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Welcome to Fox Hollow Golf Club

By DOUGLAS DIETER

I would like to welcome the membership to Fox Hollow Golf Club on May 10, 1993, for the monthly meeting/golf outing. Fox Hollow Golf Club is a Joel Goldstrand, links-influenced design, adjoining the Crow River in Rogers, Minnesota.



With a base of 100 semi-private members, the preceding golf season generated 40,110 rounds of golf with revenues exceeding expenses in this third full season.

Design features include:

- Penncross fairway targets.
- Vertical variation in greens.

- Double green/double fairway at hole 17.
- Links-inspired bunkering.
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- Number 3 island green.

The challenge at Fox Hollow is evidenced with a slope rating of 128, yardage of 6,702 with six golf holes bordering the river.

Having served as Superintendent from 1988 to 1991, I have passed that responsibility to Chuck Molinari, and assumed responsibility for golf operations. As G.M. my staff includes golf professional, golf course superintendent and food and beverage manager.

The Fox Hollow enterprise is held by two local businessmen and thus sensitive to cost-effective management. The 1993 maintenance budget is \$264,167.00 with part-time mechanic and seasonal assistants.

Upcoming capital improvements include:

- Future development of adjoining 9 holes.
- Concession building at 1/10 tees.
- Grading improvements at holes 16 and 17.
- Bunker renovations.
- Concrete cart paths.

Due to grading alteration, hole 16 will play par 3 during your event. The fairway target has been tilted to allow water movement out, as the river recedes.

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Leachate Study—

(Continued from Page 6)

On an annual basis, 20.3 inches or 90,879 gallons of rain fall on green 7 and generate an estimated 2,181 gallons of leachate. This volume of leachate will transport an estimated 0.05 pounds of phosphorus, 0.04 pounds of nitrogen, 0.000025 ounces of Chipco, and 0.000048 ounces of Daconyl to the ground water. Multiplying this by the 27 greens on the Baker National Course results in an estimated 1.4 pounds of phosphorus, 1.1 pounds of nitrogen, 0.00007 ounces of Chipco and 0.00013 ounces of Daconyl moving into the groundwater from all of the golf course greens annually. The Baker National Golf Course is approximately 300 acres in size. The small quantity of nutrients and fungicides leaching downward over this large an area is not considered significant.

The concentration of phosphorus in the leachate water was much higher than expected, exceeding the nitrogen concentration in the majority of samples. This was surprising given that nitrogen is very soluble and mobile in the soil but phosphorus is not. It is generally thought that phosphorus is bound up by soil particles and does not migrate through the soil. The leachate data from this study however, indicate that if high enough concentrations of phosphorus are applied to an area, the adsorption capacity of the soil can be exhausted. This appeared to have been the case in 1990 when 102.5 pounds of phosphorus were applied to Green 7. The 102.5 pounds on the 7,180 sq. ft. Green 7 is equivalent to 650 pounds per acre, much higher than University of Minnesota recommended application rates. The results suggests that if over-fertilization of turf with phosphorus occurs, the excess phosphorus is available to leachate water and potentially to surface runoff.

As stated in the results, some data was lost due to lightning strikes. During 1990 and 1991 the data logger was placed underground on top of the sample box. Although the data logger is insulated, electrical currents generated by lightning were apparently able to short the computer memory of the meter. In 1992 an above ground housing was constructed for the data logger and no memory crashes occurred.

The lack of sample data collection in 1990 was due to a problem with the analytical laboratory. In order to minimize study costs, the sample analyses were included with a bid proposal for a Minnesota Pollution Control Agency funded project. The bid documents required that the laboratory have a PCA-approved Quality Control/Quality Assurance Plan and specified minimum detection limits, sample holding times, and a time line for reporting results. The private analytical laboratory selected through the bid process was able to meet all these criteria.

Water samples were sent to the lab in early June, 1990, but test results were not reported until late July. The data received from the initial lake samples was very questionable. Phosphorus concentrations in some sampled lakes were twice as high as historical records indicated they should be, and algae levels were five times less than anticipated.

Investigations into the problems revealed that the laboratory was using improper calibration curves when analyzing samples. Unfortunately, by the time the problems were discovered, the golf course samples had also been sent to the lab. Since no background exists on the expected quality of the golf course leachate, it was not possible to determine the accuracy of the reported results. However, because the lake data obtained on the same dates is erroneous, the golf course data are suspect.

A second problem with the laboratory was its lack of direction relative to the sample volume necessary to perform the required analysis. Three weeks after delivering samples to the lab in bottles supplied by them, we were informed that an additional liter of sample was required to complete the fungicide analysis. Unfortunately, all excess sample water was discarded once the sample bottles were filled. Therefore, no fungicide analysis was done in 1990.

Conclusions

The amount of fertilizer and fungicides lost from Green 7 by leachate does not appear to be significant. The lack of movement of significant amounts of contaminants from Green 7 was a function of the small amount of leachate generated by rainfall events. Data from the study indicate that most of the rain which fell on Green 7 left as surface runoff. Although the study data was collected from only one green, the results indicate that even if contaminant movement were an order of magnitude higher, it would still not be significant relative to the area over which it is spread.

The concentration of phosphorus in leachate samples was much higher than expected. The high concentrations are probably a result of the excess amounts of fertilizer which were applied to Green 7 in 1990. The high concentrations of phosphorus found in the leachate water suggest that phosphorus movement off of turf areas with surface runoff may be significant if excessive amounts of fertilizer are applied. Testing of soil nutrient levels to determine fertilizer needs could avoid potential runoff quality problems.

Treatment of leachate water from golf course greens, if desired, would be fairly simple because of the small quantities involved. Collecting the rainfall leachate water in a small manhole, similar to the one installed at Green 7, with a subsurface tile line and then reapplying the water to the green or adjacent fairways between rainfall events would prevent any fungicides or nutrients from reaching the ground water from golf course greens.

Since runoff from greens and presumably from other areas of golf courses appears to be significant, future research programs initiated by the MGCSA should focus on the quality of surface runoff water. Monitoring of nutrient and pesticide levels in runoff water from golf courses could help to eliminate the perception that golf courses are sources of pollution.



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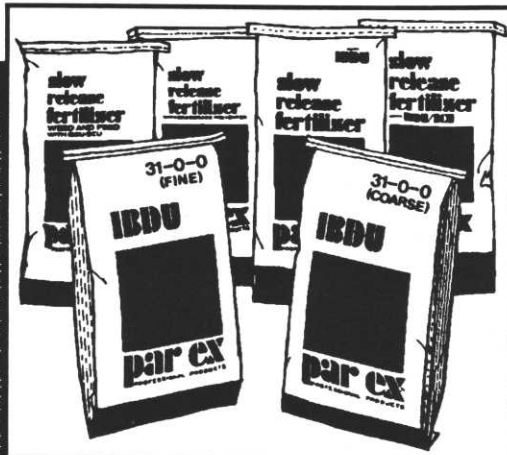
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Boots—

(Continued from Page 4)

A. Don't ever give up. No matter how bad it gets, stick with it. I remember that first year back from teaching, when Dad was in the hospital, I'd be frustrated with the crew or the members. I'd go up to get some advice, or just to vent my frustration, and he'd say, "Just stick with it, Boots. Do your job, and don't let them get to you. It'll get better." There was more than once that he talked me out of calling my former school superintendent to ask for my old teaching job back.

Q. You obviously learned a lot of your golf course management skills from Irv and by jumping in and doing the job. What is your formal educational background?

A. I have a Bachelors degree in History Education from Mankato State, a Masters degree in History from Mankato State, a Masters in Economics from the University of Missouri and a Counseling degree from the University of Wisconsin/Whitewater. My education in turf has been through seminars and conferences conducted by the state and national organizations, and by the "school of hard knocks."

Q. With all those degrees, what made you return to the golf club?

A. As trite as it may sound, I think this profession does get in your blood. I enjoy being outdoors, and the diverse areas of expertise that are required to maintain a golf course seemed to be the perfect challenge for me. There were many friends and acquaintances that I had made earlier through my dad, and those people seemed so genuine and inspired that I knew they were on to something. There was also a great deal of pride in knowing that I would be carrying on a tradition by following Irv. On the other side, it seemed to be a good time to get out of teaching for a number of reasons.

Q. Let's see, your dad was at the club for 43 years, and you have been there for 19 years plus many seasons prior to that. Is there any disappointment that one of your children didn't aspire to take over for you when you retire?

A. Not really. I knew from my background in teaching not to direct the kids in any certain direction. All of the boys worked for Irv or myself as night waterman. My oldest, Rick, had given some thought to pursuing the profession, but he opted for a degree in law enforcement. I also had two nephews who watered at the club, but neither of them was interested in golf course management as a career. My only concern was that the job be filled by someone who cared a great deal for the club—you know, they had a place in their heart for this golf course.

Q. What has been the most rewarding part of your tenure?

A. Meeting and working with people in this industry. I can't say enough about the friendships and relationships that I've made over the past umpteen years with other superintendents, salespeople, educators and allied professionals, who genuinely care not only about the industry as a whole but about each other individually. The tremendous camaraderie that exists in this profession is truly unique. Just knowing that if you need help with something that there will be someone willing to assist; or conversely, that someone may need assistance from you—leads to a great deal of satisfaction in this job.

Q. What has been the biggest challenge in your career as a golf course superintendent?

A. The greatest challenge is trying to keep up with the changes in the industry. The pace at which technology advances are determining the way we manage our courses is staggering. Also, the pool of information regarding the plants, pests and pesticides and how they interact is growing very fast. Decisions that once were made by instinct or "gut" feeling are now made from studying scientific data. Laws and regulations are being formulated on an almost daily basis, and keeping up with them seems to be an endless task.

Q. There have been a lot of rumors and speculation as to the status of your health, Boots. Can you give an update as to how you're feeling?

A. As you know, I was diagnosed with a form of Lymphoma last April. I've been through 12 chemotherapy treatments since then—each four weeks apart. Unlike many of the stories you hear, I felt pretty good all through this period. There were days when I'd get tired easily, but there wasn't any of the severe nausea that can be associated with the chemo treatments. At my last check-up, the doctors could find no signs of swelling in the lymphnodes. For this reason, they believe that it is under control, and I'm not going to need any further treatments unless there is a change. I can tell you that I feel as good now as any time that I can remember. So for today, things are great.

Q. What are your plans for the future?

A. One thing is for sure, and that is I'll be traveling a lot. I plan on getting to Mexico again next year, and also to Alaska. I will continue to live in Mankato, and I may work in some capacity or another just to stay busy. I've never been one to sit around and vegetate, so don't look for that in my retirement. I will be active.

Q. Boots, I would like to take this opportunity to publicly thank you for being a great mentor, coach and friend. I personally owe you a great deal of gratitude for expanding my horizons and knowledge. I've learned many things from you, but I think the thing that you've instilled in me is the spirit of dedication...dedication to the club, to the association and to staff members. Thanks.

EDITOR'S CORNER

By John Harris
Lafayette Club



In my editorial in the April issue of *Hole Notes*, I predicted that most of us would be open by the time you received your copy of this publication. Well, might I say "April Fool." If there was a positive side to the coolish (sometimes snowing) weather pattern, I'm sure fuel consumption was down at your facility.

Many of us have experienced poor results with winter protectants on certain areas of our golf courses. Dale Wysocki is collecting information in regard to this matter, and he has a special memo for the membership that appears in this issue. Be sure to read it and send him your "tired, your poor and your hungry." As the mercury deadline draws near, additional knowledge on what works and what does not will be important to all.

At Lafayette most of our winter kill came in the form of snow mold in poor-draining areas of our fairways. Our 4th fairway looks as though we did nothing to treat it last fall. Also, our topdressing cover on two of our greens accumulated in the low areas, and the end result looks like crown hydration or simply cold temperature kill. I have not had a great deal of success this Spring, and our April weather pattern has only complicated our present situation.

It's times like these when you must bite your lower lip and apply every bit of knowledge, energy and consultation with your peers. Lift yourself back into the saddle and, as my ground staff would put it, "Let's rock."

* * * *

The Conference and Education Committee, chaired by Bill Whitworth, CGCS, has recommended to the Board that we take our Annual Conference to downtown Minneapolis. The committee felt a move now to the Minneapolis Convention Center would benefit our Conference and the membership in many ways.

An article by Butch Greeninger in this issue details the committee's interest. Although there was some disagreement among Board members on the matter, we, as professionals, should look at this objectively. Bill and his committee have studied this matter very carefully, have used your input and certainly will accept any future input, both pro and con, to make this a successful event.

* * * *

In the past we have received requests from outside sources concerning the possibility of receiving *Hole Notes*. Therefore, we are going to begin selling subscriptions to non-members. I felt this is a good opportunity to promote our association to so-called "Friends of Superintendents." This will give them better insight on what we're about, and

what we, as professionals, are doing to promote the game of golf and preserve our environment.

* * * *

Last but by no means least, our monthly meeting in Mankato was met with an all-day rain. However, "Boots" Fuller was honored that day for his long and outstanding service with that club and his contributions to the MGCSA.

At the Mankato meeting, Boots expanded on his life and times, and his recent bout with cancer in a short acceptance speech. (See Fred Taylor's excellent interview with Boots in this issue.) We all wish the best of everything to Boots.

* * * *

See you all at Fox Hollow on May 10.

— John Harris, Editor



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