



# The Symposium Did We Predict the Future in 1994

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

The 45th Annual Wisconsin Golf Turf Symposium titled *Golf In The Year 2010; Did We Predict the Future* gave attendees a unique look into our industry over the past 15 years and more. It was a recap of the 1994 Symposium titled, *Golf in The Year 2010, The Game, The Job, The Challenge*. We were fortunate to have Steve Mona and Nick Christians back as speakers.

The technological advances have been incredible in equipment, fertilizers, plant protectant materials, irrigation, grass development and high quality turf maintenance. Who would have thought putting greens would ever be mowed at 1/10th of an inch?

On the negative side who would have considered the economy would have affected the golf industry as much as it has with budget cuts a reality for most in attendance and a few attendees already laid off for the winter. These members are left wondering how they will accomplish their offseason work when they return in the spring.

Steve Mona, Chief Executive Officer of the World Golf Foundation and former 14 year Executive Director of the Golf Course Superintendents Association of America gave the keynote address, "The Golf Industry: Past, Present and Future".

The talk started with disturbing news on how since 2000 the number of golfers has dropped from 30 to 27 million while even more concerning the number of core golfers has gone from 17 to 15 million. Those core golfers are the games primary spenders and the most likely to buy clubs, balls and apparel from golf shops.

The National Golf Foundation and Golf DataTech show overall rounds played have dropped 9.5% over the past 10 years.

The construction of courses has all but stopped after opening over 200 courses a year from 1988 to 2003 with a peak of 400 new openings in 2000. For the past 5 years course closings have outpaced openings by 208 18 hole equivalents.

The negatives continued with research from The National Golf Foundation showing golf consumer confidence and retirement confidence are both down and consumer's frugality is on the rise. In the long run frugality is a good virtue but in an economic downturn it does slow recovery.

As an optimist and a leader in the global golf industry Mono then turned to what the industry is doing to recover the lost rounds why he feels recovery is coming. With the following programs in place the keys are in set to allow new and casual golfers to expand their interest in the game.

Golf 20/20 is the collaboration of all golf organizations to lead the industry into the future.

Get Golf Ready encourages adults to enter the game at their local clubs.

We Are Golf brings the golf industry to congress to show the benefits of the games and the effect golf has on the economy. For instance golf is a \$1.2 billion industry in Wisconsin.

Image of the Game brings the positives of the golf industry to the media including the \$3.5 billion in annual charitable giving from the golf industry each year.

The First Tee and National Schools Program promotes golf to inner city kids and middle and high school around the country.

Golf's Drive Toward Sustainability is the environmental branch of the World Golf Foundation bringing the message of golf's positive environmental benefits to the world.

Mona discussed how surveys of current non-golfers show 27% of them have some or increased interest in taking up the game of golf. Wisconsin is a leader in the golf industry with a participation rate of 15.2% of adults in comparison of 9.6% for the national average.

Mona finished his talk with what superintendents can do to help their clubs and the industry improve overall.



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Focus on Facility Success – Understand how your department affects the entire facility.

View Yourself as Part of Your Facility’s Senior Management Team – Don’t be afraid to offer advice and opinions at your club drawing on your experiences in the golf industry.

Proactively Participate in Industry Growth Initiatives – Encourage club leaders to participate in beginner programs and events to bring more players to the course.

Lead Your Facility’s Environmental Efforts – Be sure to help spread the word about your clubs positive impact on the environment.

Next up was Dr. John Stier, Chairman of the Department of Horticulture, University of Wisconsin – Madison with a talk titled “The Future Was Not What We Thought”. John reviewed some of the visions of the USGA and GCSAA in 1985.

The group had forecasted improved turf varieties that would use 50% less nutrients and water and that most landscaper turf would be watered with non-potable water by now. Some courses especially in the southwest are using non-potable water and research on drought tolerant grasses continues but we are not quite as far as expected by 2010.

Dr. Stier updated us on current research with Texas Bluegrass, Fescues, Velvet Bentgrasses and True Putt the first commercially available Poa Annua. It seems the True Putt and the DW-184 from University of Minnesota have not been successful in the field and most research on improved varieties from seed has stopped.

The federal government put a moratorium on Biotechnology and work with roundup ready bentgrasses and short growing bluegrasses due to concerns from advocacy groups.

Other ideas from the past that never took off were the Hovercraft to replace golf carts to reduce compaction as featured in the Oct 1986 issue of Golf Course Management and the laser cutting unit.

Electric mowers are half here but not quite 100% reliable yet and biological controls for insects are available but have not proven effective on a reliable basis.

Dr. Stier ended with a quote from Robert Adams and John Rooney in their article “*Evolution of American Golf Facilities*” where they stated “If means are not developed to counter the rising costs, American golf may become once again what it once was, a game for the privileged few.” The amazing thing was this article came out in 1985!

Terry Yamada, Executive Director, IPM Council of Canada joined us to shed some light on the extreme and quick changes to pesticide regulations in Canada. The issue started locally but once emotion and politics got involved it grew to a national issue with the turf industry on the losing end of it.

It only took 6 months for Ontario’s Bill 64 to go from



**Seed Research of Oregon's  
Dr. Leah Brillman**



**Dr. Nick Christians,  
Iowa State University**



**Mike Kenna USGA Green  
Section Director of  
Research**



**Bob Lohmann, President  
Lohmann Golf Designs**

a simple proposal to law banning the use of most turf protectant used for cosmetic purposes. Golf courses can get an exemption from the ban but only under stringent requirements including IPM accreditation programs, written reports from daily scouting pass an 80 question exam and show proof of sprayer calibration three times per year.



**Dr. John Stier, University of Wisconsin – Madison**



**Steve Mona, CEO, World Golf Foundation**



**Teri Yamada, IPM Council of Canada**



**The Panel – Chad Kempf, Mike Semler and Dustin Riley**

Courses are checked for compliance and must have a certified IPM agent on staff as well as certified pesticide applicators. An annual report must be prepared and a public hearing must be advertised in the local paper with invitations to those within 100 Meters of the property.

Terry suggested we take the new Canadian regulations as a warning to develop our own IPM Accreditation Program so our industry is ahead of the game when regulations start to be developed. In order to be successful she suggested we:

- Involve appropriate government officials early in the process.

- Use programs like the Audubon Cooperative Sanctuary Program to develop relationships with regulators and environmental groups.

- Spread the messages that pesticides are expensive and that we only use them if absolutely necessary to maintain our playing fields.

- We should engage our customers (voters) early in the process to allow them to communicate with elected officials.

The day finished with Bob Lohmann, President and principal architect at Lohmann Golf Designs and the talk titled “Then and Now – 20 Years of Golf – Where We’ve Been and Where We Might Be Going”.

Lohmann started with a review of some historical articles including one from Pete Dye in 1985 saying the golf ball needs to be shortened and we needed more lower maintenance courses and another from Golf

Digest discussing the vanishing golfer and how new players would be found in 1986.

It was in 1989 that the National Golf Foundation stated the industry needed a golf course a day for 20 years to keep up with demand. Of course that has not worked out like they planned and not enough entry level courses were included in the building boom. It was also in 1989 that Alice Dye stated courses are just getting too long for the average player not due to increase length but due to watered fairways reducing roll. Dye presented that a ball hit on un-irrigated fairways rolled 33% the flight after landing so a 200 yard drive would go 266 yards but only 13 yards on irrigated fairways or 226 yards for a 200 yard flight.

Bob also presented information on design work, speed of play, playability, renovations, club design and how changes have been made to course routing.

In forecasting the future Lohmann offered, China will break the record for course openings in one year, the US will see 750 courses close by 2020 and last but not least The Taco Buffet at Pine Hills during the Wee One will be finally recognized for its culinary genius.

Wednesday morning started with Dr. Leah Brillman Director of Research & Technical Services for Seed Research of Oregon gave a talk titled Turfgrass Varietal Improvements – 20 Years of Improvements. Leah Started with bentgrass and presented how mowing heights have changed over time with greens in 1947 mowed at .250”, 1994 at .125” and in 2010 at .100 to .125”. She warned superintendents that NTEP trials

dated 1994 used turf mowed at .250 while most trial results from 2010 are at .125 or a more common mowing height.

Leah presented the new cultivars need less nitrogen and water after establishment but high density varieties need more topdressing and aeration to avoid high thatch levels and puffiness. Varieties that show good spring and fall color usually compete with *poa annua* the best because they can outgrow the weed when it is most active.

Brilman's key for the new bentgrasses is to push the sand and hold

the water. Breeders are having success with Colonial and Velvet Bents in the United Kingdom and select places in the US. Both turfs use less water and nitrogen but velvet bents produce more thatch.

The new Kentucky Bluegrasses can easily tolerate half inch mowing heights due to their increased density. Leah said the bluegrasses are split into types with compact and mid atlantic types being suitable for fairway use. More info on all manufacturers types can be found at the Seed Research Website. Tenacity is a good tool for keeping *poa annua* out of

bluegrass areas and Brilman suggested if you want bluegrass to be your primary grass only use mixes that have less than 15% rye or it will take over.

Dr. Brilman warned the group that some breeders are growing large quantities of low quality low cost grasses to make a quick profit. The more end users buy these products the harder it is for quality breeders to justify bringing high quality grasses needed for golf and sports turf to market. Leah offered many varieties are discontinued because there is not a constant market for the improved varieties. She encouraged attendees not to get taken in by low cost seed.

Leah presented a wealth of info on ryegrasses and fine and chewing fescue and the advances in both species.

Next on the docket was Dr Mike Kenna, Director of Research, USGA Green Section with a talk titled "USGA Perspective on Turfgrass Environmental Research, Past, Present and Future. He discussed a few of the hundreds of turf research programs the USGA has sponsored and how in turf research not everything comes to fruition as some ideas are abandoned as unfeasible. The USGA has been involved in the improvement of all major turf species and the improvement of the newer species seashore paspalum, buffalo-grass and inland saltgrass.

In comparison to Leah who discussed turfgrass breeding Mike presented information on Molecular Genetics and Biotechnology to improve plants. Genetic engineering is faster than breeding to successfully alter a plants characteristics and it is already accepted in crops with roundup ready corn, soybeans and alfalfa. Unfortunately turf has hit a roadblock with the USDA not letting Roundup Ready Bentgrass come to market.

Some of the most important research the USGA has sponsored has been on pesticide fate and transport of applied products. In reality pesticide leaching was found to rarely

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be a problem due to the products breaking down in the soil however surface water runoff can be a problem in areas of heavy soils and high rainfall. Drain tile filter beds have been found to reduce phosphorus runoff from 1ppm to .35ppm.

The percentage of golf courses using non-potable water for irrigation is nearing 20% today in comparison of 1% in the 1970's. Kenna presented the pending water crisis will effect golf throughout the country in the near future. The effects of human expansion and growth are not felt until there is a drought and then it is too late for golf courses to fend off new regulations.

The recent problems in Georgia and the quick response by the golf industry developing BMP's (Best Management Practices) for irrigation should be a lesson for the entire golf industry. Without BMP's and proper planning a golf courses will be at the mercy of an emotional public during drought times. In a political crisis emotion trumps science every time.

Mike reviewed the value of research and the many books about the environmental impact of golf and how the TGIF library at Michigan State is an excellent resource for golf course superintendents to use to better their own operations.

Kenna finished with the statement "The USGA is working on problems you don't know you have yet".

David Brandenburg, Golf Course Manager at Rolling Meadows Golf Course gave a talk titled Golf Course Maintenance in 2010, How Did We Get Here? Brandenburg visited with 6 golf courses with long time superintendents to find out how the technological and economic changes in the game have affected their courses.

David Smith, 29 years at Abby Springs, James Breidenbach, 18 years at Abbey Springs, Bill Rogers, 20 years at Evergreen Golf Course, Tom Harrison, 42 years at Maple Bluff Country Club, Bruce Worzella, 30 years at West Bend Country Club, Doug Devries, 29 years at Reid Golf Course and Pete VanDeHey with 44 years at Mid Valley Golf Club participated in the research.

Brandenburg started with how equipment and turf management technology evolved with the change from gang reel mowers to specialized rotaries and 5-plex fairway reel mowers with groomers and roller brushes to enhance cutting quality.

Improved irrigation technology and advances in fertilizers and plant protectants allowed turf managers to provide near perfect conditions regardless of weather. These improvements were welcomed by golfers but came with a price of higher labor costs and increased investment of inputs.

All of the golf courses represented have been affected by the economy in different ways but a few common themes came from the group. Fewer inputs are being spent on the rough areas and fairways are being watered and fertilized just enough to make them green to avoid plush turf. These cutbacks on fairways are a way to reduce mowing frequency while still providing good conditions.

Most of the courses used growth regulators on greens, tees and fairways with primo the regulator of choice to enhance plant health while reducing growth. Most of the courses at one time had tried to eliminate poa annua with regulators but at this time they are embracing the turf they have.

Topdressing just light enough to not bother the customers but heavy enough to make a difference and rolling were the keys to greens maintenance and happy customers.

With labor encompassing up to 75% of maintenance budgets superintendents are challenged to get labor intensive jobs done with the current budget reductions. Many of the courses used a small full time staff supplemented with seasonal retirees and students working less than 40 hours per week.

One course found a small but well paid Hispanic crew that returned year after year to be worth the investment in wages and permitted overtime. The returning employees formed an excellent team and needed little supervision or training due to their experience. This freed up the management team to concentrate on agronomic issues and planning rather than constant supervision of employees.

Overall the experiences these men have had on their courses have allowed them to hone their skills and through basic agronomic principals along with trial and error they learned what is best for their properties.

Dr. Nick Christians from Iowa State University titled his talk, "A Look To The Past and The Future – 2010. Dr. Christians was a speaker at the symposium in 1994 and from his memory every prediction he gave in 1994 worked out except he missed the effect of the economic recession! He did predict the recession will end as they all do and the sun will come out again on the turf industry.

Nick started with an educational and entertaining look at the past and future of pesticide development. From the dangerous heavy metals that provided long term broad spectrum control on diseases, to today's single site products made from organic compounds allowing them to break down in the soil into harmless compounds. So far most biological products have been difficult to use and less than reliable in grass but has found success in corn when it is placed as a gene in the plant.

Christians turned to Poa Annuia and shared information from his 1996 Golf Course Management article "85 Years of Attempts to Kill Poa Annuia", and his update in 2008, "Annual Bluegrass Update: 12 Years Later". In review Christians admits attempts to eliminate this pesky weed grass have failed over the years.

Nick felt that molecular work with grasses was going to expand rapidly and that the release of roundup ready bentgrass would be approved by the USDA's Animal and Plant Health Inspection Service (APHIS) opening the door to a rush of new turfgrass varieties.

The panel discussion featured Chad Kempf, Epic Creative, Dustin Riley, Oconomowoc Golf Club, Mike Semler, The Bruce Company.

Chad discussed what brought about his change in career from turf to behind a camera with Epic making commercials and educational video programs for the turf industry. In his current job he travels around the country and finds that the superintendents at the top facilities have excellent communication and people skills to help them in their high profile jobs.


Mike started with how customer demands have changed in the business with customers expecting more day in and day out. He uses time studies to document jobs to provide information he can to their courses committee and let them decide what jobs to cut when they want to reduce payroll costs. Semler also discussed how time is the biggest detriment to golf today as golf courses compete for player's spare time in a busy society.

Dustin discussed how budgeting has changed at their club and how it has helped him to have well documented information for the decision makers. So far if he offers an improvement for the club they tend to find a way to pay for it, however every expense needs to be justified not just listed and approved.

As tradition dictates Bob Vavrek, USGA Green Section Agronomist finished off the 2010 symposium with his annual recap of the speakers take home message along with his own ideas. Vavrek added the importance of superintendents being able to write and take pictures or videos to keep in touch with customers and members. Communication should be regular as needed but just long enough to get the message out.

Bob also offered the most courses do not apply enough topdressing annually to combat thatch development. 15 to 20 years ago courses would aerify twice a year and use 60 to 80 tons of sand each time on a typical 18 hole course. With changes in aerification frequency and using smaller tines courses really need to work to apply the same amount of sand. Vavrek did not think the ultra light topdressings even when preformed weekly added up to a suitable amount of sand.

Thank you to the symposium committee who works all year to bring the lineup of speakers to the event. This year's members are; Brett Grams, WGCSA Chapter Manger, David Brandenburg, Rolling Meadows Golf Course, Chad Harrington, Autumn Ridge Golf Course, Danny Quast, DHD Tree Products, Dr. Doug Soldat, UW Madison, Bob Vavrek, USGA Green Section and the ladies from Milorganite who make us all look good, Shelley Mazurek and Jaime Staufenbeil.

Overall this year's event was educational and entertaining while allowing attendees to spend two days at Kohler's American Club. Make plans now to join us for the 46th annual Wisconsin Golf Turf Symposium next November! 

## ELIMINATE GUESSWORK WHEN SPRING FEEDING

Spring fertilization varies greatly on a number of factors. Cultural practices performed, soil amendments made, irrigation and drainage upgrades, fertilizers applied, and what happened last fall plays a significant role with this season's success. However, having a sound fertility program will provide you with your best chance of success for the upcoming season.

Typically, spring applications are applied after the early flush of shoot growth has occurred, but predicting spring weather can be a challenge when it comes to soil and air temperature, and precipitation. That's why choosing a fertilizer that performs in cool climates is so vital.



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Although fine-tuning a spring fertilization program varies on many factors, its importance will be felt all summer long and even into the fall. The benefit of using an all-weather, long-lasting performer such as UMAXX provides immediate benefits, as well as a positive long-term impact. UMAXX gives the freedom to apply as a nitrogen component in a blend or part of a soluble fertilizer program. UMAXX offers consistent performance regardless of temperature or application type.

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