

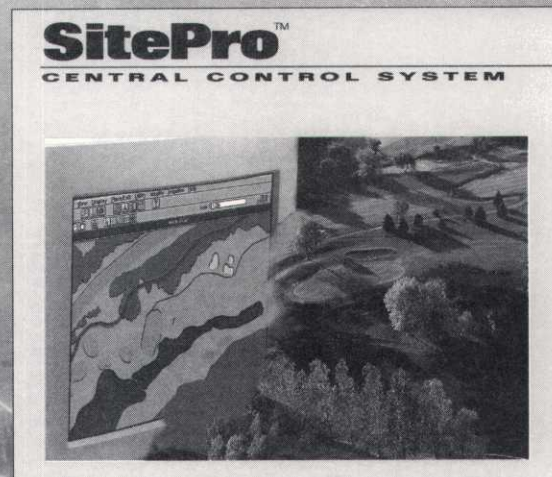
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MGCSA Turf Student and Legacy Scholarships for 2000-2001

By JOHN QUEENSLAND
MGCSA Scholarship Chairman

The MGCSA Scholarship Fund, originated in 1987, now is taking applications for the 2000-2001 scholarship year.

The MGCSA scholarship is an annual grant awarded to candidates interested in golf course management as a career, have high scholastic capabilities and have superior performance as an employee on a golf course. Students meeting the following criteria are encouraged to apply.

Turf Student Scholarships will be available to students completing the first year of a two-year turfgrass technical program or students completing the second year of a four-

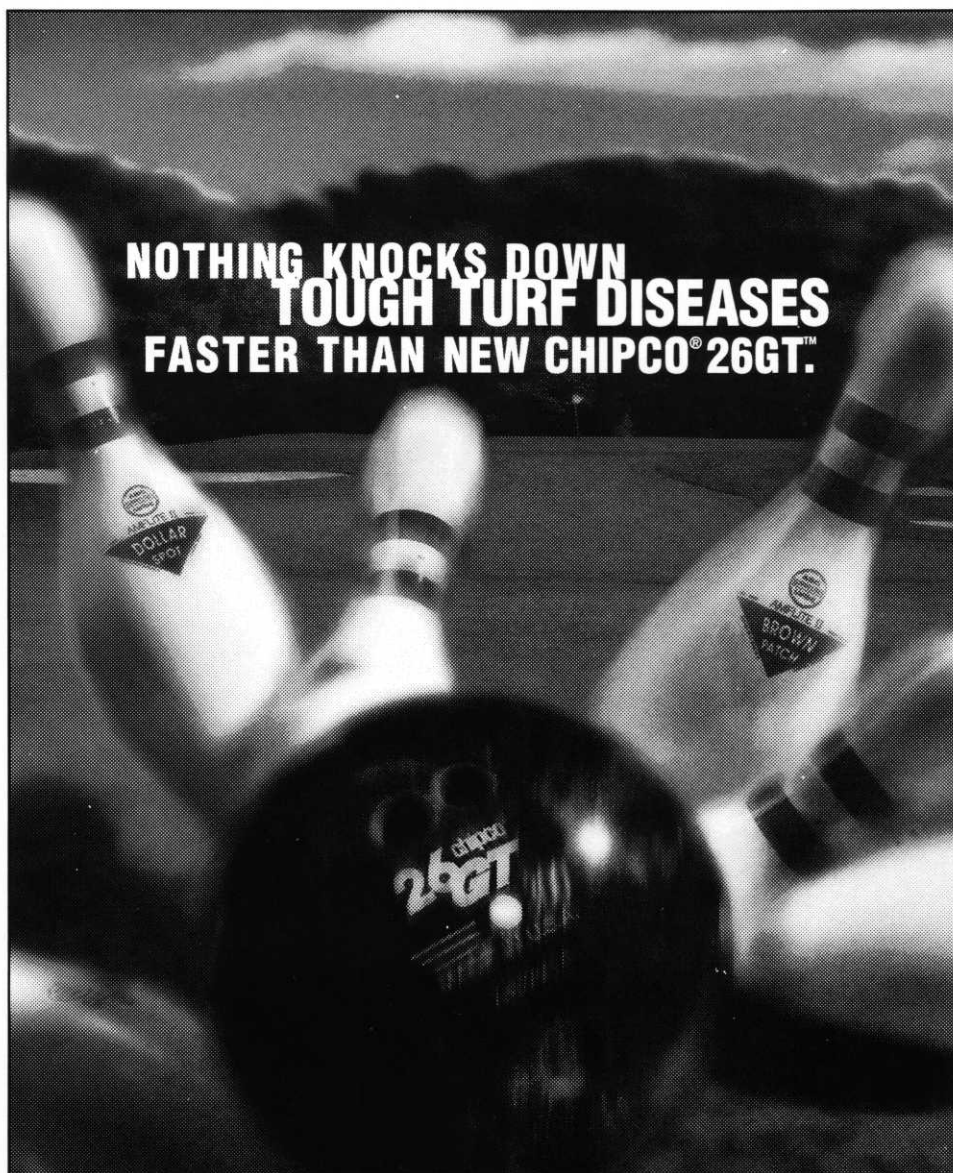
year or baccalaureate program with major emphasis in turf management. Candidates must be a resident of Minnesota or be employed by a MGCSA member. The MGCSA Scholarship Committee processes and determines recipients for the Turf Student Scholarships. Applicants for these scholarships have until July 1 to return completed applications to the MGCSA business office.

Legacy Scholarships are processed and determined by the Citizens Scholarship Foundation (CSF) of America. In no instance will any member of the MGCSA play a part in

the confidential selection process of Legacy awards. These scholarships will be awarded to high school seniors or graduates who study at an accredited two- or four-year college, university or vocational technical school. Recipients of the Garske award and at least one of the MGCSA awards must be children or grandchildren of Class AA, A, B or C members (for at least three years) of the MGCSA. A child or grandchild who qualifies of Class D, Associate or Affiliate members (for at least three years) of the MGCSA would also be eligible for the second MGCSA Legacy Scholarship. MGCSA Legacy awards are for one year only. However, students may re-apply to the program each year that they meet eligibility requirements. The Joseph S. Garske Legacy Scholarship is renewable for a second year if the recipient completes an application and meets minimum standards set by CSF. Applications must be in by June 1, 2000.

Scholarship recipients are selected on the basis of academic record, potential to succeed, leadership and participation in school and community activities, honors, work experience, a statement of education and career goals, and an outside appraisal. Students are eligible to apply for both a Turf Student Scholarship and Legacy Scholarship, but will only be allowed to receive one.

Applications for each of the scholarships are available on request by contacting the MGCSA business office. A personal photograph will be requested of successful applicants to accompany articles published in *Hole Notes*.



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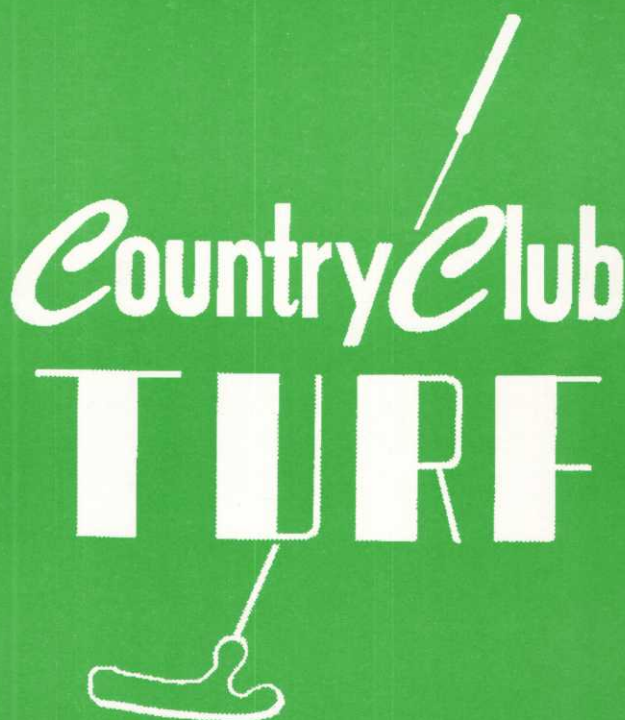
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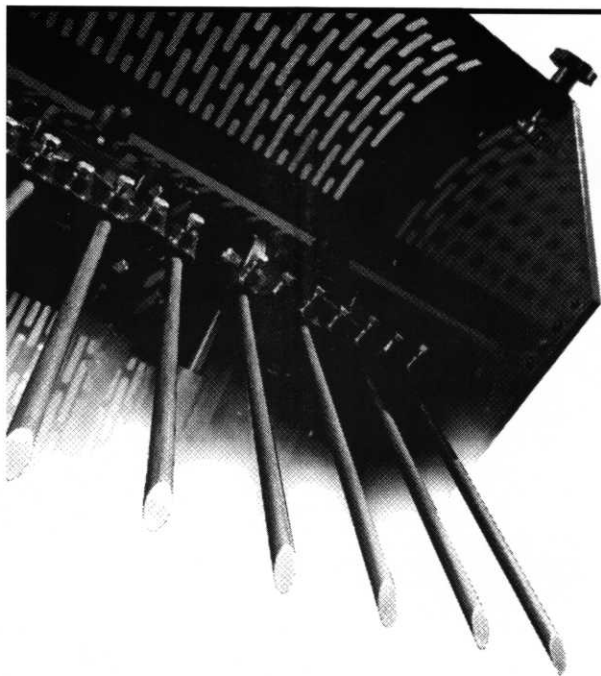
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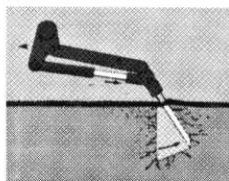


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When In Doubt - Spec It Out

Developing Maintenance Guidelines for Your Golf Course Can Clarify Priorities and Serve as a Useful Budgeting Tool

By PATRICK J. GROSS

(Editor's Note: This article was reprinted with permission from the USGA Green Section Record. 1997 March/April Vol 35(2): 1-4)

It is human nature to make comparisons, and that is especially true when it comes to golf courses. It seems every golfer has a built-in rating system of what constitutes a well-maintained golf course. People often ask if the USGA has any published maintenance standards. The answer is that while the USGA Green Section agronomists work closely with course officials and superintendents to improve golfing conditions, there is no cookie-cutter formula for proper golf course maintenance. Every golf course is different. Consider the number of variables inherent in each course, such as differences in microclimate, course architecture, terrain, amount of play, soils and construction techniques, water quality and availability, budgets, staff size, and many other factors. With so many variables, it is next to impossible to draw an accurate comparison. Instead of comparing your course to the one down the street, it is much more beneficial to accurately determine what it takes to make your course the best it can possibly be.

The corporate world has long recognized the benefit of developing a comprehensive business plan with specific goals and objectives for their company and its employees. The plan clearly states the role of each person in the organization, with specific performance criteria provided so that there is no misunderstanding about the expected outcome. How many golf courses can say they have a plan like this for the routine maintenance of the golf course? Green committees come and go, superintendents are hired and fired, and golfers' expectations are raised based on the latest televised tournament. The actual daily conditions are usually the result of the superintendent's personal maintenance philosophy and his interpretation of comments and complaints from the golfers. Who usually suffers, given such a wide range of opinion and lack of a clear goal? The golf course and the superintendent. Developing a set of maintenance guidelines for the golf course will clarify maintenance priorities and keep the entire organization moving in the right direction.

Why Are Maintenance Guidelines Needed? There are several good reasons to develop maintenance guidelines for your course. First, it is a project that requires the superintendent and committee to organize and analyze the priorities for golf course maintenance instead of assuming that everyone has the same goals and standards in mind. Getting it down on paper makes it easier to analyze the situation and see exactly what it takes to maintain a golf course in the manner the golfers want it. In the process, the desires and expectations of the golfers are clarified, and objective standards are set for the routine maintenance and

playing quality of the golf course. Developing such a document also removes subjectivity and provides a formula for comparing the desired results with the available resources. In the end, the guidelines become an objective standard that is measurable and provides a reference for future decision making.

Another reason in favor of developing maintenance guidelines is the short tenure of most green committee members and green chairmen. With only a short time to serve the club, most of the attention is on quick fixes and addressing personal preferences. The composition of the committee swings from low handicappers to high handicappers, and there is never a clearly stated vision regarding the ongoing maintenance of the golf course. The venerable golf course architect Dr. Alister Mackenzie summarized it best by stating, "The history of most golf clubs is that a committee is appointed, they make mistakes, and just as they are beginning to learn by these mistakes they resign from office and are replaced by others who make still greater mistakes, and so it goes on." The maintenance guidelines can be a valuable tool to speed the learning curve and provide guidance and continuity for future committees.

Another temptation is for committees to act like golf course architects, adjusting or altering the course to suit their particular style of play. In some instances, architectural modifications are necessary and the maintenance guidelines can provide a framework to analyze and implement changes.

Finally, the maintenance guidelines are a useful tool to answer complaints from disgruntled golfers. It is impossible to please everyone. When a golfer is upset about a particular maintenance practice on the golf course, it is better to point to the maintenance guidelines to show that the superintendent is operating according to the plan. This makes the conversation objective and avoids personal criticism of the superintendent and maintenance staff.

Who Determines the Guidelines?

The development of the maintenance guidelines should be a cooperative effort between the green committee, superintendent, golf professional, and general manager. Each of these parties has a particular role to play.

Green Committee: The main role of the green committee is to define the expectations for playing quality on the golf course and offer the necessary support to achieve the desired goal. The members of the committee should be thoroughly familiar with the layout of the golf course and the seasonal variations. They should fairly represent the needs of all levels of players at the course. The committee should consider several factors, including course architec

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Maintenance Guidelines--

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ture, the average handicap of the golfers at their course, the available budget, tournament schedules, and the amount of play the course receives annually. By analyzing this information, the committee should be able to provide a clear vision regarding the desired maintenance of the golf course. Then, the committee must approve a realistic budget that allows for the fulfillment of these expectations.

Superintendent: The superintendent has the greatest influence on the playability of the golf course and has the most critical role to play in the development of the maintenance guidelines. Superintendents are often in a difficult position in trying to balance the agronomic needs of the course with the expectations of the golfers. Everyone wants good quality conditions, but many do not know what they really are. The superintendent should start by discussing his or her maintenance philosophy with the committee. The superintendent should then translate the desired playing conditions into specific programs and maintenance practices based on the agronomic needs of the golf course. The superintendent should provide the committee with the necessary details about the maintenance operation, including agronomic conditions, equipment, materials, and labor. It is then possible to guide the discussion toward realistic expectations based on the prevailing agronomic conditions on the golf course. The superintendent then formulates a realistic maintenance plan and a budget that reflects what is needed to accomplish the desired results.

Golf Professional: The golf professional should offer constructive criticism about playing quality as it relates to the various abilities of the golfers who play the course. Since the golf professional probably has the most contact with the golfers, he or she can pass along comments and concerns about maintenance issues. Familiarity with the strengths and weaknesses of the golf course is important, as is a good knowledge of the Rules of Golf and course marking. The golf professional also can offer feedback on maintenance issues that affect the pace of play.

General Manager: The general manager should participate in all discussions, providing an overview of the golf course maintenance operation in relation to other functions at the course. The general manager should provide information and support regarding budget resources. Like the golf professional, the general manager has frequent contact with golfers and should pass along any constructive criticism that can add to the development of the maintenance guidelines.

Developing the Guidelines

Since each course is different, the maintenance guidelines should reflect the specific needs of your golf course. There should be a general listing of the day-to-day maintenance practices that detail the who, what, and when of golf course maintenance. It is important to be realistic and flexible with the development of the guidelines since there is no way to account for every whim of nature. Keep the guide-

lines as brief as possible; there is no need to go into great detail about specific products or equipment specifications. Your regional Green Section agronomist can help with the process by offering advice and recommendations on maintenance issues to determine what is right for your course. The following is a sample list of items that should be addressed as part of the maintenance guidelines. This is only a partial list, and you may wish to add topics based on the particular needs at your course.

Cutting heights and mowing frequencies: Since quality turf conditions are dependent on mowing frequencies, the committee and superintendent should agree on how often each area should be mowed, considering the available labor and equipment. A range of acceptable cutting heights should be prepared for all areas of the golf course that protects the agronomic condition of the turf while providing acceptable playing quality for the majority of golfers. Important factors to consider include: turf variety, height of the rough, including or excluding an intermediate rough, and mowing heights for greens, tees, and fairways.

Cultivation programs: The timing and frequency of core aeration and topdressing should be mentioned in the guidelines. Details are not necessary as long as there is basic information presented to let the golfers know when cultivation practices are scheduled and what to expect.

Green speed: Much has been written on the subject of green speed, but many courses go about determining the proper speed for their greens in the wrong way. It is best to first determine the proper mowing height for healthy turf, and then translate that information into relative green speeds for regular and championship play. Due to advances in equipment technology, it is now possible to mow the greens below 1/8", but just because you can mow the greens low does not mean you should push the limit. As noted in the following table, there are times during the year when you may not want to mow the greens too low or schedule championships since this would compromise the health of the turf. As an example, you may wish to present the information in a manner similar to the accompanying sample table of putting green mowing heights and green speeds.

Sample Putting Green Mowing Height and Green Speed

Mowing Height Speed for Regular Play Speed for Championships

Jan. 9/64" to 5/32" Fast Medium Fast
Feb. 9/64" to 5/32" Fast Medium Fast
Mar. 9/64" to 5/32" Fast Medium Fast
Apr. 1/8" to 9/64" Fast Fast
May 1/8" to 9/64" Fast Fast
Jun. 5/32" to 3/16" Medium Fast Medium
Jul. 3/16" Medium Fast (not recommended)
Aug. 3/16" Medium Fast (not recommended)
Sep. 5/32" to 3/16" Medium Fast Medium
Oct. 9/64" to 5/32" Fast Medium Fast
Nov. 9/64" to 5/32" Fast Medium Fast

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Maintenance Guidelines--

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Dec. 9/64" to 5/32" Fast Medium Fast

Color versus playing quality: This is where a meeting of the minds is essential. The green committee, superintendent, golf professional, and general manager must come to an agreement on whether the maintenance priority is on promoting lush green turf or optimum playing quality. To the superintendent, this indicates the type of fertility and irrigation practices that must be implemented to achieve the desired results.

Course setup: There should be some general policy on how the course should be set up each morning, including the positioning of tee markers and rotation of hole locations.

Course marking: This includes guidelines for marking ground under repair, the position of out-of-bounds and hazards on the golf course as well as how these areas are to be maintained.

Bunker maintenance: In addition to the frequency of raking and trimming operations, it is good to mention other factors, such as the desired firmness and playing quality of the bunker sand, how often sand is added to the bunkers, thickness of the grass lips, and other factors.

Golf cart policy: The damage caused by golf carts directly impacts course maintenance and playing quality. Any golf cart restrictions should be included in the guidelines as a reminder to the golfers and as a guideline to the maintenance staff for course setup.

Closure for rain, frost, and winter play policy: Policies and procedures for closing the course due to inclement weather should be included in the guidelines, along with who is responsible for making the determination.

Environmental issues/IPM thresholds: Special environmental issues that affect the maintenance of the golf course should be noted. Depending on state or local laws, there may be specific restrictions on re-entry periods after a pesticide application. Any general comments regarding IPM thresholds for weeds, insects, and diseases also are worthy of including so that the golfers are aware of the goals for your pest control program.

Fairway widths and mowing contours: The total acreage and width of the fairways influences the maintenance and playing quality of the golf course. The larger the fairway, the more time and labor necessary for mowing and maintenance. Fairway widths and mowing contours also are a function of course architecture and can influence the pace of play.

Tree maintenance: Tree maintenance, or the lack of it, affects the appearance and strategy of playing the golf course. Consideration should be given to the frequency of tree pruning, how it is to be performed, and what effect it will have on playability. Guidelines for tree planting and the architectural significance of specific trees on the golf course also should be noted.

Winter overseeding: For many courses in the southern part of the United States, the question of whether or not to

overseed can have serious financial impacts. It also may be a controversial topic among golfers or club members. If winter overseeding is practiced at your course, guidelines should be developed concerning when seeding will be performed, how the grow-in period will be managed, and a description of transition programs in the spring.

Putting It All Together

To begin the process, the Green Committee may wish to formulate a questionnaire to get a representative idea of how golfers like to see the course maintained. After analyzing the responses, the Green Committee should meet with the superintendent, golf professional, and general manager to gather more information. Any specific problems or unusual site conditions that affect maintenance should be discussed. The committee should carefully consider all aspects of the golf course and its maintenance, including architecture, agronomic requirements of the turf, the average ability of the golfers at your course, pace of play, labor and equipment resources, seasonal variations, tournament schedules, and other such items. For the purposes of the guidelines, it is important to focus on maintenance issues and separate any long-range planning items. The group can then collectively work on development of the maintenance guidelines.

The next step is for the superintendent to take the guide

(Continued on Page 29)

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Biostimulants--

(Continued from Page 5)

Researchers have found that when turf is under stress, it is the balance of these three growth hormones working together, which result in a healthier and more efficient plant. (2) Different grasses have different balances of hormones, and therefore may require different inputs of hormones at certain times of the year. By utilizing the main function of three different growth hormones and changing their ratios, we can somewhat direct growth laterally through Stolons and Rhizomes, rooting, or leaf growth. **There is a fine line of checks and balances between the hormones.**

Bluegrasses and Poa Annua are generally lower in hormonal content than other grasses. This is why over-applied TGRs can easily turn these grasses yellow, or possibly kill it while at the same time the surrounding bentgrass doesn't look affected. At this point, application of the right balance of plant hormones to the Poa Annua can be a lifesaver.

The main mode of action of the two most popular TGRs is restricting the Gibberellins natural cycle with the turfgrass.

These modes of action are:

- 1) Inhibits the production of Gibberellins.
- 2) Inhibits the movement of the Gibberellins within the turfgrass.

Either action would slow cell elongation and therefore slow leaf vertical growth to some degree.

Some of the TGRs claim to initiate root growth with the use of their products. I believe this can be true, to a point. When grass is mowed, the tips are cut, which leads to a decrease in Gibberellins

natural cycle. This action creates an unbalanced hormonal buildup in the root sections, and may initially grow more roots. At this point, cell division is happening more than cell elongation, and the grass may become thicker. This is why some TGRs may claim less disease, and Poa Annua can appear to be more durable. Add a little more TGR here and you have Poa Annua control.

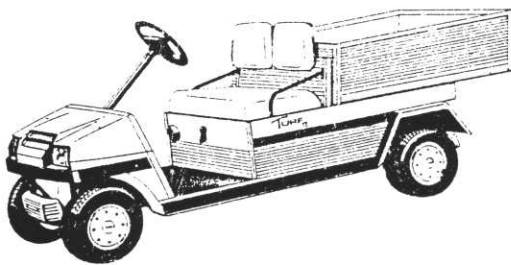
However, with the unbalance of the Gibberellins to this new growth area, there may come a point where the roots will go into a decline. (1) If disease hits at this point, the recovery can be very long. It is also at this point where, it may seem, more TGR has to be used to get the same result.

Plant hormones are similar to N.P.K. ratios because growing grass with either of them out of balance can be easy as long as the grass is not under stress. Some golfers may think that taking care of a green is like taking care of a yard. I would bet most superintendents would leave skid marks speeding out of the maintenance parking lot to change jobs, if a position opened up at a course whose turfgrass was magically not under stress. Chemicals, mechanical forces and even Mother Nature at her worst can upset the turfgrass hormonal balance in a golf green environment everyday.

Is there any one Biostimulant, or for that matter, any one product that is good for all situations? No, of course not. As those of us who utilize these products, or any other product in this industry know, any single product is only one part of a very big picture. As with turfgrass hormones, a successful turfgrass maintenance program is only as good as its complete balance.

- (1) Cornell University; Miller, Lawrence P. & Van Norstrand Reinhold
- (2) Salisbury, F.B. and C.W. Ross. Plant Physiology.

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Maintenance Guidelines--

(Continued from Page 27)

lines and formulate a maintenance plan and budget that accurately reflects the desired maintenance level. This will require listing the required tasks and doing a detailed analysis of the labor, equipment, and supplies necessary to complete the work. The superintendent may wish to list different options to accomplish the goals and include information on more efficient equipment or methods. It is important to be as detailed as possible when performing the analysis in order to provide realistic budget estimates. Providing a breakdown of the cost per job or per unit-area would also be useful so that any changes to the maintenance program can be quickly calculated.

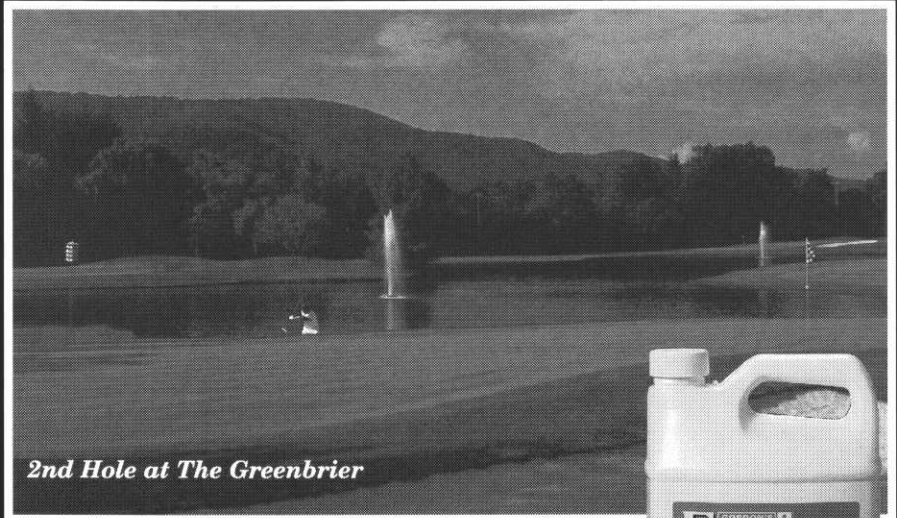
After the budget is developed, another meeting should be held to compare the budget to the maintenance guidelines. This is where the rubber meets the road. Many committee members are shocked when they learn exactly what it takes to provide top-quality golfing conditions. At this point, some negotiation and adjustments may be in order to bring the desired maintenance level in line with the available budget resources.

Once the guidelines are finalized, they should be approved by the board of directors and put to a vote of the membership. This insures stability and continuity regardless of changes in the committee or maintenance personnel.

Conclusion Everyone who plays golf has an opinion and philosophy on how a golf course should be maintained. These subjective expectations are often at odds with the available resources to maintain the course. The real benefit of developing maintenance guidelines is that it allows for an objective comparison between the desired level of maintenance and the available budget resources. Many courses want champagne and caviar but are only willing to pay for Kool-Aid and beer nuts. The exercise of developing the maintenance guidelines also becomes an eye-opening experience for the green committee, superintendent, golf professional, general manager, and golfers by demonstrating the many factors that go into maintain-

ing a top-quality golf course on a consistent basis. Once the maintenance guidelines are developed, the green committee possesses an important tool to communicate with golfers regarding the acceptable standards for daily maintenance and a way to respond to complaints. What is more important, the maintenance guidelines clarify the goals of the maintenance program and provide an objective standard to evaluate the golf course. It is always dangerous to assume that everyone has the same goal in mind when it comes to the conditioning of the golf course. So whenever there is any doubt, it is always better to spec it out.

Patrick J. Gross is an agronomist in the Green Section's Western Region. Reprinted from the USGA Green Section Record. 1997 March/April Vol 35(2): 1-4



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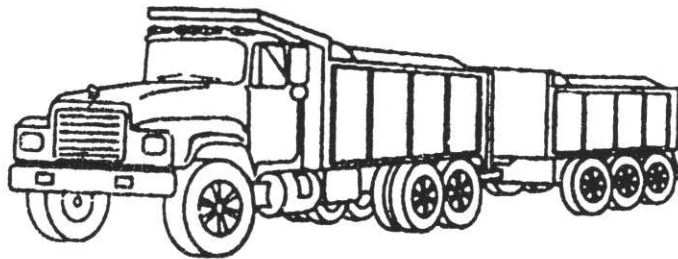
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