By Peter Blais

Only one golf course in the country hosted three major professional tournaments last year, the Desert Inn & Country Club in Las Vegas.

The job of maintaining the course in top condition for the PGA, LPGA and Senior players, as well as the 40,000 golfers who play the city's best-known course every year, falls on the broad shoulders of Gregory Graham.

The benefit of hosting three professional tournaments — Desert Inn PGA International and Las Vegas Senior Classic in the spring and the Las Vegas Invitational in the fall — is the publicity it generates for the hotel, Graham said.

The downside is the stress it puts on Graham's crew, especially in the spring when the LPGA and Senior tours visit within six weeks of one another.

"The amount of hours we put in is just phenomenal," Graham said. "And it's going to get worse next year. They've pushed the women's tournaments to the first or second week in April and the seniors to the last week in April. We've got something like two weeks in between."

The course has to remain in top-notch condition during and between the two spring tournaments.

"It would be nice to hold down play before a Tournament event. But the Sunday before it starts, we'll have a 150- to 200-player shotgun tournament. The Tour officials get here seven or eight days before a tournament and are just flabbergasted by the amount of play we put through."

The Desert Inn has hybrid Bermudagrass on greens and tees and common Bermuda on the fairways. Everything is overseeded with perennial ryegrass in the fall.

Graham usually begins overseeding in early October and normally doesn't close the course. But he had to wait until Oct. 15 to overseed last fall because of the late date slated for the Las Vegas Invitational, forcing the course to close immediately afterward in order to have it ready for a Nov. 5 local tournament.

"We had just 51/2 weeks to get the course overseeded and ready to open. You have to hit that time frame when the days are warm and the nights are just starting to cool off. If daytime temperatures get into the low 90s or even the high 80s and night-time temperatures in the low 50s you can have real problems because it takes that much longer for ryegrass to germinate."

"We had the whole course seeded before the first blade of grass came up. That was scary. I had my fingers crossed. But we were lucky... The timing was about 10 days too late for me. The fairways were real thin. But they look OK now," Graham predicted the same thing will happen this year with the Las Vegas Invitational scheduled to end Oct. 13 and a local Junior tournament following in early November.

Keeping the 18-hole facility in top condition is an expensive proposition. Desert Inn top dresses every two weeks after overseeding to stay in near-pristine condition. The 250-plus rounds it pushes through every day. Greens are mowed "awfully short," although Graham raises cutting heights slightly following tournaments to make them friendlier for resort golfers.

"For a fairly flat golf course, there's an awful lot of contour on the greens," Graham said. "The course was planted in bentgrass many years ago, Graham said. But stagnant, humid air captured by the surrounding buildings, combined with high temperatures and an inadequate irrigation system caused the switch to Bermudagrass. Converting back to bentgrass has been discussed.

"The only problem I have with that (convert- ing back to bentgrass) is some things with the irrigation system they need to address," Graham said.

"I've grown bent everywhere I've been. This is the first time I've ever had Bermuda greens. I've been in the desert most of my life. It's not a problem when you can somehow control your moisture. Temperatures of 115 to 120 degrees don't bother me. It's the micro-climates and the amount of humidity."

"The killer is pythium. The old rule-of-thumb is, if you combine the temperature and relative humidity and come up with a number of 150 or more, you better have some fungicide hitting the ground. If you have some humidity you're going to have some mushrooms starting to grow. That's a good indication you better get something down to protect you, because you're going to have a problem."

Growing bentgrass in the desert is easier than someplace like south Florida, where high humidity and afternoon thunderstorms combine to devastate bentgrass, Graham said. Improved strains of bentgrass, fungicides and technology make growing the cool-season grass in the desert easier than 10 years ago, he added.

Graham's philosophy is that water can always be added to a spot but never taken away. That actually makes the desert superintendent's lot better than anyone's. In fact, deficit watering is better than drenching the turf to make it turn green and risking pythium, he said.

"To the eye, green is great," Graham said. "And in the resort industry, green is exactly what you're looking for. But being from Arizona, I lived there for 20 years, you learn to live with a hell of a lot less."

Graham said he learned how little water was really necessary while rebuilding a green in Tucson. The turf went without water for 10 days in the middle of June.

"The grass turned brown," he remembered. "But the green still looked great. I took a probe and it wasn't all that hard. There was a lesson to be learned there."

"I can see a day 15 or so years from now when you can look at different spots on the golf course with an infrared camera, or something, and say 'I don't have to water that spot, because I have the data that says I don't.' As water becomes more precious, the technology is going to improve so you can apply water where you need it and not where you don't need it."

Graham has been living with less water for some time. He estimates water use has dropped 25 to 30 percent since he came to Desert Inn two years ago. A recent late June evening saw 1.2 million gallons applied to the course. Graham has a weather station, but uses it as a guide rather than letting it automatically determine how much to irrigate.

"I use the weather station as a yardstick. A computer always rounds up, it never rounds down. If the transparencies figures from the station say I should replace 0.38 I round down to 0.35. When you don't have a lot of water to waste, it's a pretty good system to use. And sometimes I'll even go less than that," Graham said.

"They say irrigation is a lot easier now because of computers. It's easier only because you don't have to plug in the quick couplers as you did years ago. But you still have to go out on the golf course and pay attention to it." Graham helped build Angel Park, a 36-hole layout using city water, when he first moved to Las Vegas in the late 1980s.

"It was hard for people back East to swallow when you'd tell them your annual costs were $450,000 for water and another $130,000 to pump it. Everything is big out West compared to the East," he said.

Las Vegas' growth has outstripped the water district's ability to supply water, Graham said. Pressure in the water line leading up to Angel Park, for instance, dropped 30 percent in the past five years because of all the homes and businesses tying into it.

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MAINTENANCE

at Tour host Desert Inn Golf & Country Club

Like most older Las Vegas courses, Desert Inn is on well water, which is out of the state and local water district's control. But most of the city's irrigation water comes out of the Colorado River, which is controlled by the Las Vegas Valley Water District.

The water district sets the price, but doesn't limit usage, Graham said. While the district has encouraged conservation, it also makes more money when customers use more water. Graham sees that as a conflict of interest that could ultimately lead to the area using up its allotment of Colorado River water.

"There needs to be a law to conserve water. River water, well water, it doesn't make any difference. You need another agency to control water, somebody who isn't charging you for it and so has (financial) interest in how much you use," Graham said.

Graham's first golf course job was in 1959 while he was in high school in Holyoke, Mass. After four years in the Air Force, he回到了在University of Massachusetts in Stockbridge. There he became good friends with Professor Joe Troll, who has taught hundreds of superintendents throughout the world, Graham's parents had moved to New Mexico and he planned to return after graduation. T Troll encouraged him to do so.

"He always used to say, 'You can't put three pounds of crap in a two pound can.' What he was saying was that there were no jobs here (in New England)," Graham recalled.

"In the first year UMass had a summer placement program. You had to go out and work on a golf course and write a paper about it. He wrote about gay pigs, went to Florida or wherever. But no, they all wanted to go back to their local course. He'd say, 'I can't get these guys to leave here.' But that wasn't a problem with me.

Fleeding school had left some gaps in his education, Graham went to work for a Texas irrigation system installer for three years, then the Toro Co. for 2 1/2 years.

"Out here irrigation is where it's at. In the desert, if you don't have a great irrigation system, you're going to suffer... It was nice to go that way."

I learned more by putting a system in and then understanding the design than if I'd been a designer and never put one in. It's like a mechanic who became a car designer. He didn't give you a more practical car than the designer who has been on the boards all his life and never seen what he's designing," Graham said.

After working in irrigation, Graham felt ready to become a superintendent. Tijeras Arroyo Golf Course in Albuquerque, N.M., was his first course. "It was the perfect place for me to start. It had the worst irrigation system I've ever seen," he said.

The Country Club of Green Valley in Tucson, Ariz., was his next stop before he helped build nearby Arthur Pack Golf Course. Tucson National Golf Club was Graham's final tour of duty in Arizona. It was an 11-year association that included two rebuildings of the entire course and the in-house-designed addition of nine new holes.

"Tucson has a lifestyle that's hard to beat. I'd go back there in a second if the opportunity arose," Graham said.

"The opportunity to build Arnold Palmer-designed Angel Park enticed Graham north to Las Vegas in 1988.

"That was like building a golf course on the moon. There was absolutely no soil on the job whatsoever. It was all crushed rock. Shadow Creek (Mirage casino owner Steve Wynn's course) would have been about 200 times easier," said Graham, who worked for the company that did the earth work at Shadow Creek.

"We crushed (at Angel Park) and screened everything. The soil we used was 3/8-inch pea gravel. I keep a jar of it at home..." Graham said.

"One guy came calling after Graham completed Angel Park. He soon learned high golf course costs weren't limited to construction in Las Vegas. With a union work force, wages reach $18 to $17 per hour. They go far higher around tournament time when laborers get time-and-a-half for the sixth day of work and double time for the seventh. Approximately $1.2 million of Graham's $1.7 million annual operating budget goes to labor.

"This is a different management situation than I'm used to. It's a learning experience. It's tougher to manage. You have to learn the rules and work within them," Graham said.

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"Golfers come to Las Vegas, they want to play the Desert Inn and they don't care what it costs," he said. "It's a great drawing card for the casino and the hotel. But if this course stood alone, I guarantee it would make a lot of money."

Maintenance costs have reduced membership from several hundred 25 years ago to about 50 today while increasing dependence on daily-fee play, Graham said. "If you had more than 50 members, I don't know when they could get on the course," he added.

"I maintain the course for hotel guests, outside players, members and touring professionals means meeting the needs of many different groups. How does Graham do it?" he said.

"Instead of saying that everything they do on the Tour is correct. But if you pay attention to some of the things you do to prepare for a tour event, and try to work it into your budget so that it drops down maybe just three notches after the tournament, then you'll have a better golf course for the everyday guy and he'll keep coming back."

"As for the 40-year-old Lawrence Hughes designed course itself, the greens have been rebuilt several times, so they now have consid-

erable contour, Graham said.

"What they need to do is go back and do some fairway contouring to make it flow with what they've already done with the greens," Graham said.

"The record cold that swept through Las Ve-
gas last winter caused severe damage to plants and turf, but largely spared Desert Inn. The course lost a few eucalyptus and olive trees and suffered limited damage to a few palms.

"We're concerned we may have some Bermudagrass damage to the greens," Graham said in late June. "We haven't had any really hot

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MINIMIZE DRY WILT AND WINTER DESICCATION

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have to be known to do the right thing. 
"All of this comes together with the Audubon program, where we are able to get very good advice from a naturalist organization about how to use the areas of the course that are out of play for wildlife habitat."

THE SPECIFICS
Sadlon, who holds a landscape architecture degree from Rutgers University and has continued advanced studies in environmental sciences with a specialty in wetlands, said wildlife enhancement projects are broken into the four important elements: Cover, water, food and space.

- Cover could be a simple nest box providing a place for shelter and breeding. "We advise concerning whatever species is there, Sadlon said. "Some wildlife is more adaptable to an open environment; others, like the woodpecker, need a woooded area. We give superinten-dents specifics, like the dimensions, material and size of nesting boxes."

- A food enhancement project "might incorporate planting shrubs or other plant material that provides a food source. Sometimes trees are a seed source. Sometimes grasses. Berry-producing shrubs might also double as a cover enhancement project," she said.

- "You could also start a bird seed-feeding program...which brings wildlife closer to the golfer, and that is one of the goals — for the golfer to understand who also uses their course."

- Water is usually tied in with the irrigation pond or water feature of the golf course, Sadlon said. "We encourage that some edge of the pond be left in a natural state that is more beneficial to the two other elements important to wildlife — food and cover," she said. "You can have your water feature and mani-cure it close to the edge on half the pond; but we encourage the other half be left natural."

- Golf courses are a natural to fulfill the space requirement for animals. "Courses have space available, quite a bit of it out of play."

We encourage that space be left as natural as possible instead of being manicured. We want the natural vegetation be left," Sadlon said.

She added that flora and fauna are also part of the program. If a course contains a threatened species, Sadlon or Dodson tells the superintendent what its cultural habits are so they can provide for it. Dodson said that in addition to internal recommendations, the Audubon Society keeps courses updated on ways to educate the public about courses.

"We recommend the courses become involved with the local citizens' groups, with the Girl and Boy Scouts — by having them build the bird boxes, for example — and with the media," he said. "One of our goals over time is to enhance the image of golf courses as important areas for wildlife."

The 26 states that had at least one golf course sign onto the program by July are Arizona, California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, North Carolina, South Carolina, South Dakota, Texas, Virginia, Washington.

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Greg Graham
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weather. At this point last year our greens were already transitioned. We had 12 days (last winter) in a row with a high temperature around 27 degrees and a low about 12. The greens were frozen solid.

Graham said the course suffered moderate damage, with three greens having to be re-done.

Environmentally, Desert Inn has experienced little problem. University of Nevada at Las Vegas researchers drilled three 50-foot wells at the course and found no chemical contamination.

"We don't use a lot of pesticides or insecticides anywhere but on the greens. I'm not on a preventative program at all. I pay attention to the conditions and when I need it I use it," he said.

The desert heat requires Graham's crew to work from 5 a.m. to 1 p.m. That means mowing occurs while the course is most heavily played. Delaying mowing until mid-afternoon would interfere less with play but, Graham said, when conditions are 110 plus degrees temperature and require more overtime pay.

"You don't have the flexibility of changing schedules you would on a normal golf course because the union requires overtime. It increases the cost of business because you need a little more equipment and a few more people and there's a lot of hard work here on things like flower beds. But the hotel wants us to keep them up that way. That requires more people. We have 23 people on an 18-hole golf course. A normal course would take 15 to 18."