Absolutely. I want to work in the dunes and on a true links site. There’s a rebirth of peoples understanding of how much fun dunes golf can be. You see it with the Bandon Dunes courses, which are waking up the country to its vision. There are so many dimensions to it. It brings back some old-school-type play and ground-game-type shots. The diverse terrain and naturalness of the dunes is attractive to me, and it’s what golf is all about. That’s a landscape we want to work in in the future, but the amount of great dunes sites in the world is few. We’re waiting for that call.

Are there many young architects?
There are many young architects that probably jumped into the industry during the boom years in the 1990s. Some will be able to continue, some won’t. The younger generation is much more aware of quality architecture and the history of architecture. I have a lot of hope for this generation of architects. You’re going to see some great work in the next 30 years. There’s a synergy between members and a willingness to understand and apply the history of the game, and it’s going to lead to many great golf courses. My hope is that this growth of quality golf venues will aid the growth of the game as much as any of the other movements to introduce players, retain players, appeal to alternate markets, etc., which are positive programs.

Is there anything you would like to work on that you haven’t?
There are many things you can do to lower costs. Use alternate materials. If you’re lucky enough to find a site, such as Bandon Dunes, in which you’re able to use on-site sand for bunkering, greens. If there aren’t suitable alternate sources for greens and bunkering, then you have to go to more industry- or USGA-type of specs, that increase the cost. We always look for alternate sources, and if it’s feasible, we’re open to that.

There’s a fine line for how little acreage of turf you want to develop. There are architects who have pushed the limit down to 40 or 50 acres of turf, and that’s way too far. There’s a cost savings when doing that, but it’s practically unplayable. But on the high end, you don’t need 150 acres of turf. You want to be responsible in your turf allocation. Irrigation is a huge cost of golf course construction. That has increased more than any other line item in typical construction costs. I’ve berated guys in the irrigation industry, and everyone points a finger over their shoulder at the other guy. I don’t know why it’s increased so much. In Southern California, if a course can’t rely on regular rain to establish outside areas, then you’re talking about a $2-million irrigation system. It’s unbelievable. You can build an entire golf course in some parts of the country on a suitable site for about $2 million. That’s a major problem.

There are many things you can do to lower the cost, and we’re open to all of them. But you have to investigate whether they’re feasible or smart from an investment point of view for the client.

Have you felt the effects of that competition?
It’s frustrating because many architects try to do that. We’re not trying to overbuild golf courses and overspend clients’ money. We’re trying to get the best golf course we can for the most reasonable cost on a site. But the cost of development for an owner, particularly in California, is so high and that has to do with the amount of time it takes to take down a piece of land, gain the proper permits and approvals and develop it. It’s such a lengthy and drawn out process. You see it even more drawn out on the special sites that have an environmental character to them. Those are the type of sites where you might run into environmental hurdles. It’s not so much the overspending, overbuilding, an architect’s style or construction costs. Costs have increased throughout the years, but it’s been a steady climb. It’s the cost and the time it takes to move from buying a piece of property to opening day. In the past, it might have been a year or two. Now, it can be a 10-year process on a special site, and that’s reflected in the greens fees. These costs are ultimately passed on to the golfer, and that’s sad.

What can architects do to reduce those costs?
It’s much more interesting to create something fresh than to aid a club in its goals to progress in the future, whether that’s a renovation or restoration. It’s more interesting to take a blank canvas and be creative. That’s what gets the juices flowing and keeps me interested. It’s a more exciting process. On the flip side, however, special clubs are an honor and a pleasure to be involved with because of their place and importance to the game. I feel a lot of responsibility on these types of courses to further their stature in the game, whether that means a restoration of what’s been lost, or improvements based on how different the game is than 100 years ago.

What’s your philosophy about building less expensive golf courses?
It’s extremely competitive right now, so no. The number of courses has declined during the past three years. When we were building 400 or 500 courses a year five to 10 years ago, there were many more people trying to become golf course architects. I’m sure there are many more architects today than there were 10 years ago, but the market is probably self-correcting itself.

Why is that?
It brings back some old-school-type play and ground-game-type shots. The diverse terrain and naturalness of the dunes is attractive to me, and it’s what golf is all about. That’s a landscape we want to work in in the future, but the amount of great dunes sites in the world is few. We’re waiting for that call.

Are there renovations and reconstruction reasons why there’s plenty of work?
Probably. That’s something we don’t do too often. We keep it at two or three at the most under our current work load. It’s less than a quarter of our business. That’s the model we look for, but other architects are fully vested in renovations and restorations. We only take on special renovation or restoration projects that interest us. It’s either a relationship with a club or a club with a great history or design that intrigues us.

What can architects do to reduce those costs?
There are many young architects that probably jumped into the industry during the boom years in the 1990s. Some will be able to continue, some won’t. The younger generation is much more aware of quality architecture and the history of architecture. I have a lot of hope for this generation of architects. You’re going to see some great work in the next 30 years. There’s a synergy between members and a willingness to understand and apply the history of the game, and it’s going to lead to many great golf courses. My hope is that this growth of quality golf venues will aid the growth of the game as much as any of the other movements to introduce players, retain players, appeal to alternate markets, etc., which are positive programs.

Is there a need for more architects?
It’s frustrating because many architects try to do that. We’re not trying to overbuild golf courses and overspend clients’ money. We’re trying to get the best golf course we can for the most reasonable cost on a site. But the cost of development for an owner, particularly in California, is so high and that has to do with the amount of time it takes to take down a piece of land, gain the proper permits and approvals and develop it. It’s such a lengthy and drawn out process. You see it even more drawn out on the special sites that have an environmental character to them. Those are the type of sites where you might run into environmental hurdles. It’s not so much the overspending, overbuilding, an architect’s style or construction costs. Costs have increased throughout the years, but it’s been a steady climb. It’s the cost and the time it takes to move from buying a piece of property to opening day. In the past, it might have been a year or two. Now, it can be a 10-year process on a special site, and that’s reflected in the greens fees. These costs are ultimately passed on to the golfer, and that’s sad.

What advice would you give people who are considering golf course architecture as a profession?
It’s competitive, but it’s something that’s easy to be passionate about if you’re a golfer and have a design eye. If so, there are spots in the industry for people. I would never discourage people from trying to enter this profession, but they have to be realistic. It’s extremely competitive, and it’s not easy to make a living from unless you’ve won 20 majors. The inherent rewards of creating a great golf course that can be enjoyed for generations to come, however, are tremendous and unique. GCN

To read a longer version of GCNs interview with Todd Eckenrode, please visit www.golfcoursenews.com.
Making it happen

SEMA GOLF WORKED WITH NICKLAUS DESIGN TO SUCCESSFULLY BUILD THE OUTLAW COURSE AND MEET THE OWNERS' HIGH EXPECTATIONS

by JOHN WALSH

Building the final course of a six-course golf facility in the Arizona desert posed several challenges for SEMA Golf, especially when the company never worked with Nicklaus Design before. But despite the challenges, SEMA Golf successfully completed The Outlaw at Desert Mountain course to the satisfaction of its owner, Desert Mountain Properties, and won the 2005 Golf Course News Creative Award for best new construction project.

Bob Steele, president of SEMA Golf, says throughout the years he had priced all the courses at Desert Mountain, none of which the company ended up building, but finally got to build the last one.

"You're only as good as the last course you build," Steele says. "We've built 150 golf courses. It's a real relationship business with architects and owners. We had never worked with Nicklaus Design, but I knew all the players there. I've been in this industry for 30 years. I have contacts, and people know what I've done in the past."

Bob Jones, senior v.p. of Desert Mountain and Crescent Real Estate Equities, says the company wanted to add another golf course to Desert Mountain, creating one with a unique draw for members.

"Looking at the topography and meeting with Jack (Nicklaus) and Lyle Anderson (a partner with Desert Mountain), the land dictated a links-style course that would be unusual for Desert Mountain," Jones says. "And because of the reclaimed water line under the course, we were allowed to put up 110 acres of grass."

Shawn Emerson, director of agronomy at Desert Mountain, was involved in the planning of The Outlaw course from day one. Emerson says a project manager was hired for the golf course, then a construction superintendent was hired to manage the course.

The Nicklaus group had an on-site coordinator who made sure the integrity and design of the project was kept.

Shapes of things

Tom Soileau, who was the on-site architect for the Outlaw project and who hadn't worked on the other courses at Desert Mountain, says the golf course sits on a sloping site that featured a series of ridges and valleys with vegetation.

"The site was narrow, and that was the reason why the course was laid out the way it was," Soileau says. "We wanted some holes to run up and down the valley, but we ended up going perpendicular to the slope."

Soileau says developing the course was a great opportunity to build on land without housing or obstructed views and that adjoins Tonto National Forest.

But the main concern was that the 190-acre site was narrow and small, which dictated a precise routing plan.

"The property was long and had a cross slope to the east, and we needed to make it look natural," Steele says. "Jack didn't want us to disturb the green spaces and wanted the greens to sit next to the hillsides. He wanted a Scottish-style golf course. There were a huge variety of things that he wanted to fit in."

"Having an on-site coordinator from Nicklaus Design was key to the success of the project," he adds. "If something wasn't working right, he could sketch something and send it to Jack."

Water delay

Another challenge the developer faced was waiting for water to be delivered to the site from the city. The owners were dependent on the city bringing the water lines about 12 miles to the course. The city had to go through rock
The Outlaw course was built on land that dictated a links-style course, which was different from the styles of the other five Desert Mountain courses in Scottsdale, Ariz.
Originally set to be sprigged, The Outlaw course was sodded using 419 Bermudagrass instead.

and was behind schedule, according to Steele.

"We were at the mercy of the city," he says. "When we found out the city was two months behind, we had a temporary water line to flush the irrigation system while waiting for the real water. We couldn't have pulled it off if everyone wasn't a team player."

"When the project got stalled because of the water line, SEMA worked on finishing other aspects of the course that didn't need irrigation," Jones says.

And the grassing philosophy changed because of the water delay.

"We were originally going to sprig the course, but we ended up sodding the course with 419 Bermudagrass," Emerson says. "We got 60 to 70 acres of sod from West Coast Turf. We built all of the green complexes first, then sodded around the greens, then seeded the greens with Dominant bentgrass. "We wanted 120 days from seeding the greens to opening day," he adds. "We seeded in June and opened in November in 100-degree heat. It took great coordination. We wanted to sprig the course because of a $10,000 to $12,000 cost difference per acre. We wanted to save on water, fertilizer and labor. There is less wear and tear on equipment when you sprig a course. Originally, we thought we could open up 30 days sooner. But it ended up being a wash because we got the course done on time."

The development of the course was precise, and Emerson says a group of six holes had to be completely finished before moving on to the next group of holes.

"We didn't have time to go back and do a punch list once the entire project was finished," he says. "The last thing we did on each hole was sod. The key was finishing the holes completely. While doing the next six holes, we went back and did a punch list on the previous six.

Change orders kill golf course construction. This project had very few."

Sand capping

Sand importation to site was another challenge. Sand was used to cap the entire golf course at an average of six inches. Product location, scheduling and implementation were instrumental in bringing this together.

The sand capping was done on time and on budget by continual monitoring and management by the team, according to Steele.

This included delivery, scheduling, job-site access and timely proper application of the sand capping.

Quotes from the judges

"Across the board, SEMA had the highest recommendations that were credible from the owner, superintendent and the architect, who is well known as difficult to please. They quantified the cost-benefit ratio - only $5,000 in post construction work, whereas the other builders said there was minimal or some."

— Jeff Brauer, golf course architect and president of GolfScapes

"Due to the completeness of the proposal, every comment that was made by the superintendent, architect and owner were very favorable. It appeared that Jack Nicklaus had never worked with SEMA before, and they were very impressed and suggested them for future jobs. It's difficult working with a contractor for the first time, trying to learn their process and their people. It sounds like it was a great relationship and a very successful project in the end."

— Chris Wilczynski, golf course architect with Arthur Hills/Steve Forrest and Associates

"The thing that stood out in my mind the most was the attention to detail in the blueprints that were furnished. The responses from the owner, superintendent and architect were impressive, along with the letter from Jack Nicklaus."

— Terry Buchen, CGCS, president of Golf Agronomy International

"One of the things that stood out with the Outlaw proposal was that the cohesiveness of the team was apparent in the application. They had clearly worked well together. They had encountered adverse circumstances. They clearly had worked through them as a team. The appearance of the finished product was representative of good finished work and the attention to detail was discernible."

— Henry Delozier, vice president - golf, Pulte Homes
Working as one

Steele, Jones, Emerson and Soileau agreed teamwork and communication made the project successful. The only change orders generated for construction were for work due to delays in water availability, all of which were generated or amended to the contract by the owner, Steele says.

"We met weekly during the project and went over all of the changes," Jones says. "SEMA's reports were timely, and they had our interests first. We found that Bob had contractual numbers given, and when we wanted to move things a bit, those were done without change orders. He didn't have the, 'If you want me to do this, I'll have to create a change order' attitude."

And SEMA was not the low bidder on the project, according to Jones. "We have learned that cheaper is not always better," he says.

The scope and cost of the job was bigger than what the company originally planned for, but the design dictated that, Jones says, adding that SEMA was attentive and worked with the owner to not increase the cost of the project.

"This is probably the most complete golf course (including landscaping and cart paths) we've done," Jones. "We did a weekly sign-off on the aspects of the course. It took a unique architect and construction group to pull this off."

Jones says he had met with Steele previously and had gotten to know him. "I had him look at some smaller projects in the past, and I saw his personal attention to detail. He let me know he didn't like taking on too many golf course projects because he wanted to focus on them. His personal oversight made the difference."

Soileau says working with Lyle Anderson and the people at Desert Mountain was great. "They are very professional," he says. "I have been used to doing that type of quality work for Jack for 10 years. We had assembled a really good team: the owners, contractors and architect. Everyone worked toward a common goal. We really worked as one."

"They did an excellent job of interpreting the intent of the architect between visits. There were very few changes after the architect returned. They also had water delays, yet the still got the project completed on time and on schedule, even after a four-month delay of getting the effluent water line to it. Obviously, it was a well-orchestrated project. The project superintendent was praised by everybody involved in the project from the course superintendent to the owner and the architect as being an outstanding leader of the project and the primary reason why the project was so successful."

— Ken Gorzycki, director of golf course maintenance at Barton Creek Resort and senior regional superintendent for ClubCorp

Despite unexpected delays with water, The Outlaw course, clubhouse and maintenance facility opened the same day, on time.

The course was expected to have PGA conditions the first day, Emerson says. "There was a lot of pressure on the project manager and contractor," he says. "It was the best finish job I've ever seen on a golf course. The punch list was finished in less than a week. If we didn't do something right, then we did it over again right there."

"The key to the project was communication and the weekly meetings we had," he adds. "Everything was done in the best interest of the golf course, which was the priority, not money or anything else. I could have played any one of the PGA or LPGA events on the course the opening day. It looks like it's been here for years. It doesn't look new. The clubhouse and maintenance facility opened the same day as the course."

Steele says SEMA was always under a microscope because the owner expected perfection and says the project helped SEMA go to the next level. "We stayed within our budget," he says. "There were very little change orders because of all the project coordination's weekly meetings. It boils down to communication and knowing what they wanted upfront. To me it's one of the top golf courses we've built. It's one of the nicest golf communities we've been involved with. Desert Mountain is the only golf community with six courses worldwide with such high standards. It's great to have this on your resume."
RYANGOLF OVERCOMES CHALLENGES RECONSTRUCTING THE NORTH COURSE AT FRENCHMAN'S CREEK IN FLORIDA

by JOHN WALSH

High expectations from 600 owners, never working with architect Jim Fazio and four hurricanes didn't deter Ryangolf from successfully reconstructing the North Course at Frenchman's Creek in Palm Beach Gardens, Fla., and winning the 2005 Golf Course News Heritage Award for best renovation or reconstruction.

Frenchman's Creek is a residential community of 600 families and two golf courses. John Cohen, a resident member of Frenchman's Creek, was the co-chairman of a committee to oversee the reconstruction of the North Course.

"The course is 30 years old, and in south Florida, you can't let courses go that long," Cohen says. "It was time to rehab the course from soup to nuts. We had done some

Golf course architect Jim Fazio added 10 acres of lakes to the North Course at Frenchman's Creek.
band-aid work in the past, but now everything is brand new."

But Ryangolf wasn’t one of the contractors the owners initially had in mind to do the job.

“We interviewed four others and were close to hiring the contractor who did the South Course,” Cohen says. “Another nearby course did the same renovations we did on the South Course, but used Ryangolf as their contractor. We had trouble with bunker drainage, and coincidently, the other course had the same problem. The liner material seemed to have caused the problem. Ryangolf built the bunkers according to the plans and specs, therefore they weren’t at fault. Nevertheless, they came back and redid all the bunkers at no cost on the nearby course. We went back to our contractor, and they didn’t do what Ryangolf did.

“We got excellent, first-class recommendations from other clubs that used them for renovations,” he adds. “Thus, we chose Ryangolf for this project, and they lived up to the expectations.”

Phil Garcia, president of Ryangolf, says the company does a lot of renovation work on golf courses in the Palm Beach area that were built in the 1970s and ‘80s and need to keep up with new supply coming into the market.

“We thought we were in line for Frenchman’s after we did the Boca West Country Club renovation,” Garcia says. "Boca West is the crème de la crème. We didn’t bid on Frenchman’s at first. We never worked with Jim Fazio. Frenchman’s was not happy with the bids, and then connected with some of our clients, and they said, ‘If you’re not working with Ryangolf, then who are you working with?’ I got 30 calls from people I didn’t know. Frenchman’s owners didn’t know Ryangolf. That’s why we weren’t asked to come to the table to bid. We eventually met with Fazio, and the superintendent, Norm Pilote, called me as well.”

Garcia says Fazio stuck out in his mind as one reason he wanted to do the project, because he wanted to work with him. He also says Frenchman’s Creek is a well-known, first-class club, and the timing was right because the company just finished another project.

“We had the right crew, so we started planning one month before we broke ground,” he says. “Everything was set up to be there waiting when we broke ground.”

Getting started

Once Fazio received the plans, he says the owners told him what they expected and didn’t care what he did as long as he gave them a good golf course.

“The course was dead flat and didn’t have a lot of land,” he says. “I address all the concerns of the homeowners, who wanted color and to see birds back in the ponds. I added 10 acres of lakes to the course. Frenchman’s Creek became the main feature. Now it’s a moving creek, and it flows all the time. We took 19 acres of exotic vegetation off the property and regraded everything. We put some rolls in the fairways and built up some greens. We brought water into play and made the course more challenging. The South Course was voted a better course, and now it’s a toss up as to which is the better course.”

Fazio says that of the 19 acres of vegetation taken out, less than one acre was put back, and over time, the owners will put more vegetation back.

During the reconstruction, Cohen says there were no substantial changes and there was no additional material cost to the project for the small changes that were made.

“Ryangolf stuck to the plans and specs by the architect,” he says. “However, there were a lot of changes in the field, such as the size of a green and the placement of tees or bunkers, that didn’t affect the outcome.”

Cohen says the owners were fortunate to have Fazio there on a daily basis.

“Jim Fazio, who is a low key guy, likes to do two or three projects a year,” he says. “He was here 98 percent of the time and worked directly with the contractor daily in case he wanted to make small changes, therefore, we didn’t have to wait for the contractor to move forward expeditiously. Our superintendent also was involved daily.”

The course is seven miles from Fazio’s home, which is one of the reasons why Fazio says he

“Most projects take nine to 10 months to build. This took four to five months. Decisions were made every day. We made sure nothing went wrong, and it got done on time.” – JIM FAZIO
liked the project. Because he only does a few jobs a year, Fazio spends a lot of time on each project. He only missed three and a half days on the Frenchman's Creek project.

"Most projects take nine to 10 months to build," he says. "This took four to five months. Decisions were made every day. We made sure nothing went wrong, and it got done on time. It saved everybody time and money. The contractor was the biggest asset. Nothing was too hard for them. They had enough people and equipment to do the job. They understood the architect's wishes. They got decisions in minutes, not hours, and did a first-class job in a professional manner."

The owners decided to use Sea Isle 1 paspalum on the fairways, roughs and tees and TifEagle Bermudagrass on the greens.

"We didn't need salt-tolerant grass, but when we renovated the South Course, we used TifSport and weren't happy with the results," Cohen says. "So we went to other courses that had used paspalum. It's a hearty grass, and you get a much better lie. I'm not sure if it will stand up to the cart traffic better than TifSport, but it allows for better playability from the fairway than TifSport, which tends to lie down."

**Hurricane alley**

Another significant and challenging aspect of the project was the removal, harvesting and replanting of about 200 oak trees and 650 palm trees. They were harvested on a nearby farm then placed back on the course as it was being rebuilt. Cohen says the palm trees held up through the hurricanes but the oaks didn't - 40 to 50 of the oak trees went down after the first hurricane (Frances) came through and then had to be put back up. Three weeks later Jeanne came through and knocked down 60 to 70 oaks.

The project was completed right before the first hurricane came through, and it affected the grow-in of the last few holes, but not the construction.

"There's a clear difference between the holes that were done first and the ones that were done last, but that will even up this summer," Cohen says.

"The hurricanes delayed the opening about two weeks later than we planned. We expected to open right after Thanksgiving originally, and we opened Dec. 11."

"We had a couple of holes we did last that

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**Quotes from the judges**

"Frenchman's Creek was a total blowout and do over. It had a very large scope of work and also was affected by the hurricanes, and Ryangolf managed to get the project done on time and on budget. I didn't see a lot of the specific techniques other than just working harder, smarter and longer, but that's always a good thing on a renovation project."

- Jeff Brauer, golf course architect and president of GolfScapes

"Everything was new, including three waterfalls and a creek system. They were subjected to four hurricanes. They ended up with no change orders, and they were only two weeks behind schedule with all the bad weather. The attention to detail was well done and outlined by all the principles at the club. As a side note, they were pioneers. The elected to go with seashore paspalum on everything except the greens, where they went with TifEagle Bermudagrass."

- Terry Buchen, CGCS, president of Golf Agronomy International

"The impact of the proposal from Frenchman's Creek was most noticeable for me because it was such an extensive project. I found the before-and-after pictures informative, which demonstrated the attention to detail that was used on a comprehensive project."

- Henry Delozier, vice president - golf, Pulte Homes

"I was impressed with Frenchman's Creek because they had to deal with four hurricanes, and they were only two weeks delayed through all that. The package they presented was thorough, and they had great before-and-after pictures, so it was easy to see the differences."

- Chris Wilczynski, golf course architect with Arthur Hills/Steve Forrest and Associates
got screwed up by the hurricanes, but the hurricanes didn’t affect the construction of the course,” Garcia says. “The first hurricane came right after we finished. Then we fixed all the washouts. The hurricanes slowed the growth of the grass down a bit because there was too much water.”

Fazio says the hurricane defoliated everything and took the wind out of his sail. “This spring, we might see more trees die because they got knocked down twice,” he says.

A team effort
Even though the project was successful, Cohen says the owners were a bit unsure of the project in the beginning. “The community was leery about this renovation because they weren’t happy with the last renovation,” he says. “They paid an assessment for the first renovation, and they were charged an assessment for this one. But the coordination was extraordinary. Everyone was well organized. The community has been overwhelmingly satisfied with the course.”

Garcia says spending a month planning the project before the company started was one reason why the project went smoothly. “It was a team effort with our crew, the subcontractors and the Frenchman’s group,” he says. “It was so easy to do because Fazio was there every day. He was very proactive. 600 owners are difficult to satisfy because they are used to perfection. People were upfront and honest. We let the owners know what we were behind on and what we were ahead on. The only cloud over this project is Norm's death. He was a great guy and helped in any way he could. All energy was focused on the solutions. This is one of those projects where we can look back and say that we couldn’t have done anything better. The fun part is we know how to do it again.”

Pilote died of a heart attack one week before the North Course opened, and assistant superintendent Wes Dillard took over as superintendent.

Garcia says the quantity of projects the company does aren’t important, service after the sale is important and the No. 1 marketing tool is references. “All I have to do for references in Palm Beach county is call John Cohen and have him give us a recommendation,” he says. “Our clients are the most important asset we have.” GCN

For more information about Ryangolf, visit www.ryangolf.com or call 954-571-2088.
Analyzing a nemesis

IMITATING POA ANNUA'S STRENGTHS COULD BE USED AS A MANAGEMENT PRACTICE TO ENSURE PURE BENTGRASS GREENS

by KEVIN J. ROSS, CGCS

In the world of sports, many teams analyze the strength of the opponent and make adjustments to eliminate or minimize that strength. In turfgrass management programs, superintendents also use that philosophy. For example, we look at diseases and try to minimize the effects by taking away a component (moisture, nitrogen, etc.) that makes a particular disease thrive. What happens when we analyze a foe whose primary strength is difficult to eliminate or minimize? In this case, maybe we should start thinking outside the box and imitate the foe.

Let's look at one of the main nemesis in turfgrass management: Poa annua. If a club's man-

If seeding bentgrass greens to fight Poa annua infiltration, a good portion of sand should fill holes after aeration and before seeding.