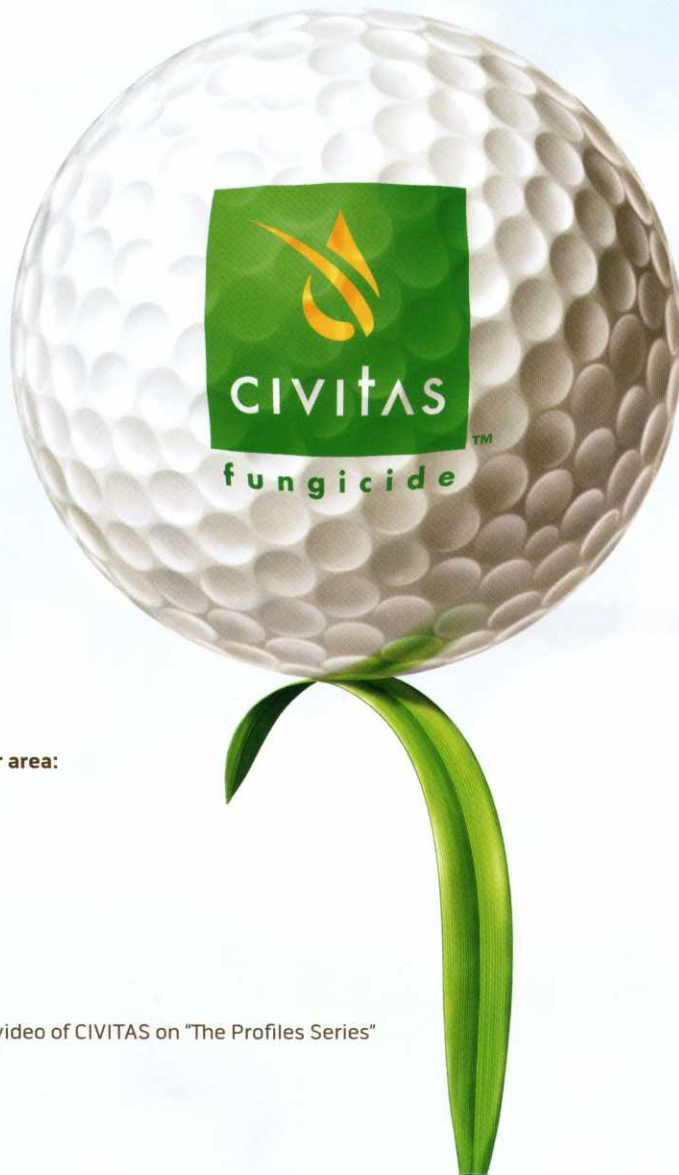


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### About the Cover:

Jake and Hunter guarding the waters from geese in early spring for Superintendent Scott Thayer at the Legends Club. (See 16 more Super Dogs of MGCSA members on Pages 18- 19.)

## MGCSA EVENTS

Wednesday, May 26  
**MGCSA Assistants' Spring Mixer**  
Eastwood GC, Rochester  
*Host: Jeff Minske*

Monday, June 14  
**MGCSA Scholarship Scramble**  
Greystone GC, Sauk Centre  
*Host: Lee Mahnke*

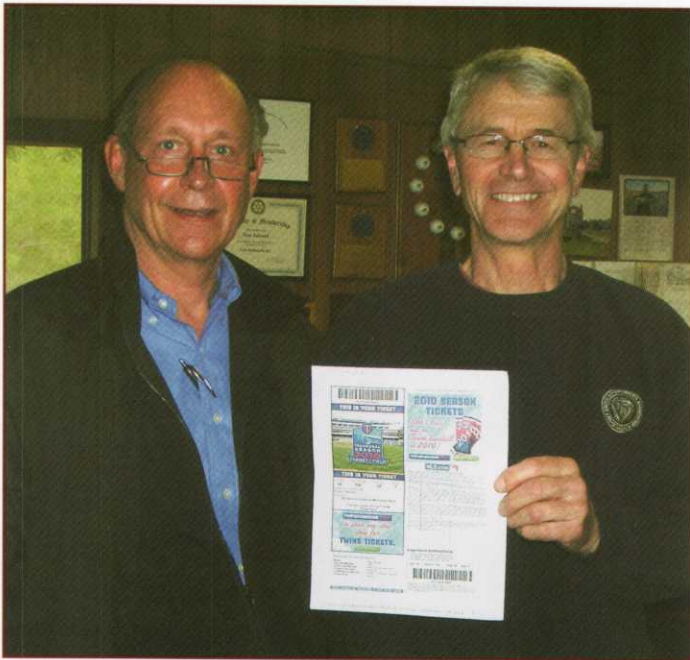
Monday, August 16  
**MGCSA Championship**  
The Jewel, Lake City  
*Host: Doug Mahal, CGCS*

Thursday, September 16  
**U of M Field Day**  
TROE Center, St. Paul  
*Host: Dr. Brian Horgan*

Monday, September 20  
**MGCSA Harold Stodola Research Scramble**  
The Classic at Madden's, Brainerd  
*Host: Scott Hoffmann, CGCS*

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### MINNESOTA TWINS TICKET WINNER TOM JOHNSON

Reinders, Inc. representative Dale Parske, left, congratulates Superintendent Tom Johnson, New Richmond Golf Course, New Richmond, WI as a winner of Minnesota Twins tickets. Reinders held a drawing at its Minneapolis and Rochester store locations and also at the Northern Green Expo at the Minneapolis Convention Center

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## PRESIDENT'S MESSAGE

### *The Price of Education*

By Paul Diegnau, CGCS

**The Price of Education:** We all know the importance of professional education as a means of staying current within our industry, connecting with colleagues and increasing our value to our employers. Realizing, of course, the state of our current economy, I was taken aback when a salesperson recently told me that a significant portion of our membership did not attend the March Mega-Seminar because of the cost. Maybe I am way off base here but I find this hard to believe considering the cost of the event was \$75 for one day or \$125 for two days. There are numerous costs associated with organizing these events including speaker transportation, lodging, and honorariums as well as seminar meals and refreshments and a variety of incidentals to boot. This last seminar, held at Dellwood GC (thank you to Superintendent Eric Petersen) netted less than \$2,000. It is the Education Committee and BOD's goal to keep participation costs to a minimum. The BOD, including myself, felt that the seminar fees were very reasonable. If you have a different take on the situation, please contact myself or a member of the BOD to share your thoughts or concerns. We believe one of the primary purposes of our MGCSA is to provide quality educational opportunities at affordable prices. Your continuing input is vital to this goal.

**EAB Field Demonstrations:** Several weeks ago I had the opportunity to participate in a hands-on group demonstration put on by the St. Paul Parks Department, the MN Department of Ag and the U.S. Forest Service. Using draw knives we operated on sections of ash trees removed from infested areas in St. Paul that may or may not have contained EAB larvae. Under the watchful eye of MDA and USFS "experts" we surgically de-barked sections of cut up ash trees, removing thin layers of cambium tissue in search of this secretive pest. It wasn't long before a shout went out - the first specimen had been found. Not long after that I discovered my first larva. They are difficult to extract in one piece, as I soon found out, especially if your cuts are too aggressive.

**Several things became apparent during this exercise.** Spotting larval activity beneath the bark is very difficult. Telltale signs include areas of bark that are split and/or raised due to callus tissue forming beneath the bark around the pest activity; a defensive measure initiated by the tree. Also, the group noticed a characteristic staining in the cambium tissue prior to uncovering the S-shaped galleries of these insects. One of the specimen trees we worked on showed no visible signs of infestation prior to removal though it was growing in close proximity to a visibly infested tree...very stealthy indeed!

The EAB adult flight season begins around May 1. Both the pruning and removal of ash is not recommended in known EAB-infested areas during summer due to the risk of adults emerging from the material while in transit or at a disposal location.

**Several EAB websites that may be of interest to you:** <http://gis.mda.state.mn.us/eab/MN> infestation map down to neighborhood level.; <http://www.mda.state.mn.us/en/sitecore/content/Global/MDADocs/pestsplants/eab/bmps4eab.aspx>

**BMP's for known EAB infested areas:** <http://www.mda.state.mn.us/plants/pestmanagement/eab/reviewarchive.aspx> EAB Regulatory Review for the latest info on EAB in MN - usually updated weekly. To subscribe, follow the directions at the top of the website page.

**The Myths:** I recently came upon the website [www.debugthemyth.com](http://www.debugthemyth.com) and thought I would share it with you. It is devoted to promoting factual, accurate information on pesticides and fertilizers and features commentary by such experts as Dr. John Stier, UW-Madison. If you are looking for ideas for your member newsletter or GC Maintenance blog, this site may offer some assistance.

**BOD News:** In response to past survey results, the BOD recently voted to pursue the sale of MGCSA logo clothing. Due to the complicated nature of such a venture, we have decided to move forward slowly. The plan is to have some golf shirts and sweatshirts available for sale at upcoming monthly meetings. If these offerings prove popular, we will designate two time periods per year when individuals may order additional clothing. Our goal is not to make money on this program but to provide reasonably priced apparel for our membership. Our Executive Director, Scott Turtinen, will be the point man for this program.

I hope to see you at the Spring Mixer at Eastwood GC in Rochester. Assistant Superintendents - this one's for you! (But all are welcome)

*Until Next Month,  
Paul Diegnau, CGCS*

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# HOLE NOTES

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# Donating Organs Save Lives

By TOM FULLER  
*Turfwerks*

As I finished reading the March issue of *Hole Notes*, the articles on natural disasters caught my attention, mainly the annual number of deaths. The thought was how could the numbers be reduced? Tornadoes (57 annually), hurricanes and earthquakes are out of our control, and at the mercy of Mother Nature. That leaves lightning, and how many times have we had to clear the course due to weather or how often you witness or even experienced those that are fishing in boats or on shore, or the ball players, they stick it out until the last possible second before seeking shelter. I would suspect that of the 58 deaths and 300 annual injuries they were intelligent adults. We can reduce those figures just by using common sense. Another cause of death that we can help reduce the number of annual fatalities is organ donation.

I am sure we have all noticed the increase of publicity on organ and tissue donation lately. To compare the annual statistics of Mother Nature, nationally there are about 100,000 people waiting on the organ and tissue lists. Every day there are about 100 more people added to the list and every day 18 will die waiting.

As of April 9, there were 2,696 people in Minnesota that are waiting on a list. Most common are: kidneys, 1,734; liver, 520; heart, 113, and 87 are waiting for a lung. The remaining are waiting for other organs or a combination of organs, and this does

not include those that need tissue of or parts of the eye, etc.

One untimely passing can potentially save six lives, and help many others. Another statistic that I heard last year is that 51% of the Drivers Licenses issued in Minnesota have donor on there license, and there is still a shortage.

**So, why my interest in donation?** In September of 2008 I was diagnosed with a lung disease, '*Idiopathic Pulmonary Fibrosis.*' The only cure for this particular disease is a transplant.

One of the first comments I hear is "It has to be from all those chemicals and fertilizers you have been around all those years working on the golf courses!" I did present this question to the Doctor I am seeing, (who is one of leading researchers for this lung disease). His reply was "It is probably very unlikely that it could start this disease.

Before I had a chance to finish this article, I have been informed that after my most recent tests, I will be on the lung transplant list by the end of April.

If this article has created any interest in organ donation, you can go to the web site [www.life-source.org](http://www.life-source.org). They coordinate the process between the donor and the recipient in this region. They answer a lot of questions and you can also sign up there.

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# "The Off Season"

By KEVIN MANLEY  
JRK Seed

All of us can remember a time, when the golf season was over, and we were off till spring. There was finally lots of time to spend with the family, kick back and read a book, time to travel, go ice fishing, time to pursue a hobby and the list goes on and on. Now most of us would agree the "off season" is no longer off. Trade Shows, educational seminars, goal planning, budgeting, human resource issues and the like devour our so called off season.

However, as most of us get older and wiser we realize that our career is a means for us to truly develop our hobbies and passions outside work. While all of us would agree our family comes first, there are certain activities that "complete us." I think the movie Jerry Maguire coined the famous words "you complete me," so this is the basis of that as it relates to our hobbies instead of our partners.

My younger days found me growing up in Northern California surrounded by grape vines and fruit trees. One day my dad brought home an article from the *San Francisco Chronicle* (late '60s) which spoke of a problem a prominent bay area golf course had with waterfowl eating its turf grass and leaving messy droppings for its golfers. The superintendent's solution to the problem was to employ a local falconer to pursue and chase



Larry

waterfowl from the golf course using the ancient art of falconry. While the superintendent found moderate success, I found a lifestyle that has survived for over 40 years! Besides golf courses, falconry has been employed at airports to rid large birds from the runways, specialty farms like fish farming and agricultural fields to discourage crop predation.

You see growing up in coastal California is a place that draws you out of the house and into the wilderness. My enjoyment for the outdoors and this art form called falconry brought me face to face with a lifestyle that continues to this day! Falconry is a hunting sport, a partnership between falconer and falcon to capture wild game, a predator-prey relationship that allows the falconer an intimate look into the daily life of our raptorial partners. My mom's attempts at sequestering me into a room with a piano instead of exploring the great outdoors left me frustrated and her exhausted. The good news, my little brother came along and he loved the piano and the world was back in balance! My mom had her piano player and I had my falcon. Thank God for little brothers!

The history of falconry goes back thousands of years to the people of China, India, Egypt and Persia and later the Roman Empire and then Europe. Those early hunters found greater success in using birds of prey to put meat on the table than arrows as the birds were hard to approach and all too soon out of range. Genghis Khan would travel in a pavilion mounted on the backs of four elephants to watch falconers chase cranes and other birds from the comforts of his royal couch. Marco Polo meeting the Grand Khan wrote about his adventures and brought his stories back to Europe. William Shakespeare writes of falconry throughout his plays and uses the terminology of falconry to describe many of his characters and their sometime romantic activities. In Act III, Scene iii of the play *As You Like It* Shakespeare writes "As the ox hath his bow, sir, the horse his curb, and the falcon her bells, so has man his desires". The Roman Emperor Fredrick II of Hohenstaufen built hunting castles throughout Italy and Sicily to house his falcons and falconers.

(Continued on Page 7)



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## The Off Season-

(Continued from Page 6)

Historically, it was said he lost a major battle because he was enjoying the pursuit of falconry and not his military duties. He did write one of the earliest treatises on falconry and it was highly regarded for his acute training techniques and his understanding of the biology and care of raptors. Royal families from the east would trade their falcons with the kings of the west and the sport became known as the 'Sport of Kings.'

Prior to the advent of gunpowder, falconry provided food for the table. After guns were developed hunters looked upon birds of prey as competition for the same game they now hunted. Once prized and held in high esteem early settlers shot them on migration by the thousands. Today all birds of prey are protected and their place in the environment is well understood. Rachel Carson, in her book *Silent Spring*, pushed open the door of understanding on how inter-connected the food chain is whether human or peregrine falcon and the effects of bio-accumulation as it related to DDT and the almost extinction of this truly unique species. Cornell University, the Peregrine Fund and numerous falconers embarked on a historical restoration effort to save it and restore the environment free of the pesticide that almost killed it. Today the peregrine nest throughout its historical range and we find it raising its families on skyscrapers, bridges, power plant emission towers and its traditional sites along the north shore of Lake Superior and the bluffs of the Mississippi.

**Falconry is practiced today on all continents except Antarctica.** Its followers are few but passionate about their life they share with one of nature's most highly evolved creatures. To illustrate this would involve a day in the field with Larry, my hybrid falcon. Larry (named by my sons) seemed an appropriate name since he was born in 1992 the same year that Larry Bird retired from the Boston Celtics. Larry is a hybrid falcon, a gyrfalcon crossed with a peregrine falcon. We hybridized the two to give us the cold hardy qualities of the arctic gyrfalcon and the highly desired flight qualities of one of the fastest birds in the world, the peregrine falcon. You see, hunting in the Upper Midwest in the winter requires a bird that truly enjoys hunting in subzero temperatures.

**On a memorable outing** we left our home for a short ride south of the Twin Cities to a small tributary of the



The hunting team

Vermillion River looking for wintering waterfowl. Having secured permission from the landowner in advance, we set about our search for greenheads. Oh, by the way I have my old English setter to complete our hunting team. In my wallet a falconer's license and a small game hunting license complete with duck and pheasant stamp. You see we have to follow hunting seasons just like gun hunters but slightly extended for falconry. As you might guess, the anticipation of flying your falcon at a seasoned mallard from the prairie pothole region of Canada is only matched by the tail wag-gin of an English setter hell-bent on doing her job. Prior visits to this location had yet to produce a flight on ducks. On this day the temperature was -5 degrees with a slight breeze and sunny clear skies. You see all this matters when flying a falcon at game. Along with watching the weather, Larry has been weighed on a gram scale to determine if he is at his hunting weight. The hunting weight is determined by conditioning and exercising your falcon to be physically fit like a wild falcon and yet hungry enough to capture wild game. And he has to be smart enough to understand the flight and escape strategies of the game in which we are to hunt including ducks, pheasants and Hungarian partridge. Understanding your falcon is one thing but understanding its prey and the interaction it has with your falcon makes hunting this way very challenging. Today proved to be different, a pair of mallards fed quietly on a small pool surrounded by willows, red twiggged dogwoods, cattails and a sliver of ice. The flight begins by removing the leash and swivel which has

been tied to his block perch in which he travels in the truck. A small two stage transmitter is placed around his neck with a #14 rubber band in case the flight takes us far afield and he needs to be tracked. You probably know that birds of prey have incredible eyesight and they might see something miles away before you flush the intended quarry. The pigeons that were picking grit on the gravel road were intentionally bumped by me and the truck to the safety of a farmers silo so he didn't mistake them for the intended quarry when released. A short walk out into the corn stubble and the hood is removed from Larry's head and the flight is on! A quick look around and a bit of time for his eyes to adjust to the bright, frigid air and he is off. His wing beat is strong and deep as he climbs into the sky. His outrun takes him downwind about a quarter mile where he begins his ascent. Climbing into the sky he cuts a spiral path up and up and up. On this day he is over a thousand feet in the sky and becomes a speck as he moves closer to me and the ducks. From his lofty position he takes total control of the airspace...nothing moves. As he comes overhead Larry is now "waiting on" a falconry term describing the position of the falcon as he awaits the flush. At this moment, the thread that ties falcon, falconer and setter is ready for the flush. The old setter knows the game and waits my direction. As Larry comes slightly upwind of the ducks, I release my setter and she makes her way into the flush. Reluctantly, the pair of Mallards become airborne and fly their escape low over the stubble field...my attention turns skyward and my falcon begins his descent...a couple of quick wing beats to gain maximum speed and he now folds his wings tightly to his aerodynamic body. Gravity and evolution push him to speeds approaching two hundred miles per hour. For a brief second Larry and the hen come together and she falls into the stubble field...his outrun carries him into the drake as he tries to make his way back to the safety of the stream and they land together on the ice. The struggle is brief and Larry takes his prey to the safety of a nearby dogwood to feed and instinctively hide from other predators that may want his prey while he is on the ground. The hen only stunned by the blow makes her way back to the stream. The ride home is quiet, Larry's crop is stuffed with duck, and my old setter is happy and half asleep lying next to me. A perfect day in the field...I say a special prayer of thanks that we're all safe and the promise of another day in the "off season" can only come too soon!



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# Conversion of Kentucky Bluegrass Rough to No-Mow, Low-Input Grasses

By Matt Cavanaugh, Eric Watkins, Brian Horgan and Mary Meyer  
University of Minnesota

Golf courses have become a large part of the environmental landscape today. The land area needed for golf is larger than any other sport and the United States alone has nearly 17,000 golf courses with the North Central Region having the highest concentration with 4,238 [6, 11]. There are many scientific studies that have detailed the benefits of turfgrass. However, the use of water, fertilizer and pesticides in maintaining golf courses continues to come under fire for not being environmentally friendly and unnatural to the landscape. Golf courses and their turfgrass managers realize the need for continuing to decrease the inputs needed to run a golf course, not only from an environmental standpoint but also a monetary standpoint. Golf course superintendents have become highly educated professionals that continue to adapt their management practices in order to reduce the environmental impact of their golf course.

Golf course rough is the largest percentage of maintained turf area of a golf course comprising 52% of the total maintained area [8]. Of this rough area, the most common turfgrass species planted in the North Central region of the United States is Kentucky bluegrass, accounting for 63% of the rough area. Under high management, Kentucky bluegrass is very aesthetically pleasing and provides a high quality playing surface that can recover from divots caused by golfers. However, inputs required to maintain playing conditions in golf course settings are often high. Kentucky bluegrass has a large demand for water to prevent dormancy from drought and a high need of fertilizer to maintain turfgrass color and quality [3]. Due to these high inputs of water and fertilizer, golf course rough generally needs to be mowed two times per week which increases labor, machinery costs, and fuel budgets. In addition, weeds are often controlled with herbicides adding to the inputs needed to maintain the quality of the largest area on a golf course. The combination of large amounts of established Kentucky bluegrass rough and inputs required to maintain its playing quality have prompted many golf courses to question the need for heavily maintaining their Kentucky bluegrass rough areas. Many golf courses are now considering the conversion of these high-input rough areas to no-mow, low-input grasses.

There were two objectives to this study: (1) to compare several methods for converting Kentucky bluegrass rough to no-mow, low-input grasses and (2) to then determine the best turfgrass species for use in conversion. Conversion of Kentucky bluegrass rough to no-mow, low-input grasses is a relatively new topic. Although very few studies have focused on converting Kentucky bluegrass rough to no-mow grasses, some have focused on which species may perform well in low-input situations. Studies have found that fine fescues are more drought tolerant, require less fertility, have higher resistance to weed invasion in low-input situations, and have better stand quality in no-mow situations than does Kentucky bluegrass [1,2,4,5,7,12].

## Field Trial

Converting Kentucky bluegrass rough to no-mow, low-input grasses is a very practical study. Four conversion methods were chosen based on standard equipment that golf courses would have on hand and the five grass species selected are easily available. The study was initiated in the fall of 2007 with seeding

dates of September 5th and 6th. After initial plot establishment, there was not supplemental irrigation used, no fertilizer or pesticide use, and the plot area was only mowed once during each growing season in October with the clippings being removed.

## Conversion Methods

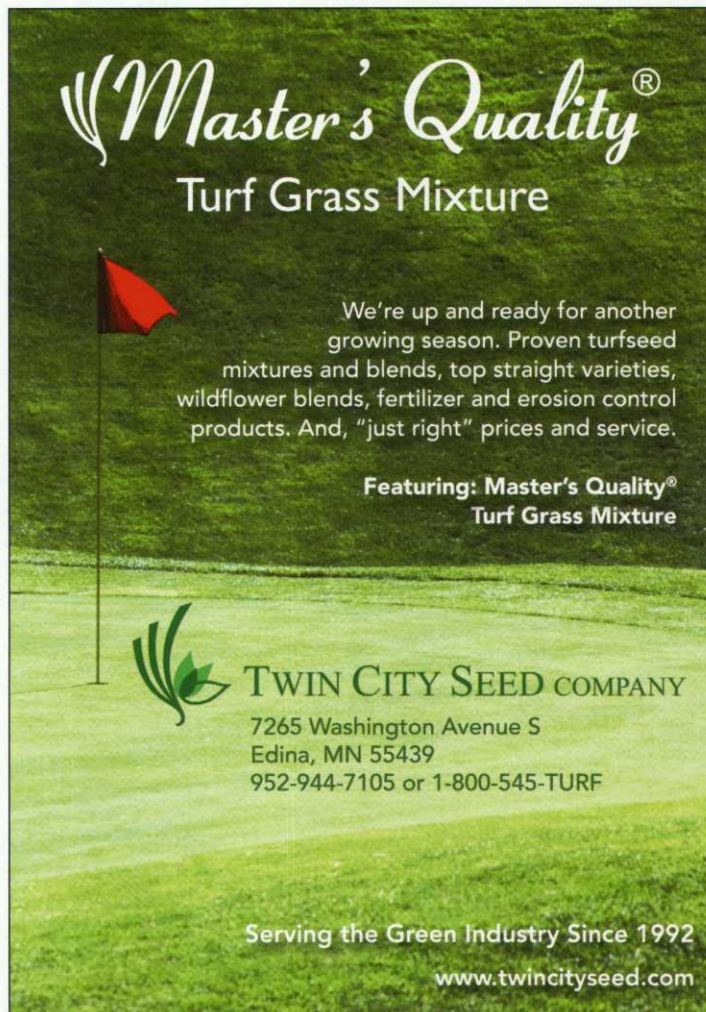
"Glyphosate, then seed treatment": Glyphosate was applied at 1.47 oz/1000ft<sup>2</sup>. After seven days the area was aerified with 5/8" tines and seed was added.

"Seed, then glyphosate treatment": Area was aerified with 5/8" tines and seeded. Five days after seeding, glyphosate was applied to the area at 1.47 oz/1000ft<sup>2</sup>.

"Fumigation treatment": The area was initially aerified with 5/8" tines. After aerification, the soil fumigant dazomet was applied at 8 lbs/1000ft<sup>2</sup> and immediately watered in and covered with 1mm clear plastic for seven days. After seven days the plastic was removed and the area was allowed to "air-out" for another seven days before being seeded.

"Sod removal treatment": All turf was removed with a sod cutter to expose bare soil. Bare soil was then roto tilled to disrupt the top 2 to 3" and then the plot area was seeded.

(Continued on Page 11)



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