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ABOUT THE COVER

Kevin Hensler's portrait graces the cover of this issue of The Grass Roots, thanks to the great work of portrait artist Jennifer Samerdyke. Read "Personality Profile" to learn more about Kevin and his role in the UW-Madison turf program. And consider enrolling in his Monday afternoon seminar during 2003 Wisconsin Turfgrass and Greenscape Expo!

"Four things a man must learn to do
If he would make his record true,
To think clearly without confusion, clearly;
To act from honest motives, purely;
To love his fellow man, sincerely;
And trust in God and Heaven, securely."

- Dr. Henry Van Dyke (1852-1933)

THE GRASS ROOTS

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Back row: (L-R) Kendall Marquardt, Dustin Riley, Jack Tripp, Kris Pinkerton, Brian Ferrie. Front row: (L-R) Mike Lyons, Marc Davison, David Brandenburg, Randy Witt.

WINTER

By David Brandenburg, *Golf Course Superintendent, Rolling Meadows Golf Course*

The winter season is here! For many of us, it means a normal workday and little or no weekend responsibilities. It is a time to reflect on the past year and plan for the next.

Looking back it is amazing how fast the season went. Some of the many things we wanted to accomplish at Rolling Meadows were left behind in the rush to fulfill daily and weekly agronomic duties, but we did accomplish many of our goals.

Staff and agronomic wise, the year was a success. The operation ran smoothly and everyone seemed pleased. Business and budget wise, things could have been better but all we can do is plan for an improved 2003.

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The WGCSA recently had its election of directors and officers at the Fall Business Meeting. Attendance was small but we appreciate those who did attend. Randy Witt's term as secretary was up and he chose to step off the board to focus on other things right now. I want to thank him for his two years of commitment to the board and the ideas and time he shared with us. Current board member Brain Ferrie of Horseshoe Bay was elected secretary and Brian Zimmerman of Milwaukee County was elected as a director.

Your board and association runs as a volunteer organization. Most of the current board members at one time asked to help with a committee or to be somehow involved in the association. If you are interested in board or committee service in the future, please let us know. If you are waiting for us to call you, that might not happen; so please call us. Some committee members serve to help and be involved but have no plans to run for the board itself and that is fine. Others join a committee as a stepping stone to board service. Whatever your goals are, your help is always appreciated because your time is a valuable resource.

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In addition, at the Fall Business Meeting the members present approved the 2003 Scholarship and Research expenditures. Annual contributions include $500 to the O.J. Noer Foundation, the USGA Foundation and to cover the TGIF subscription for UW-Madison staff and students. Also, $1,000 will be given to the Turf Diagnostic Lab at the Noer Facility, while our final $1,000 payment to the GCSAA Investing in the Beauty of Golf Campaign will come due in 2003. We pledged a total of $10,000 to the campaign five years ago and GCSAA now has a Foundation with over five million dollars to support research and scholarships.

For local research, approved was $12,000 for Dr. Jung's Snow Mold Study and $7,000 for Dr. Stier's Fescue/Colonial Bent Mix for Fairways. To learn more about these studies or any of these projects or any activities at the Noer Facility be sure to attend the WTA Winter Expo and the Summer Field Days and read the articles published in your Grass Roots.

These two researchers, along with Dr. Kussow and Dr. Williamson, have asked for member input on what research we want to see. Do not hesitate to call them to let them know your ideas on research that is important to your course. Along the same lines do not hesitate to call the WGCSA Chairman of the Scholarship and Research Committee to let us know what projects you want supported or looked at. The Chair of that committee is always the WGCSA Vice-President, so currently that is Marc Davison.

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Enjoy your winter season and spend lots of time with those important to you.

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Of Rivers, Fairways, and Buffers

By Dr. John Stier, *Department of Horticulture, University of Wisconsin-Madison*

All summer I played the wall between two embattled adversaries from Wisconsin's north woods. On one side was a part-time newspaper journalist, on the other a UW-Extension county agent. Both claimed to have scientific data on their side. The issue? Nutrient movement from turf into Wisconsin's pristine lakes and rivers. The odd thing is that in this case the journalist was not anti-turf, if anything, his take on the situation was that because turf vegetation covers so much more of the land area than conventional crops, it should result in less nutrient movement into surface waters. The county agent wasn't necessarily wrong, either, when he suggested we simply don't have good information on the relative efficiency of various types of vegetative (plant) buffers around our lakeshores and that turf fertilizers might increase the nutrient loading into surface waters, causing algal blooms and degrading overall water quality. In fact, despite the sharpness and bitterness of their news articles, the two adversaries had the same goal: to keep Wisconsin's surface waters clean. Therein lies the rub-while many groups ranging from grassroots organizations to state politicians and even long-term national associations promote ways to keep nutrients out of water, relatively little data exist to support any of their programs. And data are crucial for two primary reasons: 1) Economics, and 2) the Environment. If we develop misguided programs, we end up wasting taxpayer dollars. In fact poor programs may actually worsen the environment, either costing more money in the long run to fix the problems or causing such devastation the problem(s) cannot be "fixed".

One of the best examples is the movement towards using "native" or "prairie" vegetation around bodies of water to reduce runoff and pollutants from entering surface waters. Golf courses are easy targets because they are easily identified as man-made and their use is limited to golfers. In Wisconsin the terms "native" and "prairie" are often used interchangeably. Some environmental and/or prairie advocacy groups would like to see turf areas surrounding bodies of water replaced by prairie plantings. This may or may not make sense. One could argue that since historically southern Wisconsin was oak savannah, prairie plantings could be a reasonable alternative to turf. In the north, however, mixed forests (deciduous and coniferous) have been the dominant type of vegetation for several thousand years. In an effort to keep our surface waters pure several pertinent questions need to be asked: 1) Is turf itself a net polluter; if so, how can management be altered to make turf more environmentally benign, 2) Are prairie plantings inherently better for the environment than turf, and 3) Should prairie plantings be used in lieu of forest in traditional forested areas as vegetative buffers around water bodies? Other questions begged to be asked, including why or how is one type of vegetation better than another.

The United States Golf Association (USGA) and many state turf organizations have funded studies to determine runoff quantity, nutrients, and pesticides from golf course fairways. By and large the studies indicate runoff occurrence and pollutants are minimal. However, the idea of using non-turf buffer strips continues to gain support due to the overwhelming perception that "natural is good". Scientists at

Oklahoma State University (OSU) have conducted a couple of studies regarding the use of buffer strips to reduce fairway runoff. One study which has received a lot of national attention showed the width of a buffer strip composed of unmowed bermudagrass had little effect on containing fairway runoff: a narrow strip was as effective as a wider strip (Cole et al, 1997). In November OSU scientists presented data at a national conference showing a stepwise sequence of progressively taller cutting heights of bermudagrass was only marginally better at slowing runoff from a simulated fairway than a single height of taller-cut bermudagrass (Moss et al., 2002). These data, while important to our understanding of how buffer strips may or may not work, do nothing to show that prairie buffer strips are better than turf buffer strips.

Support for prairie buffer strips comes largely from the idea that tall vegetation is better at slowing runoff than shorter vegetation. The idea is largely sound when one recalls watching water puddle on greens during a heavy rain while we cannot see it puddle on the adjoining surrounds or rough. Getting back to the first question I posed, though, is turf a net polluter? One needs to know how much runoff is actually occurring and the level of nutrients in the runoff, as well as the source of the nutrients. The common perception is that the nutrients in runoff are coming directly from fertilizer. Is this true? At least one study indicated rainwater itself contained significant amounts of N and P (Sharpley et al., 1985). Another study from the Great Plains region reported runoff data from both grazed and ungrazed, fertilized and unfertilized, prairie pastures over several years. Soil types varied between pastures, but the net results indicated an average of approximately 0.9 lb N and 0.9 lb P per acre occurred in runoff each year regardless of other variables (Smith et al., 1992). The other standout information was that the levels of N and P in the runoff were similar to, or more, than levels reported from various turf studies. Kussow (1997) reported an average of 0.24 lb N/A and 0.32 lb P/A in annual runoff from a simulated urban lawn on a 5% slope. The most important point may be that approximately 80% of the nutrient runoff occurred when the soil was frozen (Kussow, 1998), a time period when many researchers do not collect samples because automated systems freeze and researchers do not like to collect samples manually during cold temperatures. Taken collectively, information culled from these and other projects indicate that the greatest source of nutrient loading from vegetated areas may be due to N and P leaching from dead foliage during late winter/early spring when the soil is frozen and most conducive to runoff. If so, areas with greater biomass aboveground (e.g., prairie) may result in more nutrient losses in runoff than areas with less biomass (e.g., turf).

During autumn 2002 the USGA approved a grant proposal for Dr. Kussow and myself to investigate the properties of prairie and turf buffer strips to reduce runoff volume, sediment, and nutrient runoff from golf course fairways. The objectives are to 1) determine the inherent nutrient loading from prairie and turf vegetation, particularly during the establishment phase, 2) quantify runoff and sediment in runoff from prairie and turf vegetation, and 3) establish base information on the ratio of buffer strips to managed turf for use in refining predictive runoff models. The research will be conducted at the Wisconsin River Golf Club (WRGC) in Stevens Point, WI. The superintendent, Mr. Todd Blankenship, will be in charge of the day-to-day data collection as part of his M.S. project through UW-Stevens Point.

Plots will be installed in the roughs of three golf course fairways. The experimental design will be a randomized complete block with treatment replications on each of three fairways. Vegetative buffers will vary in width to provide three fairway:buffer strip ratios to provide information necessary for engineers and architects to model and design fairways to mini-

mize surface runoff, nutrient, and sediment loading. Buffer strips will be composed of either a fine fescue "no-mow" vegetation, prairie vegetation, or no buffer.

Both runoff and leachate water samples will be collected on a regular basis throughout the year. Samples will be analyzed to determine total volume, sediment, N, and P. One of the important facets of the project will be to document the sediment and nutrient losses which occur during the establishment phase, particularly important as prairie vegetation can take several years to become established during which time significant runoff pollution could occur.

The project is being co-funded by both the USGA and the Northern Great Lakes Golf Course Superintendents Association. This will be the first project of its type to compare the differences between turf and prairie vegetation buffers for their potential to minimize runoff pollutants. The implications are potentially huge as local and state mandates throughout Wisconsin and the U.S. seek to restrict turf usage in favor of "native" plantings.

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He's been all over the map, but finally found Wisconsin

By Lori Ward Bocher

"Just draw a map," says Kevin Hensler when trying to explain his educational and career path. Kevin, headquartered at the O.J. Noer Facility, is an integrated turf management specialist with the University of Wisconsin-Extension. He's been in this nearly created position for a year now.

Why draw a map? Believe me, it will make it easier to understand the depth and breadth of his life of 43 years. Ready? Draw a line from: the St. Louis area to Southwest Missouri State back to the St. Louis area to the Minneapolis area back to the St. Louis area to Mississippi State University to Penn State University to the University of Arkansas to Tennessee State University and to the University of Wisconsin. Whew!

Ties to St. Louis...

Kevin was born and raised in St. Charles, a suburb of St. Louis. Like so many "Personality Profile" characters before him, his first job was on a golf course. "I was in high school," he recalls. "All my friends were working at the golf course across the road. I wanted to work and hang out with my friends, so that's how I got into golf course work. I worked at golf courses through college, too."

Kevin graduated from high school in 1978. When asked where he went to college and what he majored in, he comes back with his own question: "The first time or the second time? I've got a long, long, long story.

"The first time I started out at Southwest Missouri State (Springfield) working on an accounting degree," he continues. "That lasted a long, long time – about seven years. I had about 200 hours of college credit and a GPA of 1.8 with no hope of ever actually graduating." Guess accounting wasn't his forte.

From there, Kevin did some contractual work for Monsanto. When he married in 1985 he figured it was time to get a permanent job with benefits. "I wanted full-time employment and I wanted to stay in the turfgrass industry because that's what I knew best," he recalls.

So Kevin found an opportunity with a chemical lawn care company, Evergreen Lawns. At first he worked in the St. Louis area, and then he was transferred to the Minneapolis area. "I worked for Evergreen Lawns for about four years, ended up getting divorced, and got back into golf course work in the Twin Cities, and then back in the St. Louis area," Kevin explains.

Second time's a charm...

Somewhere around his 30th birthday, Kevin decided it was time to go back to school. "I realized that I wasn't going to get anywhere in life without a college education," he says. "I decided to get a degree in turfgrass management. I narrowed down my choice of schools to Michigan State and Mississippi State and ended up choosing Mississippi State. I'd already lived in the north, so I wanted to live in the south to see what that was all about."

Kevin started at Mississippi State in 1991. "This time I did much better," he reports. "It took me about three years to get my bachelor's degree in agronomy with a turfgrass emphasis. Then I stuck around another two and a half years to get my masters degree at Mississippi. I worked with soils and sod production and finished in 1997.

"Then I decided to pursue a PhD and went to Penn State to work with Dr. Al Turgeon," he continues. "I worked there for about a year. At that point, things weren't working out the way I had hoped they would. Plus, I was near 40 and decided that at some point I had to get a full-time job. I couldn't stay in school forever."

Maybe not as a student. But he did head to the University of Arkansas where he worked as a research associate for a year. Then he moved to Tennessee State University where he worked as an Extension turfgrass specialist on a regional level. And in January of 2002 he came to Wisconsin for his current position at the O.J. Noer Facility.

With exposure to several different jobs, universities, and geographical locations, Kevin has learned a few things along the way. "I guess the biggest thing I learned is the diversity of abilities that I have," he says. "I've had a lot of good exposure and experience in different fields which has strengthened my knowledge base. I bring a lot of things to the table based on that. And I've worked with turf in different parts of the country. Hopefully I can help others utilize some solutions that haven't been seen in this region but have worked in other regions."

About his position...

As an ITM Specialist for UW-Extension, Kevin is in a newly created, soft-money position, which means his program has to create its own income by charging user fees. A grant from the UW Graduate School is funding the program for the first year and a half; but after that it must be self-supporting.

"This position was created in response to the NR151 legislation about reducing non-point pollution runoff within the state," Kevin explains. "This legislation covers not only the turf industry, but also agriculture, non-ag sources, and storm water discharge. It's very comprehensive legislation. The turf industry was very concerned about it, so the faculty here got together and applied for the grant to help create this position and address the needs of the turf industry.

"What they envisioned is that I work for the turfgrass industry, helping them be compliant with this legislation and proactive in environmental issues," he continues. "We offer several different packages to the industry ranging in price from $300 to $700. I make site visits, evaluate what people are doing, and see if there's any way that we can help them improve upon

what they're doing."

So far, about 25 percent of his work as been with golf courses. The rest has been with school districts (athletic fields) and park and recreation departments. What does he do when he visits a site? "The first thing I do is sit down and talk with the folks and find out what they want from us," he answers. "Since we're dependent upon them for funding, we want to provide what they want from us. That's just good business.

"We're also finishing up the development of a certification program which gives us a whole list of things that we can go through with the facility manager," he continues. "If their facility meets all the criteria on the list, it is certified as an 'Environmentally Friendly Facility.' If they don't meet all the criteria, we address those issues in which they're deficient."

Be environmentally proactive...

At this point, the certification is not required and it carries no legal weight with the DNR or other state agencies; it's not a licensing or permitting program. "Right now the premise that we're working on is that facilities can use this certification as a proactive, public relations-type program," Kevin explains. "With the certification program, if we can show that 'x' number of people in the golf course industry are certified by the University of Wisconsin ITM program, that will show to environmental groups and legislative people that we are concerned about the environment."

In the program's first year, Kevin was a little disappointed with the number of participants. "That has a lot to do with the NR151 legislation which has been watered down considerably since this position started last January," he explains. "Originally, one of the requirements of the legislation was that each facility had to have an IPM plan on file. The original intent was for me to work with this 'captive audience.' But now that the legislation has been watered down so that it no longer requires an IPM plan on file, we no longer have a captive audience.

"We've had to change our approach because of that. Frankly, the first year we were floundering around a bit, trying to get a new direction," Kevin admits. "I think we've got that together now. We'll be at the Turf Expo in January to present workshops. Hopefully this new approach will start our new year