

Tifdwarf maintenance is very similar to Tifgreen, except that daily mowing is necessary for a superior putting surface. It also needs a slight increase in fertilization—1½ to 2½ pounds of nitrogen per 1,000 square feet per month, depending upon the soil on which the green is constructed. It can be mowed constantly at 3/16 inch and has been maintained even at lower height with excellent results. If mowed at one quarter to 5/16 inch, the Tifdwarf displays a mottled appearance. At this higher height of cut, the mottled color looks very much like Tifgreen. Less effect from grain has been observed so far with less amounts of topdressing required. Overlapping of topdressing soil can retard growth or give a striped pattern on the greens.

When it has seed heads, it has only about half as many as Tifgreen, and this can be re-

duced readily with proper fertilization and irrigation.

All research compares it with Tifgreen as a standard. Tifdwarf is as cold-tolerant as Tifgreen but takes on a purplish cast when the weather is cool and so should be overseeded for winter play. It is very similar to Tifgreen in susceptibility to herbicides.

Insects, mainly sod webworms, have been a problem when insecticides are not used carefully. In addition, close surveillance for diseases on a preventive program is suggested. Tifdwarf has not been in use long enough to observe affliction by "Spring Dead Spot". Since Tifdwarf is a bermudagrass, there is no reason to believe it will not react the same as Tifgreen. Tifdwarf is by no means the end of the search, for new selections always are being screened. Breeding for superior grasses also continues.

Species for Overseeding

by **DICK TARLETON**, Superintendent, Broadwater Beach Hotel Golf Courses, Biloxi, Miss.

In the Deep South most of the putting greens are of Tifgreen bermudagrass or the newer Tifdwarf. In order to have an attractive putting surface, they must be overseeded for winter play while the bermudagrass is dormant. Few people realize that as far south as the gulf coast we play on northern grass greens for six months of the year.

Until just a few years ago, just about the only winter grass in use was domestic, or annual ryegrass. With the advent of the fine-leaved hybrid bermudagrasses, superintendents began to look for finer-textured grasses for overseeding. They also wanted grasses that did not go out as suddenly as rye, leaving them with our famous, or infamous, spring transition period. Probably a lot of the transition troubles that we blamed on ryegrass were more likely due to poor management of our bermudagrass.

One of the first attempts at improvement was a mixture of red top and seaside bentgrass. In most cases the results were very disappointing. In 1961, I tried this mixture on one green, and it was probably the poorest winter green in the South. However, we planted a second green with 25 pounds of Pennlawn red fescue per 1,000 square feet, and it was far superior to our other 16 greens, which were planted in rye-

grass. The best winter greens I ever had were of Pennlawn fescue in the winter of 1962-63. They were also the most expensive. I now feel that I was very lucky because, we have learned as a result of more recent tests that fescues, when planted alone, do not perform too well.

Quite a bit of research has been done with different species in overseeding within the past eight years. Some of the most comprehensive work was done by the Milwaukee Sewerage Commission, under the direction of Charley Wilson and the late O. J. Noer. I was fortunate enough to have one of these trials in the winter of 1964-65. The grasses evaluated, both alone and in mixture, were: *Poa trivialis*, domestic ryegrass, Kentucky bluegrass, Pennlawn fescue, and seaside and penncross bents. The biggest and most pleasant surprise was the performance of *Poa trivialis*. It has a pleasing color, tolerates extremely low temperatures, performs well in combination with all the other grasses tested, and helps to mask the ever-present *Poa annua*.

What is the best mixture? This is like asking how far is up? One of our universities recommends 15 pounds of Pennlawn fescue and four pounds of *Poa trivialis* per 1,000 square feet. Some Green Section agronomists say five to seven pounds of *Poa trivialis* and two pounds of

Seaside bent. I know several superintendents who get excellent results with the late O. J. Noer's favorite of four pounds *Poa trivialis*, eight pounds Pennlawn fescue, two pounds Kentucky bluegrass, and one pound of Seaside bent. Despite these recent advances, more than half the superintendents concerned with this problem still swear by old, dependable ryegrass.

It is generally agreed that when planting the smaller seeds, the rate should be about 25 million seeds per 1,000 square feet regardless of the mixture. When using ryegrass, 50 to 60 pounds per 1,000 square feet will usually give an excellent stand.

Ryegrass is still the easiest and quickest to establish, and in most cases is the most economical. It will stand heavy traffic as well as or better than any of the other grasses dis-

cussed. If your course has heavy play in the fall, some ryegrass is essential. By adding three or four pounds of *Poa trivialis* to 40 pounds of rye per 1,000 square feet, you will get a little faster putting surface than that provided by ryegrass alone.

At the request of the commercial developers, we are helping to evaluate two selections of perennial rye—Pelo and NK-100. Both of these grasses are much finer in texture, and have a deeper green color than domestic rye. Though it is a little early to draw an accurate evaluation, as of now, their performance has been outstanding despite weather conditions that are unfavorable for overseeded greens. I am very enthusiastic about the possibilities of both of these selections, but especially the Pelo.

Green Section Award

James L. Haines, of Denver, Colo., was named recipient of the United States Golf Association Green Section Award, presented annually for distinguished service to golf through work with turfgrass.

Mr. Haines has been Golf Course Superintendent at Denver Country Club, Denver, Colo., for 40 years. He is the third Superintendent to be named.

The Award was presented by Wm. Ward Foshay, of New York, USGA President, at that time, and Henry H. Russell, of Miami, Chairman of the Green Section Committee, during the Association's annual conference on Golf Course Management at the Biltmore Hotel in New York City.

Mr. Haines is considered by many to be among the pioneer turfgrass workers. In the early years of scientific turfgrass management he set an example through investigation of improved methods, equipment and grasses, and encouraged other superintendents to accept new skills and knowledge then developed.

He helped evaluate bentgrasses in cooperation with Dr. John Monteith, Jr., recipient of first Green Section Award in 1961.

Mr. Haines recognized the detrimental effect on turf caused by tree roots, and developed and patented a machine for pruning roots without

causing damage to the trees or to the turf. He also invented a leaf rake.

He is directly responsible for the organization of the Rocky Mountain Golf Course Superintendents Association, and served as the first President. He has served as a director of the Golf Course Superintendents Association of America, and it was through his influence and urging that courses in turfgrass management were offered at Colorado State University after World War II. He was also influential in the establishment of turfgrass scholarships by the Trans-Mississippi Golf Association. In addition, he has trained numerous young men on his own course for careers as golf course superintendents.

Mr. Haines has been a member of the USGA Green Section Committee since 1953. He is the eighth recipient of the award. Previous winners were:

- 1961—Dr. John Monteith, Colorado Springs.
- 1962—Professor Lawrence S. Dickinson, Amherst, Mass.
- 1963—O. J. Noer, Milwaukee.
- 1964—Joseph Valentine, Ardmore, Pa.
- 1965—Dr. Glenn W. Burton, Tifton, Ga.
- 1966—Professor H. Burton Musser, State College, Pa.
- 1967—Elmer J. Michael, Pittsford, N.Y.