



Sealsle Supreme paspalum grows much better with a less-than-perfect water supply, says Earl McMinn. Photo: The Oaks

The turf's proponents claim paspalum requires less water, fewer nutrients and a reduced number of certain pesticides. Compared to bermudagrass, it often has a deeper green color and denser plant structure that allows the ball to sit up higher. It also stripes well when mowed.

Until recently, paspalums have been considered mainly a tee, fairway and rough grass, with ultradwarf bermudagrass still king when it comes to greens. But some recently developed paspalum cultivars, like SeaIsle Supreme and SeaDwarf, have proven to be the equal of ultradwarfs when it comes to quality putting surfaces. That has led certain courses, such as The Oaks, to consider planting paspalum wall to wall.

A COMPLETE OVERHAUL

Earl McMinn, CGCS, came to work at The Oaks – which has two 18-hole layouts, The Eagle and The Heron – as director of golf and grounds maintenance in May 2004. McMinn previously worked at The Landings Club in Savannah, Ga., where he oversaw renovations of the

Marshwood and Magnolia courses.

When he arrived, The Oaks' members were debating the extent of needed renovations to The Eagle. The course was in dire need of irrigation and drainage improvements.

“My opinion was that as long as they were tearing up the course and spending \$2 million anyway, they could spend another \$2 million and do an entire renovation complete with USGA-spec greens and new grass,” McMinn says. “We had a lot of off-type bermudas that had gotten into the Tifdwarf 419 bermudagrass, so it wasn't a pure stand of 419 anyway. We also had some common bermudagrass and torpedograss, which is difficult to eradicate.”

The members voted overwhelmingly to follow his recommendation. McMinn and Yoder put the project out to bid in 2005 and closed The Eagle in March 2006.

PREPPING FOR PLANTING

McMinn traveled to several golf facilities that had

switched from bermudagrass to paspalum and asked about their eradication programs. Some had used methyl bromide and others preferred Roundup, but McMinn decided to blend the two processes.

He sprayed the entire course with Roundup before overseeding with ryegrass in the fall of 2005. Then he increased the overseeding rates to encourage a thick stand of ryegrass that would smother any of the remaining bermudagrass or torpedograss. Once the course closed the following spring, he applied two more Roundup treatments along with fusilate and Drive. Drive helped further eradicate any remaining torpedo-grass. Fusilate did the same with the bermudagrass. Once the builder, Landscapes Unlimited, plowed the course under and shaped the main features, McMinn applied methyl bromide to the fairway and tee complexes.

The choice of grass was important. The master plan called for the renovation of all 36 holes. As soon as Hills and McMinn completed The Eagle, McMinn turned his attention to the Pete Dye-designed Heron.

“We wanted to have an excellent playing surface on both courses,” says McMinn, who visited numerous Southern Florida courses, as well as The Ocean Course at Kiawah, which was replanted with paspalum.

McMinn’s and Yoder’s research revealed Sealsle Supreme ranked at or near the top in most categories on paspalum turf trials. Sealsle Supreme also seemed to provide the best putting surface.

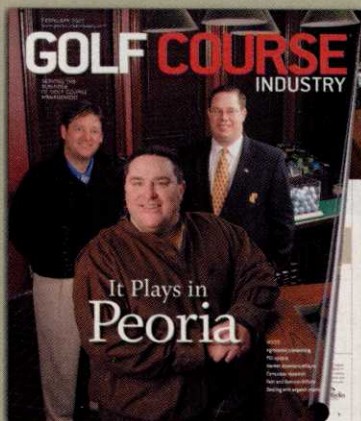
“I had seen many paspalums that were pretty from tee to green,” Yoder says. “But when you got to the putting surface, most paspalums weren’t comparable to TiffEagle bermudagrass

or bentgrass. Sealsle Supreme seems to provide a better putting surface than anything else. All paspalums have good color, but Sealsle Supreme gives a better roll and is easier to maintain green speeds. Others seem to be a bit bumpy. Supreme seems a little smoother and easier to maintain desired green speeds.”

PLANTING THE TURF

McMinn and Yoder chose Pike Creek Turf as their supplier. Pike Creek is one of five certified growers of Sealsle Supreme in the country. But this was the first time the Adel, Ga.-based company had worked on a wall-to-wall project with the same turf.

While supplying a single turf type might not sound difficult, there can be complications because tees, roughs, fairways and greens are all sprigged at different rates.



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“You can’t just pile all the grass together and then spread it,” McMinn says. “If you measure the square footage of a green and it requires 100 bushels, you have to make sure there are 100 bushels in the box and it goes to that particular green so you sprig at the right rate. When we got the first load, no one had accounted for that. It was a learning process for both of us.”

The Eagle also required about 37 acres of sod because of its numerous vertical features and mounding. The bunkers and green surrounds, in particular, were sodded heavily.

McMinn’s previous two renovations at The Landings involved bermudagrass and zoysia-grass. He found SeaIsle Supreme had a better rooting structure.

“That helps when laying sod on slopes and it starts raining,” he says. “The quicker it roots down the better.”

Two bad storms struck during construction with one dumping 5.5 inches of rain in a 24-hour period. Six holes suffered significant damage, particularly the 15th.

“It basically blew out everything, and we had to do some rebuilding,” McMinn says. “That set us back two to three weeks for cleanup and resodding some areas. Otherwise, it was a smooth project.”

GROWING IT IN

One of the few drawbacks with paspalum is that it tends to be a bit more prone to disease than bermudagrass, McMinn and Yoder say. During the grow-in, larger amounts of water are needed for turf establishment. Couple that with South Florida’s high humidity, and the stage is set for disease problems.

“We used more fungicides than we might have with other grasses during grow-in because of paspalum being disease-prone,” McMinn says. “We tried to manage that with water. Once it got cold, we backed off as much as possible on irrigation.”

McMinn also fought a daily battle with armyworms, which have a particular affinity for newly planted turf on Southern courses.

GOING FORWARD

One of the advantages of having two courses, particularly during Florida summers, is that McMinn can rotate the two courses for maintenance purposes. One will be available to members for a three-week stretch, while the

other is closed for maintenance. That will give the grounds crew the opportunity to make any needed adjustments to the paspalum-sporting Eagle before snowbirds begin returning to southwest Florida in late October.

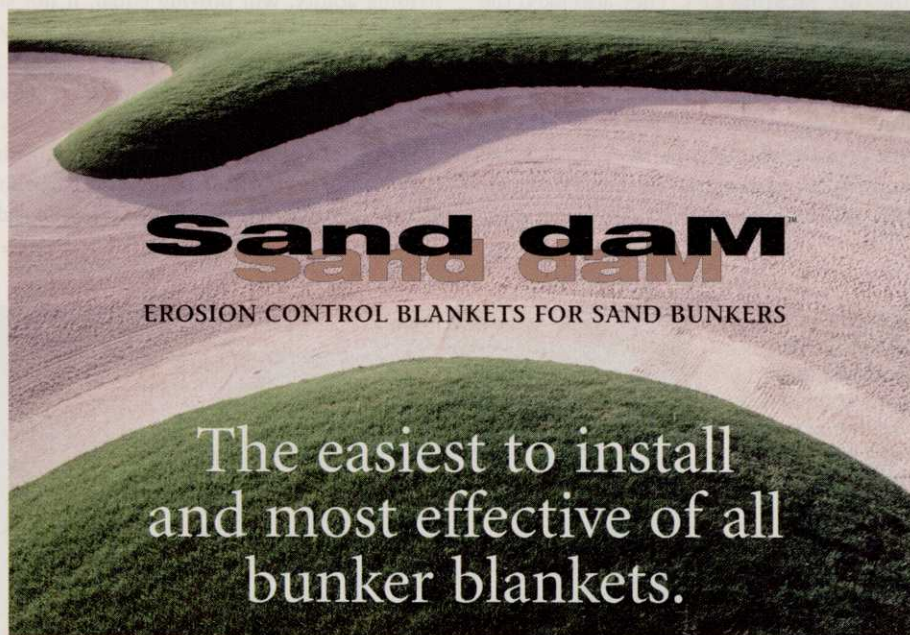
The Oaks’ irrigation water comes from two deep wells with permits to withdraw 500,000 gallons daily. While less salt-laden than effluent, it contains high amounts of bicarbonates, which make the liquid hard and of marginal quality.

The SeaIsle Supreme paspalum grows much better with a less-than-perfect water supply than

bermudagrass, McMinn says.

“A fairly good quality water helps the young paspalum plants grow in better,” Yoder says. “Once it’s established, you can feed it more and more salt. The salt keeps out many of the weeds that would move into bermudagrass. Salt-laden water kills bermudagrass and noxious weeds. Paspalums tolerate effluent much better.”

Planting the same cultivar throughout the course also would simplify irrigation management, especially on a layout like The Eagle that expanded the number of irrigation heads



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COURSE RENOVATION

from 750 to 1,200 as part of the renovation, Yoder says.

"With further watering restrictions likely coming down the road and effluent being about the only option, you need to plan ahead," he says. "You need to make sure the irrigation system is set up to handle effluent and use galvanized steel fixtures that can tolerate higher-salt-content water."

In terms of playability, Sealsle Supreme paspalum grows tighter and denser than bermudagrass. When club members, particularly mid- to high-handicappers, played on other paspalum courses, they loved how high the ball sat on top of the turf, McMinn says. They also liked the way the grass striped when mowed and the dark-green color, much like the Northern courses many play on during the summer.

And because of its waxy leaves, Sealsle Supreme doesn't hold the early-morning dew like bermudagrass, meaning players should find their shoes, socks and pants much drier, Yoder says.

Because of its waxy leaves, Sealsle Supreme doesn't hold morning dew like bermudagrass, says architect Brian Yoder. Photo: The Oaks

"Aesthetically, paspalum definitely beats bermudagrass," McMinn says.

Lower-handicap players sometimes take awhile to adjust to the way the thicker paspalum turf grabs the ball compared to bermudagrass. The ball doesn't bump and run as easily as it does on bermudagrass.

"A good player with a variety of shots around the green might have to use more pitch or flop shots around the green," McMinn says.

Those used to having the variety of grasses on their course providing contrast and definition will be surprised how mowing the same grass at different heights, coupled with paspalum's striping ability, will provide equal, if not superior, definition and contrast, McMinn says. He predicts the rough will be cut at roughly 1.5 inches, fairways at less than 0.5 inch and greens as low as 0.1 inch.

Perhaps the biggest advantage of planting the course entirely with Sealsle Supreme paspalum will be recognized in the future. With Florida

under heavy development pressure, many believe it's only a matter of time before potable water will be unavailable for most courses. Effluent might be the only option, and those courses planted in paspalum will be in the best shape to prosper.

"That's a huge consideration in the Southeast, and we want to be ready," McMinn says. "Water will be the biggest driver for courses selecting this turf type during the next 10 to 20 years."

When all is said and done, the bottom line with any renovation is the reaction of those who play it.

"I've taken many members on tours of the new course and have received so many great comments about the layout and design," says general manager Steve Geisler. "Everyone is excited about getting out there once it opens." **GCI**

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A PUBLIC/PRIVATE PARTNERSHIP





A LOOK BACK AT TPC SCOTTSDALE AS IT CELEBRATES 20 YEARS AND RENOVATES A COURSE

BY PETER BLAIS

When it comes to the book about public/private partnerships, former PGA Tour commissioner Deane Beman, former Scottsdale mayor Herb Drinkwater and Bureau of Reclamation officials co-authored the first chapter.

TPC Scottsdale, which includes the Stadium and Desert courses, recently celebrated its 20th anniversary, a milestone that yields pride and, occasionally, surprise with the likes of Tom Beat. Beat, the city's project manager during construction and now its recreation director, represented the city and controlled the checkbook during the project 20 years ago.

"At the time, we looked around and couldn't find anyone else who had done anything like this," Beat says. "In fact, the BOR now asks me to attend seminars and conferences to put on workshops for gateway cities and towns adjacent to federal lands that might be available for public purposes. We're trying to use this project as a model, telling towns that if they're close enough to federal land, they might be in a position to enter a transaction similar to what was done in Scottsdale. Here's a template, but like everyone else involved at the outset of this project, I learned on the fly."

THE GENESIS

The Phoenix Open, which is now called the FBR Open, originated at the Phoenix Country Club in 1939. The club was a downtown facility where the Phoenix Thunderbirds, a local organization of area businesspeople, raised millions of dollars for charity throughout the years in conjunction with the PGA Tour. The 18-hole course sat on just 125 acres, and by the mid-1980s was too small to host what was the best-attended event on the PGA Tour, according to Vernon Kelly, past president of PGA Tour Golf Course Properties.

The Thunderbirds asked commissioner Beman to help build a stadium-style Tournament Players Club in Phoenix that would be large enough to handle the event. Traditionally, the Tour had structured development transactions that incorporated a real-estate project to provide a source of funds to pay for the golf facility's development. Occasionally, PGA Tour Golf Course Properties encouraged a hotel resort as an option.

Many of the movers and shakers in the Phoenix/Scottsdale area were Thunderbird members. The Tour asked if any of them were interested in putting together such a project. One member had the idea of building a hotel on his own land and the golf facility on adjacent parkland. At a Phoenix City Council meeting, attended by Beman and Kelly, the proposed TPC project was supposed to be a mere formality. Instead, the city council rejected the plan.

Thinking the Phoenix Open had seen its last days in the Arizona capital, Beman and Kelly were preparing to leave town the next day when Mayor Drinkwater called them with an invitation for the Tour to consider Scottsdale its new home.

"You just tried it in the wrong place," Drinkwater had said, adding he had the perfect location for the facility. "If Phoenix doesn't want you, Scottsdale does."

Beman and Kelly had no idea who Drinkwater was or whether Scottsdale, considered an incon-

Of the two courses at TPC Scottsdale, the Stadium Course is the upscale facility that hosts the FBR Open
Photo: TPC Scottsdale



Money generated from course operations helped the city of Scottsdale pay off a 20-year revenue bond that was part of the development. Photo: TPC Scottsdale

sequential Phoenix suburb at the time, could support such a facility. With a few hours to spare before their flight and intrigued by Drinkwater's aggressiveness, they visited the site.

"Beman told me later that after meeting with this 'big old cowboy' (Drinkwater) the first time, he wasn't sure what he was getting into," Beat says.

Drinkwater believed government does a lot of things well, but competing with private industry wasn't one of them, Kelly says.

"Drinkwater wanted the finest course in Arizona," he says. "But rather than have the city run it, he wanted a first-class operator, like the PGA Tour. He knew if the tournament moved there it would be good for his city."

Scottsdale had a 99-year lease to develop recreational facilities on a 400-acre tract of flood basin owned by the BOR. The agency maintained the tract as a drainage project to capture runoff from several thousand nearby acres. It flooded from time to time, and the water percolated into the ground with no damage to surrounding property. The BOR's regulations forbid the importing

of additional fill because the land had to absorb a certain amount of water. However, digging a lake and piling the resulting fill to create fairways and greens was alright because the potential storage area would remain the same.

FINANCING AND CONSTRUCTION

From the city's view, one of the biggest hurdles was developing a way to pay for the courses without tax dollars, which Drinkwater made a condition of the proposal, Beat says. The city planned to float bonds to build two Jay Morrish/Tom Weiskopf-designed courses – the upscale Stadium Course and moderately priced Desert Course. But projected revenues from the golf courses alone wouldn't be enough to pay for the project. Making the numbers work required bringing in another partner, such as an outside developer to build a world-class hotel.

The city and PGA Tour Golf Course Properties ran an ad in the Wall Street Journal and interviewed seven prospective hotel developers before selecting the Princess Hotels to build a five-star resort on adjacent, privately owned property.

The city convinced neighboring land owners to donate sufficient land, which previously had been used as an informal motorcycle racetrack and unofficial dump, to build the hotel and clubhouse. The city leased the land to the operators of the Princess Hotel. The hotel and golf projects created golf course and commercial frontage that added value to the neighbors' properties. The revenue generated for the city from the hotel lease and course operations supplied enough money to pay off the 20-year revenue bonds.

The planned revenue stream was so promising the city was able to develop a pro forma detailing golf facility and hotel revenues in just six months, a task that normally would have taken five years, Beat says. The city eventually paid off the revenue in less than the 20 years stipulated in the original bond issue.

In the meantime, the city built two courses that cost taxpayers nothing and added recreational amenities and a hotel that proved a tremendous boon for the city's tourist industry, paid an enormous amount in taxes and employed many people. The PGA Tour was able to keep the Phoenix Open in its annual rotation, and the BOR guaranteed its land would continue to serve as a floodplain.

"It was truly a win-win-win situation," Kelly says.

TWO DIFFERENT COURSES

As for the courses, Drinkwater wanted two layouts. A dynamic leader with a definite vision of where his community should go, the former mayor wanted one upscale facility that could stage a national event like the Phoenix Open and a quality layout local residents could

afford to play.

The challenge was to keep Drinkwater's two-course commitment and have everything ready in time to play the 1987 Phoenix Open, Beat says. Builders broke ground on the two layouts on Aug. 7, 1985. They were grown in a year later. The maintenance crew overseeded the Stadium Course in October and had it ready in time for the 1987 Phoenix Open.

"When we started, there was nothing on the site," Beat says. "We had to bring in all the utilities, build the courses and clubhouse, and be ready with tournament-quality conditions in less than two years. We moved 1.8 million yards of dirt."

The Desert Course opened about nine months after the Stadium Course.

"It was tees, greens, fairways and dirt," Beat says. "It had state-of-the-art irrigation, grass and construction, but not a single tree. It looked like you were playing on the moon. In fact, we had one tree on both courses."

But creative wheeling and dealing solved the lack-of-foliage issue. At the time, the Phoenix/Scottsdale area was growing quickly with road and construction projects. A state environmental ordinance protected trees, requiring they be boxed and transplanted instead of cut down. With help from the BOR and PGA Tour Golf Course Properties, thousands of trees were relocated and transplanted at the Stadium and Desert courses.

"We even lucked into a bankrupt nursery," Beat says. "That got us a lot of them."

MARKET SHIFTS

Mayor Drinkwater passed away several years ago,

AT A GLANCE TPC Scottsdale

Location: Scottsdale, Ariz.
Facility: The Desert Course and the Stadium Course
Owner: The city of Scottsdale
Architects: Jay Morrish and Tom Weiskopf
Operator/manager: PGA Tour Golf Course Properties
Builder: Pulice Construction
Superintendents: Was Cal Roth, now at TPC headquarters overseeing all TPC courses; Jeff Plotts is the superintendent now
General manager: Bill Grove
Cost: \$20 million (for both courses and clubhouse in 1980s)
Years built: 1985-1987



Increased competition has forced the renovation of the Desert Course. Photo: Nick Bisanz



and during the 2006 FBR Open, TPC Scottsdale and the city co-hosted a function honoring him and key individuals from the BOR and the city, such as former councilmen Bill Walton and Jim Bruner, who helped make the TPC Scottsdale dream a reality.

"The city understands and appreciates the value of the asset and has reinvested in the asset by taking a share of the profit the facility generates and putting it back into the property," Kelly says.

Because the project sits on federal land, local residents pay the same green fees as nonresidents. The rates are attractive particularly on the Desert Course, which costs between \$37 and \$65, including a cart. That made it perhaps the most attractive deal in the Valley of the Sun for many years. Rounds peaked at 76,000 in 1998, says general manager Bill Grove.

When it opened in 1986, the TPC Scottsdale complex was just the third major golf project in the city, following two prestigious layouts – Desert Highlands and Troon. For seven to eight years, the Desert Course was the only affordable layout. But the 1990s brought an abundance of new courses that saturated the market. With the downturn in the economy during the late 1990s and particularly following Sept. 11, many of the mid-tier courses started offering off-season and summer rates that were competitive with the Desert Course. Rounds generated on the Desert Course started to decline.

"We couldn't compete because the perception was we were not as good as those more upscale facilities offering discount deals," Beat says. "That was competition we hadn't anticipated."

FACE-LIFT

The par-70, 6,423-yard Desert Course still is in good agronomic condition, but it had lost its position in the marketplace because of so many newer upscale and mid-tier facilities were featuring pars of 72 and lengths exceeding 7,000 yards.

"With those mid-tier properties trying to get their share of play, the Desert Course's rates have become too similar to those mid-tier properties," Grove says. "We need to upgrade our project and improve its market position even though the rates will not change that much."

As part of its original leases with the TPC and Princess Hotel, the city receives 10 percent of the properties' annual revenue that it can then use to retire debt.

"Our agreement is that the money paid to us in rent must be used on the golf facility and not to supplement the city's general-fund budget or any other expenses," Beat says. "It provides us with a unique opportunity to issue debt and use the revenue from the facility to pay it off."

The city will issue a \$10-million bond it plans to retire within 20 years to make capital improvements to the Desert Course.

"Planned improvements are designed to provide local residents, guests, Tour players and FBR Open spectators with a memorable golf experience as well as enable us to increase charitable contributions to the community through the Thunderbirds," Grove says. "From significant competitive enhancements and design elements to a new clubhouse, we're confident the renovation will make this already outstanding golf facility an even bigger asset to the city of Scottsdale."

The renovation of the Desert Course is expected to be completed by November. Photo: Nick Bisanz

Planned improvements, which will be conducted under the direction of course architect Randy Heckenkamper, will increase the length of the Desert Course to about 7,100 yards. Every hole will be redesigned. The 17th will change from a par 4 to a par 5, returning the course to championship level at a par of 71. It will also benefit from significantly improved drainage and irrigation systems, which will facilitate greater consistency in playing conditions year-round, and greater elevation changes, which will make the course more artistic and challenging. Construction began in January, and the course is scheduled to reopen in November.

The Stadium Course clubhouse also is set to undergo extensive renovations, primarily to the interior. Using artwork and interior decor, the goal is to develop more fan- and user-friendly themes that emphasize the facility's cooperative relationships with such groups as the BOR, city of Scottsdale, Phoenix Thunderbirds, FBR Tournament and 60-plus PGA Tour players who live in the greater Phoenix area and call TPC Scottsdale their home course.

"The idea is to bring the whole story together of how this facility has benefited the Phoenix/Scottsdale area over the last 20 years," Grove says.

Because of Drinkwater's foresight and the BOR, the ability not to use tax dollars to improve the facility remains.

"Our base agreement runs for another 55 years," Beat says. "So we should have the ability to continue upgrading the facility as needed with a built-in revenue source without having to raise taxes or compete for public dollars that are needed elsewhere."

With many different entities involved in the project, it was difficult to make things work, Kelly says.

"They sound good on paper, but invariably one of the parties is unable to deliver its portion of the project and the entire thing collapses," he says. "In this case, everybody did what he or she said they would do and more. It's a tremendous success story." **GCI**

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