



Speaker - Pete Leuzinger

FAIRWAY RENOVATION: FROM BLUEGRASS TO BENT

In 1975, following the installation of our automatic irrigation system, a group of members approached Art Benson and me with a question: Is it possible for St. Charles Country Club to ever have Bentgrass fairways? They stated that they preferred this type of playing surface and would like to see a conversion made. I must say that this took us by surprise, because, at the time, we had pretty good Bluegrass fairways. We were asked to come up with an acceptable program for fairway renovation, how it would be done, and, of course, an estimate of conversion time.

You have to ask yourself sometimes, what, if anything, is wrong with what we have. From the greenkeeping aspect, bluegrass fairways are great, but maybe not from the aspect of golf. Apparently our membership thought this was an improvement they wanted for their golf course. Now, what is wrong with Bluegrass in comparison to Bent for fairway situations? Is it the flier we have heard so much about these last few years? That might be one of the reasons. Or it could be that Bent is nice to look at - that contrast in color and texture to the taller, less manicured rough grass. Maybe it is the cushion affect Bent-poa fairways give that golfers make good comments about. And possibly there is a little prestige involved, too. I do not want to start an argument over which fairway grass is best, but I would like to discuss our method of conversion and give you some idea on how we are doing after two complete seasons.

After several meetings with the Permanent Plans Committee and the Board of Directors, the go-ahead was given to start a three to five year program designed to make a gradual transition from predominately common bluegrass to predominately Bentgrass fairways. At the same time, we made a commitment to cause as little inconvenience to the golfing membership as possible. We were to introduce Bent by over-seeding in the late Spring and late Summer seasons, or twice a year. The costs would include the purchase of two pieces of machinery, the seeder and a sweeper used for clean-up after the seeding. Of course, the cost of the seed had to be included.

The idea is to get as much bent as possible while the bluegrass gradually fades out, with as little *Poa annua*

encroachment as possible. You have to provide an environment suitable for young Bent seedling. It's not as easy as it sounds because you have to keep in mind that you are watering an area that people play golf on. Of course, watering is just one of the maintenance practices that have to be altered. (1) Cutting height has to be altered slightly. We moved our mowers down to $\frac{3}{4}$ " bench setting from 1" with the hopes of gradually weakening the bluegrass. And I think it is interesting to note that our membership is playing on great fairways right now that offer the resiliency of the bluegrass along with the thickening cushion affect of Bent and poa. So right now we have the best of the three. (2) Feeding has to be considered, and we have found that timing is critical. Two to four pounds of actual N per year seems to be adequate, but when do you put it down? We have found that if the existing turf is left hungry prior to our late summer seeding and then given a $\frac{3}{4}$ to 1 lb. feeding two to three weeks after seeding that this gives the seed a nice start. If you feed prior to seeding, the existing turf fills in so fast that the young seedlings barely get their start before being buried alive. And I mean that literally. We have also found that the existing turf is less vigorous in the late summer and this is the best time to over-seed. So, as of 1977, we have eliminated our Spring seeding.

I think it is interesting to note that when you over-seed through existing turf, you do not get nice straight rows of young seedling sprouting through that existing turf. Every time we over-seed we probably get 90-95% germination, but within two weeks it gets pretty difficult to find those little critters. What is the reason? I can't make a qualified statement why they damp off. Whatever the reason, or reasons, I think that it is safe to say the crowding out affect of the existing turf predisposed whatever other reason the new grass has trouble getting a start.

We started it all in early August of '75 by cutting at $\frac{3}{4}$ ". Prior to this, we were on a 1" six day/week cutting schedule. In mid-August, we started seeding with an old grain drill (borrowed from another club) at a rate of 30 lb/A. The results were poor to mediocre. A 30 lb. rate was too heavy as crowding out resulted even prior to seedling development. In mid-September, we again seeded using a Rogers seeder at an 18 lb/A rate. The results were a little better, but we were still too crowded.

After trying two types of seeders, we decided that the one with the dethatcher was better for us because it really brought up the thatch and mixed a little soil in with the seed. The slit made by the dethatcher seemed to give the seedlings a bit of a competitive edge. We seeded again in May of '76 at a rate of 10 lb/A and found this to be most suitable for us. We were still cutting six days a week as the bluegrass was growing fast. I must admit that we were down on our hands and knees looking for signs of mature Bentgrass coming through the bluegrass. At least the bluegrass was not fading out too fast.

By the middle of July 1976, we were finally getting what I would call some mature Bent spreading in our fairways. There was no pattern to it, but here and there in every fairway were patches of Bent with runners moving out. This was significant but unexpected. We thought we would see lines of Bent rather than small patches maturing. By August, some of these patches were coalescing and forming even bigger areas of Bent with very little *Poa annua*. After seeing the new Bent filling in this way, we wanted to know why. I'm sure there is more than one reason for

it, but again, on our hands and knees, we found one example: where shallow divots were taken and not put back very neatly, the seedlings were thriving. This was merely a mechanical way of eliminating the competition from the existing turf, giving the seedling a little extra air and light. In 1977, we decided to follow-up this minor observation by seeding and soiling the divots in our fairways. We were able to do this four times this past year. (By the way, it only takes six people less than one day to seed thirty acres of fairways). And the progress of the Bent has been remarkable. We started with practically no Bent and some poa to as much as 50% Bent in portions of many of the fairways.

One question you might be asking yourself - What does seeding all the fairways do to the course, golf-wise and maintenance-wise? Initially, it makes quite a mess. Our seeder brings up quite a bit of debris, so it is necessary to have a rubber fingered sweeper to clean up the clippings. The dew in the morning hampers the seeding operation. The rollers pick up debris the plug the chutes of the seeder, but we are usually able to start by 10 in the morning. It is also nice to prepare the ground by watering the fairways at a normal rate two nights in a row so the seeder won't lug through that tough Illinois soil. If we get a good start, we like to keep going until the evening dew hampers the operation. We have gone till as late as ten at night. The clean-up takes almost as long as the seeding, as 2 or 3 cubic yards of material are picked up from a 2 to 2½ acre fairway. We always post the golf course for the golfers, letting them know we are seeding and to "clean and place" their ball if they desire. Actually, the 1/8" slit left by the seeder does not affect the lie of the ball that much, but we allow them to "play the ball up". Maintenance-wise, we are affected in that cutting is hampered. The remaining debris left from the sweeper collects on the rollers and wheels and makes quite a mess. So, we are forced to cut later in the day. We feel we get some benefit, too - we get an aerifying effect when the turf is opened up.

After two years, I think we are on the right track. We know that we are bound to get some Poa annua encroachment, but so far I feel we are keeping it down to a reasonable level. The percentage of Bent is on the increase in our fairways. We are getting it started and apparently our cultural practices have been in line. The most difficult part of a program like ours is that it takes practice. The seedlings that were planted in September of '77 won't show up until next summer. That is a long time to wait. You also have to remember that you are trying to do two things at once: provide a large area for people to play golf on while at the same time, provide a modified seed bed for the renovation and general take-over of new turf types. This, too, takes patience, and maybe a little luck.

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**INTERNATIONAL TURFGRASS CONFERENCE
TO CONVENE IN SAN ANTONIO, TEXAS**

San Antonio, Texas, the Alamo city, will welcome more than 5,000 turfgrass experts from around the world to the 49th International Turfgrass Conference and Show, February 12-17, 1978. The conference, sponsored by the Golf Course Superintendents Association of America (GCSAA), was last held in Texas in 1970, when Houston was the host city. San Antonio, the 10th largest city in the United States and host to the 15th largest number of conventions in the world, is well equipped to handle such a large conference.

Conferees will travel to the city to hear keynote speaker Earl L. Butz, former secretary of agriculture, and to attend educational sessions presented by more than 35 educators, industry representatives and golf course superintendents. They also will view exhibits of more than 185 companies from the United States, Canada and England; tour four San Antonio golf courses; and participate in tours, shopping and the entertainment life of the city.

The GCSAA conferees will welcome San Antonio's mild winter climate, with its high probability of sunshine and its cosmopolitan atmosphere. They will find part of the city to be a little like Venice, since the San Antonio River winds its way through the heart of downtown. River taxis are a popular mode of transportation, and strolling along the Paseo del Rio, or river walk, is a pleasant pastime.

San Antonio was host to the 1968 HemisFair; HemisFair Plaza stands near downtown as a reminder, with its 750-foot Tower of the Americas, topped by a revolving restaurant. Some shopping and historical areas remain islands untouched by the modern city that surrounds them. La Villita, for instance is a restored, 200-year-old, walled Spanish square with handcrafted wares in shops set among trees and quiet walkways. Mission Trail leads visitors to five old Spanish missions, the most famous of which is commonly known as the Alamo. Cultural and sporting events abound.

When they aren't visiting places in San Antonio or attending official conference sessions, conferees may attend the GCSAA-sponsored welcoming social on Monday evening, February 13, and the annual membership banquet and dance on Thursday evening, February 16. Kelly Garrett, a singer of Broadway and television fame, will entertain at the banquet.

Women who attend the conference with their husbands will find a program especially for them. It will include a tour of the city's historical and shopping areas, a luncheon and access to several special tours.

GCSAA is an international professional organization of golf course superintendents. Its annual conference and show is the largest display of fine golf turf equipment and the most respected continuing education opportunity for fine turfgrass managers in the world.

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