July 31, 1998

WINTERS RUN GOLF CLUB
Bel Air, Maryland

PRESENT: Walter M. Smith, Assistant Superintendent
Bob Hedrick, Golf Professional (briefly)
John Drew, Golf Course Superintendent
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It was a pleasure to visit and tour Winters Run Golf Club on Wednesday, July 22, 1998. The following report is offered as a summary of the major topics discussed and will also include those observations and recommendations/suggestions made during our half-day visit.

At the risk of sounding patronizing, this agronomist actually looks forward to visiting your golf course. For one thing, a wide range of topics is always discussed. Most center around the latest in turfgrass maintenance and management practices and programs but also include topics which are even quite philosophical and thought provoking in nature. True, there seldom are dull moments during one of our visits. That is good. There is any number of ways to grow grass on a golf course. We feel strongly that it is through this exchanging of ideas that programs and procedures can be developed to solve those problems which do exist on the golf course, for an even better facility in the future.

It will therefore be the primary purpose of this report to detail a number of points made during our visit to, again, solve problems and suggest ways to make a good golf course, an even better one. Our observations and recommendations to achieve these goals will be detailed in the following report.

GREENS

1. After studying the pattern of wilt on a few of your greens and in discussing all the different scenarios which took place this spring, it is the firm opinion of this agronomist that what thinned the grass on a handful of greens was a phenomenon we call Wet Wilt.

Basically, Wet Wilt occurs through long periods of saturated soil conditions. It should always be remembered that water replaces air in soils. The longer the soils are saturated, the less oxygen exists in the soil and eventually, when the sun does come out, hot water (which does not hold any oxygen) literally results in the roots collapsing and dying. Thus, you have a restricted rooting system for supplying water to the leaves and if there

is a deficit the grass literally wilts from lack of water when the soils are in fact, wet, soggy and over-saturated. It is a root-rot/ root loss problem.

To support this theory, it was noted that the sand-base greens (with better drainage) were not affected. Those old-style greens where drain lines were installed were also not affected. Those greens where some drainage work has been done were less affected and those greens that do not enjoy good drainage were affected the most.

That is our read on what happened. It was simply the result of prolonged soil saturation when the area received over two weeks of measurable rainfall each day. The soil became saturated, the roots were damaged and when the sun came out and the weather became hot and humid…there just was not enough rooting system left in those greens with poor drainage to supply the plant with enough water. The grass wilted, pure and simple. What to do?

There is absolutely no doubt about it. Those greens on your golf course that do not enjoy good internal drainage, like the Fourteenth, Sixteenth, Seventeenth and potentially even the Ninth, need to have drain lines installed. This is a good fall project. Mr. Drew and his staff are experienced in the installation of these drain lines. Almost assuredly, the same set of circumstances will occur one day in the future so, by having drainage in the greens, this type of turf thinning can either be avoided altogether or at least made less severe. It is important work, which should receive high priority status for a project to be planned this fall.

In the short term, continue an aggressive spoon-feeding program to speed the recovery of the grass on the greens. The fact that we saw so many horizontal runners shows that the bentgrass is spreading out, creeping over the remaining thin areas. True, with the amount of fertilizer being applied to the greens to speed recovery, green speeds are lower but this is a small price to pay, in our opinion, for recovery.

Finally, we could not agree more with the plan to keep spot plugging the greens with grass either from your nursery or from the outer edges of the greens. This too can help speed recovery.

Finally, if the same scenario would occur again…once the rain stops, try to spike, quadratine, solid tine, HydroJect the greens. Basically, try to dry them out. Then, begin a weekly, if not biweekly, soluble fertility program to literally, regrow roots.

Hopefully, we will not see the same set of circumstances anytime soon and, with the installation of drain lines in the greens you will significantly reduce the potential for water logged soils to damage roots which then affects the grass upon which the game of golf is played.

Hope this helps, there may be little satisfaction in knowing that Wet Wilt was seen on more than a few golf courses this year…that is why it was so easy to diagnose once we saw the greens, sampled the soil and discussed the common denominators associated with the problem.

2. Speaking of green speeds, as more and more new courses are being built with new generation, dwarf creeping bentgrasses on them, we do sense added pressure on the older golf courses to have faster green speeds. Mr. Hedrick is correct. There is a new standard out there. The problem is…just how fast can the existing greens be made to putt without adversely affecting the health of the grass and changing the playing characteristics of the greens for, really, a relatively small segment of the golfers?

The next section of our report will deal with a number of ways to enhance green speeds short of literally rebuilding, regrassing or resodding the greens to these new generation creeping bentgrasses. In no special order of priority:

A. *Topdressing*. Topdressing helps to smooth and true the putting surfaces for better putting green quality. Topdressing, especially if you use a sand-base material, is also the addition of a sandier rootzone on top of the older base soils with which most of your greens were originally constructed. Thus, topdressing can be good for the playability of the greens and also for the maintenance of the greens. The only downside to more topdressing is that it involves purchasing more topdressing material and topdressing increases the amount of maintenance work that must be performed, on your putting green mowers. Topdressing is highly abrasive. Mechanics hate such a program!

In any case, the more the greens can be topdressed…the better they should perform in both the short and long terms. It would not be out-of-the-question to lightly topdress the greens every two weeks right through the grass growing season skipping, obviously, the hottest weeks of the summer.

B. *Growth Regulators*. Growth regulators are interesting tools in managing grass on greens. They can be used to both suppress Poa annua and also, to make it stronger. Thus, you have a choice in products. Also, you can and, in your situation, perhaps should integrate products like Scotts' Turf Enhancer which is applied in the spring, fall and over the winter to differentially stunt Poa annua while allowing the bentgrass to spread. It is a good program that should be continued.

However, the Scotts' technical representative is correct. Turf Enhancer is harsh on Poa annua in the summer so, during the peak play summer golfing season; it is best to avoid this growth-regulating compound.

Another growth regulator like Primo could be substituted for Turf Enhancer in the summer. This material is far safer to your combination bentgrass and Poa annua greens. In fact, the product does not even claim Poa annua control on the label…some even say Poa annua enhancement actually occurs.

The point is, Primo is a growth regulator that can be used on greens in the summer to enhance green speeds. It is a program worth considering perhaps for next season.

C. *Mowing Heights*. While it is true that, in the short term, simply mowing the greens closer will make them putt faster, however, it is the long-term consequences of mowing the greens too closely for too long of a time, with the old blend of grasses you have in your greens, that concern us.

Agronomically, the only way the greens can be cut significantly closer would be to replace the existing grasses with newer, modern bentgrasses. Unfortunately, this is easier-said-than-done.

As mentioned earlier in our report, you can always exercise the option of rebuilding/fumigating and regrassing or resodding your greens. By any Measure, this is a big program.

The other option would be to interseed these new grasses into the existing greens. Here again, it is easier-said-than-done. In fact, this agronomist completely agrees with Mr. Drew, that simply overseeding into the existing greens is nothing short of an exercise in futility. However, an innovative technique to establish grass in greens is being tested at Penn State University. Here is the essence of the program, which has only been tested for one year.

During late August to early September, the greens are scalped-down to less than 1/8 inch. Actually, the lower the better. This physically cuts out some of the taller grasses and allows for the preparation of a good seedbed.

Once the vegetation has been removed, the greens can be aerated using the smaller quadratines, Job Saver tines, etc., then sliced and overseeded with relatively heavy rates of these new creeping bentgrass…at least 2 lbs. of seed /M sq. ft., if not a bit more. The greens are then lightly topdressed with a sand/peat material to mulch the seed.

Once the seedbed has been prepared, a Full labeled rate of Primo is then applied to stunt the existing vegetation. This allows something approaching 4-6 weeks of inhibition to the existing grasses which allows the new bentgrass

to germinate and become established.

Again, this is all preliminary data. We plan to monitor the progress of this work to see how adaptable it is to existing putting greens. Also, if this program is ever considered, we absolutely agree with Mr. Drew that no pre-emerge herbicides for crabgrass and goosegrass control should be applied to the greens for at least two seasons. The currently available preemerge crabgrass killers do a good job of controlling crabgrass and goosegrass seed. Creeping bentgrass is also extraordinarily sensitive to herbicide residuals so…any such program realistically could not be considered until the fall of the year 2000. Time will tell, but it is gratifying to know that work is being done to find ways to establish these newer grasses into older greens without major reconstruction efforts be it via resodding, rebuilding or regrassing. We will keep you informed on how these programs are performing.

D. *New Grasses, already discussed.* Basically, there is a new generation of dwarf grasses like L-93, Crenshaw as well as the "A" and "G" series from Penn State University. Here again, we will monitor how these new grasses are performing under actual conditions of play. That is why the USGA has constructed 16 test greens across the country to see, in the field, how these new grasses are performing. It is interesting research.

3. The fungicide spray program for the greens was discussed. Basically, the recommendations made include starting your Aliette and Fore applications a bit earlier in the spring and continuing them a bit later in the fall. The idea is to have Aliette in the grass plant, as a true systemic fungicide, to protect the grasses rooting system when they are growing at their best…in March, April, October and November. Yes, a few more applications should be considered but, agronomically, if better roots are developed then this is money well spent.

In summary, the basic spray program for the greens would be monthly applications of Aliette tankmixed with Fore (or similar contact fungicides) during the months of April, May, June, July, August, September, October and, depending upon the weather… November and March.

One final point. To control Anthracnose in the greens, you are already on the best possible fungicide spray program that can be recommended. Heritage is an excellent fungicide as well as Cleary's 3336 and Daconil. Agronomically, we are not sure what you can do, differently, to affect a higher level of disease control. Normally, Anthracnose is only a minor problem anyway, no doubt, potentially induced by preemerge applications but…that is another topic! As with so many things relating to turfgrass management, there are always trade-offs which must be weighed. Do you not apply a

preemerge herbicide to deal with crabgrass and goosegrass in greens? Do you apply a preemerge herbicide that increases your sprays for Anthracnose? The choice is yours.

4. As we toured the course, it was gratifying to see just how well the banks around the greens have responded to more fertilizer. These so important to play areas now enjoy a good stand of grass. Nicely done…again, money well spent.

5. While on the subject of fertility, sand-base greens do seem to respond to dormant feeding. Here again, it was good to learn that the staff felt that these dormant fertilizer applications benefited the greens. Perhaps for this year, the rate of Milorganite could be increased by an additional ½ lb. of actual nitrogen /M sq. ft. for a total of 2 lbs. of actual nitrogen, applied twice as a dormant feed. Give it a try, you have little to lose but potentially much to gain.

6. In answer to Mr. Smith's question, the best way to develop thatch on the Third green is to both be patient and topdress this green less. How much less? In our opinion, this green should receive half the topdressing the other greens receive. This should accelerate the accumulation of organic matter (thatch) in the upper profile of the soil. Unfortunately, sand-base greens are very efficient systems. It takes time to accumulate organic matter. Perhaps less topdressing and the before-mentioned heavier dormant feeding programs (more fertilizer) will accelerate the process. Again, it is certainly worth a try.

TEES

Your course has some of the best tees we see on any public golf course.

At the time of our visit, there were no outstanding problems noted with any of the tees. Indeed, to reuse a word…the tees were outstanding! They definitely are one of the strengths of your golf course. Keep up the good work. Your tees are performing just fine.

FAIRWAYS

1. You are right. Part of the mechanism for Poa annua control in fairways when using the herbicide Prograss is a cold winter. The colder the winter the better the product works. The reverse is also true.

The mild winter of 1997-1998 meant that Poa annua suppression and control programs using Prograss simply did not work very well. Do not lose faith in this program…two applications should be scheduled for this fall. Hopefully the weather will allow both applications to be made and the cold winter to follow will control even more Poa annua!

2. In answer to Mr. Smith's question, yes, on any of the lower fairways that traditionally have had a history of goosegrass/crabgrass problems, a good case can be made to spot treat these areas with the preemerge herbicide like Dimension, Barricade or potentially, the same blend you used on your greens…Ronstar and Bensulide. As mentioned, it has been our experience that you can germinate perennial ryegrass through these compounds. It is bentgrass and Kentucky bluegrass that has difficulty germinating through even small amounts of preemerge herbicide residuals.

GENERAL RECOMMENDATIONS

1. If there is an area on the golf course that is responding beautifully to your fertilizer/ preemerge herbicide program…it is, the roughs. Without the crabgrass killers, we are sure there would be more crabgrass in the roughs versus turfgrass. Nicely done.

2. In planning for the fall, it may be necessary to fertilize the roughs with a fairly inexpensive product to help the grass recover from this year's extended period of heat and drought. The roughs are taking a beating and some fall fertilization will help them recover. It is just a thought. Yes, it is a bit more grass to mow but…these applications should help the roughs recover and actually, develop a better stand of grass in them for the future.

CONCLUSION

In closing, we do hope our visit and this report help to solve those problems you do have, working towards an even better golf course in the future regardless of the weather extremes this region of the country seems to be experiencing.

This concludes our summary of the major topics of discussion during our visit and tour of your facility. If any questions arise concerning this visit, our report, or any other area, please feel free to contact our office. We are here to help. At this time I would like to thank you for the hospitality extended to me during my visit. It made touring your golf course and discussing your programs all the more enjoyable. We look forward to working with you again in the future and seeing how things progress.

Sincerely,

Stanley J. Zontek/m
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Director

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