

Keep Bent Greens Great Year-round in Arizona

By DEAN SMITH

WHEN the Arizona CC golf course, five miles east of Phoenix, was laid out in 1946 the green committee decided to use the same greens plan employed at most of the other central Arizona courses. That meant having Bermuda greens from April to September and a combination rye and bent from November to April.

But between mid-September and late November, there was a costly and inconvenient period of greens renovation and planting during which temporary greens were in use. Neither the golfers nor the green committee liked the changeover period, but the history of carrying any green on a year around basis on courses in the Phoenix area had been one of failure in the long, hot Arizona summer.

For the past three years, however, ACC Pro Willie Wansa and Course Superintendent J. D. Woodward have had outstanding success in maintaining Seaside bent greens 365 days a year.

"We haven't lost more than 6 square feet of grass on the entire course — 18 greens — during that time," Woodward declares. "I'm convinced we've found the answer."

The first experiment with Seaside bent at ACC was carried on in 1949 with one green, the ninth. Woodward rebuilt the green, using 75% sand and 25% top soil and seeded it with 28 lbs. of seed per 3,000 sq. ft. late in September. Two hundred lbs. of Milorganite was applied to the green after the seeding. Fifteen lbs. of sulphate of ammonia, combined with 50 gal. of water, was sprayed on the green once every three weeks. Later the sulphate of ammonia was applied at shorter intervals.

The grass did very well, and fertilization was continued through April when the weather became too warm to allow continuation of the sulphate of ammonia applications. About that time the first trouble appeared, a mild attack of brown-patch. Woodward sprayed the green with a solution of a pound of Tersan to 50 gal. of water and the fungus started

to clear up. Increasing the dose to 2 lbs. per 50 gal. got even better results.

During the first winter the green was watered three or four times per week, but the watering was increased to nightly waterings during hot weather. Watering consisted of a 25-minute sprinkling, and Woodward later found that the green did better when water was eliminated two nights a week even in mid-summer.

The bent continued in excellent condition through the summer, the only noticeable difference being the depth of root. Winter measurements showed roots going 4 to 6 inches deep, but the depth in summer measurements shrank to about 2 inches.

Wansa and Woodward were convinced by July of 1950 that the time was ripe for changing all 18 greens to Seaside bent and they succeeded in selling the idea to the club green committee, headed by Corb Smith. On August 1, the other 17 greens were plowed up and the project was under way.

Eliminating Bermuda

The first big problem was that of killing the existing Bermuda. They had gotten a good kill on a test patch shortly before with sodium TCA 90%, so they used 50 lbs. of it with 50 gal. of water on each green. Ten days later they repeated the dosage and obtained almost a complete Bermuda kill. In mid-August they raked off the dead Bermuda, hauled in a mixture of 75% sand and topsoil for each green and mixed it with a 3-inch layer of peat moss.

On Sept. 28 they started seeding the bent, using 30 lbs. to the green and raking it into the soil with wire rakes. They applied 100 lbs. of Milorganite per green, kept the greens wet, and in eight days the grass was up. The greens were ready for play by late November.

Woodward made one interesting observation about the early growth of the grass — that the greens areas which received a little less water grew better than those kept thoroughly soaked. He

decided to reduce the watering to three or four times a week as soon as the grass was up.

During the period between planting and maturing of the greens they were sprayed with Tersan to eliminate fungus growth and fertilized with Milorganite and sulphate of ammonia. They were also topdressed with sand, silt, and mulch. Fertilizer used up to the start of the 1951 summer season was sulphate of ammonia and 16-20.

Brownpatch first showed up on May 28, but it responded to treatment with Tersan and there was little fungus trouble all summer. The greens went through their first summer with flying colors, and there were congratulations aplenty for all concerned with the experiment.

Change Fertilization Formula

By December, 1951, however, several of the greens were in poor condition. So Woodward applied one lb. of iron sulphate and 2 lbs. of calcium nitrate in a mixture and repeating the application at two-week intervals. He continued the procedure for two months with good results and at the end of the period the grass seemed much tougher and more able to withstand constant play.

One of the continuing maintenance problems is that of Bermudagrass getting a start on the bent greens. Seed from the fairways blows onto the greens and is carried there on the feet of golfers. Once it gets a toehold, it spreads rapidly. The surest solution to the problem at Arizona CC has been the three-times-a-day inspection of greens, during which maintenance personnel dig out Bermuda runners by hand.

Woodward maintains a nursery near his maintenance shop and he believes it has helped keep his greens problems to a minimum. Whenever an inspection reveals loss of even a few square inches of grass, the bare section is removed with a cupping device and replaced with healthy bent sod.

Now, almost three years since the greens were changed over to Seaside bent, Woodward, Wansa, and the club membership in general are convinced that it's the answer. It requires exacting care, and it may require some experimentation to find the best maintenance procedures at each course with its particular climate, soil conditions, and water. Arizona CC has done its experimentation now, and Woodward thinks they have most of the answers for that course, at least.

Must Readjust to New Conditions

By CHARLES BASKIN
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The vital affair of making golf course work more attractive is not altogether a matter of money, although we can't hope to get men who are much good in course maintenance unless we come a lot closer to meeting factory wages. We also have to provide year-around employment for the men's good and our own. It is a common experience at golf courses to have to lay off good men in the fall. Then they get factory jobs at more than the golf course pays and never return.

One way of making course work more attractive is by mechanizing and making the work as light as possible. I find that the average worker doesn't mind riding a tractor or following a power mower but he's not happy doing manual work.

About a third of the man-hours necessary in golf course labor can be supplied by boys on vacation from high schools and colleges. There is need for more discussion among superintendents and chairmen about enlisting, training and supervising the most desirable type of lads for this work. It's going to figure more and more in course maintenance and we are going to have to make it a routine matter to be thoughtfully handled instead of considering them an emergency supply of labor from which only the minimum of simple and essential work can be expected.

In our work program now chemical treatment and aerification are just about as much standard practice as mowing and watering. This has made obsolete the old platform of budgeting. It certainly has affected our entire work program and I believe that we will see developments in aerification that will have far-reaching effect on maintenance work and results.

The superintendent always is exploring something that may bring him closer to the perhaps unattainable goal of perfection in every detail of the course. He says he is compelled to strive toward this goal by the insistent demands of his players. But frankly I believe that it is the demands superintendents make upon themselves to get the perfect course that has been the main force accounting for the great improvement in golf course condition. The players wouldn't have known what a perfect course might be if the superintendents hadn't been striving day and night for the ideal.