



They're Always Too Something

by Paul Vermeulen

Mid-Continent Region, USGA Green Section

What is always too hard or too soft, too wet or too dry, too dark or too light, and/or too coarse or too fine? If you do not know the answer, then you probably have never played a round of golf. If you have, then you never landed in a bunker. That is the answer — a bunker. A depression, usually filled with sand, that is defined as a hazard in the Rules of Golf. A place where you are never happy because you know you are going to get punished. And, that is what the argument is all about. What is fair punishment?

Should the ball plug if it lands in the face? Some people say it should, others say that plugged lies are unfair. Should you have the opportunity to putt, or must you get the ball airborne? Some people say a bunker would not be a hazard if you have the opportunity to putt, others say being in the sand is hazard enough. Should the surface of the sand have a smooth finish, or should it have deep furrows? Some people say the sand should be perfectly smooth, so that you have an opportunity to make

unobstructed contact with the ball and spin it up onto the green. Others disagree, saying that the bunker should not be a place of opportunity.

Who is the Supreme Judge when it comes to deciding what is fair and equitable punishment? The answer is the Green Committee. In the Rules of Golf it says that the Committee, usually meaning Green Committee, decides the condition of the course to include the condition of the bunkers. To help Green Committees make decisions regarding the "proper" condition of the bunkers, there are some basic guidelines that can be used. Without guidelines to follow, I can image that someone somewhere might just run for the office of Green Chairman simply to seek revenge on fellow golfers.

The basic purpose of having bunker maintenance guidelines is that they (1) help avoid controversial ruling decisions, and/or (2) help simplify routine bunker maintenance. For example, one guideline is that the sand particle size distribution should be between 0.25 and 1.0 millimeters. This guideline excludes fine silt and clay particles that would impede drainage. Can you imagine the controversy if someone went on to win a major Championship after they were granted relief in a bunker because of standing water? Ouch. This guideline also excludes small stones and/or pebbles in the sand that, if blasted onto the putting surface, would cause damage to delicate mowing equipment.

Another guideline that is important is that the sand should have a blocky or semi-blocky particle shape, as

(continued page 22)

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(USGA continued)

opposed to a smooth, almost round shape. This guideline encourages the selection of sands that are stable under foot. From a Rules of Golf perspective, stable sands withstand buried lies, thus preventing the need for golfers to literally dig for a lost ball in a hazard. Stable sands also simplify routine maintenance because they remain in place on the architecturally popular, steep bunker faces. This prevents the need to shovel sand back on the faces of bunkers after golfers have walked up them.

Thus far we have learned that desirable bunker sands should (1) drain well, (2) be free of large stones or other debris, (3) resist buried lies, and (4) remain in place on bunker faces. Is there more to learn? Not really. The rest is a matter of personal opinion. By nature, bunker sands are too hard, too soft, too wet, too dry, too dark, too light, too coarse, and too fine. Usually it depends on how well, or how poor you played your last round. That is golf! If you do not agree run for Green Chairperson and make your own rules. Remember, however, the home of a tyrant can be a lonely one!



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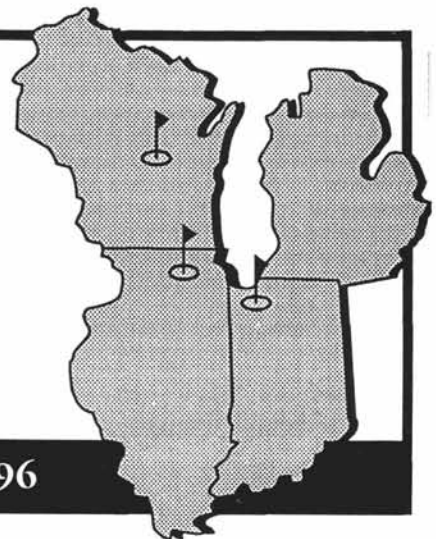
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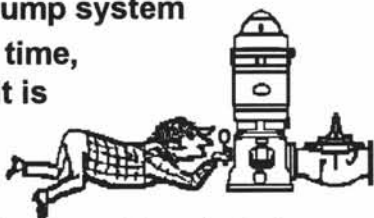


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**Golf & The Fight for
Discretionary Dollars –
Part III – The Changing Course of
Golf Course Design**

by Gregory E. Martin

For those of us who depend upon the golf industry for our living, the recent growth in golf course development is encouraging. The continued expansion of the industry is positive, but we must be careful. This exposure has forced growth, indeed, but it has also encouraged scrutiny. While golf is enjoying its greatest popularity in decades, many parts of the industry are seeing greater clientele expectations and therefore, higher operational costs.

These raised expectations have generated higher maintenance and construction costs, more stringent environmental impact considerations and more difficult or "visual" golf courses. Unfortunately, this has tended to shift consumer access to the more fortunate. While, rising expectations of the average golfer continues to fuel golf course development it has also forced existing golf facilities to make improvements in an effort to keep up with current maintenance and design trends.

Ultimately, the facility that meets the quality, service and challenge demands of this golfer will ultimately win the "discretionary dollar". And while industry expectations change, so must golf course architecture. There is a growing acceptance or expectation of unique layouts with less intrusive design features, less earth moving and fewer elaborations. Pete Dye, the most diabolical architect of our generation has amended his design style to provide more "playability", while enforcing shotmaking.

The most revealing aspect of golf course design trend is toward "Traditionalism" or "Minimalist". These are current, and often overused, design themes that have crept in to the vocabulary of golf enthusiasts. Recently developed courses like Sand Hills in Nebraska and The Links - Red Mike in South Dakota punctuate a trend toward minimalist design. In fact, our acceptance of more traditional courses like Shinnecock Hills illustrates this.

At Sand Hill, Golf Course Architects Bill Coore and Ben Crenshaw moved less than 10,000 cubic yards (cy.) of earth to produce a remarkable inland links style layout. This is extraordinary by today's standards, because new golf course construction can generate 150,000 cubic yards on earth (on the low side) to more than one million (1,000,000) cubic yards of earth, some even more. I have yet to play Sand Hills, but by all accounts, this is an impressive project.

However, finding land that has all the required ingredients to truly be considered minimalist is a difficult task. At Sand Hill, the architects sought and found the greens and worked back through the fairway toward the tees. While this seems romantic, even idealistic, it is certainly the exception. Most practicing golf course architects could, in fact, find a pure minimalist golf course on a 1,500 acre site given little or no development constraints. In fact, it is widely agreed that there is a tendency toward Minimalist, however, golf course architects are finding that clients and developers expect this style of architecture due to reduced budgets, site and environmental constraints, or less attractive feasibility studies.



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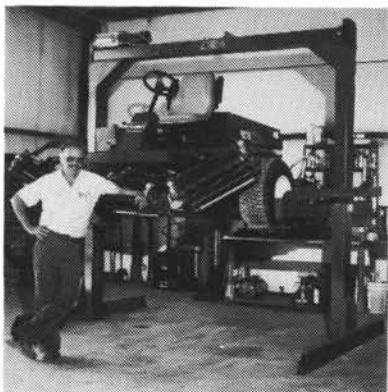
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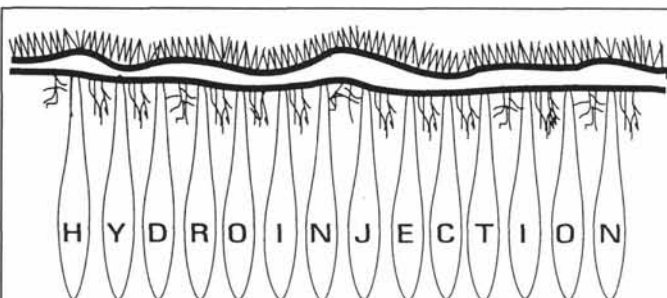
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While golf course architects agree that there is a movement toward simpler design themes, this can be traced to our client's requirement for greater economic viability from the start of a project. Therefore, private and high budget projects are less prevalent. Golf course architecture is moving away from the elaborate design themes of the late 70's and 80's in an effort to develop facilities that are economically and environmentally sustainable.

So What's Next

Golf continues to expand in different markets today. Juniors, seniors, women and minorities are all being exposed to golf in greater numbers. Michael Jordan is developing a number of quality practice facilities throughout the suburbs catering to low and middle incomes and juniors. A current project of ours calls for the inclusion, if budget allows, of a 'junior' course within the confines of the practice range. There is an increasing need for upscale par 3 courses, public and private practice facilities, short 'precision' ranges and executive courses.

A number of quality nine hole venues, designed by the area's finest architects are currently planned or are open for play. The 'nine hole course' is no longer perceived as the country cousin of the 18 hole private club. Through innovative course design and flexible facility programming, golf will continue to grow into various markets.

But all is not easy. The National Golf Foundation reports that the total number of rounds played in the U.S. has moderated considerably since 1989. Additionally, The National Golf Foundation has amended their prediction of 30 million golfers by the year 2000 down to 25 million. Nationall, new course openings are moderating. Does this indicate that the golf boom is finally out of gas?

Maybe. This is more likely a correction in golf market development. Recent trends indicate that the profile of the average golfer is changing. No longer does the avid golfer need to join a Country Club to feed their addiction. The average golfer with \$20-\$40 in his pocket every week is just as likely to be a frequent golfer as the local country club member. Further, these golfers may be just as, or more loyal to their facility than the private club member.

Golf Course Architects and Management companies see this and are developing facilities that meet this market niche. New pubic facilities are being developed at a pace that outnumbers new private courses by almost 2:1 and these courses are designed by the best Golf Course Architects available. Better yet, these facilities are maintained and managed with the same scrutiny as private facilities. Production of higher quality public and daily fee facilities is finally catching up with the public and daily fee demand.

Further, Municipalities, Park Districts and other public bodies are realizing that golf facilities provide a revenue stream and can subsidize a variety of non-revenue producing programs. Golf courses provide open space, recreation and revenue for public bodies within a specified market niche. A variety of golf development projects are being introduced in many urban or landlocked suburban locations to provide this valuable asset.

(continued page 28)

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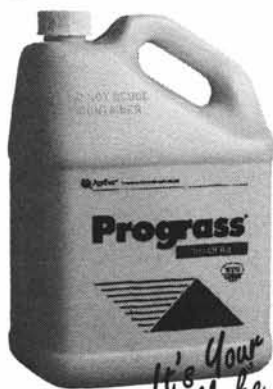
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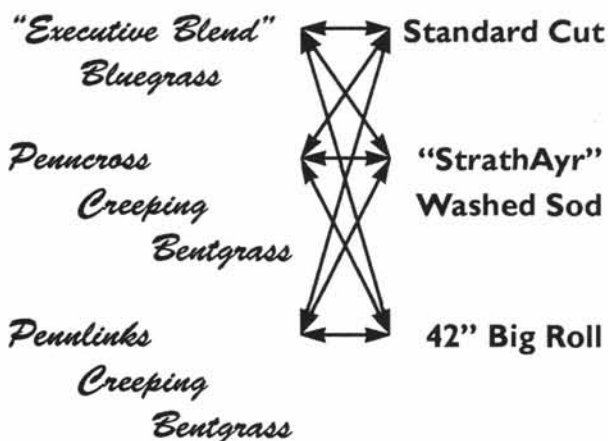
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(Golf & Fight for Dollars continued)

Conversely, private clubs will have some difficulty in the coming years recruiting or retaining members. With the growing presence of high quality public facilities, potential club members find it hard to justify the up front and continued expense of membership when suitable daily fee facilities exist. These facilities will need to market themselves with all aspects of the club, with added swimming, health and fitness facilities; varied food and beverage marketing and more targeted business networking. Further, these clubs may need to open the door to outside revenue producers like golf outings, weddings, banquets or other income producers in an effort to sustain the changing market conditions. Those clubs that are foresighted and creative in a demanding marketplace will be able to keep their private status.

This challenge is within public and daily fee golf also. High end golf development growth is moderating, while established facilities, with no record of improvement, are pumping thousands, or even millions of dollars to implement or redo irrigation systems, renovate greens, tees, fairways, install extensive landscaping and expand clubhouses. Fortunately, or unfortunately, traditional stereotypes of golf are melting while the industry expands. Whether or not this is positive for the game, expectations are changing. The average golfer now has access to a variety of upscale and affordable courses from the architects that brought you PGA West, Muirfield Village, Haig Pointe, Wild Dunes and Kemper Lakes. Unquestionably, established facilities must be ready to meet this quality expectation challenge.

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Zorro *

by Tim Anderson

Asst. Superintendent Naperville C.C.

At Naperville Country Club we recently experienced a problem with foxes digging holes in the greens. We have a large natural area which runs along the west edge of our third hole. The foxes live in this natural area. Over time, they have become very tame. They have been spotted around our maintenance facility and clubhouse area on several occasions.

Up until a few weeks ago the foxes only created minor damage on the course such as tracking or digging in the bunkers. This type of damage was easily repaired with routine maintenance. Recently the foxes have started to dig holes in two of the greens that border the natural area. Many of these holes are adjacent to sprinkler heads. We have also noted an increase in the number of spots where the fox has urinated and as a result burned the grass.

With the disruption to the putting surface, and the possibility of damaged electrical wires it became apparent that we needed to take steps to control the foxes. Since we had no prior experience with these animals we contacted the University of Illinois County Extension Agency and also put a message on Turf-talk. Both of these informational sources proved beneficial.

From a correspondence on Turf-talk we learned that the damage is concentrated around sprinkler heads because the foxes are drinking the water off of the sprinkler covers. This lead us to believe that we could deter the foxes by providing them with an alternative water source. We placed a couple of water pails in the natural area so that the foxes will no longer need to search for water.

The County Extension Service put us in touch with the Willowbrook Wildlife Haven. They informed us that the fox has no natural predators and that in most cases it acts as a predator searching out small to medium sized mammals such as moles, gophers, mice, etc. The fox has a very keen sense of smell which it uses for hunting. Its motive for digging holes in the greens is its search for food.

In order to deter the foxes the Willowbrook Wildlife Haven recommended that we either construct a barrier around the area or use of a coyote urine based scent. Fencing the area requires an "L" shaped barrier that is at least 4 feet tall and extends 1 foot out across the ground. The openings in the fence should be less than 3 inches. If the area is small enough, placing a barrier across the top of the fencing is recommended. This will prevent the fox from climbing the fence and gaining access to the area.

The Wildlife Haven also suggested trying a coyote urine based product called Garden-Guard. This product is not normally recommended for deterring predators. However, since coyote and foxes are both territorial animals they respect each others hunting grounds. If a fox smells the scent of a coyote then the fox may avoid the area.

Due to the inconvenience of fencing off two greens on a nightly basis, we decided to try the Garden-Gard. This product should be placed on a piece of absorbent material. The area is then flagged with the material so that the scent

will be picked up by the wind. We threaded 3 or 4 cotton balls on to a wire irrigation flag and then put 1 drop of Garden-Gard on each cotton ball. The flags were positioned around the perimeter of the greens at 6 foot intervals. The wire irrigation flags worked well because they placed the coyote scent at the proper height. For larger animals such as deer, the scent should be placed higher off the ground and at wider intervals. We put the flags out at dusk and picked them up the next morning prior to mowing. One employee can place the flags around both greens in 30 minutes. This method has proven to be very effective. We have flagged the effected greens with Garden-Gard on three occasions. We have not experienced any additional damage since we initiated this treatment.

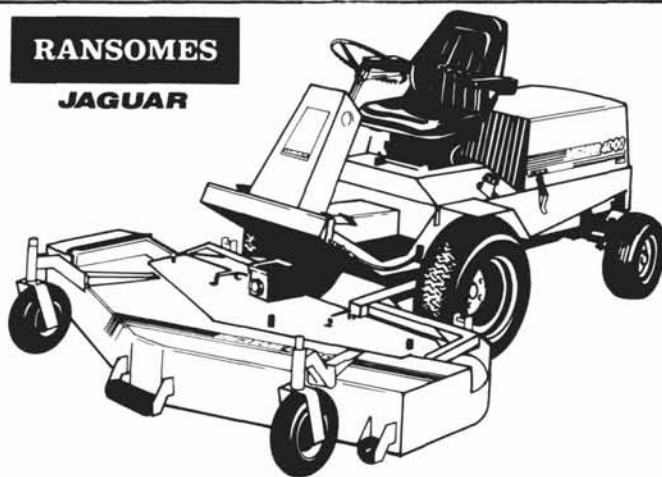
This scent can also be used to protect gardens and to discourage denning. Cotton balls or cloth strips treated with the scent can be placed along the perimeter of the garden or in den holes. Since sunlight and rain cause the product to break down it may be necessary to repeat every few days.

In this environmentally conscious climate, Superintendents must exhibit resourcefulness when dealing with pest problems. As golf courses are scrutinized more closely than ever, this treatment demonstrates a commitment to acting in a responsible manner.

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*Zorro is Spanish for fox!

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