



FORECAST FOR 2012

If it's true that we cannot know where we're going until we know where we've been, here are five takeaways from 2011 that foreshadow what the golf industry can expect in the coming year.

1. FLIGHT TO QUALITY. Our recessionary economy rewards excellence while punishing mediocrity. Businesses that reinvested in their futures through capital improvements and product introductions are growing and increasing earning power. Golf-related businesses that chose to hunker down are being clobbered by value-driven consumers who are intolerant of under-performance. This characteristic seems to span every segment of golf, from the most modest of municipal courses to the highest and mightiest of private clubs.

Clubs prosper where continuous improvement is evident. New programs and investment in the lifestyle of the club are being rewarded. Because the growth of clubs tied to residential communities is driven largely by women, programs that emphasize family, fun and fitness have emerged as competitive advantages. In order to hold position, established brands must continue to improve product performance and customer service. In a zero-sum game, there are winners and losers. Golf growth has slowed and now stabilized. With very little organic growth in new golfers and new golf facilities, the top performers are today's – and tomorrow's – winners.

2. INTERNATIONAL SUPERIORITY. Competitively speaking, a large proportion of top performing golfers are citizens of the world. On the course, the U.S. PGA Tour is challenged as never before by the European Tour. On the business side, the European Tour already may have overtaken the U.S. Tour for its ability to attract sponsors and fans. Clearly the economic health of the European Union influences the global business community far more than the capabilities of international players. However, there is no denying that companies hoping to appeal to golf-conscious demographic segments can reach a broader audience internationally. For American companies seeking female golfers, the emerging markets are in Europe, Scandinavia and East Asia. Manufacturers and suppliers of goods and services report revenue and unit-count growth in Asia and parts of the EU. Performance indicators for the international hospitality segments are trending upward.

3. U.S. MISTAKES SPREADING. Golf development outside the

U.S. has followed the American model and, as a result, is being hurt by the same factors of oversupply in unproven and brittle markets. As in America, many new project planners and investors have not identified audiences with adequate depth and breadth to sustain start-up and standalone enterprises. In a difficult global economy, the small range of economic tolerance for golf communities, resorts and projects has shrunk to the point that only carefully planned and extremely well-capitalized projects in highly attractive locales will be successful.

"In a difficult global economy, the small range of economic tolerance for golf communities, resorts and projects has shrunk to the point that only carefully planned and extremely well-capitalized projects in highly attractive locales will be successful."

4. DUMB MONEY DRYING UP. Seated at tables where deal-making is being done, one understands that new capital is evaluating golf-related opportunities for land acquisition, new concept and product introductions and property development or re-development. Meanwhile, many uninitiated observers believe there is no investment money available to golf. The truth is that there is little or no dumb money looking at golf-oriented investments. New capital sources have emerged, and they are highly skeptical and extremely discerning.

5. GROWING THE GAME? Maybe. Golf and golfers have long talked a better game than they played. The allied associations and interests within golf segments have talked endlessly about the need to grow the game; every group has its own version of what should be done to increase participation. Golf 2.0, the PGA of America grow-the-game initiative, may just be an answer that works. The program has been carefully studied and is being properly measured for actionable tactics. The program drives accountability down to the point of attack, which includes everyone who plays, promotes and uses the game of golf. PGA of America CEO Joe Steranka has brought to bear great resources of funding, organizational energy and engagement. Others will follow. Engaging non-golfers to play and encouraging existing golfers to play more remains a top priority for us all. **GCI**

BUGG'N

Sure-fire ways to stomp out nematodes, mole crickets and other subsurface critters attacking your course's turf. By David McPherson



Get the “BugDoc” – David Shetlar – talking about billbugs and you’re apt to learn more in 15 minutes of conversation regarding these nasty critters that feed on turf than this scribe ever imagined he would know.

The professor of urban landscape entomology at Ohio State University knows his bugs; he offers a wealth of information on billbugs for skeptical superintendents who may not realize the fortitude and determination of these subsurface turf critters.

“The key to battling billbugs is to first understand their biology,” Shetlar says. “The cool season ones can not overwinter except in the adult stage, so every year they start over again. In the spring, the successfully overwintered adults become active and the females chew a bit on the grass blades and stems to lay eggs. Then, usually about the time the seed head stems start to form, she will pick those stems. It’s well known that the female billbug picks the stem that has the largest diameter.

“She then chews a little hole in the stem and sticks what look like little jelly beans – little white eggs – into

Billbugs feed primarily on fairways and roughs, but are commonly missed in collars of greens and bunker surrounds.

OUT



Mole crickets and white grubs attack quality turf, but go after wet conditions, which are best for egg-laying and survival.

that hole; one week to 10 days later that egg hatches out billbug larvae, which burrows up and down the stem until it reaches the crown. The crown is big enough to hold it until it grows bigger and then it drops out and feeds on nearby crowns.”

Shetlar says here's where the real problems start for superintendents trying to battle these pests. The billbugs reach the crown usually in the first or second weekend in June — right at the same time when normally a Kentucky bluegrass plant or perennial ryegrass plant have made new tillers and superintendents have cut off the head of the seed stem. Here's where the professor proceeds to give me a little turf “sex ed.”

“I irritate the agronomists a lot with this,”

he says. “Because the grass plant says ‘I’m going to have sex,’ you cut the seed heads off, so the plant says, ‘I guess you don’t want me to reproduce sexually, so I’ll reproduce asexually,’ which stimulates more tillering. I call them mother plants and daughter plants. By early- to mid June, the daughter plants are just establishing roots, so they can stand on their own. This billbug then comes in and kills the crown. And, if the daughter plant of the new tillers have not established well enough, you can get Kentucky bluegrass that is three inches in diameter that collapses and dies from all the bugs.”

Billbugs primarily feed on the fairways and the rough. But, Shetlar says one place most people completely miss is the collars

of greens — especially sand-based greens where a superintendent is not watching his irrigation close enough or there are water restrictions.

“All of a sudden the collars of the greens collapse because the superintendent did not realize that these billbug larvae had been chomping away at the turf,” he says.

That said, Shetlar says the bulk of billbug damage on golf courses is on another lesser known location — bunker surrounds.

“Many of the bunker surrounds, especially in the north, don’t get irrigation,” he explains. “I’ve had more and more superintendents that are absolutely amazed when I tell them they had billbugs around their bunkers. First, I ask them whether they



Having a detailed list of the species found on your course makes it easier to use the correct controls.

ever get grubs in those areas and they say no because that area is too dry. So, I reply, 'just humor me and apply your grub insecticide in late May or June when you normally do and put it on those bunker slopes and I'll talk to you later in the season.' When I talk to them in August and ask how their bunker slopes came out they all say their bunker slopes are the greenest and thickest they've ever had."

Rick Brandenburg, distinguished professor and co-director of the Center for Turfgrass Environmental Research and Education in the department of entomology at North Carolina State University, says white grubs and mole crickets attack finely manicured turf, but what they really thrive on are wet conditions.

"They enjoy high quality turf to feed on, but irrigation is also a key," he says. "Good soil moisture is critical to laying eggs and egg survival, as well as to the survival of the newly hatched insect, so irrigation on golf courses makes a great environment for these pests to enjoy."

Superintendents can't stop watering their

course, so one wonders what some of the ways are that they can help prevent these insects from causing damage to the turf, even before it happens?

Just like his fellow academic Shetlar, Brandenburg says the key is to have a good database of the species you have as well as knowing their lifecycle.

"These pests are under the ground being very subtle when they first hatch and that's the best time to control them, but this can vary a lot with the species and location," he explains. "There can be significant variation from one species to the other due to location. You must have localized information to use products effectively and get the maximum results and the lowest rates."

Recent research that Brandenburg and his colleagues have done on today's new products has shown that they are a little more sensitive to proper timing relative to the insect pests' life stage.

"That said, monitoring pests, especially the adults prior to egg laying, allows a superintendent to get great results," he adds. "Rainfall patterns can also influence timing. Drier weather usually delays egg laying and egg hatch, while wet weather may speed things along."

In the end, it's all about having a localized database for your pest species and knowing what is taking place under the soil. "Monitoring rainfall and temperature and egg hatch allow the superintendent to stay a step ahead of the pest and allows them to be as cost effective as possible."

Darin Bevard, senior agronomist for the USGA, mid-Atlantic region, says they don't really have a big problem with nematodes in their region. "They seem to cause problems when the grass is cut low or double cut," he explains. "This is not to say that there are not instances where nematodes are not a primary cause of decline. However, it is less common here compared to the southeast and Florida."

Bevard says with the long residual control products available now, white grub control is also less and less of an issue. One insect the agronomist says the golf industry needs to keep an eye out for is the annual bluegrass weevil.

"These little critters have been a problem for a long time, and, as their name suggests, *Poa annua* is their favored host," Bevard explains. "However, we have seen clear cases in recent years where they have used creeping bentgrass as a host and caused significant damage when *Poa annua* is not available."

"Monitoring rainfall and temperature and egg hatch allow the superintendent to stay a step ahead of the pest and allows them to be as cost effective as possible."

— Rick Brandenburg

When the damage has occurred on bentgrass, the first generation has pretty much avoided detection.

"When the potential damage period of the first generation occurs, the creeping bentgrass is healthy enough (late May into mid-June) to mask any damage that occurs, but populations increase dramatically between the first and second generations," he adds. "The damage period for the second generation is during the July/August heat depending on the location; the grass is already under stress and so the weevils cause significant damage."

The good news is that when it comes to the annual bluegrass weevil, there has been some research conducted recently by Pat Vittum of the University of Massachusetts and Dan

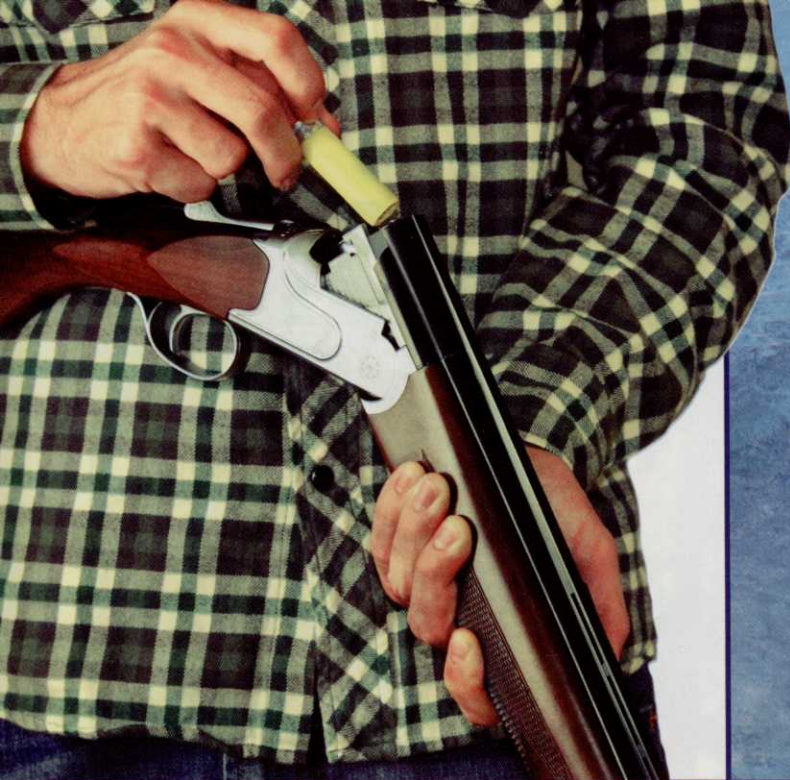
Peck of Cornell University on trapping methods to determine insect numbers and also to help determine spring migration timing — both of which help to target insecticide applications and timing.

Often, if these methods are used, targeted insecticide applications on the periphery of fairways and collars can be made which will prevent insect damage as well as minimize the amount of pest control product a superintendent needs to apply. **GCI**

David McPherson is a Toronto-based freelance writer and a frequent GCI contributor.

For more info...

Visit <http://bugs.osu.edu/~bugdoc/> to read more of Shetlar's latest research on billbugs and other turf diseases.



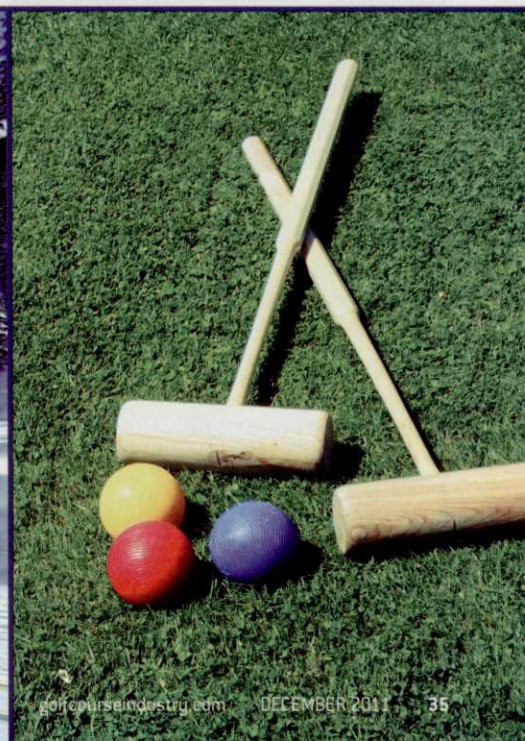
Beyond the turf

Don't want to go the way of the dinosaurs? Superintendents explain the diverse skill sets key to career longevity. By David McPherson

Skeet shooting. Cross-country skiing. Tennis. Croquet. Ice rinks. Pools and spas.

The list is endless, as if today's superintendents don't have enough to manage just trying to outwit Mother Nature and keep the turf green. The days of turfheads mowing grass 12 hours a day are long gone — especially in today's economic climate.

With budget cuts and reduced staff, superintendents are asked to manage more and more things outside their normal realm of expertise. Some surveyed estimate they now spend as





TOP: Green keepers expand their job skills to include the construction and maintenance of nature trails. LEFT: Anthony Williams, CGCS Director of Grounds at the Stone Mountain Golf Club by Marriott (left) shows off a pair of awards that were generated through the expansion of his duties as golf course superintendent.

much as 10 percent of their labor budget on non-golf items. As one seasoned super reasons, it's best to be a jack of all trades, and master of some, than a turf boss that is expendable. According to Anthony Williams, it's become common for superintendents to develop many sub-disciplines and take on managing the budget and labor for areas that traditionally was not a hat worn by the superintendent.

"A lot of guys have become progressive and understood that the more valuable you are the more safe and secure their job is," says Williams, CGCS and director of grounds at Stone Mountain Golf Club by Marriott in Stone

Mountain, Ga. "On the other side, you've got the guy who says, 'Don't they realize that turf is all about tees, fairways and greens and I don't care?' Well, most of those guys are dinosaurs that are becoming extinct."

A certified golf course superintendent since 1998, Williams became a certified arborist in 2008 to expand his skills and help stave off his "extinction." In his current role at Stone Mountain, this added expertise has come in handy since the golf course is located inside a state park where trees are sacred and native forest takes up more acreage than the manicured turf.

"Superintendents can wear a lot of hats, but it's sometimes difficult because we often get stereotyped to have a certain skill set," says Williams. "In these times we need to grow those skill sets, but sometimes you have to be willing to say, 'I am about as thin as I can get.' Five years ago I became a certified arborist, so I could perform all the arborist duties for the

park. This has been huge because it opened up new doors.

"My background is in agriculture and forestry, which helped, but there are not many turf guys who are also a tree guy," he adds. "I've been able to have a major influence on tree policies here at the park. It also gave me a different, deeper understanding of that discipline."

For other superintendents who subscribe to Williams' point of view and prefer not to go the way of the dodo bird: How can they expand their skills and prove their value, while making sure the golf operations don't suffer? And, how do they fit these non-golf duties into their shrinking capital and labor budgets? It's a balancing act, says Williams. But, like any other tough decision superintendents must make, one must weigh the positives and negatives and do a cost analysis to see whether it makes more sense to keep certain projects in-house or outsource them.

"Sometimes things are outside your area of expertise," says Bruce Williams, principal, Bruce Williams Golf Consulting, Manhattan Beach, Calif. "For example, if you only lay lines down on the tennis courts once per year, maybe someone can do it better and cheaper. You need to do a cost analysis. Like all business plans, you have to analyze how it fits in for your particular situation and what advantages there are for outsourcing versus keeping it in house. You still have to manage the duties whether you outsource them or not."

Williams recalls one of his early jobs as an assistant where his boss estimated only 20 percent of his time was spent on managing golf and turf operations; the balance was spent managing curling, skeet shooting, clubhouse maintenance, water plant, clay tennis courts, clubhouse grounds and even vegetable gardens.

Skeet shooting was one pastime Bob Maibusch knew very little about before taking the job at Hinsdale Golf Club in the small village of Clarendon Hills, Ill.. While he does not shoot skeet, his crew is responsible for setting up and taking down the club's skeet-shooting range, which goes over their ninth green. It's a lot of labor for a short season (November to February, Saturdays only from 11 a.m. to 3 p.m. due to local bylaws). It's certainly not a labor of love, but it's a job Maibusch accepts as part of his overall role.

It's not a difficult job – Maibusch equates putting it together like "Tinker Toys" – but it is labor intensive. "In late October, it takes four or five days for six people to set it all up," he explains. "Then, come early March, it takes a full week for eight people to clean it up and remove the fields. It's a substantial hit on our payroll and it's a complete mess to clean up in the spring."

Because of this added budget line, Maibusch breaks out this cost for presentations to his board of directors or other committees, so everyone understands that while other clubs may be doing more with less, they don't have this added expense.

"I probably spend about 6-8 percent of my labor budget on non-golf items," he says. "That's why, when general club surveys are done by the Chicago Golf Association, for example, and they are distributed to our board of directors, I can remind them why our expenses are higher. It's a constant educating process."

Maibusch also has some obligations to remove snow from the heated platform tennis courts during the winter months, which is an-

other hit to his budget. In the past, his department maintained six clay tennis courts, but fortunately, he says, 10 years ago the grounds department divorced themselves from that responsibility, as they had to resurface them every year in the spring, which is the busiest time to get the golf course open.

Last year, Hinsdale Golf Club built a new platform tennis facility and warming house, more like a clubhouse, with an indoor and outdoor fireplace. Once again, Maibusch and his crew were part of this project. "We did all the site work ... the grading and the drainage," he explains. "The project probably cost half a million and we knocked that price down by a couple hundred thousand through the work we did."

If that was not enough, they installed an elevator in the clubhouse. With a limited work space, it took his crew three weeks to haul dirt out; they hand-dug the hole using five-gallon buckets. "It becomes a juggling act when you are doing things during the golf season," he says. "You have to explain to people why some of the detail work didn't get done on the golf course because you are saving them quite a bit of money somewhere else. At the end of the day though, it justifies us having extra staff and it saves the club money. Like most everybody else, if something needs to be done they usually come to us first. It keeps things interesting."

For Williams, taking on other duties as assigned outside the normal scope of a superintendent's work is rewarding. It allows the environmentalist to integrate some of the programs he's implemented on the golf course to other areas of Marriott's operations.

"The term I always use is environomics," he says. "We are blending our environmental

programs directly into the business plan. It's having a huge impact and adding value to the bottom line. It would be easier for them to dismiss our contributions if golf was our only contribution.

"Sometimes guys might say, 'I've got more than I can handle on the golf course.' I ask, is this really true or is it how you see it? I could spend every second on the golf course and my job will never be done. But, if I don't get progressive enough five years from now how are they going to evaluate whether I'm valuable as an asset or not an asset any longer?"

Now the seasoned veteran, who has lived through the ups and downs of the economy, Williams passes on this advice to his crew and to fellow superintendents.

"I encourage my guys and teach them to have that jack of all trades, master of some skill set," he says. "Most say, you are a master of none, but that's not what we are doing. What we are saying is we want to have the highest credentials in the key areas, but we want this other subset of skills... handle minor electricity, basic carpentry and plumbing. This allows you to add value to the organization and when you demonstrate a lot of different ways you add value then that speaks volumes when they start downsizing or restructuring. At its peak, when golf was booming, you could subcontract a lot of different things and it made sense, but now everything is scrutinized. You can't just say because we've always done it a certain way that that's OK." GCI

David McPherson is a Toronto-based freelance writer.

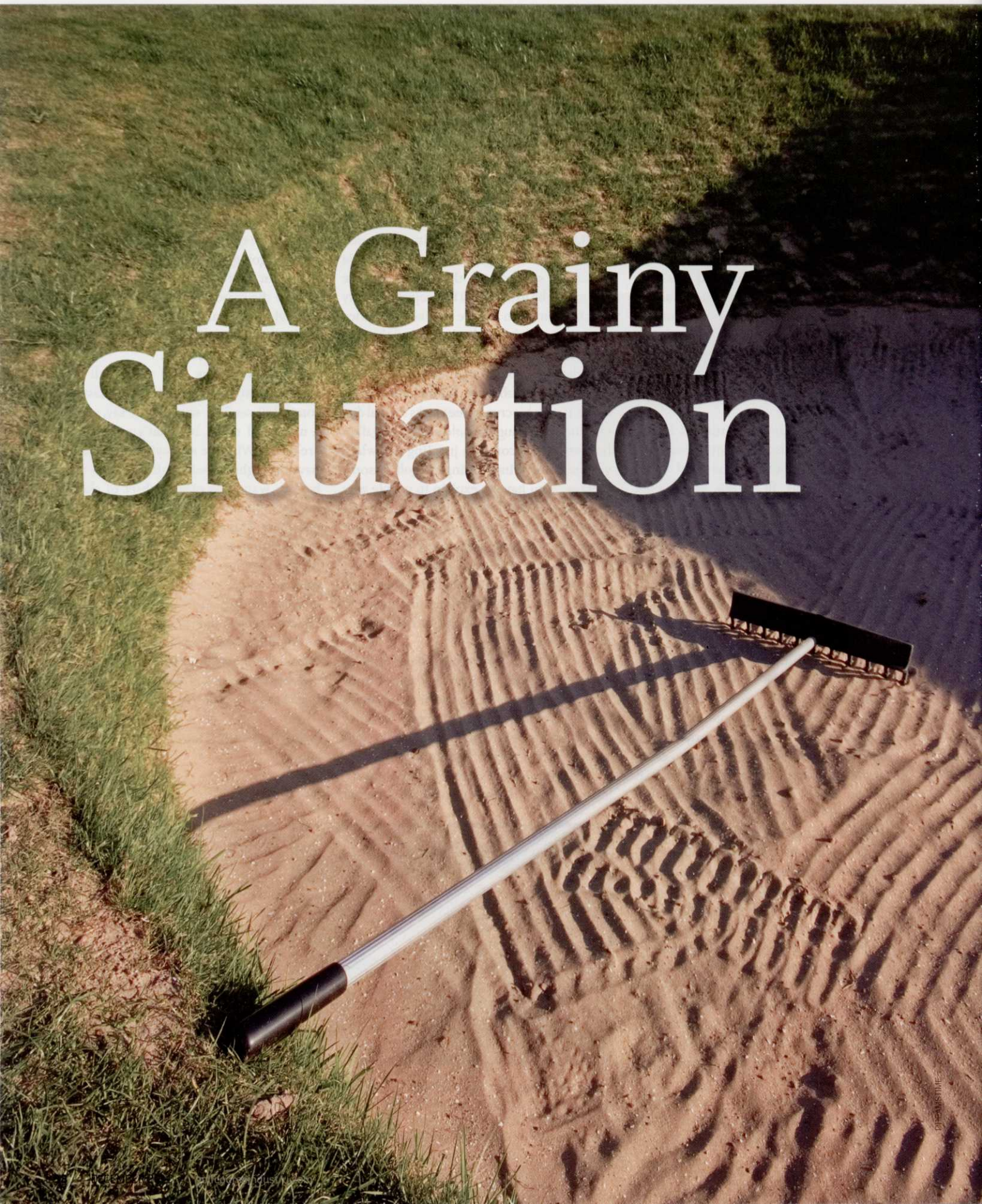


The skeet range that Bob Maibusch, CGCS, Hinsdale Golf Club, set up/take down and clean up. It shoots over the facilities 9th and 18th greens so all the bunkers need to be covered on those holes.



COURSE CONDITIONS

A Grainy Situation



by Jason Stahl

Selecting sand for your bunkers is a highly subjective and difficult process, but there are some guidelines to help... if you want them.

So you've been pondering what kind of sand you should use in the bunkers on your course.

Well, you could visit the USGA's Greens Section (www.usga.org) where there are literally hundreds of articles on bunkers. But even if you ignored all that advice, including the seven factors you should consider before deciding on your sand (particle size, particle shape and penetrometer value, crusting potential, chemical reaction and hardness, infiltration rate, color and overall playing quality), you wouldn't offend Jim Moore.

"The reason is because there is absolutely no decision made on a golf course that is more subjective than selecting sand for bunkers," says director of the USGA Green Section's Construction Education Program, "All golfers are absolutely crazy when it comes to bunkers. What one guy likes, the next guy hates. It's the most difficult issue our staff deals with when it comes to getting golfers what they want. And as a result, it's the most difficult issue superintendents deal with, too. It's like art: what you think looks good, I think looks like someone scribbled a crayon. That's the issue."

The other reason Moore doesn't mind if superintendents don't follow

all his tips on choosing bunker sand is because, unlike green construction, it's not as big a deal if they don't follow them to a tee.

"If you look at the specifications, they're very wide, and that's on purpose," he says. "A lot of people will read an article like that and say, 'Well, if it doesn't fall within what the USGA says, we can't use it.' That's not the case when it comes to bunker sand. People use sand well outside those guidelines all the time and love it. Then there are people who follow those guidelines that then absolutely hate the end product."

The easiest way for superintendents to avoid all this subjectivity is to simply

says. "Maybe I'm biased because I'm a decent player and it's an advantage for me. But I think one of the most boring things on TV now is bunker shots because, on the courses the pros play, all bunkers are 100 percent uniform and manicured."

The only way to achieve such consistency and help golfers avoid the dreaded "fried egg" lie, Moore says, is through an inordinate amount of labor and spending a fortune on sand. Over the last six to eight years, Moore says the most popular sand choice has been manufactured sand, or sand that's run through a mechanical crusher to make it less rounded and more angular so it locks

"...it's the most difficult issue superintendents deal with, too. It's like art – what you think looks good, I think looks like someone scribbled a crayon."

— Jim Moore, USGA Green Section

select the sand that the course owner and/or membership desires, which Moore says is usually what happens.

But there is a disturbing trend going on, he says: the militant pursuit of consistency in bunkers, which he feels defeats the purpose of having these penalizing hazards.

"Every hazard is different on the course I play, and that's okay because they're supposed to be a hazard," he

together. Problem is, sometimes that kind of sand is not available through a local supplier, so superintendents are forced to seek it out-of-state. Not only is the manufactured sand double the cost of regular sand due to the energy it takes to crush it, trucking it in from out-of-state tacks on more cost. In the end, it costs five times more. Granted, manufactured sand has become more readily available throughout the country

due to its popularity, but it still can be looked at as cost-prohibitive.

"It's not uncommon at all for me to see courses spending more money per ton for sand in bunkers than they do for greens," says Moore. "That's just as crazy as it is to spend more on maintaining bunkers than maintaining greens."

This aside, superintendents still have to pick the sand they feel is right for their courses. Moore says the first step would be to make sure it falls within the limited guidelines the USGA has. Once they find two to three potential types, then it becomes a matter of getting member feedback. He advises that they create test bunkers for each type of sand they feel meets their physical and agronomic needs and have members vote on which they like best. But there is still potential for dispute.

"If one-third of your membership likes Sand A, one-third likes Sand B, and one-third

likes Sand C, and you pick Sand B, you still upset two-thirds of your membership," he says.

Did you hear that word, "agronomic?" Yes, there is an agronomic discussion here when it comes to sand selection. As superintendents know, a lot of bunker sand ends up getting thrown onto a green. If it drains more slowly than the sand in the greens, then it can seal off the top of the green and cause drainage problems.

"If the owner tells the superintendent that that's the type of sand he or she wants, then I would make an extra pass or two with my aerator on that portion of the green and pull as much of that sand out as I could, then backfill the holes with sand that drains better," says Moore.

Playability seems to be the main concern for most superintendents when it comes to choosing bunker sand.

"Price is always a consideration, but playability always wins out at the end of the day,"

says Pat Gradoville, director of golf course and grounds at Palos Verdes Golf Club in Palos Verdes Estates, Calif. "The sand reacts differently with each season. We rely on irrigation for most of the year, but we use much less water from November through April. During those months, the sand tends to play much drier, and member comments are much more positive. But during the summer when irrigation runs almost every night, we hear the sand is always wet and difficult to play from."

The issue with moisture levels in bunkers, Moore says, ties into maintaining them with the goal of avoiding the fried egg lie.

"In order to get a one-inch layer of sand on a face that might have a 45-degree angle, somebody has to fill the sand there and pack it down pretty much on a daily basis. But then on the bottom, you want the sand to be deeper," says Moore. "Irrigation systems are designed to apply water evenly to turfgrass, not bunkers, and one inch of sand holds a lot

5 tips for sand selection

- Select sand that the course owner and/or membership desire.
- Create test bunkers and have members vote on their favorite variety.
- Consider the impact on playability throughout the year.
- Consult USGA sand recommendations.
- Don't forget particle size, particle shape and penetrometer value, crusting potential, chemical reaction and hardness, infiltration rate, color and overall playing quality.

