

2012 Northern Great Lakes Educational Conference

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

I am not able to attend every year but I can say every year I have attended I have found the Northern Great Lakes annual educational conference to be well worth the investment of time, money and travel. The event is held in Wausau each spring and the group does a great job in bringing in great speakers and timely topics.

The day started with election results from the business meeting the day before. President Swonger announced the desire to conduct a member survey and they would be calling on members to serve on that committee.

It did not take long to get down to business as Dr. Richard Latin started his talk on Bacterial Wilt. Dr. Latin discussed how he has been the long time member at a club in Indiana and understands and appreciates the superintendents difficult job as they deal with golfer gripes.

Unfortunately not much is known regarding bacterial wilt and turfgrass. It is near impossible to recreate in research plots so most of the information is anecdotal and gives no real solution. The

turf undergoes a random pattern of rapid growth of young leaves with no color to them.

The bacterial disease started on annual bluegrass but is primarily just been a problem on intensively managed creeping bentgrass greens during wet summer periods. The question remains is bacterial wilt a disease or just the consequence of something else?

Bacterial diseases are a big problem on fruits and vegetables and bacterium numbers in the soil can be in excess of 100,000,000 in one gram of soil.

Bacteria need a wound or natural opening in the plant while fungus can bore into the leaves and stems. Without that opening the bacterium can live on the plant without infecting it or causing any problems.

Due to the challenge of recreating the problem there is no proven cure thus far. Products that work in agriculture do not work on turf and often cause phytotoxic problems. North Carolina State is recommending superintendents change their agro-

nomic practices to reduce bacterial wilt.

By mowing higher, rolling more, lightly topdressing and syringing before the plants are under stress the incidence of bacterial problems are reduced.

Next up was John Miller CGCS of the GCSAA Field Staff to update the group on the national association. Miller gave a history and update on the field staff program. The field staff is allowing for greater communication and a direct voice for chapter needs to be heard at the national level. It also helps to develop programs to help chapters while expanding the golf course superintendents role as a leader at the golf community.

Miller spoke on the many ways GCSAA helps chapters and individual members through its advocacy on government relations and public policy as well as industry wide initiatives to expand the game to new and returning players.

John finished with a update on the ever changing rules regarding NPDES and applications of products near and in water.



Newly elected Chapter President Randy Swonger, Trout Lake Golf Course began the conference with association news.



Dr. Richard Latin, Purdue University spoke on Bacterial Wilt and Fungicide Efficacy.

ACROSS THE COUNTRY

The new regulations are still being developed and are different from state to state. Overall the program is national but they are regulated locally by the Wisconsin EPA and DNR. Miller suggested Wisconsin Superintendents could call Jeff Brauer from the DNR at 608-267-7643 for more information.

John finished with a update of the coming conference and show in Las Vegas where over 100 different sessions and 129 speakers will be available for attendees.

Miller handed the microphone back over to Dr. Latin for a engaging discussion on Factors Affecting Fungicide Efficacy and Performance. Dr. Latin discussed why fungicides work sometimes and why they do not under the same scenario at other times. The main factors are:

- How the product is applied. (rate, equipment, nozzles, timing and water volume).
- Depletion or degradation from weather, temperature and sunshine.
- How much disease pressure is present.
- Is the disease resistant?

Latin explained coverage is very important as fungicides can only attack the fungi at the tip or growing point. Fungi can grow longer but not wider and over time the fungi wall becomes too thick for the fungicide to enter. This lead to a discussion on timing and why preventative products can give better control than curative products that are applied after the fungus has expanded.

Fungi are always present and fungicides do not kill the majority of individual fungi. When the fungi recognize the fungicide is attacking it starts shutting down sacrificing the outer cells in order to live another day when environmental conditions are right.

Next Dr. Latin discussed degradation and how the active ingredient of a 28 day fungicide is broken down by microbial activity. By day 14 most of the active ingredient is gone and by day 21 it is all gone. By that time the turf is at the mercy of environmental conditions. Under normal conditions it should be fine but in high disease pressure the symptoms of infection will soon be noticed. This rapid depletion of a product explains the premium put on product application and timing.

The discussion then switched to fungicide resistance. In Dr. Latin's work he has never found a dollar spot fungi resistant to chlorothalonil and suspected cases had other factors that led to the application failure. He as other pathologists have seen that if a fungi is resistant to one class of fungicide using DMI as an example they are resistant to all DMI's regardless of the active ingredient. Overall Dr. Latin gave the group a lot to consider as they plan their 2012 fungicide program.

Next up was Dr. Derek Settle discussing Waitea Patch. Dr. Settle works for the Chicago District Golf Association at the Midwest Golf House in Lemont, IL. The CDGA has over 400 member clubs and 80,000 members. Settle does his research at the golf houses 3 hole "Sunshine Course" and off site at local golf courses.



Above: John Miller, Field Agent GCSAA

Below: Dr. Derek Settle, Director of Turfgrass Programs, Chicago District Golf Association



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The panel consisting of Bill Stein, Minocqua Country Club, Steve Spears, St Germain Golf Course and Ken Smith, Eagle River Golf Course take questions from the audience.

Waitea patch is also known as brown ring patch or warm temperature brown patch and is caused by *Waitea circinata* var. *circinata*. The symptoms are very close to yellow patch only the yellow ring is more crescent in shape. The plant initially turn yellow then brown and reddish as the disease progresses.

The first symptoms start to show in mid to late May when soil temperatures hit 55-60 degrees.

Research has shown DMI and QOL fungicides often worked well while chlorothalonil did little. Work done by Dr. Frank Wong in California has shown a 1 pound application of nitrogen often negates wait-ae symptoms.

It is possible one of the reasons the disease is now showing itself is because of lower overall nitrogen applications on putting greens. There has been no correlation found between Waitea Patch incidence and growth regulators. Allowing turf to reach water stress levels can increase symptoms so proper watering is encouraged.

The panel topic was "Dealing With Winter Damage" after the tough winter and spring in 2011. Bill Stein, Golf Course Superintendent at Minocqua Country Club started the talk off with his presentation on

the challenges at Minocqua Country Club where on many holes the green surrounds drain onto the greens covering them with ice each winter. In 2011 as many years the staff staked the low areas in the greens and when water became a problem used ice augers to drill down to non-frozen soil to allow the water to drain.

With early ice they often snowblow the greens off and use black sand or sunflower seeds to help melt the ice.

After the damage Bill decided to sod some of the areas but that came with its own problems as lots of topdressing, special mowers were needed to eliminate scalping and often the new sod would die in August.

For 2012 Minocqua is trying impermeable covers on 7 greens to keep the water off the greens. The challenge is putting them on after the turf has hardened off but before winter has started. The covers can weigh up to 600 pounds and take 5 guys to move and put in place.

Ken Smith Golf Course Superintendent at Eagle River Golf Course presented how in 2011 12 of his newest greens built to modified USGA specifications in 1986 had damage while the 6 pushup greens did not. 6 of the greens had 60-70% damage so it was no small task to prepare for

recovery.

Ken over-seeded with a Ryan slit seeder in 4 directions and choose to cover the 7 worst greens. This led to some local complaints but we needed to produce the temperatures needed to promote germination and recovery. If he had to do it over Smith would aerify with quad tines and keep the covers on longer.

The covered greens recovered well by July but by August with traffic and heat the young turf began to decline and algae moved in. 2 of the north facing greens with shade and air movement problems caused by trees declined the most.

Ken said it was a surprising experience as even long time golfing friends ignored him and went out of their way not to talk to him during the recovery time.

This year Ken is using 6 green jacket covers and 2 evergreen covers. Under the evergreens the turf is froze but under the green jackets the turf is not frozen so the staff uses blowers to vent the turf every 10 to 15 days.

The final speaker was Steve Spears, Golf Course Superintendent at St Germain Golf Course. Steve was quick to point out the spring of 2011 was the worst of his career as the course received unexpected substantial damage to every green. The greens at St. Germain had settled over time leaving pockets for water to sit in and freeze. In this case Steve blames the turf loss not on ice cover but on the crown hydration in late December as turf saturated from rain and slush quickly froze.

Spears and his small staff inter-seeded new grasses in while raising the height of cut and pushing the turf with higher N rates. Unfortunately the cold spring and early summer slowed recovery and without covers the greens suffered.

The greens were 50% recovered by the 4th of July and 90% at the end of the year. The damage caused a 40% reduction in revenue for the year to the benefit of surrounding courses.

The panel and speakers provided great information and I would recommend the spring conference to anyone. Head up on Sunday and ski Rib Mountain and relax at the hospitality night while talking grass. 