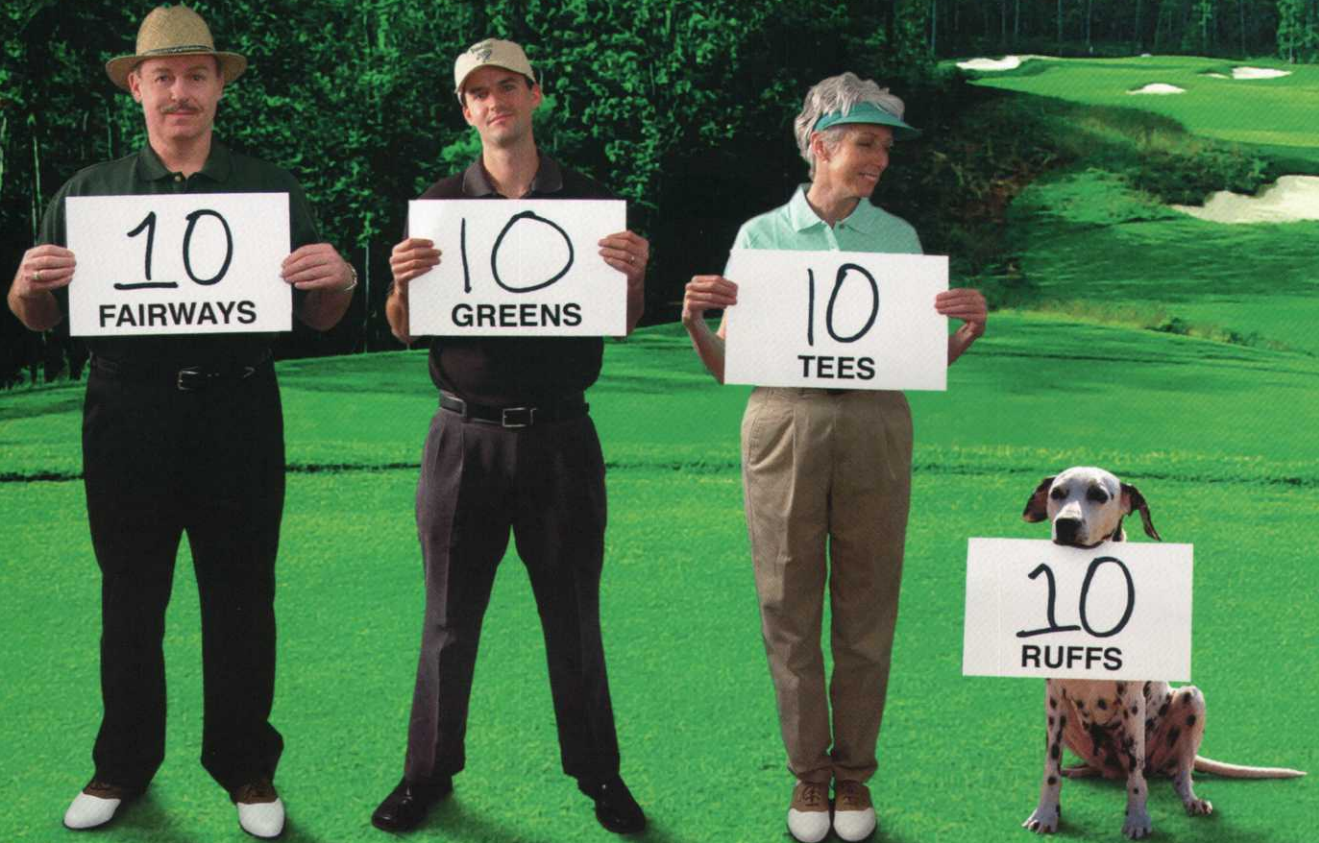


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Inside This Issue Of Hole Notes

- 4 *President's Message* - James Bade
- 5 *David L. Johnson Wins MGCSA Championship*
- 7 *Harold Stodola Research Scramble Re-cap*
- 8 *Turf Management Practices* - U of M
- 12 *Phosphorus Runoff from Turfgrass* - U of M
- 18 *Adventure in Life* - Randy Witt, CGCS
- 21 *Green Expo Update*
- 22 *The Forgotten Language* - Nate Uselding
- 24 *Turfgrass Mixtures and Blends* - U of M
- 26 *Effect of Mowing Height and Traffic* - U of M
- 27 *Membership Report* - Mike Knodel
- 28 *It's in the Hole*
- 30 *In Bounds: Environmentalists? You Bet!*
- Jack MacKenzie, CGCS
- 31 *Statement of Ownership*

About the Cover

David L. Johnson, Rich Spring Golf Club, won the 2007 MGCSA Championship at Hillcrest Golf Club of St. Paul.
(See story and results on Page 5)

Upcoming MGCSA Schedule

Tuesday, December 4, 2007
MGCSA Awards & Recognition Banquet
Prestwick Golf Club, Woodbury
Host Superintendent: Dave Kazmierczak

Wednesday-Friday
January 9, 10, 11, 2008
Minnesota Green Expo
Minneapolis Convention Center

Tuesday, March 11, 2008
MGCSA March Mini-Seminar
North Oaks Golf Club, North Oaks
Host Superintendent: Jack MacKenzie, CGCS

Tuesday, May 19, 2008
MGCSA Spring Mixer
Coffee Mill Golf Club, Wabasha
Host Superintendent: Jeff Normandt

Advertisers

BASF Corporation	13
Bonestroo	28
Classified Ads	29
Country Club Turf	28
Glenn Rehbein Company	24
GreenImage.....	31
GreenImage.....	20
Green Jacket	25
Hartman Companies	4
Herfort Norby	18
Hydrologic	21
JRK Seed	19
Leitner Company	12
MTI Distributing, Inc.	6
MTI Distributing, Inc.	16
MTI Distributing, Inc.	17
MTI Distributing, Inc.	14
Par Aide Products Co.	3
Precision Turf & Chemical	IFC
Superior Turf Services, Inc.	26
Tessman Company	10
Teessman Company	11
Turf Supply Company	23
Versatile Vehicles	27

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WHEREVER GOLF IS PLAYED



PRESIDENT'S MESSAGE

Let's Play Jeopardy!

By James Bade

Here is the answer: commanding attention, an effect produced upon the mind, stirring deep feeling of awe and admiration. In Jeopardy, like fashion you need to put the answer in the form of a question, "What is impressive?" Impressive was the word that came to my mind after leaving the Field Day at the U of M.

It is amazing what Dr. Brian Horgan and Dr. Eric Watkins are accomplishing with their staff and students. If you have never been there, you need to go. And if you have been there before, you need to go again because things are always changing.

Besides the ongoing studies at the TROE Center there are an incredible amount of new turf plots right on the inner campus. If data and graphs bore you, this was a chance to see research with your very own eyes. It is a neat thing to see the new tall fescue trials. With the drought we had, it was incredible to see which grasses performed the best. Have you ever seen sheep and chewings fescues before? And if bentgrass is your thing, I am always amazed what the colonial and velvets look like from year to year. Seeing the bentgrass varieties right next to each other is invaluable. Have you ever seen the Alpha or T-1?

One of the ongoing studies at the TROE Center is the nutrient and pesticide runoff study. The findings there are vitally important when it comes to working with our legislature. This year the U proposed the question, what effect does aerification and vertical mowing have on run-off? Other studies included dollar spot trials with Dr. Rob Golembiewski, PGR's and weed control, water sensors and ET rates, and more!

All this research and education bodes well for us, to show that our industry is one that is professional and trained. A big thanks goes out to those who have sponsored the TROE Center and Field Day. It was great having familiar and new exhibitors sponsoring the day. The work going on at the U of M commands your attention and engages your mind. I admire all that has been accomplished there over the past eight years. The turf train is at the station; it is one you don't want to miss.

We had a good day at the MGCSA Championship held at Hillcrest. Tom Schmidt and staff did a great job of preparing the course. In spite of the soggy conditions the greens were quite fast and fun. But what I will remember the most was the outpouring of support for Mark Kruse (a Hartman Company employee) who lost his wife, Shannon, in a tragic car accident. The players made a spontaneous memorial donation to the family. I didn't hear how much money was collected and it doesn't really matter, because it is the compassionate caring givers that made an impression on me. Thanks MGCSA members.

Bridges and Frogs: On PBS the other day they were talking about frogs existing for more than 280 million years. My mind can't even imagine such a number especially when, Lord willing, I hope to be around for maybe 80 years or so. Then it wasn't but a day or two later that the 35-W bridge collapsed. Whatever your philosophy is in life, life can be short, unpredictable and at times tragic. But life is good and amazing so we need to make the most of it with a passion.

I believe that is the hum of aerifiers I hear; don't forget to take in the amazing colors this fall and eat a Minnesota grown apple because life is good and amazing.

Build bridges that last, James

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Editor
Jack MacKenzie, CGCS
jmackenzie426@msn.com

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EXECUTIVE DIRECTOR

Scott Turtinen
700 Twelve Oaks Center Dr., Suite 706
Wayzata, MN 55391
952/473-2582 Fax: 952/473-2586
Toll Free: 1-800-MGCSA-27
E-mail: scott@mgcsa.org

www.mgcsa.org

David Johnson Wins MGCSA Championship At Hillcrest Golf Club of St Paul

The MGCSA extends thanks and appreciation to Hillcrest Golf Club of St. Paul for hosting our Championship on August 28. The support from the club and great condition of the course made for a great day to enjoy golf.

As the field prepared to play, Mother Nature timely sounded the shotgun horn with some thunder but the rain held off for about 16 holes.

David L. Johnson, Rich Spring Golf Course, won a scorecard playoff with Brian Brown, Chisago Lakes Golf Course. David had a consistent round with one birdie and four bogeys to shoot a 75. Brown began his round with three straight bogeys but settled down and had three birdies in the next nine holes. Brown had another string of bogeys to finish with his 75. Three-time champ Jeff Pint, New Prague Golf Course, and 2005 champ Dennis Perreault, Pheasant Acres Golf Club, tied for third with 77s.

Darren Gilgen, Eau Claire Golf & Country Club, won the First Flight with a net 62. Eric Ritter, Spooner Golf Club, shot a net 67 to finish in second place. Third place honors went to Chad Belland, Oneka Ridge Golf Course, who fired a net 69.

Greg Paulus, The Ponds at Battle Creek, is this year's Senior champion.



A view of the ninth hole at Hillcrest Golf Club of St. Paul.

Paulus shot a net 67. Last year's Champion Jim O'Neill, CycleWorks of Minnesota, shot a net 68.

Winning the Callaway Flight was Richard Carr, Interlachen Country Club. Richard shot a net 66. Jeff Whitehurst, Twin City Hydro Seeding, finished second with a net 71.

Our 2007 Long Drive Champion is Jeff Pint. Jamie Olsen, Lesco, sank the longest putt of the day on number 18. Closest-to-the-pin winners were Wally Freier, The Finley Group; Chad Belland, John Steiner, CGCS, White Bear Yacht Club, and Brett Wenzel, Keller Golf Course.

Host Superintendent Thomas Schmidt and Assistant Justin Kramer and their staff presented the course in mint condition. Clubhouse manager Bev Johnson-Dumdei and her staff were very helpful in pre-tournament preparations. Brent Heit and his staff scored the event and helped the championship run smoothly.

Special thanks to Van Cooley, Malmberg's, for running the marshmallow shot on the first tee and to Mark Christianson, Yamaha, for displaying their cart. Also, thanks to all our sponsors for the events this year: BASF, Bayer Environmental Services, Cycle Works of Minnesota, Dow Agrosiences, HydroLogic, Lesco, Malmberg's Greenhouse & Garden Center, Mom's Garden Management, Northern Turf Services, Par Aide Products, Plaisted Companies, ProSource One, Superior Tech Products, Syngenta, Tessman Company, Turfwerks and Yamaha.

(See Results on Page 6)



Hillcrest Golf Club of St. Paul's Superintendent Tom Schmidt

CHAMPIONSHIP RESULTS

Hillcrest Golf Club of St. Paul - Par 72

Championship Flight

- 75 David L. Johnson, Rich Spring GC
- 75 Brian Brown, Chicago Lakes Golf Estates
- 77 Jeff Pint, New Prague GC
- 77 Dennis Perreault, Pheasant Acres GC
- 78 Barry Provo, Deer Run GC
- 78 Jamie Olsen, Lesco, Inc.
- 78 Brooks Ellingson, Albion Ridges GC
- 79 Bill MacDonald, Tiziani Golf Cars
- 79 Scottie Hines, CGCS, Windsong Farm GC
- 80 Jacob Kosak, Prestwick GC
- 81 Wayde West, Hoyt Lakes GC
- 82 Jim Johnson, CGC S, Rich Spring GC
- 82 Jeff Backstrom, Cannon GC
- 82 Scott Novak, Zumbrota GC
- 82 Bill Brooks, Rose Lake GC
- 83 Gary Deters, St. Cloud CC
- 84 Paul Diegnau, CGCS, Keller GC
- 84 Arik Hemquists, Brackett's Crossing CC
- 86 Daniel Hinton, Jackson GC
- 87 David Newinski, Herfort-Norby
- 87 Ted Schirck, Hydrologic
- 88 Dean Wojtczak, Whispering Pines GC
- 88 Mark Kamish, Siren National GC
- 89 Tom Proshok, Brackett's Crossing CC
- 97 Steve Makowske, Interlachen CC

First Flight (Net Scores)

- 62 Darren Gilgen, Eau Claire G&CC
- 67 Eric Ritter, Spooner GC
- 69 Jeff Vinkemeier, Glencoe CC
- 69 Chad Belland, Oneka Ridge GC
- 70 Cary Femrite, MTI Distributing Co.
- 71 James Bade, Somerset CC
- 71 Justin Kramer, Hillcrest GC of St. Paul
- 72 Rob Tripp, Northland CC
- 72 Brett Wenzel, Keller GC
- 73 Leroy Wurm, Albion Ridges GC
- 73 Chuck Tuthill, Thief River GC
- 73 Larry Gorman, GreenImage LLC
- 74 Dennis Salwei, Reinders, Inc.
- 74 Matt Rostal, Interlachen CC
- 74 Charlie Miller, Goodrich GC
- 74 Chuck Schoenrock, The Wilds GC
- 75 Scott Austin, CGCS, Meadowbrook GC
- 75 Erin McManus, Medina G&CC
- 75 Thomas Schmidt, Hillcrest GC of St. Paul
- 76 Jared Finch, Giants Ridge GC
- 76 Mike Knodel, Oakdale GC
- 77 Cliff Cline, Long Prairie CC
- 77 Ron Manske, Versatile Vehicles
- 78 Erik Pille, The Meadows at Mystic Lake
- 78 Jamie Bezanson, Prestwick GC
- 79 Brian Ziegler, The Wilds GC

- 79 Ben Just, Midland Hills CC
- 80 Rob Adams, The Ponds at Battle Creek
- 80 Jason Swanson, Hidden Greens GC
- 80 Tod Blankenship, Big Fish GC
- 80 Dave Kazmierczak, CGCS, Prestwick GC
- 83 Chad Snuggerud, River Oaks GC
- 84 Kris Johannsen, The Wilds GC
- 84 John Granholt, Eau Claire G&CC
- 85 Wade Vecchio, Pioneer Turf & Equipment
- 91 Jim Schmitz, Mom's Garden Management
- 92 Jon Almquist, MTI Distributing Co.

Senior Flight (Net Scores)

- 67 Gregg Paulus, The Ponds at Battle Creek
- 68 Jim O'Neill, CycleWorks of Minnesota
- 69 John Monson, Long Prairie CC
- 69 John Steiner, CGCS, White Bear YC
- 70 Brad Klein, Northern Turf Services
- 73 Jerry Webb, CGCS, Riverwood National
- 75 Doug Daniel, CycleWorks of Minnesota
- 76 Dan Hanson, St. Cloud CC
- 76 Rick Grannes, Superior Tech Products
- 77 Mike Redmond, MTI Distributing Co.
- 78 Walt Braunig, Thompson Oaks GC
- 78 Wally Freier, Finley Group

Callaway Flight (Net Scores)

- 66 Richard Carr, Interlachen CC
- 71 Jeff Whitehurst, Twin City Hydro Seeding
- 71 Brian Boll, Interlachen CC
- 72 Joe Edberg, Tiziani Golf Cars
- 73 Brian Grill, Interlachen CC
- 74 Bob Frank, MTI Distributing Co.
- 75 Tom Fuller, Turfwerks
- 75 Rick Gabler, Superior Tech Products
- 78 John Meyer, Agrotain International

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- 4% magnesium from low residue, highly dispersible magnesium sucrate
- 3% manganese from low residue, highly dispersible manganese sucrate
- 2% iron from low residue, highly dispersible iron sucrate

"Product Benefits"

- Utilizes three nitrogen sources providing staggered, more consistent N response
- Controlled release coated potassium reduces potential for leaching
- The micronutrients are high concentrations of dispersible sucrates which provide improved plant utilization and minimize staining
- The micronutrient delivery system provides immediate and longer term availability resulting in improved plant utilization versus traditional source of micronutrients.

Product Specifications:

Particle size:	SGN 100
N Source:	70% Nutralene / 20% AS / 10% Urea
K Source:	100% coated controlled release potassium sulfate
Micronutrients:	4% Mg / 3% Mn / 2% Fe (all dispersible sucrates)
Rates:	4.55 (Low) 6.82 (Medium) 9.10 (High)
Lbs. Nutrients/M (4.55 rate):	N: 0.501 P: 0.000 K: 1.00
Pounds / Acre:	198 lb/A at low rate (4.55)
Product Code:	AGC117WM5



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Van Cooley, representing Malmborg's Greenhouse & Garden Center, organized marshmallow hitting contests at the MGCSA Championship and at the Harold Stodola Research Scramble.

Ruhoff, Meyer, Ramler, Deyak Win the 2007 MGCSA Harold Stodola Research Scramble

The 2007 Harold Stodola Research Scramble was held in Lake City at The Jewel Golf Club on September 24. The course winds throughout 800 acres of the Mississippi River Valley. Tournament participants could see the rain coming toward the course over the hills. It did sprinkle some but the tournament finished before the heavy rains started.

Host Superintendent Doug Mahal, CGCS and his assistants Marc Exner, Jeff Fjosne and the grounds staff made sure the course was in excellent condition for the event. Players found the layout pleasing and fun to play.

First place honors went to the team of Jason Ruhoff and Jeff Meyer, Koronis Hills Golf Club, Brad Deyak, Wapicada Golf Club, and Tom Ramler, Boulder Ridge Golf Club. They shot a 16-under par round of 55 to win this year's Harold Stodola Research Scramble.

Finishing a close second was the Monticello Country Club team of Rick Traver, CGCS, Kristi Dostal, Rob Larkin and Mike McClure. They shot a 14-under par 57.

Winning a scorecard playoff for third place was the team of Marlin Murphy, Justin Funk, Kevin Milbrandt and Dave Stone from Stillwater Country Club. The fourth place squad was made up of Mike Brower, Steve Giles and Wade Susee, all from Minnesota Valley Country Club along with Dave Newinski, Herfort Norby Golf Course Architects. Both teams shot 59.

Rob Adams, The Ponds at Battle Creek, hit the longest drive on hole 18. Marlin Murphy sank the longest putt on #9. The four closest to the pins were won by Justin Gilbertson, River Falls Golf Club, David Newinski, and Craig Hallett, Windsong Farm Golf Club. Craig won two awards with one of them being a hole-in-one on the seventh hole.

Windsong Farm Golf Club donated their skin prize back to the MGCSA Research Fund.

Van Cooley, Malmberg's Greenhouse & Garden Center, had a long marshmellow drive competition, which was won by Matt Schmid, Superior Turf Services. Matt hit a 7 iron.

Thanks to all our event sponsors for this year's meetings. They are BASF, Bayer Environmental Services, Cycle Works of



MGCSA Harold Stodola Research Scramble Winners

Pictured from the left are Brad Deyak, Jeff Meyer, Jason Ruhoff and Tom Ramler. They shot a 16-under-par of 55 at The Jewel Golf Club in Lake City.

Minnesota, Dow Agrosiences, HydroLogic, Lesco, Malmberg's Greenhouse & Garden Center, Mom's Garden Management, Northern Turf

Services, Par Aide Products, Prosource One, Superior Tech Products, Superior Turf Services, Syngenta, Tessman Company, Turfwerks and Yamaha.

MGCSA HAROLD STODOLA SCRAMBLE RESULTS

Jason Ruhoff, Jeff Meyer, Tom Ramler, Brad Deyak	55
Rick Traver, CGCS, Kristi Dostal, Rob Larkin, Mike McClure	57
Mike Brower, Steve Gilles, Wade Susee, Dave Newinski	59
Marlin Murphy, Justin Funk, Kevin Milbrandt, Dave Stone	59
Scottie Hines, CGCS, Craig Hallett, Kevin Norby, Eric Councilman	60
Jeff Whitehurst, Cary Femrite, Rod Anderson, Justin Gilbertson	60
Mike Kasner, Scot Milstroh, Tom Kasner, Terry Simon	60
Rob Adams, Gregg Paulus, Paul Diegnau, CGCS, Brett Wenzel	61
Walt Braunig, Paul Hansen, Greg Lentsch, Tim Dickie	62
Pete Nolan, Geoff Jordan, Jim Temple, Jim O'Neill, Doug Daniels	62
Mike Knodel, Kyle Schaufler, Dale Schweke, Chad Shields.....	62
Jud Crist, Ted Schirck, Todd Folie, Wes Salo	63
Tim O'Driscoll, Ben Anderson, Dan Breitbarth, Scott Bearson	63
Tom Meier, Jeff Schmidt, West Stoneback, Scott Thayer	64
Paul Eckholm, CGCS, Scott Reuteiz, Dean Brown, Mark Maizuin	64
James Bade, Josh Olson, Jose Rocha, Brian Horgan	65
Jim Kassera, Drew Larsen, Erin McManus, Larry Gorman	66
Matt Rostal, Brian Boll, Steve Makowski, Richard Carr.....	68
Jamie Bezanson, Dennis Salwei, Jacob Kosak, Dick Rieg	68
Doug Mahal, CGCS, Marc Exner, Jeff Fjosne, Bob McLean	69
Matt Schmid, Jeff Girard, Larry Thornton, Donnacha O'Connor	69
Ben Just, Grant Blumreich, Mitch Granholm, Dan Harkness	71
Tom Proshek, Arik Hemquist, Ken Adams, Jr., Bill Gray	72

Use of Turf Management Practices to Reduce Nutrient and Pesticide Loads with Runoff from Fairway Turf

By Pamela Rice, USDA-Agricultural Research Service,
and Brian Horgan, Department of Horticulture, University of Minnesota

The use of fertilizers and pesticides in highly managed turf systems has raised questions concerning their off-site transport to surrounding areas. To address these questions we designed experiments to measure the quantity of fertilizers and pesticides transported with runoff from turf plots managed as a golf course fairway (creeping bentgrass, 1.25 cm height of cut). Three cultural practices: 1) hollow tine aerification, 2) solid tine aerification and 3) hollow tine aerification with vertical slicing were evaluated during two field seasons to determine their capacity to reduce surface runoff and chemical transport with runoff. Fertilizer (18-3-18 [N, P2O5, K2O]) and a commonly utilized herbicide (2,4-D), insecticide (chlorpyrifos) and fungicide (flutolanil) were applied to all plots 12-36 hours prior to the initiation of the simulated precipitation. Preliminary results show selected management practices can reduce runoff volumes and the off-site transport of nutrients and pesticides with runoff.

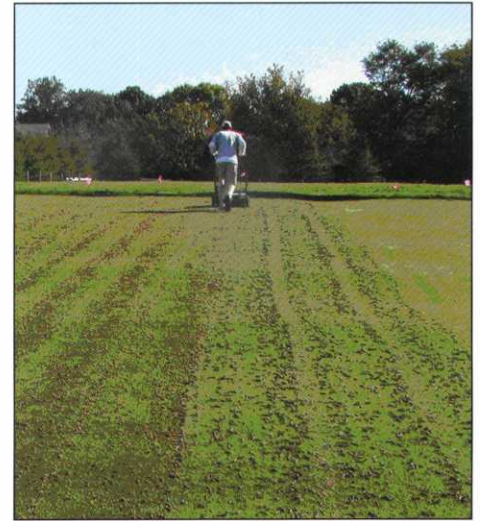
Hollow tine aerification reduced runoff volume and chemical transport relative to solid tine aerification.

During the initial field season, half of the plots were aerated with solid tines while the remaining plots were aerated using hollow tines. Cores removed with the hollow tines were allowed to dry, broken into smaller pieces, and worked back into the turf. A back-pack blower and leaf rake removed the turf and thatch from the plot surface. Forty-eight hours prior to chemical application each plot was pre-wet to saturation to ensure uniform water distribution. Simulated rainfall was applied to the plots 12-36 hours following fertilizer and pesticide application. Fertilizer and pesticides were applied at two different time points allowing rainfall simulations and collection of resulting runoff to be completed 2 days and 63 days following aerification (2d, 63d).

Runoff volumes were reduced in fairway turf plots managed with hollow tines relative to solid tines. When



Solid tine aerification

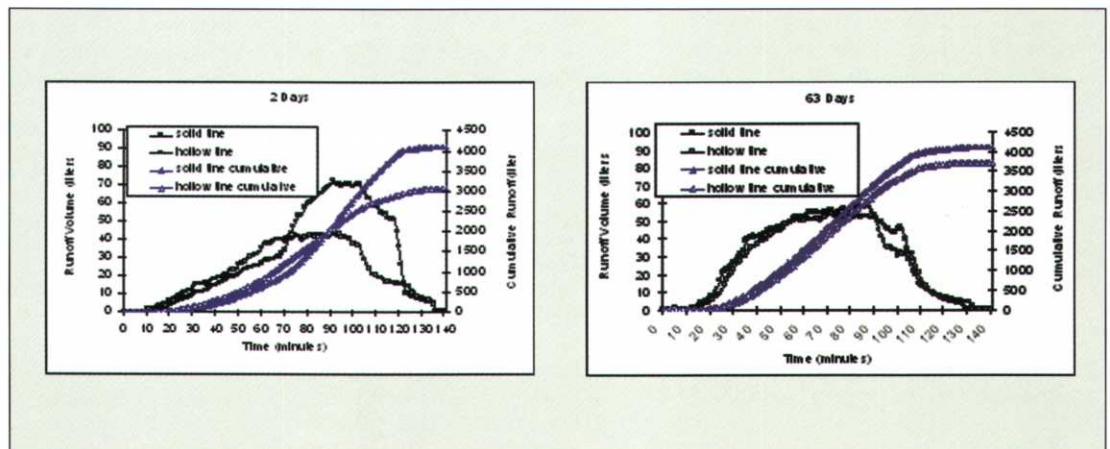


Hollow tine aerification

plots were aerated 2 days prior to initiation of the rainfall simulations the plots receiving hollow tine aerification demonstrated a 25% reduction in total runoff volume. Similar trends were observed when plots were aerated 63 days prior to simulated rainfall and runoff; however, the reduction in runoff volume with hollow tine aerification was reduced to 10%. Measured quantities of nutrients in runoff revealed reduced phosphorus (soluble-P) and ammonium nitrogen (NH4-N) losses with runoff from turf plots managed with hollow tine aerification. The 25% reduction in runoff volume from turf plots aerated with the hollow tines 2 days prior to

fertilizer application resulted in a 49% and 60% reduction in soluble-P and NH4-N, respectively. Reduced nutrient losses with runoff from the hollow tine plots remained above 30% even when time between aerification and runoff increased to 63 days. Similar trends were observed for the pesticides. Runoff collected from turf plots managed with hollow tine aerification contained 14 to 36% and 5 to 26% fewer pesticides than runoff collected from turf plots managed with solid tine aerification at 2 and 63 days following the management practice.

(Continued on Page 9)



Runoff hydrograph and cumulative runoff from fairway turf plots aerated with solid tines or hollow tines two days and 63 days prior to simulated rainfall runoff.

Turf Management Practices-

(Continued from Page 8)

Addition of vertical slicing reduced runoff volume and chemical transport from plots managed with hollow tine aerification.

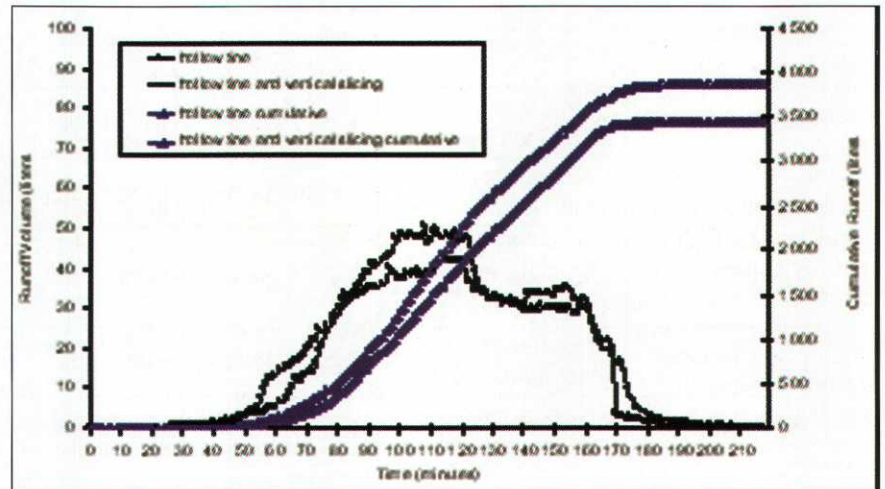
An additional cultural practice, vertical slicing, was evaluated during the 2006 season. Prior to the first rainfall simulation and collection of runoff, all plots were treated identically with weekly sand top dressing and aerated with hollow tines eleven days before to the chemical application. Cores removed with the hollow tines were allowed to dry, broken into smaller pieces, and worked back into the turf. Volumes of runoff collected from the plots were similar ($3,586 \pm 901$ liters, former hollow tine plots; $3,447 \pm 1,040$ liters, former solid tine plots). Five weeks following the first rainfall simulation, all plots were aerated a second time. Seven days later half of the plots received vertical slicing to increase water infiltration and further manage the thatch. The fertilizer and pesticides were applied 8 days following the vertical slicing and within 24 hours of the second rainfall simulation.

Infiltration measurements, quantification of runoff volumes and examination of hydrographs revealed the addition of vertical slicing to hollow tine aerification increased water infiltration and further reduced (11%) quantities of water leaving the turf plots as runoff. Chemical analysis of the runoff water revealed a 14 to 40% reduction in nutrient loss and a 10 to 38% reduction in pesticide loss.

Understanding pesticide and fertilizer transport with runoff and identifying strategies that reduce off-site transport of applied chemicals will increase their effectiveness at intended sites of application and will minimize potential undesirable impacts to surrounding surface water resources.



Vertical slicing to manage turf thatch



Runoff hydrograph and cumulative runoff

Tuesday, December 4, 2007



MGCSA AWARDS & RECOGNITION BANQUET

Prestwick Golf Club, Woodbury

Host Superintendent: Dave Kazmierczak

New Distributor Announcement:
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Kestrel®	Propiconazole: 14.3%	4 x1 gal 7.5 gallon BATPak™	Fungicide	Systemic: broad spectrum	Banner® Maxx®
Pegasus™ DF	Chlorothalonil: 82.5% WDG	4 x 5 Pound	Fungicide	Contact: broad spectrum	Daconil® Ultrex®
Pegasus L	Chlorothalonil: 54%	2 x 2.5 gallon	Fungicide	Contact: broad spectrum	Daconil Weather Stik®
Raven™	Iprodione: 23.3%	2 x 2.5 gallon	Fungicide	Broad spectrum with locally systemic activity	Chipco® 26GT®
T-Bird™ 4.5L	Thiophanate-methyl: 46.2%	2 x 2.5 gallon	Fungicide	Systemic: broad spectrum	3336® Flo
T-Bird WDG	Thiophanate-methyl: 85% WDG	4 x 5 Pound	Fungicide	Systemic: broad spectrum	3336® WDG
Vital®	Potassium Phosphite: 54.5%	2 x 2.5 gallon 7.5 gallon BATPak	Fungicide	Systemic: Pythium	Alude™ Magellan®
Vital Sign™	Potassium Phosphite: 53.3% Pigmented	2 x 2.5 gallon 7.5 gallon BATPak	Fungicide	Systemic: Pythium with activity on Summer Stress Complex	Chipco Signature®
CutDown™	Paclobutrazol: 22.3% SC	4 x 1 gallon	Growth Regulator	Turf & tree growth suppression: Systemic throughroot absorption	Trimmit® 2SC
GoldWing™	Trinexapac-ethyl: 11.3% MEC	2 x 1 gallon 7.5 gallon BATPak	Growth Regulator	Turf growth, clipping and quality management: Systemic throughleaf absorption	Primo® Maxx
Firebird® GC	Bifenthrin: 7.9%	4 x 1 gallon	Insecticide	Broad spectrum Golf R.U.P	Talstar® GC
Firebird LCO	Bifenthrin: 7.9%	4 x 1 gallon	Insecticide	Broad spectrum: LCO, Tree & PCO not R.U.P.	Talstar One
Firebird Pro	Bifenthrin: 7.9%	4 x 1 gallon	Insecticide	Broad Spectrum Labeled Golf, Nursery, LCO, PCO. R.U.P.	Talstar Nursery

For more information, call The Tessman Company: St. Paul (651) 487-3850 or Fargo (701) 232-7238 or visit www.aquatrols.com.