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A Maverick's Theory

Not all fungi and fungicides are the same, especially when it comes to resistance. See Tips for Fungicide Use on page 78.

Ever since his early days, Joe Vargas has been known for his independent stance on turf issues. "My whole life has been a maverick," he says.



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Vargas is talking about, but some of them don't," Couch says.

Ross says it's Vargas' job "to look at things differently and to propose different ways of doing things." But that doesn't mean he's always right.

"I can't speak to superintendents' thought processes, but I'd be worried that [Vargas] might be confusing them [with his resistance management] theory," Ross says. "Superintendents need to listen to Vargas, but they need to listen and talk to other experts as well."

It's been more than 20 years since Vargas first presented his theory to colleagues.

"Nobody paid any attention to it," Vargas says. "I reiterated it in 1993 in the second edition of my book and still nobody paid attention to it."

For awhile in the '80s, Vargas says he quit talking about his research. He became tired of the ridicule and the jokes, such as "Where else have you seen resistance besides Vargas' lab?"

"I got beat up pretty bad by my colleagues," Vargas says. "My feelings were hurt."

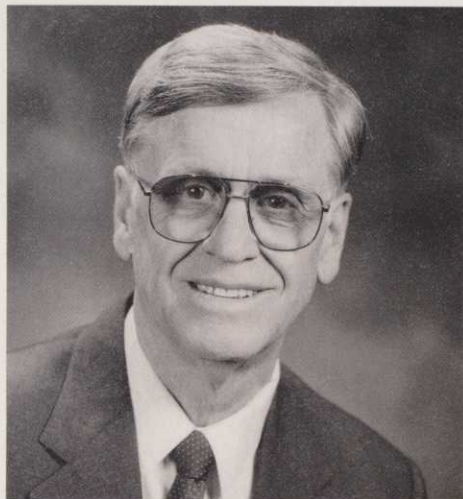
Time healed his emotional wounds, however. Vargas began to retell his theory in the mid-'90s. He says more people started paying attention to it partly because plant pathogens on other crops began to develop resistance to more than one chemistry class, which rotation was supposed to prevent. He has taken his talk on the road to several turf shows and teaches the theory in class.

Vargas pursued the research because he says he kept getting phone calls from superintendents who said the fungicides they were using in rotation weren't working anymore. His initial study focused on dollar spot on bentgrass/*Poa annua* fairways.

"When you're talking about resistance on turf, you're talking about dollar spot," says Vargas, adding that his initial study lasted seven years. "Most fungicides used on turf are for control of dollar spot."

Vargas says his colleagues will not buy into his research because their "heartfelt beliefs die hard." His colleagues, however, insist fungicide rotation is a proven resistance-management technique.

"Rotation is an essential part of resistance management," Couch says. "It's not only used in turf. It's used extensively in crop products with the same fungicides. To tell people not to



"Joe's a good buddy, but he's wrong. He doesn't have any evidence."

Houston B. Couch, Plant Pathology Professor
Virginia Polytechnic Institute and State University

rotate is really the ultimate in irresponsibility."

Some superintendents reject Vargas' research, but others say they're open to it.

"It definitely goes against the training we've received over the years," says Tom Athy, director of grounds for the Omaha (Neb.) CC.

While Athy says he subscribes to the rotation theory, he says he's taken a few fungicides out of his mix because they no longer perform.

"I'm not getting the control that I should get without going to super-high rates," Athy says. "A few of the fungicides just don't control dollar spot anymore."

Ted Cox Jr., superintendent of Running Fox GC in Chillicothe, Ohio, attended Vargas' talk at the Ohio Turf Foundation show. He says "it was kind of a shock" to hear Vargas' stance. He said other attendees in the audience were in disbelief.

"Vargas' theory looks good on paper," Cox says. "It's a reasonable line of thought in a laboratory, but I don't subscribe to that thought process."

Cox says his fungicide rotation program is based on timing. "We've used some of the resistance-prone fungicides for years and have never seen any resistance."

RELIABLE DEPENDABLE PREDICTABLE

However, John Monson, superintendent of the Long Prairie (Minn.) CC, says he's used only iprodione for about 10 years and has not discovered any resistance. He sprays it about four times a year and believes Vargas' theory could be accurate.

"I've talked to some agronomists who've said, 'If a fungicide works, why switch to another?'" Monson says. "I don't have any qualms about sticking with one [class]."

Jerry Palmerton, superintendent of Widgei Creek GC in Bend, Ore., wasn't aware of Vargas' research. "But I agree with him to a point," he says.

Palmerton uses only PCNB for snow mold treatment, and it has worked for several years. "We apply it twice a year [at the high label rate] to prevent snow mold on our putting greens," he says.

Palmerton says he doesn't want to rotate other fungicides with PCNB because he has no idea how they will perform since the greens are covered with two feet of snow for a few months. But he knows he can count on PCNB.

"When the snow melts and you pull the covers off the greens and there's no disease, it's a huge relief," Palmerton says. "Why mess with what you're doing?"

How long one fungicide is effective depends on a various factors, including location and environment of the golf course, Vargas says. A superintendent might be able to apply iprodione 30 times before it's resisted. If he's spraying it three times a year that equates to 10 years, Vargas points out.

Vargas says superintendents "better pray that EPA doesn't take chlorothalonil (which has a low resistance risk) off the market."

Couch contends that superintendents who abide by Vargas' theory won't be able to use some of the most promising new fungicides introduced in several years.

In the meantime, you can bet the great rotate-or-not-to-rotate debate will continue. ■

Layward, the author of this article, can be reached at layward@advanstar.com

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Is there anything more perplexing than the exaggerated influence that good players have on design and maintenance? Amazingly, most golfers treat the opinions of pros and single-digit handicappers as if their views were born out of thoughtful research and calculated reason.

However, simply because these people can play golf well doesn't necessarily mean they have a clue about what's good for the game. But since no kind soul has the heart to tell this to their faces, it's time for this soul to speak up. So, here are the 10 stupid things good players do to mess up golf (hint: stick this page on the driving range machine where they're most likely to see it):

1. Scratch golfers believe "a good but fair test" of their game equals great design.

In other words, if they play well, they like the architecture. If they don't play up to their standards or the course doesn't "fit their games," then either the architect is a hack or the superintendent is doing a lousy job.

2. Good players believe it's their right to play 18 holes without having to think.

"It's unfair that the committee moved the markers up six yards for the final round. Nobody warned me!" Or, "I hit it down the center and could not attack the pin, while Norbert hit it down the left side and had a better angle in. That's unfair design!" No, Norbert used his brain. Try it sometime; you might like it. Of course, then you might not be such a good player anymore.

3. Good players think every course should be set up like a U.S. Open course.

A great "test" has 25-yard-wide fairways, deep rough and perfect lies in the hazards. Tell me, good player: When you were in school, were tests great because they were so difficult? Or was a class memorable because the teacher made it interesting?

4. Good players analyze the design merits of a hole based on handicapping.

"In my regular game, I have to give up a stroke to Smails, and I don't think it's the four-handicap hole. Isn't there something we can do to strengthen this hole?" Yes, and make sure to leave an address so we know where to send the Open Doctor's invoice.

10 Things Players Do to Mess Up Golf

BY GEOFF SHACKELFORD



IS THERE ANYTHING
MORE PERPLEXING
THAN THE
EXAGGERATED
INFLUENCE THAT
GOOD PLAYERS
HAVE ON DESIGN
AND MAINTENANCE?

5. Good players expect hazards to be fair all of the time.

They know when a bunker is poorly placed (because it's in their way), and they always think bunkers should be deeper to penalize hacks. "I *actually* saw a 22-handicapper *actually* get up and down from there last week," a disappointed good golfer said to his playing partner. Oh, the world can be such a cruel place.

6. Proficient golfers think short grass around greens is a bad thing.

That's because it makes them consider multiple possibilities with those pesky shots to the putting service. Worse, with short grass approaches or chipping areas, bad players can occasionally putt from off of the green — another crime against humanity.

7. Scratch golfers believe they should be able to hit drivers on every hole.

If they can't, then it's the result of faulty design or a lousy course setup.

8. Good players are experts on all aspects of course maintenance.

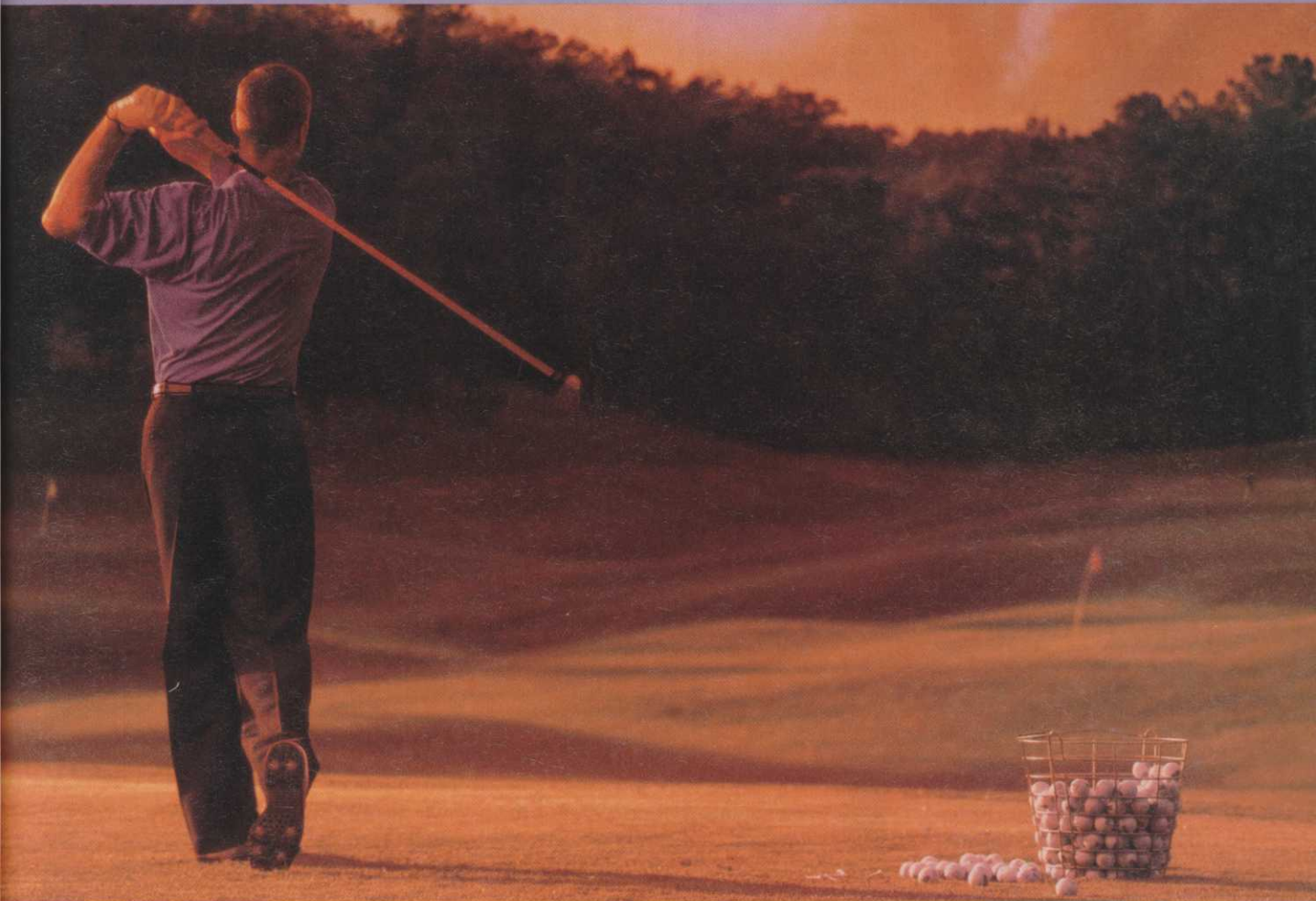
They know all about particle sizes, percolation rates and proper bunker-raking techniques to prevent the end of the world as they know it: the bad lie in a bunker.

9. Good golfers want a road map to the green.

A golf hole is only good if they can stand on the tee and know all its secrets before they tee off. If there are subtle design quirks, they had better be warned. Otherwise, someone did not do his job.

10. Did I mention . . . scratch golfers believe their ability to break 90, 80 or 70 automatically means their thoughts on design and maintenance are divinely profound? Sadly, too many of us actually support them in this delusion.

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Small Town *Comes Back to Life ... as a* Golf Course

Partners attain their dream with a low-budget jewel — Old English GC

BY BRUCE ALLAR

The dream that sustained partners Mark Megenity and Cary Hammond since the mid-1990s — the enthusiasm that had peaked with a groundbreaking ceremony in November 1998 — was suddenly in jeopardy. It was spring 2000, and the would-be developers of the Old English GC in rural southern Indiana were finally clear of some time-consuming snags with governmental permits and approvals. Now they were behind schedule, out of cash and badly in need of financing.

“There was no way for us to get equity from remote investors without turning some dirt, and we needed money to turn the dirt,” Megenity recalls.

Having come this far — having obtained the blessings of the town of English and put together a course design, having slogged through four different flood-plain construction permits and won approval from seven separate funding agencies (including FEMA, HUD and the Army Corps of Engineers) — the partners, both English natives, went begging for money.

Megenity, an elementary school teacher, eventually took out a private \$104,000 loan, which he’s still paying off. Three short holes, now part of The First Tee program, were constructed. Then, finally, financing came through

for a novel 18-hole course that is scheduled to open in June.

“It was for one simple purpose: to show potential investors [some construction], or we weren’t going to have a golf course,” Megenity says of the personal loan he assumed in those desperate days. “There wasn’t any choice.”

Now Megenity and Hammond, a salesman for a produce company, are able to stand with designer David Whelchel, of Columbus, Ohio-based Hurdzan-Fry Golf Course Design, and look out over a low-budget jewel in an under-served golf market. Crawford County is among Indiana’s poorest, with a per-capita income of \$10,828. Old English will be the first full-length golf course inside its borders. The facility, built for less than \$2 million, features the three First Tee holes, an extensive practice range and a scenic 18 holes that play at more than 6,800 yards from the tips.

Old English offers several stunning vistas, and the 18th hole provides a truly memorable finishing look. From a tee elevated along one of the tightly packed ridges that contain the back nine, it steps down in natural contours to the fairway below, creating a sweeping panorama of much of the facility’s 250-acre property.

“Other courses would kill for this, but it



WADE BELL

would cost them a million dollars to create it," Megenity says.

Whelchel recalls making an initial site visit with firm partner Michael Hurdzan and taking a walk up to the wooded ridge tops, where holes 14 through 18 would be laid out. "How the hell do we get it done?" Whelchel remembers asking. But much of the terrain, including the area for the finishing hole, offered a gift in natural landscapes. It just took awhile to recognize the possibilities.

At 18, for example, once trees were cut between the ridge-side tee and flat, river-bottom fairway below, the designers could back off and admire the view. "We didn't know how good it looked until we got the trees off of it," Whelchel says. "Then we said, 'Just leave it.'"

Hurdzan/Fry Golf Course Design has earned notice for laying out low-cost courses, often using novel money-saving techniques. The Indiana developers' commitment to affordable golf and The First Tee made Old English attractive to the firm, which waived its normal design fees and did the project for "cost," which included materials, travel and other incidentals.

"Once Hurdzan/Fry agreed to donate its services — a half-million dollars worth of design services — that changed the whole works," Megenity says.

The struggling project was a go, but Whelchel felt pressure.

"The luxury of having \$5 million or \$10 million to build a golf course is that you can screw up," Whelchel says. "When you have \$3 million, you can't. But this was an excellent natural site and not a great deal needed to be done."

English, Ind., built on the banks of the Blue River, is the Crawford County seat and has an illustrious history. Its namesake, William H. English, ran for U.S. vice president in 1880 and was Indiana's speaker of the house, as well as a U.S. representative during the 1850s. His namesake town became regionally famous in the 1970s and '80s for another reason — flooding.

In 1976, Megenity wrote a paper for an environmental law class he was taking at Indiana University on the effects of stream channelization in his hometown. He attributed much of the flood-causing stream routing to actions of the Army Corps of Engineers and outlined some necessary steps for reducing the high water. His paper concluded with this prophetic remark, "If these steps aren't taken, the town of English will be a park someday — or, better yet, a golf course."

Disastrous floods in 1979 and 1990

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Partners Cary Hammond (far right) and Mark Megenity (third from right) discuss the course's design with architects Mike Hurdzan (middle right), David Whelchel (middle left), and others.

Old English Golf Course



Drainage at Old English is a low-cost endeavor. It's accomplished by 1-foot-wide and 1-inch-thick flat pipe laid out in a herringbone design on each green. With the flat pipe there's no need for trench-digging.

Continued from page 47

prompted an unusual remedy. With federal funding paying the way, the entire town of English, population 673, was picked up and moved to higher ground, leaving "old English" vacated on the flood plain. A statue of William H. English and a few street signs are about all that remain of the town on the grounds of the new golf course, serving as reminders of the property's past.

Along came determined developers Hammond and Megenity. With no previous experience, they drew up some preliminary routing plans, sought financing and sold the dream to officials in English. Like most small towns, English has been shriveling up, its population shrinking and aging. The partners offered a plan to reverse that fate.

"We intended to knock down all the hurdles, prepare everything and hand it off to a golf course development company," Megenity says. "We didn't realize that (golf course development companies) get property given to them outside metropolitan areas all the time so that real estate developers can build homes around it. We were too small of a fish for them.

"So we told the town — if it would agree to do this course — that we would give free access to the course on Mondays through Thursdays after 1 p.m. You can't make a reservation; you have to walk up and wait for an opening. But anybody who lives in the town of English can come play golf for free. That's not being done anywhere, especially on a good course."

Megenity's marketing plan is simple. He wants the course to attract people who have worked 30 years at General Electric or Ford Motor Co. (in nearby Louisville), are eligible for retirement and are golf fanatics. "They can sell their homes where they raised three kids, come to English and build modest homes," he says. Of course, they can also play golf.

Hammond says green fees, normally set at about \$10 per \$1 million in course development, will be in the \$30 to \$35 range for a weekend round with cart. The entire investment to get Old English open cost about \$3 million. It was fronted by 114 small investors.

"We get to change the history of English

Continued on page 50



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Old English Golf Course



A view of the 17th green. The California-style greens are a huge money-saver, costing only \$1 per square foot to build.

Continued from page 48
from where we're flooded out and dead to being back alive," Hammond says.

The portions of the 250 acres that aren't being leased from the city were purchased from five local farmers for a total of \$300,000. The

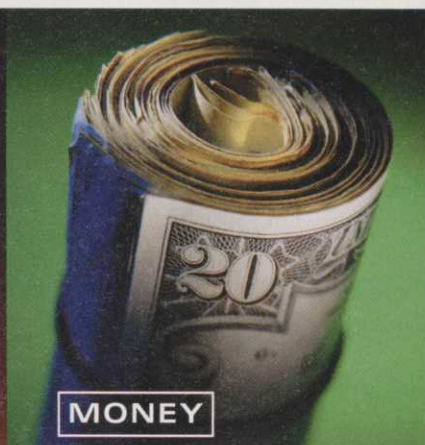
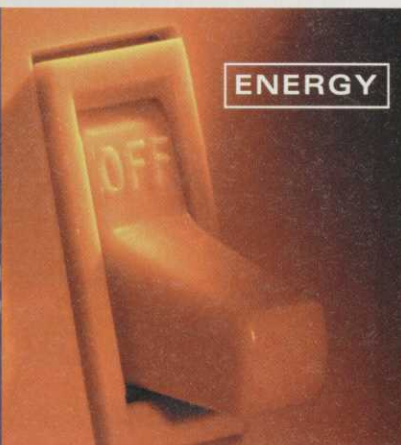
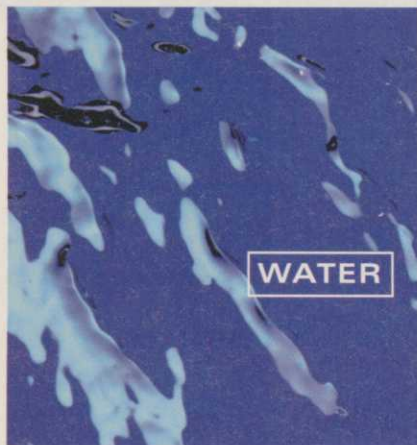
landowners bought into the dream. One sold for just \$1,000 per acre; another offered to donate the land after he heard about the town revitalization plan (he was paid a modest sum anyway).

The designers and developers took several steps to keep construction costs under \$2 million. Megenity credits Wayne Linette, owner of Linette Excavating, for his "very efficient and inexpensive" earthmoving. It was Linette's first job as a golf course builder. "There's no way we can pay him back," Megenity says.

The California-style greens are a huge money-saver, costing only \$1 per square foot to build. This has allowed the Old English developers to put in well-proportioned putting surfaces without breaking the bank. Green surfaces average 6,500 square feet.

The Hurdzan/Fry firm has done about a dozen courses now with the California greens, perfecting a low-cost drainage technique in the process. It eliminates the expensive layer of Canadian peat and builds with a 100 per-

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