

TABLE OF CONTENTS

THE PRESIDENT'S MESSAGE	
Excited for Fall.	3
GAZING IN THE GRASS	
Buttoning Up for Winter	5
MISCELLANY	
USGA Mid Am Visits Milwaukee Country Club	10
WISCONSIN SOILS REPORT	
Maintaining Constant Growth Regulation with Primo Maxx.	15
TDL	
Early Season control of Dollar Spot on Wisconsin Fairways.	20
THE BUSINESS OF GOLF	
Discount Golf	28
PERSONALITY PROFILE	
Yogi Berra	30
WISCONSIN ENTOMOLOGY REPORT	
Emerald Ash Borer (EAB) Discovered in Wisconsin: What Does This Mean for You?	33
BACK IN TIME	
July/August 1988	36
WGCSA	
Lake Breeze Hosts August Meeting	39
NOTES FROM THE NOER FACILITY	
Bridge to the Future	42
GREEN SECTION	
On the Dry Side	45
WISCONSIN PATHOLOGY REPORT	
What the Heck is Brown Ring Patch?	46
THE EDITOR'S NOTEBOOK	
Changes	48
GCSAA	
Opportunities Abound	50
BADGER STATE TURF CLIPPINGS	
.	52

ABOUT THE COVER

Our cover artist Beverly Bergemann captures the par 4 427 yard 1st hole at Milwaukee Country Club, host of the 2008 USGA Mid-Amateur.

"I cannot endure to waste anything as precious as autumn sunshine by staying in the house. So I spend almost all the daylight hours in the open air."

— Nathaniel Hawthorne

This quote from 19th century novelist reminds us to enjoy the beauty of the season as the golf year retreats.

THE GRASS ROOTS

THE GRASS ROOTS is a bi-monthly publication of the Wisconsin Golf Course Superintendents Association, printed in Wausau, Wisconsin by Kramer Printing. No part of THE GRASS ROOTS may be reprinted without expressed written permission by the editor.

EDITORIAL AND BUSINESS AFFAIRS

Dave Brandenburg, CGCS
Rolling Meadows Golf Course,
PO 314 Theresa, WI 53091,
grootswi@yahoo.com



Front Row: Matt Schmitz, Jeff Millies, Dustin Riley,
Brian Zimmerman and Mike Lyons
Back Row: Brett Grams, David Swift, Chad Harrington,
Jim Van Herwynen, Mark Starby

2008-2009 WGCSA OFFICERS AND DIRECTORS

PRESIDENT	DIRECTORS
Dustin Riley, CGCS Oconomowoc GC 762 Summit Avenue Oconomowoc, WI 53066 ogcsuper@bizwi.rr.com	Chad Harrington Autumn Ridge GC 335 Berge Street Valders, WI 54245 putter@lakefield.net
VICE PRESIDENT	Mark Starby
Brian Zimmerman Milwaukee County Parks 7350 South 69th St. Franklin, WI 53132 bzimmerman@milwcnty.com	Oneida Golf & CC PO Box 10736 Green Bay, WI, 54307 markstarby@aol.com
TREASURER	David Swift,
Jeff Millies, CGCS Edgewood GC W238 S9560 Kuzendorf Ct. Big Bend, WI 53103 jmillies@wi.rr.com	Whistling Straits GC 4106 N.46th Street, Sheboygan, WI 53083 david.swift@kohler.co.com
SECRETARY	Jim Van Herwynen, CGCS
Matt Schmitz The Bruce Company 8120 Martinsville Road Cross Plains, WI 53528 mschmitz@bruceco.com	South Hills Golf and CC, 1175 Fond du Lac, Ave Fond du Lac, WI 54935, jkvanherwynen@charter.net
LIAISON	PAST PRESIDENT
Brett Grams Waupaca Sand and Solutions E3481 Hwy 22 & 54 Waupaca, WI 54981 brett@waupacasand.com	Mike Lyons Old Hickory CC 316 Grove St Beaver Dam, WI 53916 mike@oldhickorycc.com



Visit our web site at:
www.wgcsa.com

Excited for Fall

By **Dustin Riley**, Golf Course Superintendent, Oconomowoc Golf Club

It is amazing how much of our success can be influenced by weather. Golf rounds, cart rentals, chemical budgets are too easily affected by strange weather. Mother Nature can bring brutal winters, record rains, and droughty periods or even hot spells with extreme temperatures. All of which can result in turf decline. Thankfully, we were at least spared the extreme temperatures this season. But, a change in the air can be felt. The shorter days, cooler nights and heavy dew mornings seem to add a little bounce back into our steps. Many of us look forward to this time of year, as we are excited to relieve those summer stresses of the turf through aeration.

Unfortunately, the general golfing public isn't too fond of the important cultural practice. Communicating the importance of proper turf management can become stressful if we don't take the time to properly educate. Although the questions are always the same, the persons asking those questions change. With the proper enthusiasm, educating the 'new' people can help calm the masses, thus allowing us to complete these tasks in the best interest of the golf course.

The 2008 Wisconsin Turf Symposium will be taking place November 18th and 19th. Besides the quality education, there will be a few important events that will be taking place at this year's Turf Symposium. First, the WGCSA Fall Business Meeting is scheduled for the morning of November 18th. All WGCSA members are invited as the Board of Directors present the 'State of the Association'. The meeting agenda will soon be sent to provide specific items of discussion. The Fall Business Meeting is also your opportunity to vote for the 2009 Board of Directors and any future Scholarship and Research proposals.

Secondly, there will be a period for the reflection for James Latham, who passed away July 16th, 2008. Jim was a retired Director of the USGA Green Section Great Lakes Region and Director of Marketing and Agronomy for the MMSD. In addition, his WGCSA Distinguished Service Award defined his impact on Wisconsin golf course superintendents.

Thirdly, the WGCSA Board of Directors will be recognizing the influential career of Monroe Miller. Monroe's dedication to Blackhawk Country Club, the WGCSA, WTA and the University of Wisconsin-Madison has impacted all of us in so many ways. We are excited to



use this opportunity to express our appreciation and hope all WGCSA members can attend and help express this appreciation.

Lastly, the Michigan States University's Turfgrass Information File (TGIF) has contacted the WGCSA and has asked and will be granted permission to digitalize all issues of *The Grass Roots* (1975-present) and any other WGCSA newsletters prior to 1975. These digital copies will then be made available within the TGIF. Once completed, all

WGCSA members will have the opportunity to research any topic ever discussed in *The Grass Roots*. This is a fantastic opportunity to share the greatness of *The Grass Roots* with the rest of the turf world.

Fall is here and winter will soon be knocking on our golf courses. Good luck to all in your preparations. See you at the 2008 Wisconsin Turf Symposium. 🌱

“DryJect® aeration/sand injection is tremendous. There's nothing else like it.”

Paul B. Latshaw,
Superintendent, Muirfield Village Golf Club



Only a DryJect® Contractor can help.

See the unique, dynamic pattern of three dimensional channels that are created by a typical DryJect application. The aggressive subsurface changes created allow for air, water and nutrients to feed the root zone like no other system on the market today without disrupting the surface. DryJect has been used on some of the nation's top golf venues including Oakmont, Winged Foot and Merion. Also, the Dallas Cowboys Training Center uses DryJect.

Contact an authorized, experienced DryJect Service Center Contractor and start aerating, injecting or modifying your soil today.

© Advanced Agro Technologies, Inc.; DryJect LLC, 2005



Call today for a free DryJect demonstration.

DryJect®
Only DryJect Contractors can inject while aerating.

For more information contact:
DryJect®
of Wisconsin
Dale R. Steffy
262-812-6036
www.dryject.com

Your career is too important to rely on products that are "good enough." You need **better**. And BASF delivers. Our comprehensive portfolio of products offers control of hundreds of turf diseases, weeds and insects. Control you can trust. **Better** control.

BetterSolutions.

BetterResults.

In the last five years alone, BASF has invested more than \$1.5 billion in agricultural products research and development as well as several hundred million dollars in plant biotechnology. And it shows. Test after test proves we push our products to perform **better**. That's the commitment you can count on from the world's leading chemical company.

That's the bottom line, isn't it? And that's what you'll get with BASF. **Better** turf with maximum efficiency of labor and resources. Put us in your rotation and let us prove it. You'll be **better** off.

BetterTurf.™

For more information, please contact
Dave Oberle at **651-681-8050**.

We Don't Make The Turf.
We Make It Better.™



BASF
The Chemical Company



Buttoning Up for Winter

By Dr. John Stier and Mr. Eric Koeritz, Department of Horticulture, University of Wisconsin-Madison

The cooler days and nights of autumn often bring welcome relief to golf course turf after several months of high temperatures and/or disease pressure. Turf plants start growing better because the cool night temperatures reduce respiration rates. The moderate day time temperatures encourage abundant photosynthesis which is important for producing sugars the plants will store to use for respiration during the winter and renewed growth in the spring. Superintendents take advantage of these conditions to improve the overall health and quality of the turf in preparation for next year.

Follow primary cultural practices

Mowing. All grasses have their optimal mowing heights. Most cultivars of creeping bentgrass perform best between 0.2 and 0.5 inch height of cut, though a few of the newer varieties tolerate heights of 0.125 inch or so quite well. Proper height of cut is important to optimize the leaf area index (LAI), which is a measure of the surface area of leaves as a proportion of the ground area they cover. In tall-cut grass, it's not uncommon to have an LAI of 4, which means there is four times as much leaf surface area for a given ground area (e.g., four square inches of grass leaves per square inch of ground). As mowing heights decrease to putting green heights, the LAI can drop to 1 or less.

In Wisconsin our grasses have to build up sugar supplies to use during the winter for respiration. Respiration is the process of degrading sugar molecules to use for energy. Respiration rates are much lower in the winter than during the growing season, but sufficient sugar production in the autumn is needed to last through the winter as photosynthesis to replace sugars is usually absent until spring. A sufficient sugar supply is also needed at the end of winter to help turf resume growth as cold temperatures can still inhibit photosynthesis even after snow melts.

Proper mowing is essential for enhancing turf plant sugar supplies. One common mistake is to mow lower than normal at the last mowing of the season. Unfortunately, this often removes much of the actively photosynthesizing leaf material which cool temperatures and short daylengths prevent from being replaced. Nearly 80% of a turfgrass plant's sugars are stored in the shoots and leaves. Turf "scalped" in the autumn may not be able to produce sufficient sugars to produce a high quality turf in the spring. While the slower leaf growth rate in the autumn often allows for reduced mowing frequency, mowing should still be con-

ducted so as not to remove more than one-third of the leaf material at any one mowing (i.e., the "1/3 Rule"). If the turf has been stressed due to climatic conditions, excessive play, and/or shorter-than-desirable mowing heights during the summer, raising the height of cut slightly can have significant benefits for turf quality during the autumn and the following spring.

Fertilization. Fall fertilization is commonly used to provide nutrients to the turf when leaf growth rate is slowed but buds for next year's tillers are forming and roots are actively growing. Usually there are two time periods for "fall" fertilization: late August/early September (which is early enough to encourage leaf growth for several weeks so turf damaged in the summer can recover) and late October/late November.

When it comes to support, we have the rubber to meet the road.

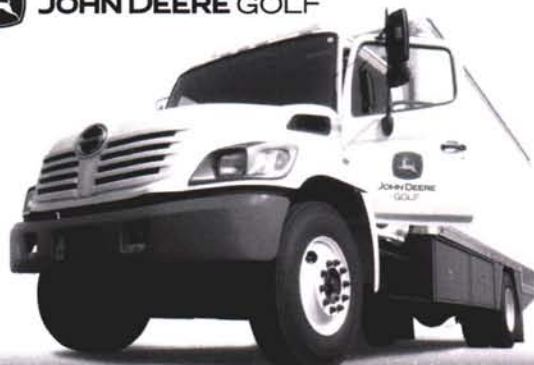
We don't just pay lip service to the idea of great service. We have equipment distributors who have been in the game for decades. A parts network you could set a clock by.

And now, dozens of Stores-On-Wheels® and Golf Sales Reps. Who supply agronomic goods and know-how straight to your course. With the full resources of John Deere Landscapes to back them up.

It's one thing to promise support. We actually deliver. Call 1-800-321-5325 today.



JOHN DEERE GOLF



www.JohnDeere.com/golf

The late fall fertilization should be applied right after leaf growth for the year has stopped (Danneberger, 2006). Fertilizing earlier than this, while the temperatures are still high enough for leaf growth, can encourage leaf growth which depletes the sugar supply and increases leaf succulence (increased water, nutrient content). Succulent leaves are more susceptible to snow mold damage and winter injury (Stier and Fei, 2008). From an agronomic standpoint, both fertilizations should use mostly water-soluble (fast release) N sources. However, what is good for the turf may not be best for the environment. A growing body of evidence indicates a significant amount of the late fall application of water-soluble N may leach past the root zone and possibly contaminate groundwater (Frank et al., 2006; Mangiafico and Guillard, 2006). Generally, no

more than 1 pound, and possibly less, of N/1000 ft² (about 44 lbs/acre) should be used at either one of these autumn fertilizations. Sand-based root zones may not be able to retain much more than 0.5 lb N/1000 ft² from a single application. Dan Lloyd, a graduate student at UW-Madison, is currently researching the amount of N which can be absorbed by creeping bentgrass and annual bluegrass as temperatures decline in the autumn.

Irrigation. One of the ways turfgrasses survive winter is by decreasing the amount of water in their tissues ("hardening"). Cool-season turfgrasses produce specialized proteins in the autumn which can either bind water to prevent it from freezing or, along with sugars, act as antifreeze to lower the freezing point of plant sap (Stier and Fei, 2008). Other specialized proteins form which help protect the membranes of

plant cells from freezing damage. Superintendents can help avoid winterkill occurrence by reducing or eliminating irrigation early enough in the fall to help the turf plants "harden". Persistently wet areas on putting greens or other high profile turf areas should be drained, either by installing drain tiles or reshaping the topography. Otherwise, these areas will likely be the first to winterkill.

Use secondary cultural practices as needed

Autumn can be a great time to improve turf density and quality. Turf killed by disease or environmental stresses can be replaced by either overseeding/interseeding or encouraging surviving nearby grass to spread. Creeping bentgrass is especially adept at spreading onto barren ground as long as sufficient nutrients and water are provided. The number, size and growth of stolons appears

PENDELTON TURF SUPPLY

Ed Witkowski
414-640-6447
pendeltonurf@tds.net

Mike Kozlowski
414-640-2284
mkozlowski1@wi.rr.com

Todd Fregien
414-640-2265
pendeltonurf@tds.net

805 Ela Avenue
Waterford, WI 53185
Phone: 262-534-3334
Fax: 262-534-2990



**FULL LINE OF TURF PRODUCTS
CHEMICALS • TEE & GREEN SUPPLIES
TIRES & TUBES • NEW PRODUCT INFORMATION**

**SATISFACTION
GUARANTEED**

QUALI-PRO

AQUATROLS



EC GROW

**JACKLIN
S E E D**

Riverdale

Jay-Mar, Inc.
Liquid Golf Course
& Turf Fertilizers

to increase as mowing height increases: consequently, creeping bentgrass will often fill in barren areas on fairways quicker than a similarly sized area on a putting green. Stolon development depends on the turf plant having sufficient sugars to expend on stolon production, much as a person's ability to purchase a luxury item depends on their ability to first pay for food, shelter and clothing. Increased mowing heights result in more leaf material which allows the plants to produce more sugars.

Cultivation which slices existing stolons can encourage them to develop new plants from their growing points when the stolons are severed from the mother plant. Overseeding bare areas should either be done in the late summer/early fall or as a dormant

application once all chance of germination has past. Overseeding in the middle of autumn (e.g., early to mid-October) when temperatures are high enough for germination but too few weeks exist for the seedlings to mature can subject the seedlings to winterkill. Dormant overseeding, while usually not as efficient as overseeding earlier in the year, can still be beneficial as the seeds sprout early in the spring (Stier et al., 2008). Interseeding is a term used when seed is introduced into an existing turf stand. A slit-seeder is usually used for interseeding as the furrows cut into the ground and seed is deposited directly into the soil. Seedlings will grow and prosper only when the surrounding turf is sufficiently sparse to not compete with the seedlings for water, nutrients, and space. Interseeding can

either be performed in the late summer or as a dormant event in late fall.

Topdressing is usually applied at the same time as cultivation and/or overseeding/interseeding. Topdressing at this time ensures some soil to stolon/seed contact for best turf growth. Some superintendents will apply a thick layer of topdressing to putting greens just before winter to help prevent winter desiccation.

Synthetic winter covers are increasingly used to prevent winter desiccation instead of topdressing. A variety of winter cover types exist in the marketplace, and it's vital that the correct type of winter cover be used. In most cases, a lightweight, woven cover with small holes for air movement is the best choice. Ideally, covers should be placed on putting greens



Proudly Serving the Turf Industry in Wisconsin

Terra's full line of turf industry products includes:

- Herbicides
- Insecticides
- Fertilizer
- Grass Seed
- PGRs
- Fungicides
(Including Thalonil™ 90DF and 4L)
- Colorants
(Including Terramark™ SPI and Terramark Lake Colorant)

**For the products, services and advice you need,
Talk to Terra**



Terra International, Inc. • 3525 Terra Court • Sun Prairie, WI 53590
Conrad Stynchula CGCS • (800) 456-0948 (office) • (608) 235-4999 (mobile)

Create a More Rewarding Experience.



JACOBSEN® LF-3400™

With Jacobsen's LF-3400™ Fairway Mowers

When your players hit the ball in the fairway, they expect to be rewarded with a great lie. Thanks to its ability to provide **tournament-quality conditions on both warm and cool-season grasses**, the Jacobsen® LF-3400™ gives your players a more rewarding experience with every shot. Optional Turf Groomers™ on the LF-3400's 5" reels enhance your fairways even further and provide **more attractive, healthier turf**. The LF-3400 also provides a more rewarding experience for operators: a simple-to-use joystick delivers precise control of the reels and a servo-controlled hydrostat reduces fatigue. Use the LF-3400 on your turf and your players will look forward to their next shot – and their next round. For more information about the LF-3400 or other superior Jacobsen turf equipment, call your local Jacobsen dealer today or log on to jacobsen.com.

Phone: 608-752-8766

Fax: 608-752-1530

Email: sales@wisconsinturf.com

www.wisconsinturf.com



EQUIPMENT CORP.

Wisconsin Turf Equipment Corp.

P.O. Box 708

Janesville, WI 53548

1.888.922.TURF • jacobsen.com

TEXTRON FINANCIAL



The Official Turf Equipment Supplier to The PGA of America and
The Exclusive Turf Equipment Supplier to PGA Golf Properties.

©2007 Jacobsen. A Textron Company. All rights reserved.

JACOBSEN
A Textron Company

When Performance Matters.™


after the ground has frozen, or at least after all turf growth has stopped for the year. If placed on turf too early in the autumn, soil temperatures can be increased enough to stimulate new turf growth which will often be lush and succulent, and particularly prone to winterkill or snow mold disease. Some superintendents will knowingly use covers in autumn to encourage turf growth if they need the turf to recover from summer damage. This can be a gamble but sometimes needs to be done. More information on winter covers can be found in a previous edition of *The Grass Roots* (Stier, 2003).

Fungicide applications are vital in Wisconsin to prevent snow mold diseases from devastating low-cut turf. The UW-Madison turf pathologists conduct several large fungicide trials across the state each year to provide superintendents with the latest information on the best available products. However, winter thaws which expose turf plants to sunlight may cause fungicides to be degraded before the winter is over, and in those years superintendents correctly wonder if a mid-winter fungicide application is needed. In order to determine if mid-winter fungicide applications are needed during thaws, the UW-Madison turf team received a GCSAA grant this year to research the degradation rates of iprodione (Chipco 26019) and chlorothalonil (Daconil). We will be using an antibody test to measure the amount of fungicide remaining on or in the turf at various periods during the winter and correlate those amounts to snow mold disease. The test works on the same principle as the home pregnancy tests. If our approach works, superintendents might someday be able to use such a test to determine if a repeat fungicide application is necessary.

Ultimately, each golf course situation is unique. Soil types, bud-

gets, grasses, climate, and level of play all create distinctly different challenges which require specialized approaches. I expect this is one of the reasons superintendents are often eager to attend educational sessions whether through the WGCSA, the WTA, the GCSAA, or other venue. One of our responsibilities at the university is to develop and provide the information superintendents need to make decisions for maintaining golf turf at whatever level is needed, including how best to "button up the turf" for winter.

References

- Danneberger, K. 2006. Fall fertilization is fundamental. *Golfdom*. 62:48.
- Frank, K.W., K.M. O'Reilly, J.R. Crum, and R.C. Calhoun. 2006. The fate of nitrogen applied to a mature Kentucky bluegrass turf. *Crop Sci.* 46:209-215.
- Mangiafico, S.S., and K. Guillard. 2006. Fall fertilization timing effects on nitrate leaching and turfgrass color and growth. *J. Environ. Qual.* 35:163-171.
- Stier, J.C., E.J. Koeritz, and M. Garrison. 2008. Timing the establishment of Kentucky bluegrass:perennial ryegrass mixtures for football fields. *HortScience* 43(1):240-244.
- Stier, J. 2003. Covering up for winter. *The Grass Roots* 32(6):5-7
- Stier, J.C., and S. Fei. 2008. Cold stress physiology and management of turfgrasses. pp. 473-506. In M. Pessaraki (ed.) *Handbook of turfgrass physiology and management*. CRC Press, Taylor & Francis Group, Boca Raton, FL. 

*Migratory Bird
Management*



WI: (262) 790-2473
IL: (708) 448-8878
MBMgoose@covad.net
www.wildgoosechasers.com

Specializing in Nuisance Goose/Gull Management

We utilize an integrated management system that combines several techniques and services that minimize the destructive and negative effects of geese.

MBM Stands Above the Rest:

- * Commercially Insured
- * Scientifically Proven Techniques
- * Site Specific Management Program
- * Data Collection, Reporting, and Analysis
- * Staff Biologists
- * Professionally Trained Handlers
- * Licensed Personnel

Email: MBMgoose@covad.net
www.wildgoosechasers.com

MISCELLANY

USGA Mid Am Visits Milwaukee Country Club.

By David Brandenburg, Golf Course Manager, Rolling Meadows Golf Course.

For the second time this summer a USGA event was hosted in the Badger State. Just a few weeks after Erin Hills hosted the Womens Amateur Public Links Championship, Milwaukee Country Club hosted the USGA Mid Am Championship with Brown Deere Golf Course.

The Mid-Amateur was started by the USGA in 1981 as an event for amateur golfers of at least 25 years of age. It provides a national championship for the post-college player for whom the game is truly an avocation. It's not saying the over 25 field cannot compete in the USGA Amateur Championship but it is difficult to compete with the college players for whom golf is a full time activity while trying to juggle a family and career.

The first Mid-Amateur was played at the Bellerive Country Club in St. Louis, MO and drew 1,638 entries. The event has grown in interest and in 2008, 3,839 entries were received from players who have a handicap index of 3.4 or less. Not just for fun the winner of the Mid-Am receives:

- A gold medal and custody of the Robert T. Jones Jr. Memorial Trophy for the ensuing year.
- An exemption from local qualifying at the next U.S. Open, if still an amateur.
- An exemption from sectional qualifying at the next U.S. Amateur, if still an amateur.
- A 10-year exemption for the Mid-Amateur.
- A probable invitation to compete in the next Masters Tournament, if still an amateur.
- An exemption from sectional qualifying at the next U.S.



The bunkering is incredible at the 332 yard par 4 9th hole at Milwaukee Country Club. (Photo by Brian Moesch, Chicago Golf Club)



The bunkering and challenging green surrounds adds to the beauty of Milwaukee Country Club.

Amateur Public Links Championship, if eligible.

- An exemption from sectional qualifying at the next USGA Senior Amateur, if eligible.

The Mid-Am starts with local qualifying at 68 different courses to narrow the field down to 264 golfers. The first two days of the event features 36 holes of stroke