Like many of you, over the years I have enjoyed the occasional visit from Stan Kinkead, president of National Mower and the grandson of the founder, R.S. Kinkead. We have a number of his machines and have appreciated their durability, simplicity and reliability. National was headquartered in St. Paul, MN, but now it is a Wisconsin turf manufacturer, sort of.

Kinkead sold National Mower to the Ariens Co. of Brillion. Ariens is another family owned business going back to 1933. Dan Ariens, current president of Ariens Co., is the great grandson of founder Henry Ariens.

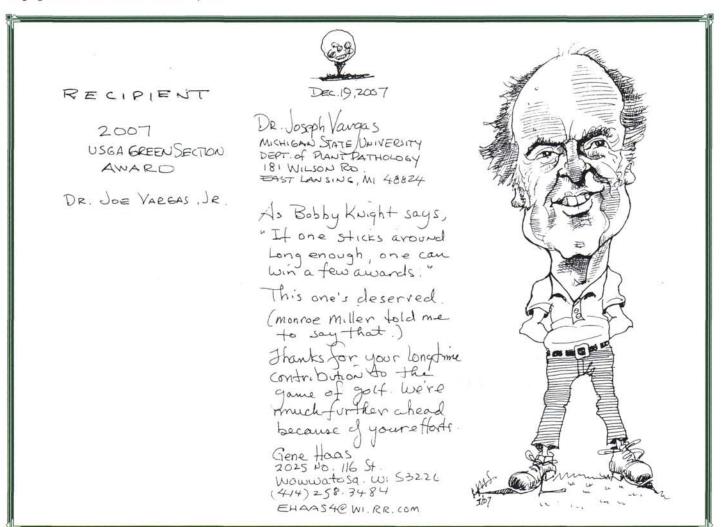
The purchase of the National Mower Company adds to Ariens acquisition of Locke Turf Equipment Co. earlier in 2006, and complements their Gravely line of commercial grass machinery.

Congratulations to Dr. Joe Vargas. He was named the 2007 USGA Green Section Award recipient, and golf course superintendents in Wisconsin have first hand knowledge that he is very deserving of the award. We study from his textbooks, and learn from his seminars and lectures. Dr. Vargas has been a speaker at our WGCSA Golf Turf Symposium, and he has spoken at every Reinders conference since its inception. Two years ago he was at the LESCO pathology conference at The Bull in Sheboygan Falls.

In fact, you will have the chance to hear him lecture in the state in the next couple of months. He will be at the 2007 LESCO pathology meeting on January 31 in Milwaukee and again at the Reinders conference in Waukesha in mid-March.

I hope we have a chance to raise a toast to him and his career at the USGA meeting in Anaheim in February. The meeting is held in conjunction with the GCSAA conference.

If there is one organization I am familiar with that isn't afraid of change, it is the Wisconsin Turfgrass Association. If you made it to this year's EXPO, you know what I mean. The EXPO committee reworked the format extensively, reduced the exhibition hall costs





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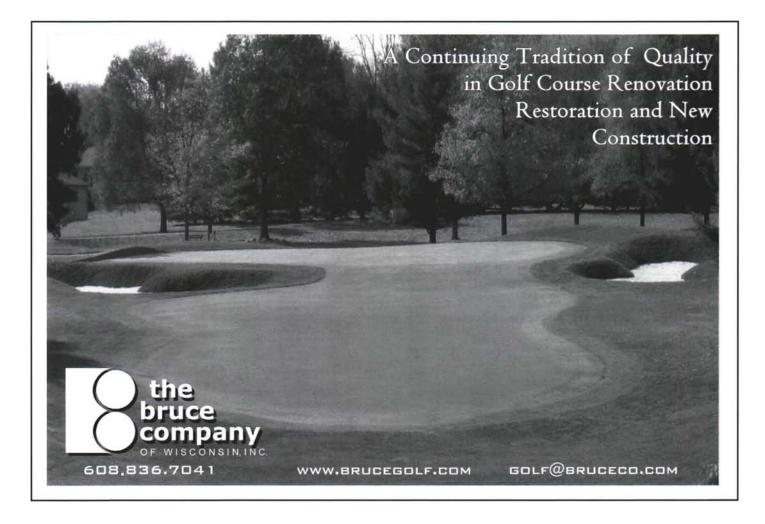
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and ended up with a very convenient, educational and well done meeting. Big thanks to Audra Anderson, Tom Schwab, the WTA directors and the EXPO committee.

If you were there, you really missed a good conference.

Although successful in filling the W.R. Kussow turfgrass faculty position in Soil Science at the UW - Madison, we cannot relax until Geunhwa Jung's position in turfgrass pathology is filled. Industry representatives are in contact with the Dean's office in CALS at the UW - Madison and in the early stages of developing a plan to do that.

And aren't we lucky to have Dr. Doug Soldat back in Wisconsin, studying our many turfgrass issues from a soil science point of view. We will have an interview with him in an upcoming issue so those of you who do not know him will have a better idea of what to expect when you finally make his acquaintance.

There was another huge development on the UW - Madison scene that will offer tremendous help to golf turf pathology. Jim and Karen Berbee have fully funded a Wisconsin Distinguished Graduate Fellowship in Turfgrass Pathology. Jim's father, Dr. Jack Berbee, is an emeritus professor in the Plant Pathology department. More on this wonderful story will appear in the next issue of The Wisconsin Golfer.

The 2006 Christmas season will be remembered most by me as the one when we lost former President Gerald R. Ford. He died on December 26th.

Gerald Ford, the Midwesterner from Michigan, may well have been the most normal president we've ever had. He lived to the ripe old age of 93. Ford will be remembered as the only unelected president and for pardoning Richard Nixon. At a time of tension in our country – 1974 – he was exactly



Emeritus professor Wayne R. Kussow.



USGA Green Section Agronomist Bob Vavrek.



Scholarship winners at WTA EXPO.



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what we needed in the White House.

President Ford had a number of connections to Wisconsin and to golf that are worthy of note. He played Big 10 football for the University of Michigan and won three letters as center. Surely he played at least one game in Camp Randall. Curly Lambeau offered him the chance to play for the Green Bay Packers after watching the East-West Shrine game that Ford played in. Ford turned him down to attend Yale Law School. While attending law school, he also coached football and boxing for Yale. In 1976 President Ford flew to Green Bay to dedicate the cornerstone of the Packers Hall of Fame. After he left office, many Wisconsinites, including WGCSA members got to see him up close at the Vince Lombardi Golf Classic, a fundraiser held at North Hills Country Club in Menomonee Falls. In fact, his first shot of the first day hit a fan who was only 50 yards from him!

My own personal favorite Gerald Ford contact, albeit from a distance, was in Washington, D.C. in 1985 at the GCSAA conference. President Ford was presented our highest honor – the Old Tom Morris Award. Although I tried, the Secret Service wasn't allowing people the chance to get very close to the head table. I really wanted to get his autograph.

His love of golf was amplified when he bought his retirement home in Rancho Mirage, California. It was located on a golf course. The accompanying cartoon, which received wide distribution, says a lot about what many of us feel about him. I cannot imagine that almost all Americans will miss him.

Next up — GCSAA conference and show in Anaheim. I suspect Wisconsin will be well represented there, and The Grass Roots will be there to report on it all. Until the next issue, good luck in getting ready for another golf season. Soon enough the days will be long and the hours we need to spend at work will expand greatly. Put in some extra quality time with the family on these days, won't you?





GCSAA Conference and Show Return to Anaheim



By Monroe S. Miller, Golf Course Superintendent, Blackhawk Country Club

The upcoming GCSAA conference will be the 35th consecutive conference I have attended and, honestly, I am as excited and anxious to go this year as I was back in January of 1973.

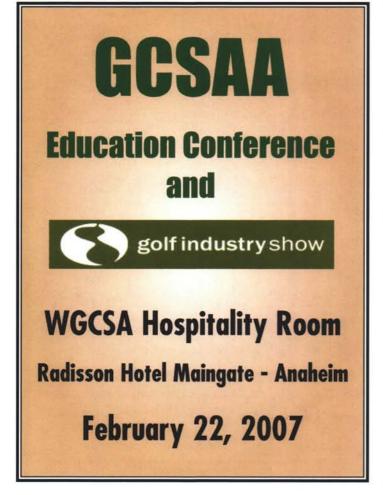
It will be a little warmer at the 2007 conference that it was back in 1973. Nonetheless, Boston was a great venue because of the endless American history the city offers. I can recall lots of complaining about the cold weather, but none of it came from me.

This will be the sixth time I have attended the GCSAA conference in Anaheim. Previous meetings were held in Anaheim in 1974, 1981, 1989, 1993 and 1998. I actually know my way around the area reasonably well. Although it may not be my most favorite place for conference, it is tough to complain about a bit of warm weather now that the cold seems to have returned to Wisconsin.

One thing that makes the GCSAA conference so great is that it constantly changes. The pre conference seminar program is invaluable (as evidenced by its extreme popularity), the educational offerings during conference are tops and the equipment show is unparalleled. It is literally a "Who's Who" in golf turf management. Sometimes it is a "Who's Who" in golf, giving golf course superintendents the chance, over a career, to meet everyone from Arnold Palmer to Nancy Lopez to President Ford.

Books and book signings, camaraderie with colleagues, turf talk and travel, warm weather and a thousand other great features make the GCSAA conference a highlight in my professional year.

DON'T MISS IT - February 10 - 25, 2007! ¥









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2006 A Season of Extremes

USGA

By Robert Vavrek, USGA Senior Agronomist, North Central Region

It should come as no surprise that many superintendents across the Region found the 2006 season to be unusually challenging. Extended periods of hot weather and the ever increasing expectations from golfers for ideal playing conditions will test the fortitude of even the most knowledgeable and experienced turf managers.

The year could not have started any worse for courses located across the northernmost reaches of the Region. Heavy rainfall during late November of 2005 rapidly froze into a several inch thick layer of ice that smothered turf across low lying areas of golf courses. Several feet of snow covered the ice within a few days and snow provided enough insulation to maintain solid ice cover until mid to late March. Courses in localized areas of northern Minnesota and northern Wisconsin experienced as much as 140 days of continuous ice cover.

Needless to say, you can kiss *Poa annua* goodbye after 4 months of ice. Under these extreme conditions, even bentgrass was injured or killed where ice cover persisted the longest. Many courses were faced with the unenviable prospect of initiating an extensive recovery program during initial months of a relatively short growing season.

Just when significant progress was made regarding recovery, a month long stretch of heat and high humidity occurred from early July until early August. The combination of heavy play and temperatures well into the upper 90's caused a relapse of turf injury where seedling bentgrass and *Poa annua* had barely a month of growth and development under their belts. Drought stress, heat stress, and high temperature diseases, such as brown patch and Pythium blight, dashed any hopes of golfers experiencing consistent playing conditions during August and September.

The rest of the Region was generally spared winter injury, but not the stress associated with extended periods of hot, humid weather. Root systems of playing surfaces dominated by *Poa annua* die back in response to increasing soil temperatures. Nobody looks forward to the prospect of managing weak, shallow rooted turf for 6 to 8 weeks of heavy play when the hot weather arrives much earlier than usual.

Early hot weather will jump start insect pest populations. As a result, pests such as sod webworms, cutworms, and ants were particularly troublesome last season. On the other hand, earthworms tend to seek cooler temperatures and more consistent moisture deep in the soil during hot weather. Most courses experienced limited earthworm activity from July through August

until soil temperatures cooled down during September.

Many courses exceeded their annual budget for fungicide treatments before September. Unanticipated treatments needed to be made to control hot weather diseases such as Pythium blight, brown patch, and basal rot anthracnose. Dollar spot thinned out a great deal of turf across untreated green banks, tee banks and roughs during the hot weather. In fact, the persistent dollar spot activity was a surprise to all of us who expect the disease to subside once temperatures reach the 90's. Perhaps the disease complexes are adapting to global warming faster than us.

Fairy ring activity was a concern all summer. In fact, many courses across the country found fairy rings to be the most prevalent disease problem this season affecting both cool and warm season turf. Some treatments that suppressed the rings fairly well in the past did not provide an acceptable level of control last summer. Depending on the course, some classes of fungicides worked better than others. This should come as no surprise considering the variety of fungal species that cause fairy rings.

Warm fall weather extended the golfing season well into December for some areas of the Region. Winter play prompted the usual concerns regarding whether or not to re-apply snow mold fungicides. A few rounds of play won't have much, if any, impact on the effectiveness of systemic snow mold fungicide treatments. However, if a particular course relies heavily on contact fungicides for snow mold protection, then moderate play accompanied by a mowing operation or two during exceptionally mild December weather can be a concern. This was the scenario for several courses in Michigan during December and early January where spring flowers began to break dormancy adjacent to the sunny sides of buildings.

We can only speculate what the impact of warm December weather will have on the quality of turf come spring. Concentrated golf cart traffic across dormant turf will not be pretty. The area around heavily used hole locations will probably be thin and slow to green up. Whether or not the turf fully hardened off before the cold weather finally arrived will likely affect the potential for winter injury. Fortunately, most of the Region experienced significant snow cover just prior to the coldest weather of the winter so far. In fact, we can only be certain of one thing for the 2007 season...that it will bring new challenges.



41st ANNUAL WISCONSIN GOLF TURF SYMPOSIUM

By David Swift, Straits Course Superintendent, Whistling Straits

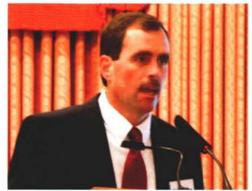
The Wisconsin Golf Course Superintendents Association and the Milorganite Division of MMSD presented the 41st Annual Wisconsin Golf Turf Symposium on November 28th and 29th, 2006 at The American Club in Kohler. The title of this year's Symposium was Getting Down to the Roots.

This year's Symposium brought us a wide variety of presentations regarding the different factors that can influence turf root systems. Dr. Bingru Huang from Rutgers University, Dr. Karl Danneberger from Ohio State, Dr. Doug Soldat from University of Wisconsin -Madison, Dr. Doug Karcher from University of Arkansas, and Dr. Brian Horgan from the University of Minnesota each gave us some research data involving different ways to deal with managing roots. Scott Robinson from Arborcom gave us insight on how to deal with shade issues. Paul Koch from the O.J. Noer Facility reviewed root diseases that can affect roots in Wisconsin. Finally, superintendents Dave Smith from Abbey Springs, Steve Cook from Oakland Hills and Jon Jennings from Chicago Golf Club spoke about their situations and how they deal with root growth.

The 2006 Symposium started out with Dustin Riley awarding three \$500 Legacy Awards to recognize outstanding students and offer educational aid. These awards were awarded to children, stepchildren or grand-children of members of the WGCSA. The awards were given to Andy Shaw, son of Pat Shaw from The Bull at Pinehurst Farms, Jessica Handrich, daughter of Mike Handrich at Racine Country Club and Stephanie Hogden, daughter of Gene Hogden at Ettrick Country Club. Congratulations to all of them.

Dr. Bingru Huang from Rutgers University gave this year's first presentation by giving us a brief understanding on the basics of root growth. Dr. Huang gave a great explanation regarding root systems as they are out of sight and typically out of mind. During the presentation she showed us slides stating how root length is more important that root mass. Dr. Huang went on to talk about research showing that abscisic acid (ABA) applied prior to drought stress delayed wilting during drought. She also explained how foliar spraying of ABA before summer stress could promote better turf quality. She summed up her talk by stating how the basics of root growth are important for managing roots to promote healthy turfgrass.

Dr. Karl Danneberger from Ohio State University then gave us his presentation of "Roots Affected by



President Lyons welcomed everyone to the American Club, Kohler, and Wisconsin.



Mike Handrich accepted a Legacy Award for his daughter Jessica.



Dustin Riley made the Legacy Award presentation.



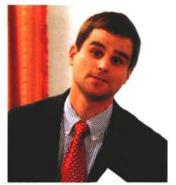
Dr. Bingru Huang travelled a long distance to speak to the Symposium audience.



Few people know that Dr. Karl Danneberger was Professor Chris Williamson's undergraduate advisor.

Temperature." Dr. Danneberger provided us with some amusing opinions on *Poa annua* and bentgrass aerification methods. It was humorous to hear how he believed that the only time to effectively interseed bentgrass into *Poa* greens is in mid-summer. However, after 30 years in the business and several hundred thousand dollars of research he has never seen it work.

Dr. Doug Soldat from University of Wisconsin – Madison then gave us his presentation titled "Soils and Roots." He went on to explain how the soil is a ventila-



Dr. Doug Soldat made his first appearance as a UW-Madison professor.



Dr. Doug Karcher added to impressive roster of speakers.



Paul Koch spoke from his position as the Wisconsin TDL diagnostician.



Minnesota's Dr. Brian Horgan was a first time Symposium speaker.





tion system and the importance of oxygen in the root zone. Later, he stated what Dr. Huang mentioned earlier that "it's not the mass of roots, it's the depth that is important." Lastly, he stated how frequent greens aerification is important for oxygen exchange. He went on to explain how soil based greens need aerification to reduce compaction and improve gas exchange and sand greens need the organic matter reduction to improve the gas exchange.

Dr. Bingru Huang finished Tuesday's session with another talk titled "Rooting Physiology." Dr. Huang showed us some of the effects on mowing heights and root growth. She then explained how high soil temperature is more detrimental than high air temps. She left us with an interesting slide of an *Agrostis scabra* plant she found near the geysers at Yellowstone National Park that can survive at soil temperatures of 50 degrees C!

To begin Wednesday morning's session we were fortunate to hear a talk titled "Shade and Roots" from Scott Robinson with Arborcom. Scott taught us some valuable tips to communicate to decision makers about how to decide between keeping trees and having quality turf. Scott explained many different ways to deal with shade issues by properly trimming trees. It was great to hear several of his recommendations, including concentrating on layers when giving recommendations and how crown reduction is great for light penetration.

Dr. Doug Karcher followed by presenting research involving wetting agents and roots. The research included the use of sensor based irrigation and the effects of irrigation at different moisture levels in the root zone. The take home message concluded that with the use of surfactants, water requirements for bentgrass were greatly reduced. In his study, wetting agents helped in maintaining high quality turf with less water. He proved how sensor based irrigation was actually effective at irrigating based on soil moisture. Hopefully, more research will be done regarding sensor based irrigation so that superintendents can benefit from its use in their future programs.

Dr. Brian Horgan then gave an interesting talk titled "Fertilization and Roots." Dr. Horgan focused on how nitrogen fertility can influence *Poa annua* roots in the upper Midwest. It was great to see him get everyone involved by humorously putting us all on the spot regarding our different fertility programs. He showed us his research on positive responses when using ammonium based nitrogen sources in the summer compared to nitrate forms of nitrogen. The research also proved that while not efficient, foliar fertilization had the best turf results while plants were under stress. We were left with a better understanding of how different forms nitrogen can affect turf roots.

Paul Koch from the O.J. Noer Turfgrass Facility presented "Disease Affecting Roots." Paul gave us a good review of how we typically treat our foliar and root diseases. During his talk, Paul reviewed how many of the diseases we deal with can be difficult to identify through



Veteran Wisconsin superintendent Dave Smith was part of the panel.

slides. Based on evidence that the Noer Facility has received, the four typical turf root diseases we see in Wisconsin are take all patch, necrotic ring spot, summer patch and a new disease that has been showing up over the last several years, Pythium root dysfunction. While there is much more to learn about this new form of Pythium, it seems to be most common in our area during the establishment of Velvet bentgrass greens.

Wednesday's afternoon session was wrapped up with a panel of superintendents giving their perspective on how they manage roots. Dave Smith from Abbey Springs Golf Club, Steve Cook from Oakland Hills Country Club and Jon Jennings from Chicago Golf Club each gave us a wealth of information regarding how they maintain championship conditions and root systems on their greens. While each of the three had different programs, it was common among the three to maximize any use of frequent or infrequent aerification equipment to aid in root growth. As it's always great to learn veteran superintendents manage turf, it's a relief knowing how each program's successes can indirectly be related to each other.

Finally this year's Symposium was ended with Bob Vavrek from the USGA Green Section giving his annual Symposium Roundup. It's always great and very educational to listen to Bob share his thoughts at



Steve Cook in addition to managing American golf course, also spent time in Europe as a greenkeeper in France.

the end of the Symposium. We are fortunate to be kept up to date on the latest trends in the area as Bob visits over 100 courses annually.

To conclude, this year's Symposium was another success.



Jon Jennings spoke about his experience in Chicago and the northeast.

In today's world, we too often get caught up in the daily grind. With whatever the pressures are that we face each day, we must not forget that what is out of sight must not be out of mind.



"NAW. WARM WEATHER IN JANUARY DOESN'T WORRY ME. IN FACT, I HOPE IT MEANS WE'LL GET SOME SNOW IN JULY!"