

## Operational Reports — Lessons learned from 2005 continued...

# Racine CC Greens Management Programs 2005

By **Mike Handrich**, Golf Course Superintendent, Racine Country Club

The 04/05 winter proved to be devastating on golf turf all throughout Wisconsin. A thunderstorm in southeastern Wisconsin on January 12th, 2005 dumped close to one inch of rain on top of 11 inches of snow cover. The melting snow in combination with the driving rain turned our golf course into a running river of water. On January 14th the temperature dropped from the mid 30 degree range to two degrees in a very short time frame. This resulted in Racine Country Club being 85% encased in ice. Most of the ice remained well into the month of March.

Every green was covered with a two to four inch thick layer of ice, and the majority of tee and fairway turf resembled ice skating rinks. In February we began removing snow from the greens to expose the underlying ice. The smell of decaying turf under the ice was very pronounced on certain greens. At this point I knew we needed to remove the ice from greens; we had already lost some turf, and I needed to get the word out to the membership fast.

Fortunately, many other superintendents were also in the same boat. In mid-March, Jerry Kershasky, veteran superintendent at Westmoor CC, did a brilliant job in organizing a meeting where USGA agronomist Bob Vavrek, and UW-Madison turfgrass professor John Stier discussed at length the causes and effects and repercussions of winterkill. The

meeting was very well attended with over 200 people in attendance. The meeting was a great educational forum for managers and officers alike. After the meeting, representatives of Racine CC went home understanding and expecting losses from winterkill.

Based on the smell and appearance of the turf after the ice was removed, I knew we already lost some turf. I also felt that there would be three keys for a successful recovery:

1. Good and strong communication to the membership and my staff.
2. We needed to take the proactive approach rather than being reactive.
3. We needed to take this negative and turn it into a positive by bringing the course back quickly.

I explained to my staff of the ravages of winterkill and that no apologies were necessary. We needed to attack the problem head on, be confident in our abilities, and have a strong desire to succeed.

In mid-February we used a backpack sprayer to apply spray pattern indicator to the ice encapsulated greens. The dye in combination with sunlight did a remarkable job of loosening the ice. Once loose, the ice was removed with ice picks and shovels. The low lying areas lacking drainage and areas receiving the least amount of sunlight throughout the winter sustained the most kill. Our

biggest challenge was germinating bentgrass quickly during a cold and dry Wisconsin spring. We seeded early and then we had to find a way to **limit the limiting factors** for germinating seed which were low soil temperature, unavailable nutrients, and a lack of moisture.

On April 6th we quadtined all fairway areas suspected of winterkill. The holes from aerification provided excellent warmth and protection for germinating seed. PennTrio bentgrass was seeded at 2 lbs. per thousand square feet with a rotary spreader, Milorganite and starter fertilizer. The areas were then topdressed with 70 percent sand/ 20 percent peat/ 10 percent soil construction mix. On April 20th the areas were covered with seed guard for heat and moisture retention. On May 5th, the covers were removed. **The bentgrass was so thick and high we needed push mowers to mow it down.**

All greens were quadtined, overseeded with L-93 bentgrass, and then topdressed on April 4th. On April 6th we opened a badly damaged golf course to walkers with six temporary greens which remained covered. At this time the course was not good, but the members could plainly see we were already on our way to recovery. All throughout April we fertilized, syringed, mowed, covered, uncovered, topdressed, spiked, and overseeded all damaged green areas. On April 29th we recorded a 19 degree tempera-



ture difference (65 degrees vs. 46 degrees) between covered and uncovered green surfaces. April was very cold, but under the covers the newly emerging seed was growing quickly! Our sound cultural practices in combination with the protection of the covers provided the perfect environment for the re-establishment of bent grass on our greens.

On May 7th, all greens at Racine CC were open for play. On May 29th our greens were all 100 percent back and averaging 10.5 feet on the stimpmeter. Other keys to our timely and successful recovery were:

1. Slow healing *Poa* colonies were regularly cupped out to the edges of the greens for faster recovery.
2. The greens were topdressed on a regular basis.
3. The worst greens were kept covered during cold days and nights.
4. Temporary greens were utilized when and where needed.

I can confidently say that we took advantage of every single heating degree day and ray of sunshine throughout the recovery period. Timely syringing in the afternoons paid big dividends going into the evenings. We certainly were aggressive in growing grass versus maintaining it. We were not shy in closing and covering any area that would benefit from that. We were confident in our practices, we stuck to our convictions and we felt we were on an important mission to bring our course back as fast as humanly possible!

As for managing our greens throughout the year, simply put, we manage for the root system. Our main goal is to keep as much oxygen in the soil as we possibly can. We routinely core aerify in the spring and vertidrain with solid tines in the fall. I believe the

most important decision we make as turfgrass managers is the amount of water we supply on a daily basis. We water timely and judiciously, and we hand water wherever possible. In doing so, we avoid compaction and retain the maximum amount of oxygen in the vital root system.

In regards to fertilizer, we use about two pounds of nitrogen per year. We spoonfeed throughout the growing season, and we treat greens individually according to their intrinsic needs. I like using a variety of products in order to take advantage of unique chemistries and nutrient ratios and packages. I like taking the golf course into winter "mean and lean" to avoid possible top growth during periods of mild weather.

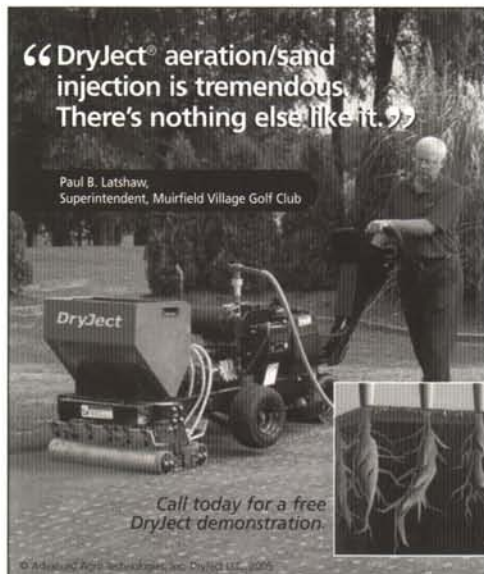
Our spray program is very simplistic with chlorothalonil as the backbone. Generally speaking greens are sprayed bi-weekly with a combination of broadspectrum contact and systemic fungicides. We spray on the low end of label rates and never spray when conditions are adverse for doing so. We regulate our greens bi-weekly with Primo. Our cutting height is constant at .120 inch, and we double

cut and roll when necessary. We topdress in accordance to growth rates of cool season grasses, more in spring and fall and less throughout the summer.

In summing up our management practices at Racine CC, we do what we need to do agronomically for the management and proliferation of healthy turfgrass. I believe that sound management practices are accumulative and when repeated year in and year out championship playing surfaces are the end result. The year of 2005 was a success at Racine CC. We showed our members our capabilities as turf managers under very difficult circumstances. Today most of our members have forgotten which greens and how many were temporaries last spring; however, they all remember the great playing conditions they had last summer. Every golf course superintendent loses turf during his/her career, some more than others. I believe job success and security are not directly related to the amount of turf lost. Rather the most successful people are the good communicators and best leaders. 🌿

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