percent ground cover rating, although not necessarily affected by a single stress, reflects the grass' ability to withstand and/or recover from a particular stress or a series of stresses.

The most widely used data in NTEP reports are the turfgrass quality (TQ) ratings. Quality ratings are collected monthly during the growing season using a 1-9 scale with 9=ideal turf. Turfgrass quality ratings are collected by evaluators considering all the factors that make good turf, i.e. good green color, density, adequate ground cover, freedom from disease and other stresses, etc. Quality ratings show a lot about the grasses, that is why they are so important.

NTEP turfgrass quality tables focus on grouping by region or management level. In addition, we have the data from each state available on our website and CD. Hopefully, this makes the data more useful to growers within their geographical region or under their specific management level. NTEP recommends that growers first review data collected in their state or region and also under the management regime most suited to their needs. To find data for a specific state, go to www.ntep.org/states/states.htm.

NTEP Unveils Improved Data Reporting Procedure

NTEP is committed to improving its data collection, analysis and reporting. To that end, NTEP spent ten years researching new statistical methods and is now implementing a new reporting procedure, the 'Location Performance Index' or 'LPI', on its newest trials. The LPI is based on 'AMMI', a more complete, accurate statistical analysis program for predicting cultivar performance across many locations.

The LPI is only used on turfgrass quality data but in reading the turfgrass quality tables, you will notice that locations may not be grouped by any apparent geographical orientation. For instance, in the 2012 data from our new Kentucky bluegrass trial, 'LPI

Group 1' included Amherst, MA, W. Lafayette, IN, Urbana, IL, St. Paul, MN, Manhattan, KS and Pullman, WA. It seems that these locations have nothing in common, geographically or climatically. However, what they do have in common is a very important similar 'interaction pattern', i.e. the varieties performed in a similar manner, relative to each other, at each of these locations in that year. For that reason and most appropriately, the LPI groups them together for analysis.



The NTEP Low Input Cool-Season trial at Logan, UT, planted in fall 2015. This photo was taken in September of 2016. Note the clover that was included in some mixtures.

And that 'interaction pattern' can, and very often will vary from year to year. Therefore, investigate the LPI Group data containing locations that are closest to you, or your market.

The LPI is used on new trials as they are initiated. Go to http://www.ntep.org/LPI%20reporting%20Q&A%20 5-9-13.pdf to read more about the LPI and the reasons for utilizing this new procedure.

Focus On Specific Traits

NTEP is designing its trial programs so that more data on specific traits are collected. For instance, *standard* trial locations, conducted at university sites using prescribed management schemes, collect traditional data, such as turfgrass quality, color, density, any diseases present, etc. NTEP also sponsors *ancillary* trial locations that collect data on specific traits, such as shade tolerance, traffic tolerance and sod strength. These ancillary trials must often be conducted in unique locations (i.e. under shade trees) or using specialized equipment (i.e. a traffic simulator). Because ancillary trials are applying unique stress to the entries, the data from these locations are often summarized and reported in separate tables.

NTEP plans on conducting more of these ancillary trials in the future and is in fact, co-sponsoring with USGA, an entire trial just to evaluate cool-season and warm-season grasses for drought resistance and water use. The cool-season water use trial was established in fall 2016, with ten locations initiating drought evaluations in summer 2017 or 2018. The warm-season version of this trial is scheduled for establishment in summer 2018, so look for data from both versions of this trial within the next few years. In addition, NTEP sponsored a low input trial for cool-season grasses and mixtures in fall 2015, and is planning a warm-season low input trial for summer 2018. It is our hope that these types of data will provide much needed information to consumers on these important traits.

Update On Cultivars

The following is an overview of the latest information on commercially available and experimental cultivars.

COOL-SEASON

Kentucky Bluegrass

2016 was the fifth and final year of data collected from our latest Kentucky bluegrass trial established in fall 2011. Particularly with bluegrasses, due to their slow establishment rate, first year data is often reflective of establishment rate for each entry and may not be indicative of long-term performance. By the third year of a bluegrass trial, some thatch buildup has occurred and therefore, the

data should give a better representation of performance. The summer of 2016 was hot and humid, particularly in the eastern U.S. and this stress revealed some interesting results in this final trial year.

Turfgrass quality ratings provide a view of overall entry performance, showing why they are so important to consider. For this review, we look at locations in the different regions and identify top performers. In the Midwest (Ames, IA, Urbana, IL and West Lafayette, IN), many entries finished in the top statistical group at each test site in 2016, including SRX 466, Pick 033, Bluebank, A05-360, Award, A00-4199 and A06-46. In two Northeast locations (Adelphia, NJ and North Brunswick, NJ), Arrowhead and Sudden Impact were the only entries to finish in the top statistical group at both sites.

Transition Zone locations often provide the most environmental stress on Kentucky bluegrass entries. In 2016, a very small entry separation was noted at the trial in Manhattan, KS. Much greater entry separation was seen at the other sites (College Park, MD, Raleigh, NC, and Blacksburg, VA) with SRX 466, Pick 033 and Barvette HGT as the only entries to finish in the top turf quality statistical grouping at all three locations. Summer stress was so severe at the College Park, MD site that many entries finished the growing season with less than 60 percent ground cover. Entries with ground cover ratings of 60 percent or greater at College Park include A05-999, A98-363, Barvette HGT, Pick 033, BAR VV 112916 and Kenblue.

Top performers at the Guelph, Ontario, Canada site (managed using 'organic' methods) in 2015 included an interesting mix of older cultivars, new experimentals and commercial cultivars. 2016 yielded different results at the Guelph trial, with very little separation among the entries. Data from our two western U.S. locations (Puyallup, WA and Logan, UT) showed excellent performance from **Keeneland** and **A00-2882** at both sites, with **Rush**, **Arrowhead**, **Mazama** and **SRX 4338** also performing well in 2016.

The 2011 Kentucky bluegrass trial has ancillary locations testing for tolerance to various stresses. For example, since 2012, shade tolerance has been evaluated at Carbondale, IL. In 2012, roughly two-thirds of the entries were statistically similar, and in 2013, that number had been reduced to about one-half. In 2015, about 40 percent of entries finished in the top statistical performance group for turfgrass quality. In 2016, about 30 percent of entries finished in the top statistical group, showing that the entries are continuing to separate themselves. Only two entries delivered an acceptable average quality score of 5.0 or greater: **Barvette HGT** and **BAR 8PP 504** under the shade at Carbondale.

Drought tolerance was also tested in an ancillary trial at Logan, UT. Past data from this trial has yielded some decent separation among the entries, but 2015 and 2016 turf quality data demonstrated more separation. A00-2882 and Rush ranked highest in turf quality in



A sod production field of TifTuf bermuda in Georgia.

2016, followed by Keeneland, Mazama and Pick 4340.

Traffic tolerance was evaluated at North Brunswick, NJ and Knoxville, TN in the trial's final year. In Knoxville, **Barvette HGT**, **BAR VV 118352** and **SRX 2758** had the highest ratings for the year under traffic applications. **Barvette HGT** and **SRX 2758** also performed well under traffic applied at North Brunswick, NJ, showing good canopy fullness ratings after fall traffic applications, along with the entries **A06-46** and **Aramintha**.

Data on various diseases such as summer patch (Magnaporthe poae), dollar spot (Sclerotinia homeocarpa), and crown rust (Puccinia coronata) were reported over the first four years of this trial. However, only data on summer patch, one of the most devastating diseases on Kentucky bluegrass, was reported in 2016 with Raleigh, NC and North Brunswick, NJ submitting data. In six ratings collected by the two locations, not much correlation was seen among the ratings or locations. Only a few entries such as Barvette HGT, A05-TB-382, Pick 033 and SRX 466, finished with good summer patch tolerance scores in each rating. Several entries including, A06-46, Mazama, J-1770 and BAR PP 110358, showed good summer patch tolerance in at least one rating, but were not consistent across the season or among the two locations.

Tall Fescue

This report utilizes fourth year results from a five year tall fescue trial, planted in 2012. The trial contains 116 entries, of which many are still experimental. Year one data typically reflects establishment rate, year two data usually reflects broader cultivar performance, while years three through five often allow us to determine if trends seen in year two are still viable. A final summary brings all the years together and is the best measure of long-term performance.

Turfgrass quality ratings again varied by region and even by state location. The most separation in performance was noted in some of the seven Transition Zone locations, such as College Park, MD, Columbia, MO, Lexington, KY and Wichita, KS. 4th Millennium SRP, Hot Rod, Avenger II, Regenerate and Traverse 2 SRP, among others performed very well at these locations in 2016, often besting the top performers from the previous trial, Faith and Catalyst.

Data from the Northeast was collected at Storrs, CT and two New Jersey locations. Entries like **Regenerate**, **Rebounder**, **Thor** and **MET 1** generally performed well in the Northeast where brown patch (*Rhizoctonia solani*) was active. Otherwise, a shuffling of entries and their performance occurred in the Northeast.

Similar to 2015, locations in the South and Southeast generally did not note large entry differences with anywhere from 50-75 percent of all entries performing statistically similar to the top turfgrass quality score in 2016. An exception to this trend was at Riverside, CA, which showed good entry separation for the first time in this trial. 4th Millennium SRP, Screamer LS, Maestro, PSG-P01 and Technique were some of the highest rated entries in 2016 at the Riverside location.

In the Midwest, some significance was noted at three locations, West Lafayette, IN, Urbana, IL and Mead, NE. A few entries that performed well at all three locations include Regenerate, CCR2, Avenger II and Raptor III.

Tolerance to stresses such as traffic, shade, drought, brown patch and rhizome production are being evaluated throughout the testing period. Intensive traffic was applied on the tall fescue trials at North Brunswick, NJ in 2016. As with the previous years and trial locations, year four data showed very little statistical differences among entries. Fourth year data from evaluations conducted in shade at Carbondale, IL demonstrated more differences among

entries than past years with about 50 percent of the entries in the top turf quality grouping.

Data from Logan, UT, on a trial where irrigation is reduced, showed some higher significances than in past years, with MET 1, Bullseye, Hover, IS-TF 269 SEL and Raptor III earning the highest overall quality scores. Also at Logan, UT, in the third year of data collected on rhizome counts and rate of spread from rhiozomes or tillering, little to no statistical differences were evident among the entries.

Again this year, brown patch was the most prevalent disease noted, rated by researchers at eight locations. And again, as in previous years, brown patch ratings were not very consistent from location to location. These entries finished in the top five of all entries in at least two of the reporting locations: Avenger II, Hot Rod, GTO, 4th Millennium SRP and Traverse 2 SRP.

Perennial Ryegrass

Perennial ryegrasses are occasionally used in sod mixtures because of positive attributes such as fast germination, better establishment under low and high temperatures and traffic tolerance. The most recent data we have on perennial ryegrass is a final summary of four years of data summarized from our 2010 trial. This data from 2011-14 shows many new grasses with excellent quality and possible improvement in specific traits.

Data from 2012 and 2013 did not show large entry differences when averaged over Location Performance Index groups. In contrast, data from 2013 and 2014 showed larger entry separations. Entries such as Benchmark, Aspire, Wicked, Grand Slam GLD, Stellar SGL, Uno, Evolve, Thrive and Pangea GLR finished in the top statistical group for turf quality in several LPI groups. When analyzed by geographic region (2011-14 data), many of the same entries had turf ratings in the top statistical groupings for almost all regions. Other entries that also performed well within various regions include Bandalore, Rinovo, Green Supreme, SR 4650, Evolution and Diligent. The exception to this was the Riverside, CA location where the only entries in the top statistical group include Vintage, Excellence, Prominent, GO-G37 and Seductive.

The Amherst, MA location experienced historic injury as a result of the 2013-14 winter. Winter damage ranged as high as 97 percent, however, a few entries such as **PST-2NKM** and **Bandalore** showed less than 25 percent damage. In addition, counts of *poa annua* plants per plot were lowest with **Sienna** (14), **Provost** and **Allante** (both at 15.7), while some entries contained over 140 *poa annua* plants per plot.

Evaluations of specific performance traits (called Trait Specific Testing) are now emphasized by NTEP, starting with this trial. An example of this is traffic tolerance testing at four locations, drought tolerance testing at two locations and a salt tolerance greenhouse trial. Traffic tolerance evaluations ended

with about 60-70 percent of entries finishing in the top statistical group. And drought testing yielded even smaller entry separation.

On the other hand, salt tolerance screening showed large differences among entries. At 12,500 PPM salt levels, many entries performed well and ended in the top statistical grouping. However, with salt levels increased to 15,000 PPM (sea water is 35,000 PPM), only three entries, Manhattan 6 GLR, Rinovo and Green Supreme maintained 50 percent or greater ground cover.

Several diseases were rated over the four years of the perennial ryegrass trial and this four-year report allows us to summarize all the disease data. Grey leaf spot (Magnaporthe oryzae) is one of the most destructive pathogens to attack perennial ryegrass. At two locations, grey leaf spot was noted and some of the best entries included SR 4650, Karma, Vision, Apple 5GL and Expedite.

Stem rust (*Puccinia graminis*) was rated at three locations with Evolution, Stellar 3GL, Octane, Pangea GLR, Banfield and Bonneville among the highest scoring entries. Brown patch ratings at two locations showed Bandalore, Stamina and Karma at the top and Pythium blight (*Pythium sp.*) ratings at Blacksburg, VA had GO-DHS as the best and only entry in the top statistical group.



Fineleaf Fescues

The term "fineleaf fescue" includes several species. Strong creeping red fescue (Festuca rubra spp. rubra) and slender creeping red fescue (Festuca rubra var. littoralis) possess rhizomes and therefore add knitting ability to a sod mixture. Chewings fescue (Festuca rubra ssp. fallax) has a bunch-type growth habit and traditionally better disease resistance than the creeping red-types. Hard fescues (Festuca brevipila) are also bunch-type grasses but have generally better drought tolerance than Chewings or creeping types. Sheep fescue (Festuca ovina L. ssp. hirtula) is best suited for low maintenance sites because of its unique, swirly, growth habit from within the crown of the plant.

A new fineleaf fescue trial was established in 2014, with second year data from that trial now available. This new trial consists of 42 total entries, broken down into hard fescue (10), strong creeping red fescue (16), slender creeping red fescue (3), chewings fescue (12) and sheep fescue (1). The trial is planted at ten standard trial locations and eleven ancillary trial locations.

As in 2015, a good separation among entries was noted at most locations in 2016. As expected, trial location seemed to have a significant influence on entry performance. More disease activity, plus summer heat and drought may have contributed to the entry separation in 2016.

Entry, and species performance overall, varied by location and management level. At a site such as College Park, MD, which experienced exceptional summer stress in 2016, more hard fescues were top performers. But that trend did not hold true for the most southern location, Raleigh, NC, where the top performers were Chewings and creeping red fescues and many hard fescue entries suffered greatly. Chewings fescue entries dominated the top statistical group at Storrs, CT where a fairway mowing height was applied. But at lawn height mowing sites in the north central U.S. (St. Paul, MN and E. Lansing, MI), hard fescues were the top performers. The moral to this story is that breeders have made so much progress in improving the fine fescues that predicting performance based on species may be impossible.

Traffic tolerance of entries in this trial is conducted under both fairway mowing height and lawn mowing height. In 2016, traffic was evaluated at four sites, East Lansing, MI (fairway), Storrs, CT (fairway), Corvallis, OR (lawn) and Amherst, MA (lawn). The fairway sites utilize an apparatus that simulates golf cart traffic and damage. The locations used a similar protocol: two passes per day with the traffic simulator, three times per week from May through September. As with 2015 data, the fairway sites had a surprising level of agreement among the top entries, with entries such as C14-OS3 strong creeping red, and chewings fescues PPG-FR 113, PPG-FRC 144, DLFPS-FRC/3057 and DLFPS-FRC/3060 finishing in the top turf quality statistical group at both locations. The exception to

this was the hard fescue **Resolute**, which was the top performer at St. Paul, but a bottom tier entry in Storrs.

At the Amherst, MA (lawn height) location the best entries for wear tolerance included the hard fescues **Resolute**, **Minimus**, and **MNHD-14**, even though two of those entries did not demonstrate top level turf quality. The lawn traffic site in Corvallis, OR showed little statistical differences in 2016.

Fairway maintenance levels, particularly in regions where fine fescues may suffer heat and drought stress, is being evaluated in this trial. Sites as diverse as West Lafayette, IN and the California Golf Club of San Francisco showed similar results with strong creeping red entries such as Navigator II, 7C34 and PPG-FRR 111; and chewings entries DLFPS-FRC/3338, PPG-FRC 114 and DLFPS-FRC/3060 performing well at both sites. The East Lansing, MI and St. Paul, MN, locations finished with only two entries in both locations' top statistical group: hard fescue Resolute and strong creeping red fescue C14-OS3.

Several diseases were rated on this trial in 2015, seemingly more than in 2016 and most likely contributing to quality score variability. Red thread (*Laetisaria fuciformis*) was rated at five locations in 2016, with entries such as **Jetty**, **Gladiator**, **Beacon**, **PST-4BND** and **DLFPS-FL/3060** performing consistently well across four of those locations. The outlier was the California Golf Club in San Francisco location where top red thread entries included **BAR FRT 5002**, **C14-OS3**, **RAD-FC32**, **MNHD-14** and **BAR VV-VP3-CT**.

Dollar spot, leaf spot and/or melting out (*Bipolaris*, *Drechslera*, or *Exserohilum sp.*) and summer patch are persistent, troublesome diseases on fineleaf fescues and each of these diseases were noted and rated at two or more locations in 2016. Dollar spot was noted at four locations, with many hard fescues (ie. **Jetty, C14-OS3, MNHD-14** and others) showing consistently good results across locations.

Summer patch rated at College Park, MD and North Brunswick, NJ showed varying results in 2016. Hard fescues Resolute, DLFPS-FL/3060, Jetty and DLFPS-FL/3066 demonstrated the best resistance at College Park, MD while several creeping red fescues, including PPG-FRR 111, DLF-FRR 6162 and PST-4BEN were the best summer patch performers at North Brunswick, NJ. Leaf spot data from New Jersey revealed Resolute, DLFPS-FL/3060 and Minimus with the best tolerance over the two ratings.

Bentgrass

New trials of bentgrass were established in fall 2014, and the first data was released in spring 2016. Two species are included in the latest trials: creeping (*Agrostis stolonifera*) and colonial (*Agrostis tenius*). Second year data (from 2016) is presented here, although it should be considered with caution since results may change with further testing.

Putting Green Trial

This trial, containing twenty creeping bentgrasses, was established at nineteen locations. Turfgrass quality ratings collected in 2016 revealed several experimental cultivars that can meet, or exceed the quality delivered by previous top performers **Declaration**, **V-8**, **Penn A-1** and **Luminary**. For instance, **PST-ROPS** delivered top turf quality at several sites, including sites as varied as Athens, GA, West Lafayette, IN and East Lansing, MI. **Piranha** showed broad adaptability finishing in the top statistical grouping for turf quality at eleven of eighteen locations. Additionally, **Kingdom** and **PST-ROPS** were the only entries in the top statistical group for turf quality under both regular irrigation and reduced irrigation regimes at the Logan, UT location.

This trial was also evaluated at three golf course sites: Los Angeles Country Club in California, the California Golf Club of San Francisco and North Shore Country Club in Glenview, IL. In 2016, 777, PST-ROPS and DLFPS-AP/3018 finished in the top turf quality grouping at all three locations. Interestingly, L-93XD showed excellent performance at both of the California sites, but finished at the bottom of all entries at the Chicago site. In addition, Kingdom was a top performing entry at the San Francisco site, a middle of the pack entry at L.A. Country Club, and the lowest performing entry at North Shore in Chicago. These results are evidence that entries performing well at one

site cannot be assumed to perform well at sites in different geographical areas and/or climatic zones.

As with the previous trial, wear tolerance evaluations were conducted at the Amherst, MA location, starting in 2015. This location imposes wear by dragging a stiff brush across the plots. This action causes bruising and abrasions that mimic different types of damage. In 2016, GDE, Kingdom, 777, DLFPS-AP/3018 and PST-ROPS showed the best overall quality, with Kingdom and Nightlife exhibiting excellent wear tolerance in three ratings.

An additional ancillary trial was established at Logan, UT where entries were managed both under traditional irrigation and a reduced irrigation regime. The entries ending in the top statistical turf quality group under both regimes in 2016 include only **Kingdom** and **PST-ROPS**.

Bentgrasses are susceptible to many diseases, therefore, disease resistance has always been an important feature of any new bentgrass cultivar. Dollar spot is one of the most damaging diseases on bentgrass and in 2016, dollar spot was noted and rated at eight locations. L-93XD, Declaration, DLFPS-AP/3018, DLFPS-AP/3058, Luminary, GDE and Barracuda had consistently high dollar spot ratings across locations. Brown patch was rated at three locations with Piranha, Luminary and PST-ROPS showing good results. Pink snow mold (*Microdochium nivale*) data collected at the California Club in San Francisco revealed some good entry separation with

777 finishing atop the pink snow mold tolerance ratings.

Fairway/Tee Trial

The 2014 trial consists of fourteen creeping and three colonial bentgrass entries and is planted at nineteen locations. Second year data usually shows a broader response to various diseases and gives us a first look at each entry's response to stresses imposed in our ancillary trials.

At several locations, entry differences were less than expected, with no statistical differences in turf quality averages noted at a few trial locations. There were however, entries with outstanding turf performance and disease tolerance in 2016. Past top creeping bents 007 and Crystal Blue Links are the entries that any new experimental needs to outperform, and new entries Piranha, Chinook and L-93XD, along with commercial cultivars Barracuda, Shark, Nightlife, Kingdom and Armor looked impressive at several locations in 2016.





2011 NTEP Ky. Bluegrass trial in College Park, MD. With limited or no irrigation over the trial period, the summer of 2016 eliminated most of the entries, with the exception of a few (as seen in the bottom left of this photo - taken in October 2016).

In 2015, creeping bentgrasses generally outperformed their colonial bentgrass cousins. That changed in 2016 with colonial bentgrass entries showing excellent performance at selected sites. For colonial bentgrass, top performer **Greentime** has some serious competition with **Musket** and **DLFPS-AT/3026** performing well at East Lansing, MI, Lexington, KY and Blacksburg, VA again in 2016. It seems that where the colonial bentgrasses are well adapted, they perform very well. Where colonial bentgrass does not seem to be well adapted, like the Mountain West or southwestern states, those entries fall into the bottom 25 percent of all entries.

The Riverside, CA location utilized a reduced irrigation level but no significant differences were again noted among the entries. At two ancillary traffic locations, Amherst, MA, and Blacksburg, VA, only the Amherst location showed significant entry separation. For the second year, colonial bentgrass DLFPS-AT/3026 was excellent under the traffic stress at Amherst, finishing in the top statistical group for turf quality along with Piranha, a creeping bentgrass entry. However, turf quality ratings are more than just traffic damage, therefore, traffic tolerance was evaluated three times at the Amherst, MA site. Kingdom and Nightlife achieved the top traffic tolerance scores in the three ratings.

Disease resistance is a very important trait for bentgrasses used on fairways or tees. Two particularly devastating diseases, brown patch and dollar spot were rated at several locations in 2016. Brown patch was noted at two locations during the test period, College Park, MD and Columbia, MO. At the two locations, the creeping bentgrasses overall were mostly tolerant of brown patch infection, with the colonial bentgrass entries showing considerably more brown patch infection.

In contrast, dollar spot data showed the colonial bentgrasses **DLFPS-AT/3026**, **Musket** and **Greentime** with the highest tolerance at three locations. Creeping bentgrass entries **Chinook** and **V-8** showed excellent dollar spot tolerance on most rating dates, but this tolerance seemed to break down toward the end of the season. Other entries showed good tolerance on one or two rating dates, but these results were not consistent across locations.

Low Input Cool-Season

In 2015, NTEP established its first management based trial, with seventeen locations that manage under 'low input'. The first trial of this type includes cool-season grass cultivars, experimentals, blends and mixtures of grasses and other species. Thirty-two entries were submitted by sponsors, including single cultivars and blends of Kentucky bluegrass, fine fescue, tall fescue and perennial ryegrass;

mixtures of several grass species, with some including strawberry, white or Microclover® (*Trifolium* spp.); and even a western yarrow entry (*Achillea millefolium* L.).

Management is minimal for the five-year trial, with no fertilizer applications or irrigation after establishment, no pest control at any time during the trial, and mowing at 3 – 3.5" on the thirteen standard trial sites. Three ancillary trial sites evaluate the effect of one annual grass pre-emergence application (spring 2016) only, then following standard trial protocols for the remaining four years of the trial. One additional trial location (West Lafayette, IN) makes an additional fertilizer application on one half of each plot for 2016 and 2017 only, to evaluate the effect of the small increase of fertilizer on performance and survival. Overall, these locations are maintained very minimally, which is of interest to an increasing number of our customers.

First year data from any NTEP trial typically reflects establishment rate. However, entries in this low input trial, with no annual grass or broadleaf weed control, need excellent establishment to resist weed invasion in year one and therefore, deliver good quality. The entries with the best ground cover in spring 2016 include tall fescue (Bullseye, Ky-31 E+), several mixtures that are primarily tall fescue (DLFPS TFASTC, Southern Mixture, Vitality Double, DTT Tall Fescue Mix, DLFPS TF-A), and some mixtures that include clover (DFPS TFAM, DLF ChCrM). Of the best entries for spring ground cover, only DLFPS TFAM, DLFPS ChCrM, DLFPS TFASTC and Southern Mixture had the best ground cover in fall 2016. In addition, the western yarrow entry Yaak also had high fall ground cover.

Turfgrass quality ratings collected in this first year resulted in three LPI groups, but with small differences among the entries. With many different species, mixtures with clovers and even non-grasses (western yarrow), turfgrass quality ratings are more difficult to assess, most likely leading to the insignificance among entries.

Along with ground cover and overall persistence ratings, resistance to weed invasion may be one of the most important characteristic of these entries. Data collected at six locations showed that only Yaak, the western yarrow entry, DLFPS TFAM, a tall fescue mixture with Microclover®, and DLFPS ChCrM, a fine fescue mixture with Microclover® finished in the top statistical group for least weed invasion. However, please keep in mind that most likely, performance of these entries will change a lot over the remaining four years of this trial.

Other Species

Other cool-season species, such as prairie junegrass (Koeleria spp.), tufted hairgrass (Deschampsia cespitosa), rough bluegrass (Poa trivialis), supina bluegrass (Poa supina) and annual bluegrass (Poa annua) are potential sod products, although limited in their utility and geographical area of adaptation.

Native species, such as junegrass and tufted hairgrass, under low maintenance can form a dense sward with an appearance somewhat like perennial ryegrass or Kentucky bluegrass. One tufted hairgrass cultivar has been tested by NTEP (1998 NTEP Fineleaf Fescue trial). The other bluegrass species, rough, annual and supina are still very much under development without a lot known about their performance characteristics and production needs. Other native species, such as inland saltgrass (*Distichlis spicata*) and poverty grass (*Danthonia spicata*), have special traits such as salt tolerance (inland saltgrass) or tolerance to infertile soils (poverty grass), but are probably several years away from commercialization.



WARM-SEASON

In spring/summer 2013, new trials of bermudagrass and zoysiagrass were established, with 35 entries in each trial. In addition, a unique new trial was established in conjunction with the United States Golf Association (USGA). The trial evaluates bermudagrass (15 entries), zoysiagrass (11 entries) and seashore paspalum (2 entries) at eleven locations under putting green conditions.

The third year of data from each of these three warm-season trials is now available from NTEP. Even though each trial features a different set of data, a common theme of all these trials is data on initial establishment from 2013. However, due to the unusually harsh winter that many locations experienced in 2013/2014, several entries were never able to establish at some locations. Data on winter injury was collected and the cooperators were consulted on the condition of their trials. Since 2013-14 was the worst winter in more than thirty years, the decision was made by NTEP to replant several or all entries at the worst winter injury sites. NTEP has never replanted so many entries and locations in our history, but we felt it was necessary to give all entries an equal opportunity to establish and perform. No more replanting will take place for these three trials. The information on the entries replanted at each location is noted on the data tables.

Bermudagrass

The new bermuda NTEP trial contains eighteen (18) seeded entries and seventeen (17) vegetative entries. Many of these entries are experimental cultivars or new commercial cultivars. NTEP evaluates warm-season grasses by comparing seeded and vegetative entries, and also by separately comparing seeded vs. seeded and vegetative vs. vegetative.

After the 2014 replanting, we are now past the establishment phase and have data that more reflects long-term performance. In that regard, we have ratings that show the potential of new experimental entries. In 2016, entries such as **TifTuf**, **OKC 1131**, **OKC 1163**, **11-T-510**, **JSC-2-21-1-v** and **JSC-2-21-18-v**, all vegetative entries, performed very well finishing in the top statistical group at many locations. This performance compared favorably, or surpassed in some cases, previous top performers **Latitude 36** and **Tifway**. It remains to be seen if any of these entries will eventually replace **Tifway**, arguably the most widely utilized turf bermudagrass in history.

And as in the past, the seeded entries were often outperformed by the best vegetative entries. However, at Jay, FL, Tucson, AZ and Lexington, KY, the seeded

entries 12-TSB-1 and MSB 002 continued to perform well, and similar to the top vegetative entries. Additional entries, such as Princess 77, BAR C291 and JSC-2007-13-S, have performed well at times, being statistically equal to the best vegetative entries at a few locations. This trial will collect its final year of data in 2017, and that will help us to determine if these new seeded experimentals can match the quality and performance of the vegetative bermudas.

Several ancillary trial locations again conducted unique tests in 2016. Some results were not significant, as in most of the nematode counts made in Gainesville, FL. Traffic tolerance differences were noted at Lexington, KY, with TifTuf, JSC-2-21-1-v, OKC 1131 and OKC 1302 topping the traffic ratings. These results were not seen under the traffic stress imposed on the Knoxville, TN trial, as little statistical differences among entries were noted. And in dollar spot ratings collected at Raleigh, NC, Tifway, OKC 1302, PST-R6CT and 11-T-510 showed the highest tolerance ratings.

Since water use reduction is probably the most important issue the turf industry is facing, our drought ancillary trial conducted at College Station, TX is immensely important. Performance differences evaluating drought tolerance were significant in 2016, as they were in 2015. In that trial, **TifTuf** and **OKC 1163** were statistically superior to almost every other entry, where turf quality scores in 2016 ranged from 8.0 to 4.8 (LSD=0.4).

Zoysiagrass

Meyer zoysiagrass was released in the early 1950's and has been a standard in the industry ever since. Meyer is known for its medium leaf texture (for a zoysia japonica type) and excellent winter hardiness. Zeon is a zoysia matrella type that is finer textured than Meyer. Zeon is a standard for use on golf course fairways and tees because it can develop a dense turf at mowing heights of 0.5" or lower. Both grasses are included in this new trial as standard entries.

One of the weaknesses of zoysiagrass is its rate of establishment, especially compared to other warm-season species. Therefore, plant breeders are working to improve spread and recovery rate in zoysiagrass. For both of these traits, it appears that breeders are making considerable gains. In addition, **Meyer** historically has not performed particularly well in the warmer southeast and southwest locations, therefore zoysia cultivars that perform well in those regions are much needed.

As with the bermuda trial, injury in the winters of 2013-14 and 2014-15 significantly affected some locations. Winter injury was evident at Manhattan, KS, West Lafayette, IN and Columbia, MO with turfgrass quality and percent cover ratings being affected by that injury. **Meyer** and **KSUZ 1201** suffered only a small amount of winter kill at those locations (only 1.3 and

9.7 percent, respectively at Manhattan, KS). The two winters damaged DALZ 1301 and FAES 1305 more, however, they recovered enough to provide quality almost equal to Meyer and KSUZ 1201 at the three northern locations. Since then, entries such as FAES 1312, DALZ 1301, FAES 1305 and 11-TZ-4321 have continued to recover and are now providing good to excellent quality at the nothern locations, along with KSUZ 1201. For so long, Meyer was the standard for winter tolerance, and therefore, the primary cultivar in use in the northern and Transition zone states. However, with these new experimentals, Meyer may finally be replaced in this region.

In concert with 2015, results from the southern locations show that in 2016 other experimental zoysiagrasses provide higher quality turf than Meyer and Zeon. Several entries including DALZ 1301, DALZ 1303, FAES 1303, FAES 1304, FAES 1305, A-1, 09-TZ-54-9 and FAES 1319 performed very well at a few locations, but their performance was much more location dependent. Meyer did perform well at a few locations, such as Fayetteville, AR and Jay, FL, but finished in the bottom third of all entries at most southern locations. Zeon performed well at Fayetteville, AR, consistently holding its own against the new experimentals at this and a few other locations. But like Meyer, Zeon also fell out of the top statistical group at most locations.

Ancillary trials of traffic, drought and shade tolerance yielded their first data in 2015. These trials were repeated in 2016 where College Station, TX imposed significant drought stress on the entries, rating turf quality and percent ground cover to measure drought tolerance. Several entries, including DALZ 1033, FAES 1303, FAES 1309, FAES 1310, FAES 1305 and FAES 1306 rated the highest for turf quality under the drought conditions.

Traffic was imposed on the zoysia entries at the Raleigh, NC location. 09-TZ-54-9, FAES 1313, A-1, CSZ 1105, DALZ 1303 and FAES 1315 (and ten other entries) had the highest percentage cover ratings at the end of the traffic season. And shade tolerance was tested at two locations, Riverside, CA (artificial shade) and Carbondale, IL (natural shade). The Carbondale location has not yielded consistent results, however, some good separation and performance was noted at Riverside, CA, with entries like DALZ 1301, DALZ 1303, 09-TZ-53-20 and FAES 1306, showing acceptable shade ratings.

Warm-Season Putting Green

In the late 1990s, NTEP and USGA collaborated on a trial to evaluate creeping bentgrass and bermudagrass on putting greens situated at golf courses. The purpose of that trial was to evaluate putting green cultivars under actual golf course putting green conditions. For bermudagrass, eight golf courses were

chosen in locations as varied as Florida, California, Missouri and other sites. Data collected from that trial (http://www.ntep.org/reports/bg98o/bg98o_02-10f/bg98o_02-10f/htm) showed that bermudagrass could work well as a replacement for creeping bentgrass in the lower Transition Zone and southern U.S. That trial contained seven bermudagrasses, several of which have become well established in the golf turf industry.

More recently, the USGA is interested in identifying warm-season grasses that can provide acceptable putting surfaces where course owners want to save water, pesticide and fertilizer inputs. In addition, the USGA is interested in evaluating potential new putting green grasses that can be mowed higher, do not require as much cultivation and vertical mowing, but still provide a good quality playing surface. Hence, the idea for a new collaborative trial that we established in 2013.

A new twist on this trial is that we have included not only bermudagrass, but also zoysiagrass and seashore paspalum. Seashore paspalum has been utilized on putting greens for the last decade or so, but zoysiagrass has almost no history as a putting green surface in the U.S. (zoysia has been a mainstay of 'summer' putting greens in Japan for decades). Including three different species in one trial offered challenges, particularly in management specifics that may differ from one species to another. However, eleven trial cooperators (seven



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2016 NTEP St. Augustinegrass Trial in Griffin, GA. Note the variability in rate of spread and color among the entries.

at university sites, four on golf courses) felt up to the challenge and the trial was born.

One of the goals of the trial is to maintain consistent putting green speeds of at least 9 feet on the stimpmeter. This speed is adequate for most mid-level public and private courses where reduced maintenance inputs and costs are necessary for the course to be profitable. How to maintain that speed is up to the site manager (or golf course superintendent), but a set of guidelines were developed to help manage the trial. In addition, it was determined that since some locations could suffer winter kill each year, turf covers would be provided to those locations and would be used a standard maintenance practice (adopting what a mid-level golf course may do to protect their investment). The use of covers came into focus the first winter, with the severe cold temperatures.

As explained last year, despite the covers that were used at several locations, winter injury from 2013-14 was significant at some locations. This winter injury caused NTEP to replant some or all entries at four locations in summer 2014. Therefore, establishment data collected during the trials' first year (2013), was collected again at several locations in 2014. And several trial locations did not establish properly, or were set back by the winter of 2013, therefore, not a great amount of quality, density, disease and ball roll data could be collected during the first two years. The winter of 2014-15 was also colder than normal in some locations, which delayed some entry development and hence, collection of some of the more advanced data parameters. Also, various issues led to the unfortunate abandonment of the trial at Tequesta, FL.

MSB-264 and MSB-285, experimentals from Mississippi State University continued to perform well, finishing in the top statistical group for turf quality at

five and six (of nine) locations, respectively. 11-T-861 also performed well, finishing in the top statistical group at five locations, but only the southern sites. Other experimentals such as 08-T-18, OKC-13-78-5 and JK 110521 demonstrated good turf quality at several locations, with top statistical group performance at four sites. Significant differences in genetic color, density, leaf texture and fall color retention were noted among entries, which largely led to the quality ratings separation.

For zoysia in 2016, several experimental entries, particularly from the Texas A&M-Dallas (DALZ) University research program, produced turf quality that rivaled many of the bermudagrasses. DALZ 1308, one of the best zoysia entries in 2015, showed consistent performance in 2016 with top statistical group finishes in eight of nine trial locations. DALZ 1306 and DALZ 1307 also performed well with top statistical groupings at eight and seven locations, respectively. Performing well enough to gain the top statistical group at five locations in 2016 include DALZ 1309, DALZ 1304 and ZOYSIU.

The two seashore paspalum entries again showed excellent establishment and reasonable quality. As in 2015, **UGS 143** and the standard entry **SeaDwarf** performed very similarly at almost locations in 2016. Also, as expected, both seashore paspalum entries died at the northern locations of Lexington, KY and Bloomington, IN.

Ball roll measurements were collected at several locations in 2016. However, most locations did not record ball roll distances that met our minimum threshold of about 100 inches of roll (250 cm) using the stimpmeter (on at least one rating date). Mississippi State, MS was the only location to achieve ball roll distances on bermuda of at least 100 inches on any rating date. The bermuda entries **Tifeagle**, **FAES 1302**, **Mini-Verde**, **Tifdwarf** and **CTF-B10** delivered 100-inch ball rolls on both rating dates.

In prior years, none of the zoysia or seashore paspalum entries rolled at least 100-inches, however, that changed in 2016. At Tucson, AZ, several of the zoysia entries had greater ball roll distances than the bermuda entries, with 10-TZ-74 rolling greater than 100 inches on both rating dates. DALZ 1305 and DALZ 1307 showed ball roll distances of 100 inches on one of two rating dates in Tucson. And 10-TZ-74 was the only entry to roll greater than 100 inches at the Richmond, VA location. The seashore paspalum entry to measure a 100-inch or greater ball roll in 2016 was SeaDwarf, on one rating date at Tucson, AZ.

St. Augustinegrass and seashore paspalum cultivar development was fairly limited in the U.S. for a long while. The situation changed in the early to mid-2000s when new plant breeders were hired at southern universities like Texas A&M, University of Florida and North Carolina State University. Now, with those folks in place and with a major federal (USDA) grant from the Specialty Crop Research Initiative (SCRI), an increase in breeding of these two species, along with bermuda and zoysia, is occurring across the southern U.S. Within a few years, growers and consumers will see new cultivars of St. Augustinegrass and seashore paspalum in the marketplace. These new cultivars will have improved drought and salt tolerance, as well as other improvements. To evaluate some of those new experimental grasses that may make the marketplace, NTEP initiated new trials of St. Augustinegrass and seashore paspalum in summer 2016. The first data from

those trials will not be available until 2018, therefore, the following information is taken from our last completed trials of both species, with data from 2007-2012.

St. Augustinegrass

St. Augustinegrass is a species where several older cultivars are still competitive in the marketplace. Floratam, developed by the University of Florida and Texas A&M and released in 1973, Raleigh, a cold tolerant cultivar and newer releases Mercedes and Palmetto still dominate the U.S. market. In some areas, sod producers grow and market their own local selections while there are still common-type cultivars, like Texas Common sold extensively in some markets.

Our most recently completed St. Augustinegrass trial included three standard entries (Floratam, Raleigh, and Mercedes) and three experimental entries, planted at five locations. Turf quality data from 2007-2012 at Gainesville, FL and Griffin, GA showed no statistical differences among any entries. Turf quality ratings averaged over the same period from Mississippi State, MS, Raleigh, NC and College Station, TX did however, show some statistical differences. At Mississippi State, MS, DALSA 0406, Mercedes and Raleigh finished in the top statistical group, with the same three cultivars plus Captiva finishing in the top statistical group at Raleigh, NC. At College Station, TX, only Captiva did not finish in the top statistical group. Therefore, DALSA 0406 was the only experimental entry with statistically comparable quality ratings to Mercedes, Raleigh and Floratam.





2014 NTEP Bentgrass Putting Green Trial in Athens, GA. Photo taken in May 2017, most entries are still in good condition after last summer's heat.

DALSA 0406 had more winter injury at Raleigh, NC than Raleigh and Mercedes, but DALSA 0406 showed comparable grey leaf spot ratings to Mercedes and Raleigh. Captiva and DALSA 0602 had the highest grey leaf spot ratings in data collected at Raleigh, NC.

Floratam has been the workhorse St. Augustinegrass over the last 30 years, and it showed superior take-all patch (Gaeumannomyces graminis var. graminis) resistance at Gainesville, FL. Floratam also keeps its color longer in fall than Raleigh, however this ability to grow in cooler weather makes Floratam more susceptible to winter injury. Floratam is also one of the fastest spreading cultivars, however, DALSA 0406 showed statistically equal spread ratings at several locations. Floratam was also the highest rated cultivar for resistance to both brown patch and large brown patch diseases.

Seashore Paspalum

Seashore paspalum is known for its salt tolerance, however some cultivars are valued for their turf quality as well. NTEP started testing of seashore paspalum for the first time in 2007. Five vegetative entries and one seeded entry were planted at eight locations in spring/summer 2007.

Summarized turf quality data from 2007-2012 at six locations shows five of the six entries in the top statistical group, with only **UGA 7** finishing out of the top group. At our coldest winter location, Fayetteville, AR, four of the six entries (**UGA 7**, **UGA 22**, **UGA 31** and **Sea Isle 1**) finished in the top statistical group, but no statistical differences were noted in winter injury. Very few other ratings showed much in the way of statistical differences.

Buffalograss

There has not been sufficient interest to start a new buffalograss trial, therefore, the data that we compiled from 2002-2006 is the most recent we have available. Considering the four years of data from the 2002 trial, cultivar performance depended mainly on geographical location. The vegetative cultivar **Density** had high quality ratings in the southern locations of Tucson, AZ, Riverside, CA and Dallas, TX, with lower turf quality ratings, relative to other entries, at more northern locations. Legacy, another vegetative entry, had the highest quality rating at Logan, UT, Manhattan, KS, and Lincoln, NE. Several seeded entries again performed well during the trial period, with **Tech Turf 1** and **Bowie** each performing well at more than one location. In addition, Tech Turf 1, Density and SWI 2000 were consistently the fastest to establish.

A few buffalograss cultivars have been released since our last NTEP trial was initiated, two of those cultivars from the University of Nebraska. **Prestige** is a commercially available vegetative cultivar released in 2003. And most recently, the University of Nebraska released the seeded cultivar **Sundancer**.

Centipedegrass

Centipedegrass performs well in the more acidic, dense soils of the southeast U.S. and does so with probably the least maintenance required of any warm-season species. Curiously though, improved centipedegrass cultivars have been slow to become commercialized. In fact, NTEP has never tested centipedegrass due to the lack of a significant number of cultivars available. Seeded centipedegrass cultivars are dwarfed in the marketplace by common centipede, the major centipedegrass seed sold. A new cultivar, **TifBlair**, reportedly more cold-tolerant than other cultivars, has been commercialized within the last several years.

Kevin Morris is executive director of the National Turfgrass Evaluation Program (NTEP).

All photos by Kevin Morris.



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'GRASS ROOTS' OPENS

AT MARYLAND SOCCERPLEX

By Suz Trusty

On May 3, 2017, the official ribbon cutting ceremony opened 'Grass Roots' at the Maryland SoccerPlex. "Remind me again, what is Grass Roots?" from the SoccerPlex enewsletter provides this background. "The National Arboretum, in partnership with the National Turfgrass Federation (NTF) and the USDA, created an interactive exhibit at the National Arboretum in Washington, D.C. entitled The Grass Roots Initiative: A Science Based Focus on Turfgrass to help educate the public about turfgrass. The exhibit is a live, interactive, outdoor exhibit that is currently at the National Arboretum. The exhibit features the history of grass, fertilization practices, irrigation timing, tips for home lawn care, lawn care equipment and so much more.

"In 2015 we contacted the National Arboretum to see if they could create a satellite Grass Roots exhibit at the SoccerPlex. Why? Well because who likes grass more than us?"

The Maryland SoccerPlex, located in Boyds, MD, is about 40 miles from Washington, DC. It features a combination of 24 regulation-sized soccer fields, the award-winning stadium field, Maureen Hendricks Field, and the Discovery Sports Center, the largest open indoor space in Montgomery County. It hosts soccer play ranging from youth leagues to international professional teams.

Soccer competition there draws 600,000 visitors to the facility annually. With an opportunity to share the benefits of natural grass with all those people, of course, the answer was yes.

Work that began in the spring of 2016 was crowd-ready for the grand opening. Weather was perfect and approximately 50 attended, according to Geoffrey Rinehart, Grass Roots Initiative coordinator. "A few executive council members and county extension personnel were in that group. It attracted good media attention, too, including two local television stations."

Rainy weather made the public grand opening on Saturday, May 6, less successful. But, Rinehart reports, he and Kevin Morris, NTF president and executive director of the National Turfgrass Evaluation Program (NTEP), will join Ryan Bjorn, SoccerPlex Director of Grounds & Environmental Management, on a busier Saturday to interact with the public and field technical turfgrass-related questions.

The location is ideal: in front of the ticket booth on the south lawn of the SoccerPlex's stadium field. There's much for show and tell. Ten exhibits, spread across



The ribbon cutting ceremony for 'Grass Roots' at the Maryland SoccerPlex.

nearly an acre, include a fertilization display explaining best management practices (BMP); an exhibit showing the different parts of an irrigation system and a pressure display demonstrating how the larger droplets are more effective in getting the water on target.

Rinehart says, "The four sports fields are each about 17 feet by 25 feet, showing three grasses—Latitude 36, HGT, and Zeon zoysia—and a synthetic turf surface. Ryan is planning to let the younger players, kindergarten to third grade, warm up on them."

There's a lawn grasses display showcasing six warmseason grasses: Zenith zoysiagrass, Raleigh St.
Augustine, TifBlair centipedegrass, Legacy buffalograss, Sovereign bermudagrass, and SeaStar seashore paspalum; and five cool-season grasses: a blend of tall fescue and bluegrass, perennial ryegrass, fine fescue, and Kentucky bluegrass. Rinehart adds, "Even though we don't have a golf hole display like at the Arboretum, we wanted to include a "golf grass" so we have '007' creeping bentgrass, but mowed at a lawn height, as the fifth variety in the cool-season lawn display."

In her Executive Director's Turf column in the May/June issue of *Turf News*, Sandy Reynolds detailed the support that TPI turfgrass producers and The Lawn Institute (TLI) have provided to the Grass Roots Initiative. Morris and Rinehart extend their gratitude for that support. Working together, the industry continues to spread the word on the benefits of natural grass.

Suz Trusty is co-editor of Turf News

Photo courtesy of 'Grass Roots.'



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HONORING JIM NOVAK

By Suz Trusty

After more than a decade of dedicated service, Jim Novak, communications manager of Turfgrass Producers International (TPI), announced his retirement, effective May 31.



Jim at the 2016 Annual Meeting of the Turf & Ornamental Communicators Association (TOCA).

As Sandy Reynolds, then interim executive director, stated in the announcement to TPI members, "Words can not adequately express the contributions Jim has made to our association and there is no doubt that he will be missed by all of us."

Linda Bradley of Turf Mountain Sod and TPI's current Past President, added, "Jim has always provided excellent words and writings to promote natural grass. What

he has written and created will be used for many years to come to continue to promote the remarkable value of natural grass. His ability to make people smile and be truly encouraged and inspired are just a few of his many wonderful attributes that I admire!"

Current TPI President, Jimmy Fox of Evergreen Turf, Inc., stated, "Jim's passion for thoroughly researching a subject, then communicating that in words is such a special gift. The awards he received from his peers [the Turf & Ornamental Communicators Association (TOCA)] the last few years are testament to his talent. There is not a greater honor than to be recognized by the best in your field, and he has earned such respect."

Asked for his comments on his career with TPI, Jim Novak said, "Although only twelve years have passed since I first joined TPI, technology has evolved in ways that were unimaginable even a decade ago. The ongoing progression of the TPI and TLI websites; TPI's involvement in the April is...National Lawn Care Month campaign, the series of brochures we created for the Lawn Care Guide, numerous video presentations, etc. Every one of these vehicles has expanded our means to communicate and build greater awareness to a broad audience. Our collaboration in recent years with other turf and green industry associations has been invaluable. As I look to the

future it is my hope that this effort to partner and work together with other associations will continue."

Jim Novak's creativity, communications expertise and ability to interact across multiple audiences have made tremendous contributions to TPI and the entire Green Industry. Let's explore the journey that uniquely equipped him for this challenge.

Personal

Jim Novak grew up in Chicago's Bucktown. He met Kathy in high school and they began dating during their senior year. They'll celebrate their 50th wedding anniversary in August of 2018.

Jim and Kathy are dramatically different personalities that are dependent on what one gives to the other and totally supportive of each other. Jim says, "My career trajectory was possible because Kathy was so successful in what she did in the business world. She provided the financial support that allowed me to be creative."

Kathy served as executive assistant to the CFO at British Steel. After that company's acquisition by a corporate giant, she served a group of executives in leadership positions within that company.

Kathy Novak says, "Jim is sweet and funny and he cares so much it's almost detrimental at times. He's a natural born teacher as well as a master communicator. His most influential role has been father. He always told our son, 'Do what you love." Their son Michael followed that advice and is now a professional dancer with the prestigious Paul Taylor Dance Company in New York.

The Quest

Jim planned to be a commercial artist and did attend the American Academy of Art in Chicago. Prior to starting there, he decided to take his portfolio to WGN Broadcasting in Chicago, to see if he could get a job there as a commercial artist. "If my parents were well educated, they would have understood that was impossible and talked me out of it. But they weren't and their attitude was why not? So I gathered the portfolio of my best work, bought a big leather case to hold it, and took the bus to WGN Broadcasting.

"When I walked inside, I was stopped by security. I told them I came for a job interview. They asked if I had an appointment. I didn't know you did that and I had no resume. For some reason, the guard called the personnel offices and for some reason the assistant personnel manager said she would see me. She was very polite and looked at my work, which I know now was not very good.



Jim hung in through many staffing changes during his tenure. He even had the opportunity to work a short while with the newest members, executive director Casey Reynolds and associate executive director Karen Cooper.

But she apparently was impressed with my enthusiasm and excitement. She told me they had no openings in the art department, but did have one in the mailroom and asked if I'd be interested in that. Of course I said yes."

Working in the mailroom at a broadcast company allowed him to go to every department, including the announcers' lounge and writers' offices where scripts were written and delivered. Being Jim, he got to know the people. Curious by nature, he says, "I asked a lot of questions. People were very giving in their responses."

WGN recognized the potential of that likeable, dependable mail clerk and offered him a promotion to accounts payable clerk. "I was not a CPA. I had no degree," Jim says. "But they were very supportive and allowed me to learn on the job." He soon advanced to accounts payable supervisor and then, at a very young age, to chief accountant of WGN Productions Company.

"Chief accountant was a prestigious position and I was paid well," Jim reports. "But I really wanted to be a writer. Kathy encouraged me to follow that dream." He went to the treasurer of WGN and asked if it was possible to transfer from accounting to radio production. Jim says, "He was floored. He told me he had no influence on radio or TV production. If I wanted to pursue that, I'd have to submit scripts to the radio programming director."

So, at the end of his day in the accounting department, Jim would pop into the production department, sift through incoming news feeds, and write 'dummy' scripts which he persistently and persuasively submitted to the program director.

"I took a 35 percent cut in pay when I landed that writer/producer position, but I wanted to learn the craft," says Jim. "WGN provided me with an education that I could never

have gotten at any institution." Picking up another skill set, director, opened more outlets for his creativity.

Now writer/producer/
director for WGN Radio,
his work drew attention
and awards. He won
the prestigious George
Washington Honor
Medal from the Freedom
Foundation at Valley Forge
for his 3-hour broadcast of
"An American Heritage."
He also received Silver
Awards from the New York
International Film & TV
Festival and he was the
recipient of the honored

Telly Award for scriptwriting.

Obviously Jim excelled at WGN. He loved what he did and describes the family atmosphere there as similar to that of MGM during Hollywood's golden era—on a smaller scale. But he left.

"I wanted to broaden my writing skills to get into TV production or business theater," he says. Jim took another cut in pay, smaller this time, and joined the staff of Video III Productions. He learned script and speech writing techniques for film and video there and soon rose to the position of head creative writer.

Seeking another skill set, Jim became the advertising/marketing director and communications director for A.O. Smith Harvestore, the manufacturers of the blue silos used in farming and other commercial enterprises. "Now I was creating internal and external communications for targeted audiences. I was flying around in a Lear jet and was paid well." Jim reports.

After a couple years there, Jim told the CEO he really wanted to go out on his own as a creative consultant. Being Jim, he'd established a great working relationship with the CEO. "He allowed me use of an office for six months to solicit clients. All he asked was that I do whatever they needed during that time. And he kept me on salary. The year I left, their sales were exactly 100 million dollars."

As an independent communications consultant for over 20 years, Jim put all his previous experience to work and broadened his communication disciplines to off-camera interviewing, film and video production, and literally all aspects of communication including print, multi-media, video, film and business theater.



Jim was active in the PR Working Group shown in this 2017 meeting photo.

"It was wonderful for a person that wants to be challenged and do something different every day," says Jim. He served a broad range of clients: Allegiance Health Care, M&M/Mars, TruServ Corporation, Dean Foods, AT&T, Keebler, Quaker Oats, Lucas Productions, Motorola, United Airlines, International Harvester, Baxter International, and many more.

An area he especially enjoyed was collaborating with production companies on business theater—corporate presentations and meetings. "I'd do the creative to sell the show and then work with the production company, the producers and account executives to design it and stage it," Jim reports. "I was traveling across the continental U.S. and to Hawaii and put together shows that had million dollar budgets."

Coming to TPI

The world forever changed after 9/11. Jim says, "Advertising agencies, marketing companies, graphic art studios and production companies were impacted dramatically as Fortune 500 companies and other businesses across the country cut back on travel and large-scale business meetings. Freelance opportunities diminished and I needed a job that offered some stability but also provided creative challenges."

A business associate told Jim that TPI was looking for a communications manager but the position had not yet been posted. Jim contacted then Executive Director, Doug Fender, and was invited to TPI headquarters for an interview.

"The interview included Doug and the entire staff," says Jim. "Doug then had me meet one-on-one with each staff employee for a series of Q&A. After the interviews, I thanked everyone for their time. As I was leaving, I sensed Doug was somewhat apprehensive. So I proposed he give me a writing assignment and judge me on what I presented. He said he'd think about it."

Doug's phone call accepting Jim's proposal came later that day. The assignment was to write an article about grass

going dormant to explain to homeowners that dormancy was a natural process for turfgrass.

"Doug arranged my phone interview with a TPI member," says Jim. "He listened in on the entire interview (never interrupting). The next day I presented him with an article. I was hired immediately." The article, "It's Okay to Let Your Grass Go Dormant," was published a few weeks later.

Jim's first day with TPI set the tone for the amazing 12 years to follow. Jim found his office file cabinets "somewhat bare" as his predecessor had saved little information. He asked Doug for direction and Doug's reply was, "Take ownership and do whatever you think needs to be done." Their relationship was one of trust, collaboration and mentorship.

TPI offered a cornucopia of creative opportunities: copywriting, script writing, speech writing, involvement in the creation of brochures, flyers, PowerPoint presentations, internal and external communication, and behind the scenes collaboration with the entire staff on any number of challenges deemed necessary.

He loved the ever-changing opportunities, and says "It's the members that made this job so wonderful." Jim's personal relationships with TPI members, turfgrass Extension Specialists and members of the board presented both professional and personal gratification. "If you can provide a service that benefits the intended recipient, resolves their questions or concerns, or helps them overcome any perceived obstacle, it is extremely rewarding on a personal level."

His most treasured project was the opportunity to create the *TPI E-Newsletter*. He says, "TPI trusted and allowed me total creative license in writing a uniquely different newsletter from other associations, one that featured a mixture of newsworthy items, personal stories about members and a little humor."

Ah, humor. Jim's sense of humor is extraordinary. He sees the irony in complex situations and captures its essence so wittily laughter is sure to follow. He laughs at himself often and invites others to join in. His quirky email messages are legendary.

In recognition of the uplifting and humorous newsletters he wrote for Army and Navy personnel serving abroad, Jim was presented with a flag from the United States Armed Forces flown in his honor on September 11, 2007, at Ali Al Salem AB Kuwait.

Jim's wife Kathy is Geri Hannah's sister. Jim and Geri were co-workers for seven years. For over a year, Kathy worked with them part-time. Geri reports, "Jim is the ultimate professional, treating everyone the same as co-workers in the office; as family at home. Jim can be intense, too. He cups his hand on his chin and you know something is coming. He says what he thinks, the good and the bad, but whatever it is, it's going to be honest."

Learning from Jim

Kathy calls Jim a natural born teacher. Observing him in action can be more enlightening than a college classroom dissertation on communications.

When Jim set up video interviews, every participant had something they contributed included—he never lost an interviewee. That took prior planning and a well-defined strategy. Jim asked basic questions and typically had 12 or 13 ready. The questions he chose to ask varied, based on the responses of the participant. He'd explain the procedures to be followed, make sure the mic was fitted properly and the individual was ready. Then he'd cue the videographer and ask the person to state their name, company and title. His first question would require a complete statement; the second would be open-ended. He'd move to additional questions when needed.

Jim says, "If they had a run-on sentence or stumbled or whatever when recording, I'd say the lead-in statement and have them repeat it and then complete the thought. At some point, I'd get a useable sound bite."

Jim didn't write speeches for an occasion; he wrote a speech for a specific person to deliver. He was extremely sensitive to that person, trying to write the way they talked. Often, he'd set up the speech with a forced cadence, based on the individual's normal speech pattern, and insert the breaks where they should pause. He'd ask them to practice the presentation by reading it aloud, preferably in front of a mirror. "I wanted every person at a podium and on mic to do their best."

All of these accomplishments are the culmination of that first step: Jim Novak got on the bus.

Suz Trusty is co-editor of Turf News.

 $All\ photos\ courtesy\ of\ Turfgrass\ Producers\ International\ (TPI).$

What Others Say:

Typical of the humble, modest guy he is, Jim gets a bit uncomfortable when others praise him. He reports the remarks he has received, in writing and by phone, have been so truly thoughtful and complimentary, it almost seems like "an obituary, but you're around to hear it." Excerpts of just a few of those comments follow.

Sandy Reynolds says, "I don't think people know how much Jim cares about the people; how he takes everything to heart and considers in every move that he makes what is best for the individual, the membership and the association as a whole. That true passion and caring drive every single thing he does."

Geri Hannah says, "Jim is a great teacher. He makes you think. He always wants to do things right. It's not that it's wrong; it's that it can get better. That's what he does; he makes you better at what you do. And he does it in a way that feels encouraging."

Dr. James B Beard, International Sports Turf Institute, wrote, "Congratulations on a notable and successful career as Communications Manager for TPI. Your writings to offer counter position to that of the antiturf activists have been outstanding and a true leader for the industry."

Dr. Jack Hall, Professor Emeritus Virginia Tech University, wrote, "Thank you for all the sacrifices you and yours made to educate and promote the sod industry and its product over the years. Your communicative expertise will be sorely missed by the whole turfgrass industry."

"You are one of 'The Greats.' Thank you for your friendship, advice, looking out for me—all these things and more I'm going to miss. Especially your sense of humor," wrote **Nancy Aerni**, TMI.

"... thank you for the years of participation and great writing."

Carole Stewart, Home Improvement Time, Inc.



Jim always enjoyed meeting up with everyone at the conferences. Here he is with 2009-2010, President Chip Lain and VP, Claus Zander.

INTO THE SUNSET

By Jim Novak

Editor's Note:

This is Jim Novak's farewell letter, which first appeared in his last TPI E-Newsletter.

After more than a decade of service to Turfgrass Producers International the time has come to part company so I can discover what retirement really means. My departure at the end of May comes just short of what would have been my thirteenth year with the association.

I initially was going to write something light-hearted and spin a little humor into this goodbye, but I've decided this is a wonderful opportunity to express my deep appreciation to all the members I have had the pleasure of serving and who I have come to know.

Sometimes, when we're caught up in whatever challenges make up our day, it's easy to lose sight of the people you engage with, come to rely on, and the wonderful friendships you happen to make along the way.

My time with TPI has been an absolute joy thanks to the wonderful members who make up this organization.

The warmth, encouragement and support that has been extended to me during my time with TPI by its officers, the board of trustees, and far too many members to mention, has made my career with the association a wonderful experience.

When I was hired by Doug Fender, TPI's executive director at the time, he gave me the directive to "take ownership" and he encouraged me to engage whatever skills and experience I had to benefit the association. After he retired he told me his major concern when he hired me was that I might not be challenged enough and after a year or two I might explore job opportunities elsewhere. Little did either of us know at the time that TPI would provide me with plenty of creative challenges that included everything from creating brochures to writing and designing PowerPoint presentations, from scriptwriting for videos to speechwriting for conferences, conventions and special presentations, and a great deal more.

My role in the area of communications couldn't be more diversified. Be it researching information; writing articles for trade publications; communicating the benefits of natural grass; addressing the health concerns of artificial turf and crumb rubber, writing this newsletter, or collaborating with other green industry organizations and turfgrass associations to provide information that would heighten awareness and educate a broad audience, be they consumers, educators or lawmakers.

TPI has presented me with the opportunity to go on a learning curve that continues to this day. It has been a wonderful road trip. Sure, there were a few bumps along the way, but wouldn't our lives be a bit dull without an occasional distraction?

Thank you to everyone who has taken the time to educate me during my journey and to those of you who have provided me with sage advice and constructive criticism, I am most grateful.

I especially want to mention a few people for their help, support, counsel, collaboration and trust—without which I could never have provided the level of service deserving of our members.

In no particular order my heartfelt thanks to:

Bob Weerts, David Doguet, Linda Moyer, Warren Bell, Nancy Aerni, Randy Graff, Rob Davey, Mike Selman, Steve & Suz Trusty, Claus Zander, Dr. Jack Hall, Rusty Stachlewitz, Ian True, Dr. Ali Harivandi, Sandy Reynolds, Randy Tischer, Michelle Williams, Gerry Brouwer, Bob Johnson, Ray Weekley, Bobby Winstead, Geri Hannah, Peter McMaugh, Richard Stephens, Eddie Keeven, and a special thank you to Linda and David Bradley.

Best wishes to all and thank you!



Jim tries out one option for riding off into the Sunset at the 2013 San Antonio Conference.





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INNOVATION AND GENERATIONS

By Clark T. Bell and Suz Trusty

Editor's Note: This is the first in a series of articles showcasing TPI member businesses whose operations are growing through a combination of innovation, utilization of technology, and outreach to upcoming generations, internally and externally. If you have a story to tell, or know of someone that you'd like to hear more about, please contact your editors.

Turfgrass Producers International (TPI) is a conglomerate of family businesses; each based on the dream of the founders and built on their vision for the future. Their commitment to achieving their goals took continual improvement accomplished through a combination of dedication and innovation. That laid the groundwork for the next generation and created the opportunity to grow the company by working together.

One Family's Story

BioGrass® Sod Farms, Inc. was founded in 1979 by Utah educator and former U.S. Secretary of Education, T.H. Bell. Now Utah's oldest sod farm business, it has become a leader in formulating water-efficient seed mixtures that result in dense, durable sod.

It was envisioned as a supplemental revenue source for the family. Warren Bell, the second of four boys, soon took the helm as president. In 1981, long-time family friend, Don Heslop, joined BioGrass to serve as farm manager. Warren and Don are now majority owners. All three of Warren's brothers retain a financial interest in BioGrass, limiting their active involvement to specific areas. Clark T. Bell, Warren's son, is the only third-generation family member active in the business. He contributes his business savvy, media expertise and digital marketing skills.

Warren Bell is an innovator, always eager to explore new ideas. Warren opted not to pursue a college degree, instead focusing his formal education on the classes that would be most beneficial in one of two categories: growing the business and growing turfgrass. Clark, also an innovator, chose to concentrate his attention on marketing and communications and launched a career in digital marketing. Now, Clark helps others with his expertise as an Adjunct Professor teaching Digital Marketing at The University of Utah. They've learned to play off each other's strengths and weaknesses to move the company forward.

In 2014, they co-founded Aqua-Yield™, a sustainable fertilizer technology company. Clark says, "Aqua-Yield has introduced the 'smallest innovation in agricultural history.' Aqua-Yield's technologies deliver materials



Clark T. Bell pauses to ponder something while out in the Aqua-Yield warehouse.

directly to the plant's cells leading to a much higher overall efficiency. The Aqua-Yield process introduces liquid nanotechnology to agriculture leading to significant advantages for the grower. Results of the company's unique technologies include: higher yields, lower cost inputs, shorter crop cycles, less environmental impact and an increase in nutrient impact.

"Aqua-Yield is not just a fertilizer, but a technology to enhance fertilizer. We can continue to bring improvements to our pathway utilizing the technology to enhance production and protection of a wide variety of crops. Because Aqua-Yield delivers fertilizer and other crop products more efficiently, the end user gets better results with less input.

"Our marketing strategy is focused on establishing a distributor network. We'd be spinning our wheels with direct sales to the grower. Knowledge of turfgrass production and a reputation for integrity are key to our distributor selection. Because of the great relationships we have developed through TPI, we know turfgrass sod growers fit that description. They can use Aqua-Yield to enhance their own fertilization program and also serve as a distributor for all the rural growers around them.

"Part of the issue in explaining the technology is that it is so cutting edge and so different from what is conventionally done. Growers can apply the nutrition program that's been in place for 30 to 50 years and utilize nanotechnology to reduce the fertilization rate by as much as 80 percent. With a local distributor who is using the program on their own farm, prospective buyers can see how it performs in their region. The next step is to convey the message in a manner that impacts them directly. The distributor will ask them to put it to the test in their program on a ten-acre plot. When that shows them it is successful, the distributor will ask them to utilize it on 100 acres. Our hope is that success will lead to its use on the entire farm.

"We have an international focus and will be expanding into four more countries by the end of the year: Japan, Norway, South Africa and Australia. We're also seeing a lot of interest in South America and Mexico and some in Canada.

"Much of the company's emphasis has been on developing and expanding our intellectual property. We have developed our foundational IP now and nearly 70 patent properties and trademarks are pending. Our current focus in the marketplace is using our technology to make nutrition more efficient. Our other emphasis is developing intellectual property that stimulates further innovation. Our mission is based on a grower initiative that taps into that innovation, so we need to control and protect it."

Aqua-Yield Business Structure

Aqua-Yield had a humble beginning like every new company, with hurdles to jump to get things up and going. Every organization needs a clearly defined structure outlining areas of responsibility. Originally, Clark oversaw operations, serving as COO, and Warren was CEO.

Clark says, "We've looked closely at our operations, something every company should do frequently. To take better advantage of our individual strengths, we've restructured.



Warren Bell is an innovator and always eager to explore new ideas.

"My father is a thoughtful, brilliant, dedicated man who excels in building relationships and handling the detail-oriented work. He is now our Chairman.

"Dr. Landon Bunderson remains in his role as Chief Science Officer. He has the scientific expertise to keep the technology moving forward so he directs our research and development. Innovative solutions work hand-in-hand with research and development. I can come up with some of the product ideas. I'm not a chemist, but I can work with the chemists to share my vision with them. Dr. Bunderson's role in investor relations is to explain and clarify the concept.

"I'm the CEO. That makes me the primary salesman and the company's spokesperson for marketing and communicating with the media. I'm in the field and see the farmers and their soil and tissue tests. I define my role as the evangelist for nanotech in agribusiness.

"There are times, working together in the family business, when my Pop and I have different ideas and opinions. Though that's rare, when we do disagree, we're not afraid to debate the issue and figure it out. For those that don't get along on certain subjects, I can see how working together could be difficult and create friction in both the family relationship and the co-worker relationship.

"A huge advantage is the trust level. It's rare to have that degree of trust in a business situation where people are working together every day. I am very blessed to work with my father. Our offices are next to each other. I have my mentor, father and co-worker right beside me. Together, we're expanding a startup globally. It's not rags to riches, but it's still something very special to be able to experience that growth with a family member.

American Business Awards

On May 6, 2017, Aqua-Yield gained national recognition winning four American Business Awards, or Stevies. (Stevie is the Greek word meaning, "crowned.")

Aqua-Yield was awarded the Gold Stevie for small Company of the Year in the energy category. Aqua-Yield also won three bronze Stevie Awards: small Company of the Year in Manufacturing, Energy Innovation of the Year, and a singular honor for the company's Chief Science Officer, Landon Bunderson, as New Product Developer of the Year.

The American Business Awards are the nation's premier business awards program. All organizations operating in the U.S. are eligible to submit nominations—public and private, for-profit and non-profit, large and small.

More than 3,600 nominations from organizations of all sizes and in virtually every industry were submitted this year for consideration in a wide range of categories. "Each year the judges find the quality and variety of the nominations to be greater than the year before. The 2017 competition was intense and every organization that has won should be proud," said Michael Gallagher, president and founder of the Stevie Awards.

While the company has gained much recognition locally and regionally, the national exposure is exciting. Bell says, "For the Stevie Awards, 190 independent judges rank the entrants. It was our first exposure to any of them, so gaining the awards makes us proud, but at the same time, it's humbling. These four awards are recognition of the technology and innovation that Aqua-Yield has provided



The Aqua-Yield team (as shown left to right): Warren Bell, Chairman/Co-Founder; Brian Weaver, Director of Operations; Clark T. Bell, CEO/Co-Founder; Mike Bullock, COO/Co-Founder; and Dr. Landon Bunderson, Chief Science Officer.

to the agribusiness supply chain in our short history. It helps ratify that what we're doing with our technology is great for the environment and great for the grower."

Bell adds, "All of the team at Aqua-Yield is excited and pleased Dr. Bunderson is being recognized as one of the best new product developers in America. He is an innovator who never accepts the status quo. His curious and skeptical mind has led the Aqua-Yield technology to ever higher levels."

Aqua-Yield accepted these prestigious awards during a ceremony at the Marriott Marquis Hotel in New York on June 20, 2017.

Clark Bell's Vision for the Future

"Industry experts say 15 percent of agriculture is now using precision. I'm not sure that's an accurate statistic. I see people using some precision, but not on the whole farm. Looking ahead, the internet of things (IoT), drone technology, GPS-enabled farm equipment, artificial intelligence (AI) and robotics will drastically change the agricultural market.

"Precision application technology is available for agricultural equipment now. We're using it on our sod farm. A sensor mounted on the spray rig analyzes conditions and relays information to the sprayer instructing it to apply or not apply its liquid product to the specific area it moves across. The sprayer can shut off and then turn back on in unlimited cycles.

"Aqua-Yield is currently in 31 states in the U.S. We're able to showcase its performance in specific geographic regions via the internet so that the warm-season and cool-season turfgrass producers can see it and learn more about it. Artificial intelligence tools will become available through the internet to use on a wide range of crops.

"In ten years there will be tremendous opportunities

for farmers to use advanced technology. Some will incorporate precision analysis and application. Others will replace the need for human labor through automation and robotics. Innovations in nanotechnology will alter products and how they are utilized by plants and by people. Scientists are predicting a world-wide population of 9.7 billion by 2050. Without advances in technology, we'll not be able to sustain that many people.

"I'm sure there will be barriers to adapting advanced technology, many triggered by resistance to change, both personal and generational. Millennials see and understand the need to adapt to the technology. Many baby boomers don't. Gen Z will embrace it. This is the cycle.

"I'm 33 now, part of the Oregon Trail generation. When I was in second grade, that software was on our classroom computer and was considered cutting edge. My 7-year-old is in second grade now and she uses her iPad for her school work. To her, that level of technology is expected.

"Landon and I often talk about what technology will do to make our lives better. Will we have something with magnet-like power embedded in our fingers to facilitate industrial labor or to enable those with limiting physical disabilities to hold objects, such as a fork or a toothbrush? Ten years from now will technology literally be at our fingertips?

"I talked with a close friend who is tied to agricultural technology in Georgia and he anticipates the proliferation of innovative products, and the aggressive marketing of them, will make it difficult to select the best option. It will take the best technology coupled withthe best organization to excel in the marketplace."

Clark T. Bell is CEO of Aqua-Yield. Suz Trusty is co-editor of *Turf News*.

All photos courtesy of Clark T. Bell.



GREEN STREET CHALLENGE COMES TO U.S.

Conference Session Leads to Member Participation in First Time U.S. Event

John Coombs, Sr., TPI Board of Trustees member was impressed with the "Come Alive Outside" presentation at the February Conference (see page 42 Turf News May/ June 2017). At the end of the session, Coombs had a conversation with the presenter, Andy Paluch. He told Paluch that he was very interested in the program and would like to get involved. That led to Coombs name being passed along to Zech Strauser at Strauser Nature's Helpers, a landscape and snow removal company in East Stroudsburg, PA. The Strauser group was planning

a Green Street Challenge for Stroudsburg. This was the first Come Alive Outside project to be held in the U.S. and they needed sod for the project. Even though the project was over two and one-half hours away and outside the market that Coombs serves, Coombs agreed to do whatever he could. Coombs says, "I knew that the Green Street Challenge event would be good for the entire industry."

The Project

The Green Street Challenge project involved turning a street into a grassy playground. Strauser and his crew worked with the City of Stroudsburg, PA. They selected a block-long stretch of Monroe Street. It is one of the main streets stretching alongside the Town Square. It is also adjacent to the location of a popular Saturday morning Farmers Market. The plan was to provide a grassy play area for children of all ages to enjoy for a day. The sod needed to be delivered by 5 a.m. so work could begin before sunrise and the laying was completed by 7 a.m. with the natural grass covered street ready for play by the 8 o'clock Farmers Market opening. The event was originally scheduled for May 6, but due to the forecast of inclement weather for that date, it was postponed to May 13. The same forecast was then made for that weekend so the event was again postponed. The new date of May 27 turned out to be perfect. The Coombs Sod Farms truck from Elmer, NJ, loaded with 6,000 square feet of bluegrass sod, was onsite at Monroe

Street as scheduled. The City Public Works department lent a hand with the sod laying and handled the complete removal and clean-up at the end of the day.

The Purpose

Come Alive Outside is a 501(c)(3) non-profit organization. Its mission is to inspire collaborative community systems that create awareness...encourage people to enjoy the outdoors...enjoy the full benefits of outdoor space. The Green Street Challenge is a day-long event that allows



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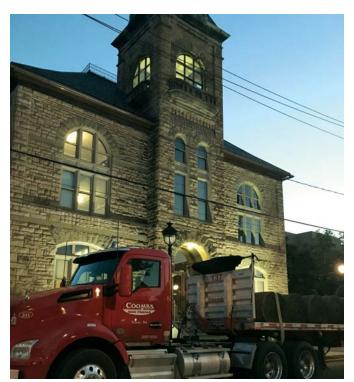
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The truckload of sod arrives from Elmer, NJ at daybreak and is ready for unloading. Photo courtesy of Strauser.

the freedom for that enjoyment in a non-structured way. While some equipment such as hula hoops, balls of various kinds, yard games, etc. may be available, there is no formal program. People, especially families with kids, are encouraged to spend as little or as much time there as their busy schedules allow.

The Results

WNEP 16, the local ABC affiliate, was among the local media covering the event. They reported one mother's comment, "It is good to explore because nowadays you don't see kids playing with toys or just outside enjoying. Everybody is in front of a screen and I look back to my childhood and I loved just running outside and the fresh air is good." Another person stated, "You get to be outside and you can do other activities outside that you can't do when you are inside." Strauser had a Green Street Challenge Facebook page to promote the event. One comment on the morning of May 27 stated, "We had an awesome time playing!" Another said, "What a great project! Thank you." Another, "You guys did a wonderful job! The place looked amazing!"

The Future

Come Alive Outside's long-term goal is to have events like the one in Stroudsburg and in various Canadian locations to be held across both countries, hopefully on the same day. Plans are already being formulated to do it again in Stroudsburg next year. One addition that is being talked about is obtaining volunteer help to carefully remove the sod at the end of the day and reset it at some deserving location. Coombs is ready to again donate the

sod. Coombs says, "If another TPI member closer to that market would like to take over that project, I would not be offended. We would then look for a location closer to home to set up the Challenge."

Coombs strongly believes, "If we can teach children to enjoy natural turfgrass we can reap a lot of benefits as they get older."



The transformation of a typical city street is just beginning. Photo courtesy of John Coombs, Sr.



The street is almost ready for a day of fun on natural grass. Photo courtesy of John Coombs, Sr.



The stretch of Monroe Street is ready for some fun and the welcome sign tells a little about it and thanks the sponsors. Photo courtesy of John Coombs, Sr.



Kids of all ages had a good time on the natural grass on Monroe Street. Photo courtesy of Strauser.

NATURAL GRASS WINS OUT

ON MARTHA'S VINEYARD

After a year of debate, the Martha's Vineyard High School committee voted unanimously on May 11 to go with natural grass rather than synthetic or plastic playing surfaces for their field renovation projects.

Sometime back, it became evident that something had to be done about the athletic fields in the Martha's Vineyard school system. A group of parents formed MV@Play to raise money to update and expand the fields. They proposed a plan that included a combination of natural and synthetic fields. After they introduced their plan many people started questioning the advisability of installing any synthetic surfaces. The main concerns were cost and safety. Another group of parents and interested parties formed a new group, Vineyarders for Grass Fields (VGF). They presented a new plan that included all natural grass fields.

The debate become very contentious. Two public meetings were held, each drawing 250 to 300 residents. Over 90 public comments were received, including one threatening a lawsuit if artificial turf was installed. A March survey sent home with students simply asked, "turf or grass?" One of the factors many proponents of the artificial surfaces touted was they would need less care. When it was pointed out that the school

fields really weren't being overused, they just weren't being cared for, many started to look at things a little differently. MV had no one really looking after field care. They were being used with no maintenance procedures in place.

On the topic of costs, different scenarios were discussed. Estimates seemed to be colored by who was presenting them. Also, most of the estimates for artificial surfaces did not take replacement costs into consideration. One independent report included the information from the Sports Turf Managers Association that has estimated between \$197,000 and \$753,000 in total costs over 16 years for natural grass, and between \$1.19 million and \$1.68 million for synthetic turf.

The VGF obtained the services of two grass experts: Jerad Minnick of Growing Green Grass and Jeff Carlson of the Vineyard Golf Club. With the agreement on natural grass now in place, VGF is setting up a mechanism to raise funding. Included in the needs is \$75,000 for a person that would oversee all field maintenance. Things are looking up for the athletes on Martha's Vineyard.

Excerpted from articles in *The Martha's Vineyard Times*, *Vineyard Gazette* and *Athletic Business*.





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ASSOCIATION UPDATES

2017 ETP SEMINARS & TURF EXPO TO BE HELD IN YSSELSTEYN (NETHERLANDS) 28-29th SEPTEMBER

The European Turfgrass Producers Association (ETP) invites you to the 2017 ETP Seminars & Turf Expo on 28-29th September in Ysselsteyn (Netherlands). The intense two-day program features Seminars (September 28th at Hotel Asteria in Elsendorp) and the Turf Expo (September 29th) in nearby Direct Gazon sod farm in Ysselsteyn.

Join turf growers from all over Europe and the rest of the world as they gather in the Dutch Limburg region for 48 hours of learning, networking and evaluating machinery and products for turfgrass sod farming.

The 28 September Seminars Program includes the ETP General Assembly 2017 and Seminar Sessions: "Revenue and By-Products from Turfgrass Clippings," and "The Outlook for Hybrid Turf in Sod Farms."

Registrations and coffee open the day at 10.00-11.00 at the Hotel Asteria in Venray. The day's events take place there, concluding with drinks and networking at 17.30-19.30 and dinner at 19.30-21.00. Seminar registrations include: welcome coffee, presentations' printouts, buffet lunch, coffee break, pre-dinner drinks, and dinner.

The 29 September ETP Turf Expo is a day-long event at Direct Gazon sod farm in Ysselesteyn (NL). Several food trucks will be present all day on the Expo premises. Expo

registrations include: access to Expo 09.00-18.00 and parking.

The 29 September Accompanying Persons Program participants depart by bus from Hotel Asteria at 8.45 for the drive to Maastricht where they will enjoy coffee, with typical Limburgse Vlaai cake. They will take part in a guided tour of the Maastricht town center, followed by lunch. After free time to explore the city, they will board the bus to return to Hotel Asteria. Accompanying persons registrations include day trip to Maastricht on 29th: bus, coffee, local guide in Maastricht and lunch.

Registration

To register for the 2017 ETP Seminars and Turf Expo, please visit: http://www.turfgrassproducers.eu/2017turfshow/ If your farm or company is a member of ETP / ETS / TPI, then all the people registered with that affiliation will pay the Member visitor's fee (including spouses and accompanying persons).

For general event information and inquiries, please contact: Judith Vanderbrugge +31-6-40974844 or *judith@jv-events.nl*

For registrations and memberships, please contact: ETP Office +39-5861690097 or *info@turfgrassproducers.eu*

THIRD ANNUAL DEEP SOUTH TURF EXPO TO BE HELD IN BILOXI, MISSISSIPPI NOVEMBER 7-9, 2017

The third annual Deep South Turf Expo will be held November 7 – 9, 2017, at the Mississippi Coast Convention Center in Biloxi, MS. The host hotel is The Beau Rivage, which sits directly on the Gulf of Mexico in Biloxi, MS. This is an educational experience for turfgrass managers with an emphasis on southern grasses filled with educational sessions for all segments of the turfgrass industry: golf, lawn care, sports turf, sod production and landscape.

Optional Events on November 7 include: a Golf Tournament, a Skeet and Trap Tournament, and a Sports Field Tour. Attendees end the day with the Past President's Reception followed by the Softball Tournament and Dinner at Shuckers Stadium. The morning of November 8 offers choices of educational breakout sessions by category: Pest Management, Soil & Water Management, Turfgrass Management, and Pesticide Training and Review. The general session follows, featuring keynote speakers Bruce Williams, who will present "Leading Your Way to Success," and Shawn Askew, who will address "Thinking Outside the Box - Unusual Approaches to Unique Challenges." The Tradeshow opens in the afternoon. The day ends with a Reception and silent auction followed by the business meetings of the hosting associations.

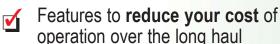
Thursday, November 9, offers another assortment of educational breakout sessions by industry: Golf, Sports Turf, Lawn Care and Sod.

For full conference details, visit: http://www.deepsouthturfexpo.org/home.html For questions, contact: info@DeepSouthTurfExpo.org





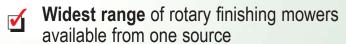




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TURF INDUSTRY NEWS

Former ASPA/TPI President Passes

A TPI longtime friend and former ASPA/TPI president Raymond Johnson has left this earth. The family advised that Ray went to his heavenly home on Tuesday morning May 23, 2017. His wife Mary and partner in Faith, Family, and Farming remained at his side until the end. Ray was raised on the family farm and began his turf career in the early 1960s installing sod and eventually working as a sod farm manager. By the mid '70s Ray and Mary became the owners of Shamrock Turf Nurseries. He was an early innovator and promotor of mechanization and efficiency. Ray served on the board of directors for ASPA/TPI becoming president in 1980. He felt extremely blessed to have the opportunity to get to know and work with so many well-respected men and women involved in the turfgrass industry. Ray and Mary cherished the many friendships they developed over the years at conferences and study tours.

Left behind to celebrate his life are four children and their spouses, seventeen grandchildren, and seven great grandchildren. Good and Faithful Servant is the best description of a life well lived.

Saratoga Sod Farm Founder Passes

Longtime TPI member Philip Chauncey Griffen passed away on May 29, 2017 at his winter home in McCormick, SC with his family at his side. He is survived by his wife of 59 years, Linda, five children and 16 grandchildren. Philip was born on August 1, 1935. He lived his entire life in Quaker Springs except when he attended Cornell University where he received his Bachelor of Science in Animal Husbandry. He and Linda spent the last 11 winters in Savannah Lakes, SC. Phil operated Patriots View Dairy Farm in Bemis Heights, NY for 30 years. At age 51 he started Saratoga Sod Farm which is now owned and operated by his son, Steven, and daughter-in-law, Laurie Griffen. Phil was active in many agricultural and community organizations. He was recognized as an Outstanding Young Farmer in 1967. Phil was an active member of TPI and enjoyed the collegiality and free exchange of ideas with other growers. Phil took great pride in his immediate and extended family and his community. He treasured close friends, neighbors, and agricultural colleagues. He was an avid golfer, loved to garden, and enjoyed travelling with friends and family. Phil lived true to his personal belief that God is love.

FireFly Wins Utah Innovation Award

The ProSlab 155 automated turf harvester by FireFly Automatix is the winner of the Utah Innovation Award in the category for Mechanical Systems / Chemical / Manufacturing. The 15th annual program seeks to recognize exciting technological advances happening in Utah and the companies that create them. The Utah Innovation Awards program is organized by Stoel Rives LLP and the Utah Technology Council. The Selection Committee included more than 80 experts to evaluate nominations in eight categories.

Rolawn awarded ISO9001 and ISO14001 Certification

Rolawn was recently awarded the independently audited ISO standards for both Quality and Environmental Management Systems.

Rolawn's Sales and Marketing Director, Jonathan Hill comments: "At the heart of our business is a desire to set new quality standards, to be ethical, to be aware of our environment and the impact we have upon it. To source and supply specialist topsoils, that are fertile, peat-free, safe and correctly certified sounds simple but like many things, is much more complicated when you start to dig beneath the surface. These ISO awards are a justification for what we have always focused on."

SiteOne Landscape Supply acquires Evergreen Partners

SiteOne Landscape Supply has announced the acquisition of Evergreen Partners. Started in 2007, Evergreen has two locations. One is in Raleigh, NC, and the other in Myrtle Beach, SC. The acquisition of Evergreen Partners allows SiteOne to expand its existing Raleigh footprint and provides SiteOne with its first nursery wholesale location in the Myrtle Beach area.

Project EverGreen's National Awareness Week.

Project EverGreen's awareness week designations are intended to raise the profile of each of its valuable programs and increase the understanding of the mission of Project EverGreen: Bringing people together to make a difference in how our yards, parks and communities create a greener, healthier, cooler Earth.

Project EverGreen's National "Healthy Turf. Healthy Kids." Awareness Week is July 16-21. For more information or to get involved, contact Project EverGreen executive director Cindy Code through their website, www.ProjectEverGreen.org, email cindycode@

ProjectEverGreen.org or phone 440-290-4521.

TURF INDUSTRY NEWS

STMA Awards Environmental Facility Certification to 18 Facilities

Sports Turf Managers Association (STMA) – the professional association for 2,600 men and women who manage sports fields worldwide has recognized 18 facilities with its Environmental Facility Certification. These STMA members and their facilities showcase ecological stewardship and sustainable best practices.

To achieve the prestigious certification, the site must attain an 80 percent score within each section. Facilities will remain certified for a three-year period, at which point a recertification process takes place.

A facility's field manager must complete an initial online assessment followed by an on-site walk-through validation with an attester. The assessment covers 10 environmental practice areas, including storm water management; fertilization; pesticides/Integrated Pest Management (IPM); recycling; composting; mowing; energy conservation; shop buildings and storage areas; irrigation and water quality testing; and educational outreach. The complete list of designees is available at www.stma.org.

WE ARE GOLF Celebrates National Golf Day's 10th Anniversary

WE ARE GOLF—a coalition of the game's leading associations and industry partners—visited Capitol Hill on April 26 for the 10th annual National Golf Day to discuss the game's nearly \$70 billion economic impact, \$4 billion annual charitable impact, environmental value to local communities and fitness benefits. A record 175 Congressional meetings were scheduled and nearly 200 attendees from 35 U.S. states participated.

Industry leaders met with Members of Congress, the Executive Branch and Federal agencies to highlight the two million jobs impacted by golf and the nearly \$4 billion raised for charitable causes through 143,000 philanthropic events annually. Throughout the day, participants shared stories about the game's 15,000-plus diverse businesses, tax revenue creation, accessibility, tourism, ecological value and the fact that one in 75 U.S. jobs is impacted by the industry. New for 2017, more than 100 golf industry leaders participated in a community service initiative on the National Mall the morning of April 25. The initiative focused on beautification, preservation and helping the National Park Service with turf deferred maintenance.

Organizations participating were the Club Managers Association of America, Golf Course Superintendents Association of America (GCSAA), Ladies Professional Golf Association (LPGA), Links to Freedom, National Alliance for Accessible Golf, National Golf Course Owners Association, PGA TOUR, Salute Military Golf Association, The First Tee, U.S. Golf Manufacturers Council, USGA, World Golf Foundation and several others.

Rex Bishop Joins NALP as Director of Technical Education

The National Association of Landscape Professionals (NALP) has announced that Rex Bishop, an award-winning horticulture educator, has joined the association as its first Director of Technical Education. Bishop is known to many in the industry for his volunteer work with the National Collegiate Landscape Competition and commitment to workforce and education issues through the association. Bishop has an MBA from Kennesaw State University. He worked in the nursery industry before teaching horticultural and landscaping at the college level for more than 25 years, most recently serving as the Vice President for Economic Development at Chattahoochee Technical College.

Journal of Environmental Horticulture Expands Scope and Accessibility

The Journal of Environmental Horticulture, a publication of the Horticultural Research Institute (HRI), has taken a major step forward to increase access to and visibility of horticultural research. The Journal will celebrate its 35th year by migrating from a subscription-based model to an open-access model and revamping the online user experience. Eliminating subscription fees means more industry professionals will have important research results at their fingertips. The new platform offers an easy-to-navigate design with fast and comprehensive search features on all content, dating back to 1983. Furthermore, the scope of the Journal will be broadened to include all aspects of the green industry, to better reflect the industry represented by HRI and American Hort, including but not limited to floriculture, herb and vegetable production in controlled environments, container and field nursery production, and all aspects of the managed landscape. To access the new Journal platform, visit www.hrijournal.org.

TurfMutt Named an Official Education Partner of the USGBC

The U.S. Green Building Council (USGBC) has named TurfMutt, the environmental stewardship and education program for students in grades K-5, an official education partner. Educational activities for grades K-5 developed for TurfMutt by Scholastic, the global children's publishing, education and media company, will be featured on Learning Lab, USGBC's online platform for K-12 curriculum. The science-based online lessons will help teachers and excite students in K-5 about caring for green spaces. Kris Kiser, president and CEO of the Outdoor Power Equipment Institute and its education foundation says, "Through TurfMutt's science-based lessons, students learn to be backyard superheroes who care for and defend green spaces, like their family yard. The program also encourages children to get outside and teaches them responsibility for our valuable landscapes."

TURF MARKETPLACE



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Contact: Diversified Asset Solutions at 888-888-8133, 913-829-5622 or twollesen@assetbids.com.

Get Registered for Our On-line Turf Auctions – Held Online at: www.assetbids.com

FOR SALE: 42" WMI Sod Installer tire machine, 712 hours, gas engine, asking \$10,800 and WMI sod installer, diesel track machine, lays up to 48"; 750 hours, asking \$18,500. Machines located in southern Indiana. Contact: Joe at 812-256-2940



FOR SALE: 2011 Trebro AutoStack II, 2,374 hours, excellent condition with all updates, asking \$219,000 FOB Illinois. Contact: Mike Wagner of M & M Turf Farm at 309-275-2421

FOR SALE: 2004 & 2005 Trebro Harvestacks. Selling 2 Trebro Harvestack Roll Harvesters mounted on John Deere 6220 4WD tractors. Both in good working order with around 10,000 hrs. of operation. Asking \$45,000 each.

Contact: Rick Neisler, 910-840-2096 or email will@ncturfgrass.com



FOR SALE: KWMI 30" sod cutter, purchased in 2008. Harvested an estimated 20 acres. Good working order, like new. Asking \$8,500

Contact: Justin Swisher at 814-553-0945 or Justin@pastatesod.com



FOR SALE: Shattuck Reel mowers: (1) 50' purchased new in 2007 asking \$15,500, (1) 60' of which 40' is 1996 model and 20' is new in 2008 asking \$12,000. Neary 227 semi-

automatic Bed Knife Grinder asking \$5,500; Neary Spin Reel Grinder 555 asking \$10,000, both Nearys new in 2007. 12' Agrivator new in 2006, low acres asking \$8,500. 10' Dyna Drive 2007 asking \$9,500. 2006 Trebro Quad lift 4700 hours asking \$70,000

Contact: Tim at 815-378-8870



EQUIPMENT FOR SALE: Flatbeds with forklift kits. We have new 38'and 45'x 102', Manac, and Clark trailers in stock with 75 more on order. We have all steel with

wood floors, 12 winches, headboards, LED lights, combo forklift kits, Moffett, Princeton, Navigator and Palfinger. Steel disc wheels, air ride slides, fixed air rides and spring slides. We also have Wilson 45' and 48' combos, aluminum sides rails, aluminum floor, fixed air ride, sliding air ride, headboard, universal lift kits. 10,500lbs. If we do not have what you want we can have it built in as little as eight weeks.

Contact: Bill Israel at 404-324-7191 or bill.israel@northstar-trailer.com



EQUIPMENT FOR SALE: Landpride RCP2560 Ditch mower - \$10,000; Harrel Model 368 on-land switch plow 8 bottom - \$9,000; Eversman 12' plane - \$600; VibroNetter

netting installer - \$6,500; Landpride 10' Primary seeder, large capacity - \$6,000; Brillion 10' Primary seeder - \$3,500; Kubota M4030 SU Turf Special - \$9,500; Landpride HR3578, 6'6" Box Scaper - \$1,500; DuAI Trencher - \$4,200; DuAI Backhoe - \$3,900

Contact: John at huberranch@aol.com or 219-765-0285



FOR SALE: Trebro Stackit with 24" Brouwer harvester. In good working condition with 865 hours on the Stackit. Available immediately. Asking \$40,000 US.

Contact: Kevin Houle at 819-469-3204 or kev.houle@gmail.com



Wherever you see this camera icon, visit www.TurfGrassSod.org to view pictures of the advertised items. When viewing the electronic version of this page, just click on any of the icons above that interest you to proceed directly to the advertiser's supplied picture.

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With the Premier Classified Advertising option you can add one photograph to your website ad! The electronic version of *Turf News* will link the reader directly to your ad on TPI's website. Readers of the print version will be able to view your ad with picture by going to www.TurfGrassSod.org.

Classified Ad Rates: TPI Member \$200......Non-member \$275 Premier Classified Ad: TPI Member \$225......Non-member \$300

Rates are determined in one-inch vertical increments. Please estimate approximately 65 words per inch.

Photos are limited to the website and one photograph per ad.

Deadline: 30-days prior to *Turf News* issue date (e.g., September/October *Turf News* issue, ad is due by August 1).

Payment: Classified ads are to be paid in advance—we accept check or Visa, MasterCard & AmEx.

Contact: Please send your classified ad to Geri Hannah via fax 847-649-5678; email ghannah@TurfGrassSod.org or regular mail to:

Turfgrass Producers International, 444 E. Roosevelt Road #346, Lombard, IL 60148 U.S.A.

All classified ads are subject to review; TPI does not endorse any ad and reserves the right to edit or decline any ad.

AD INDEX FOR JULY/AUGUST **TURF NEWS** MAGAZINE

Advanced Equipment Sales	Northwest Tillers
Aqua-Yield	Pennington Seed
Barenbrug USA Back Cover	Progressive Turf Equipment, Inc
Brouwer Kesmac	R&R Products, Inc
Bucyrus Equipment Company, Inc Inside Front Cover, 51	TAMANET (USA)
Cameron Financial	The Lawn Institute
Campey Imants	Trebro Manufacturing, Inc
First Products, Inc	Turf Merchants, Inc. (TMI)
Gillison's Variety Fabrication, Inc	Turf Tick Products BV Inside Back Cover
Jonathan Green	Turfgrass Information Center
KWMI 49, 69	Turfgrass Producers International
Landmark Turf & Native Seed 5	

TPI COMMUNICATORS RECEIVE TOP HONORS FROM TOCA

TPI's *Turf News* magazine was the proud recipient of two first place awards at TOCA's 28th Annual Meeting in Tampa during their Dinner and Awards Program on May 4. This was the 27th annual communications contest for marketing and publishing professionals in the green industry. There were more than 443 entries this year. *Turf News* winning entries were:

PHOTOGRAPHY, VIDEO AND MULTIMEDIA – FIRST PLACE

Best use of photography, judging three issues of a magazine on their use of all types of photos

"Turf News May/June, July/August, & Sept/October 2016 issues"

Suz Trusty, Steve Trusty, Jim Novak, Jane Tomlinson

SPECIAL PROJECTS - FIRST PLACE

Best coverage in a magazine of an on-site event

"TPI's 2016 International Education Conference & Field Day Recap"

Suz Trusty, Steve Trusty, Jim Novak, Jane Tomlinson

The Turf and Ornamental Communicators Association (TOCA) is composed of editors, writers, publishers, photographers, public relations/advertising practitioners, industry association leaders, manufacturers and others involved in green industry communications.





WELCOME

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Russell Hackie

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Andrew Mezer

Sundance Farms Ltd. 1908 Currie Blvd. Brandon, Manitoba R7B 4E7 Canada 204-724-7662 andrew.mezer@sundancefarms.ca

TURF INDUSTRY CALENDAR

JULY

July 9-11

Texas Turfgrass Summer Conference & Equipment Rodeo

Horseshoe Bay Resort, Horseshoe Bay, TX Contact: http://texasturf.com/topics/news-events/

July 12

Nebraska Turfgrass Research Field Day

University of Nebraska/Nebraska Turfgrass Association

Lincoln, NE

Contact: www.nebraskaturfgrass.com

July 15—18 Cultivate'17

Columbus, OH

Contact: http://www.cultivate17.org/Cultivate17/Default.aspx

July 16—18

Legislative Day on the Hill 2017

Washington, DC

Contact: http://www.landscapeprofessionals.org/nalp/nalp/advocacy/legislative-day-2017.aspx

July 16—21

13th International Turfgrass Research Conference

New Brunswick, NJ

Contact: http://www.turfsociety.com/itrc2017/

July 19—22

TPI Summer Program

The Heldrich, New Brunswick, NJ

in conjunction with the 2017 International Turfgrass

Research Conference.

Contact: 847-649-5555;

www.TurfGrassSod.org

July 19

Iowa Turfgrass - Field Day Classic

Ballard Golf & Country Club

Contact: http://www.iowaturfgrass.org/events.htm

July 25

Rutgers Golf & Fine Turf Research Field Day

Hort Farm 2 – George H. Cook Campus New Brunswick, NJ Contact: https://ruevents.rutgers.edu/events/displayEvent.html?eventId=85671

July 26

Rutgers Lawn, Landscape & Sports Field Day

Hort Farm No. 2 – Ralph Geiger Turfgrass Education Center New Brunswick, NJ

Contact: https://ruevents.rutgers.edu/events/displayEvent.html?eventId=85671

AUGUST

August 3

Kansas Turfgrass Field Day

John C. Pair Horticultural Research Center, Wichita, KS

Contact: https://turfgrassfieldday.eventbrite.com

August 9

NC State Lake Wheeler Turfgrass Field Day

Raleigh, NC

Contact: http://www.turffiles.ncsu.edu/

August 16

Michigan State Turfgrass Field Day

Hancock Turfgrass Research Center

Contact: http://msue.anr.msu.edu/news/msu_turfgrass_field_day

August 22

Mississippi State Turfgrass Field Day

R.R Foil Plant Science Research Facility (North Farm)

Starkville, MS

Contact: http://www.pss.msstate.edu/workshops/turf2017/index.asp

August 27—31

Surface Water Quality Conference & Expo

Meydenbauer Convention Center & the Hyatt Regency Hotel,

Bellevue, WA

Contact: www.stormcon.com

August 31

Oregon State Turfgrass Field Day

OSU Lewis Brown Farm, Corvallis, OR

Contact: http://horticulture.oregonstate.edu/content/events-4

SEPTEMBER

September 7

Tennessee Turf & Ornamental Field Day

East Tennessee AgResearch & Education Center, Plant Sciences Unit

Contact: https://ag.tennessee.edu/pages/fielddays.aspx

September 12

Iowa Turfgrass - Field Day

ISU Horticulture Research Station

Contact: http://www.iowaturfgrass.org/events.htm

September 12—13

IMPACT WASHINGTON: Advocacy & Leadership

Washington, DC

Contact: http://americanhort.org

September 12—13

5th European Turfgrass Society Field Days

Mendel University & Hotel Avanti, Brno, Czech Rep. (CZ)

Contact: http://www.turfgrasssociety.eu

September 14—16

The Landscape Show

Orange County Convention Center's North Concourse, Orlando, FL

Contact: http://www.fngla.org/thelandscapeshow/

September 17—21

IGCA Congress 2017 Canada

Niagara Falls, Ontario, Canada

Contact: http://www.igcacanada2017.ca/home.html

September 25—27

Florida Turfgrass Association Annual Conference and Show

Innisbrook Golf & Spa Resort, Innisbrook, FL

Contact: 888-974-7528; www.ftga.org

September 28—29

ETP Turf Show

Ysselsteyn (NL)

Contact: http://www.turfgrassociety.eu

For additional calendar items, visit www.TurfGrassSod.org.

If you are planning an industry event of interest to our readers please send the information to:

ghannah@TurfGrassSod.org and put

"Industry Calendar" in the subject line.

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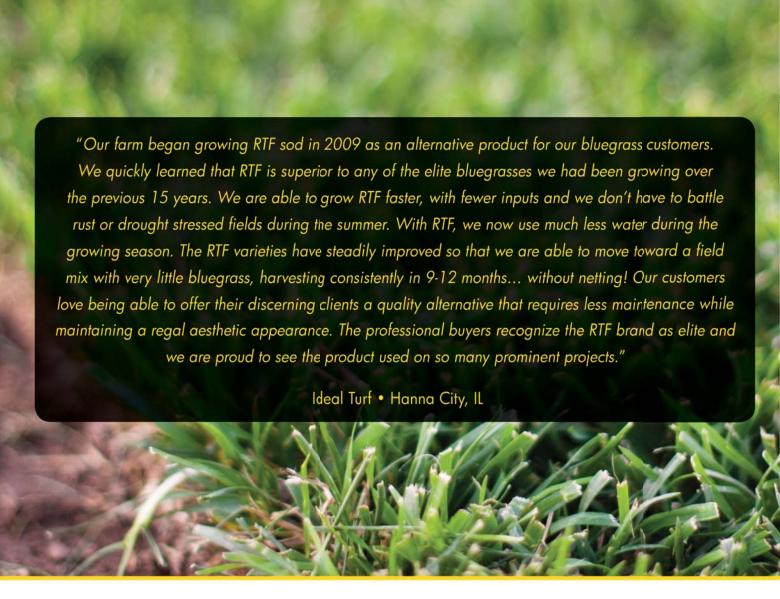
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