

1957 Turf

Southern Courses Turn to Selected Bermuda

By O. J. NOER



Planting Tiflawn 328 in green at Woodmont CC, Nashville. Pete Grandison first killed common Bermuda with methyl bromide.



T. M. Baumgardner and M. N. McKendree of Sea Island (Ga.) CC regard Tifton 328 highly and are converting all greens at the famed resort course to this fine textured Bermuda.



Closely cut U3 Bermuda has performed very well on a Par 3 hole in the Philadelphia Dist. where it was given thorough testing.

MANY Southern courses are turning toward selected or hybrid strains of Bermudagrass for fairways as well as greens and tees. The strain chosen must be more vigorous than common Bermuda. Unless it holds common Bermuda in check the turf will revert back to that type before long. Clubs in Florida and South Texas have been among the first to use these grasses in a big way. It has been Ormond and Gene Tift strains mostly in Florida. Gene Tift and selections from Texas A. & M. have been planted in Texas.

The use of a selected strain is a simple problem on a new course. Planting stock is bought from a turf nursery or it is produced on the site. Five acres or less will provide enough stolons for greens, tees, and machine planted fairways. Houston CC used about half that much Gene Tift Bermuda to plant the greens, tees, and to row plant the fairways. A little more grass may be needed for broadcast planting of fairways.

In Florida shredded stolons are scattered rather thinly over the prepared fairway and cut into the surface with a modified farm disc. The saucer shaped discs are replaced with straight plow colters. After cross-cutting in two directions or more the planted fairway is rolled lightly. It is kept continuously damp until the grass gets off to a good start.

Sodium Arsenite Burned In

The problem is different on established fairways of common Bermudagrass. One way is to cut close to skin the fairways — without the roller on the back of the fairway mower if necessary. Then sodium arsenite is used at a heavy rate of 30 to

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These are the second concluding articles in the Noer-Grau Roundup series. The first appeared in October, 1957, GOLFDOM, pp 68-69.

Roundup

Quality Has New Meaning in Turfgrass Picture

By FRED V. GRAU

TOPDRESSING is coming into fashion.

Since we can sterilize it, we see the value of using it on greens. Each successive layer of sterilized topdressing further buries any weedseeds that are present, making it more difficult for them to germinate and grow. In addition, topdressing is an excellent carrier for fertilizer and it also does well with insecticides and fungicides. But we re-emphasize this point: Topdressing must be sterilized. As many of us know, Dr. DeFrance of the University of Rhode Island has pointed out that 13 lbs. of cyanamid per cu. yd. of topdressing, allowed to "cure" for several months, gives us virtually weed-free material. The same undoubtedly applies to methyl bromide and perhaps other soil sterilants that are coming on the market.

Two very important advances have taken place in the turfgrass field. They are: (1) Sterilization to destroy all unwanted vegetation that might compete with desired grass that has been selected for planting; and (2) Recognition that some grass types are far more wear resistant, drought tolerant and rapid healing than others.

The word, quality, no longer applies just to putting greens but to all turfgrass. First Merion, then Meyer zoysia, Emerald zoysia, the improved Bermudas and Penn-cross bent and Penn-cross fescue have made the American public turf quality conscious. These are just a start in the improved strains that may be expected.

Weed Control

We have a better grasp today of the principles of weed control than ever before. Practically all of us believe that good grasses, properly fertilized, are the best weed control device known. But that doesn't mean we have licked the problem of getting rid of weeds. A large portion of the Q and A dept. I run in COLFDOM is devoted to queries on weeds, if the foregoing statement must be justified.



Lawn edging provides excellent vegetative planting material. This is improved zoysia at Grau's home.



Sod on left cut 2-ins. thick is heavy to handle, breaks easily, knits to seedbed slowly. Half-inch sod on right rolls, handles easily and will knit to seedbed quickly. This saves on water, maintenance.



Tree feeding reveals starved turf. Trees, grass can be grown together if right grasses are fertilized adequately and trees are fed.

Chickweed, goosegrass, crabgrass, knotweed and clover still plague us but we're learning how to cope with them. At this time, I think it only proper to point to the efforts of John Gallagher of the American Chemical Paint Co., who has done an outstanding job of correlating existing knowledge of weed control and plans to produce it in a booklet soon to be published.

Early last year at a Mid-Atlantic GCSA meeting I told my audience that greens that have been rebuilt by supts. probably will be free of trouble as long as they are used. The mistakes that are originally built into greens are quickly discovered by the supt. who often must rebuild them within a year or two at great expense. In some cases the supts. have done such excellent rebuilding jobs that they have been asked to design new greens or even to take part in the complete design of new courses. This quite naturally leads to the conclusion that closer coordination in course construction between golf architects and the GCSA would result in future courses that will be easier to maintain and give greater satisfaction to players at lower cost.

New Demand for Service

Acquisition of farm land for housing development has greatly increased the work and the need of our Agricultural Experiment Stations. A large percentage of requests to County Agents for assistance now comes from home owners, and these in turn are passed on to the Extension Services. A heavy demand for extension specialists in agronomy, horticulture and pathology has thus been created, so much so that states and universities are putting men on full time Turf Extension. It has been our observation that supts., more than ever before, are working closely with County Agents and Extension Specialists not only in sharing their experiences, but in helping to organize and develop turf associations which provide educational material and methods for those not connected with golf.

Substantial grants of money by several commercial concerns have aided turf studies at a number of experiment stations. Research within industry also has been an important factor. Industry distribution of informational literature fills a great need, supplementing the limited distribution of conference proceedings and similar educational material.

Bermuda Fairways

It has been a source of considerable pleasure to see gradual acceptance of Bermudagrass on course fairways and to see this movement steadily marching northward. Today we have solid tees and fairways of Bermuda in Philadelphia, the Mid-Atlantic area, Kansas City and St. Louis. The northward march of Bermuda has matched the development of Merion in the bluegrass regions so that the two have met and are overlapping. This is a great thing because Bermuda is one of those grasses that is extremely drought resistant, can utilize the best possible fairway playing surfaces when properly managed.

This subject has been argued for years in the Mid-Atlantic GCSA. Emphasis now is on "How soon can we get Bermuda fairways?" — not on "How can we get rid of the blankety-blank stuff?" With the development of improved planting machines, and with lower cost of planting stock, the development of solid Bermuda fairways will go forward more rapidly.

Winter Schools

Winter schools at Penn State and Massachusetts University have been publicized before, but we would like to mention them again. For brochures for Pennsylvania State University, write to Prof. H. B. Musser and for Massachusetts University, write to Dr. Eliot C. Roberts; or if you choose, drop a line to Grau's Q. and A., c/o GOLFDOM and brochures will be mailed you. These are important cogs in the wheel of training new men. They are practical training schools and not designed to turn out professional men such as the four-year course at Penn State, Purdue and other schools. We were pleased to see the development in this direction at the University of Florida at Gainesville, where Dr. Gene Nutter is doing such a tremendous job in research and training.

While we're on this subject, we would like to express good wishes for a successful turf program to Dr. Louis N. Wise at the Mississippi State College at Starkville. Dr. Wise runs the first successful and only seed training school of its kind in the world. We saw him again at Beltsville and at Gainesville, Fla. where he was picking up information so as to develop a comprehensive program in turf research for Mississippi. Another outstanding agronomist who has initiated a full-scale turfgrass program is Dr. Roy Blaser at V.P.I., Blacksburg, Va. Their first turf field day was held in July, 1957. The new golf course is their "proving grounds."

Pro. Hugh Knowles and Dr. LeBeau at the University of Alberta, Edmonton, Canada, and others are starting turf programs. A special mention is in order for C. E. (Robbie) Robinson of the Royal Canadian Golf Association for his untiring efforts in promoting turfgrass work.

Poa annua still is one of the most popular subjects for discussion at supts. conferences and local meetings across the country. There is a steady increase of those who believe that poa annua can be a valuable turfgrass when used as a winter grass in combination with a strong growing warm season grass.

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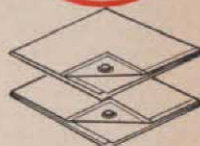
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Noer — Turf Roundup

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50 pounds per acre along with a wetting agent. The sodium arsenite is allowed to burn for two to three days. Then water is applied, if needed, to provide optimum soil moisture for growth. The surface is prepared for planting by using an Aerifier, discer, spike disc, or Renovataire enough times to loosen the soil. Bermudagrass stolons are scattered over the surface and cut into the soil with the modified farm disc. The surface is kept moist until the newly planted grass becomes well established. All eighteen fairways are seldom changed at one time. After the first ones are in turf the grass along the edge of one or two fairways is allowed to grow to provide stolons for successive plantings.

The strain used must produce a dense, tight turf. Otherwise it will not resist common Bermuda. It should not thatch badly and should exhibit no tendency to become puffy. Turf of that kind is unpopular with the golfer and is the reason most of them do not like to play fairways planted

with Tifton 57 strain. In every other respect this is one of the most vigorous growing and disease-resistant Bermuda-grasses.

Large tees on new courses exemplify the problem confronting many supts. on old courses. The small, postage stamp size tees may have been large enough when play was light. Increased interest in golf by women as well as men has doubled, trebled, and quadrupled play on many courses. Nobody can keep good turf under these conditions on small sized tees. A program of modernization is the only answer.

There should be a long range program based upon a survey and study of every hole. The size and shape of the enlarged tee, or the new one in a different location, should be determined and approved by the green committee. Instead of building three or four small tees for each hole requiring much hand labor, the better way is to build one large tee, or two at the most, and design them for power maintenance. Abrupt sloping edges are a thing of the past. Long, gentle slopes which can be cut with a tractor and fairway mower simplify maintenance

and are more in keeping with a pleasing landscape than high, platform tees with steep sides. That is not nature's preferred way of doing things.

The program should start with the small sized tees on par 3 holes and progress to the next bad ones until completed.

Heavily Played Courses

The choice of grasses is a perplexing one in the North. Common Kentucky bluegrass and fescues are not the best answers on heavily played courses. In the area north from New York to Chicago creeping bents seem better. There are some very good tees of Merion bluegrass in this region. A minimum of water and ample nitrogen fertilizer seem to be partly responsible. One supt. waters generously every 10 to 14 days, and uses 1 lb. of actual nitrogen per 1,000 sq. ft. each month. The turf is very good. Merion seems to withstand fairly heavy weekend play when weekday use is moderate to light. The East had a dry summer in 1957. What will happen to Merion after several successive wet summers is hard to say.

There are some satisfactory poa annua tees in the cooler parts of the North. Several Michigan supts. have learned how to live with it on large sized tees. They use sufficient water and apply nitrogenous fertilizer every two to three weeks. In hot weather daytime wilt is stopped by prompt syringing. The poa annua may take a beating after heavy rains in hot, humid weather, but recovers when the weather changes. After a bad winter, growth and recovery are slow when spring weather remains cool with very cold nights.

Favor U-3

Clubs in the intermediate belt extending from Philadelphia and Washington to Kansas City are veering toward Bermuda for tees. U-3 seems to be their preference. It is among the best for winter hardiness and holds its color fall and spring better than common Bermudagrass. A heavy mower is needed to keep turf tight and satisfactory for play. Winter survival depends in part upon keeping the tees out of play after fall growth stops. Some clubs put markers up front and resod the worn strips in the spring. Others place the markers out front and a few clubs try to provide alternate tees for fall, winter, and spring use.

In the far South Bermuda continues to hold first place for tees located out in the open. Common Bermudagrass is used most, but selected strains are gaining favor. Ormond, Gene Tift, Everglades 1, and Tifton 328 are popular choices in the Southeast. Local selections are being tried in other parts of the South.

Kentucky bluegrass is the most popular grass for roughs in the Mid-West and parts of the East. On acid soils of the Northeast, fescue and the colonial bent grasses predominate. Some clubs express a desire for sheep fescue, but have not been able to buy the seed. Possibly they could substitute hard fescue. Seed of it is being produced in western Washington, but only in a limited way.

There is a trend toward cutting the roughs at two different heights. Closer cut rough adjacent to fairways is often cut with reel-type mowers. The strip is the width of two gang mowers. On watered fairways this part of the rough becomes invaded with clover and bent grass. Rotary mowers are frequently used to cut the higher part of the rough. The turf is generally a pure stand of bluegrass or fescue.

Courses in the South continue their search for a better grass than Bermuda for the roughs. Players are penalized unduly when there is a heavy growth of Bermuda. Tall fescues offer some promise, particularly in shady spots where Bermudagrass will not grow. Bahia is being tried in Florida. The final answer may be different than anything tried so far. Clubs should alert southern turf investigators and urge them to search for a satisfactory grass.

Pennncross Has Promise

Pennncross looks like the most promising new development in the field of cool season putting green grasses. So far it has given a good account of itself. Turf on the putting greens at the Fairless home, Pine Valley, is exceptional and has behaved well over a three- to four-year period in a spot where summers are apt to be hot and humid. Good stands have been obtained with a seeding rate of 1 lb. per 1,000 sq. ft. One way to get uniform distribution is to bulk the seed with dry topdressing and go over the area four to six times. The price of Pennlu seed dropped appreciably this fall — to about 50 per cent less than before.

Pennlu was always a top ranking grass on plots at State College, Pennsylvania. In spite of this, it is losing favor with golfers because of its tendency to produce a fluffy turf. In every other respect Pennlu has lived up to expectations except that some supts. in the Louisville-St. Louis belt think it more susceptible to pythium. This may be coupled with some adverse maintenance practice.

Old favorites, such as Arlington, Congressional, a mixture of the two, Cohansey, and even Toronto, Washington and Old Orchard are favorites with some.

The behavior of the bentgrass greens at Richland in Nashville, Tenn., has created an interest at other clubs there. Belle Meade is building three bent greens under the direction of Charles Danner. Arlington bent is to be used. The topsoil is a light, sandy loam placed on a gravel blanket over the subgrade. Surfaces are contoured to provide quick run-off of surplus water in several directions.

There is a marked trend toward the finer textured Bermudagrasses in the deep South, especially in the parts where there is little likelihood of success with any of the bents. No one grass is the choice, but Tifton 328 seems to be gaining ground in the Southeast. Sea Island started with this grass on several greens. Baumgardner thinks highly of it and has started to change all greens to it. Tifton 328 seems to be less badly affected during the spring transition period than common Bermuda.

Woodmont in Nashville changed its first green

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to Tifton 328 in the spring of 1957. Pete Grandison first killed the common Bermuda grass with methyl bromide. Incidentally, when methyl bromide was used on the stadium at the University of Illinois, the station staff nematologist reported that they had eliminated the predatory nematodes in the soil. He did not know whether they were present in sufficient numbers before to harm the turf. Several days after methyl bromide was used the Woodmont green was cross-aerified several times. Sprigs of Tifton 328 Bermuda were inserted in the holes which were pressed shut. The green was rolled, topdressed lightly and kept damp to hasten growth of the sprigs. By midsummer there was a good cover of grass.

Sprigs Recommended

Use of sprigs appears better than the use of plugs for planting. Grass above each plug produces a mound. This retards development of a uniform surface. Growth from sprigs is uniform and creates a uniform surface from the start.

The problem of overseeding on fine textured

Bermuda greens is being raised because some think domestic rye is not the best answer. Some propose trying bluegrass, and others plan to experiment with red top alone or mix it with Seaside bent. Seaside, when used alone, germinates quickly, but does not stool out rapidly so greens are not good until late winter or early spring. Then they are perfect for the balance of the season. Red top produces cover quickly. Two mixtures will be tried by one supt.; one part red top and two parts Seaside, with the other one consisting of equal parts of red top and Seaside. The seeding rate will be 3 lbs. per 1000 sq ft. in both cases.

Seaside has done well when used correctly. The seed is exceedingly small and should be planted after the Bermuda green has been topdressed rather than before, which is customary with rye grass. Rye seed is large and grows best when covered with 1/4 to 1/2 in. of soil. The comparatively large amount of topdressing needed to bury common Bermuda stems often smothers the bent seed when it is planted first.

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Sargent Heads PGA

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will be played. In 1958 the new Colorado section, which includes part of Wyoming, will play its first championship.

Robert Goldwater, Phoenix department store owner and amateur golf association official, was elected PGA advisory committee chmn., succeeding the late John Jay Hopkins. Robert Leacox of Kansas City was elected advisory committee vice-chmn. and Harry Radix, Chicago, was reelected sec. Tom Lanphier, Jr., San Diego and B. C. Gould, Detroit, were brought onto the advisory committee.

It was made plain at Long Beach that the advisory committee in the future would have an informed and active function in keeping with its name. Advisory committee members have been concerned about the controversial publicity involving the tournament bureau and the failure of the PGA to get effective publicity on the service of club professionals to golfers. There committee members also have been embarrassed about being kept in the dark on deals that, according to some informed PGA men, had the association being led into the role of babes in the woods.

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Among these are the folks at U.C.L.A., ie, Stoutemyer Youngner, who write favorably of Bermuda-poa associations. Another is Jim Haines at Denver who has Washington bent greens which fill with poa in the fall when the bent goes dormant. During our recent visit in Canada we saw another set of perfect Washington greens managed by John Steel at St. Charles CC in Winnipeg. Here, too, poa is the perfect winter companion to Washington bent. It would be wrong, and could be disastrous, to attempt to eliminate poa in these and many other cases. There is considerable merit in understanding poa and in learning to live with it.

Research on chemicals to destroy poa annua without injuring the good turfgrasses has not yet come up with the answer, even though there are some promising leads. It can be stated rather conclusively that the stronger strains of grasses, plus adequate fertilization, with minimum irrigation consistent with good playing turf, is still a very excellent control for poa annua.

Unintentional Omissions

We know that we have mentioned only a few of the outstanding people and outstanding events of the year. For the omissions we have made, we ask your indulgence. It is impossible to mention everyone who is playing an important role in developments in the turfgrass world.

Before we end this Roundup, however, we would like to suggest that each of you go to your GOLFDOM file and read the 1956 Roundup in the October, 1956 and January, 1957 issues. Much of what we said then we would like to repeat, but to save space and your time and our publisher's money, we urge you to re-read the 1956 Roundup. It will be worth your time and effort.

Use More Fertilizer

In summary, we'd like to leave just one or two thoughts with you. For better turf, learn to use more fertilizer and less water. Test the new grasses side by side in your nursery to find out which one you are going to use to replace the present unsatisfactory turf. Test also the new tools and the new fertilizers side by side in your nursery so that you will know, beyond the shadow of a doubt, the ones that will fit best into your management program. Keep up your visits to other golf clubs. Continue to attend educational conferences. Take notes and don't be afraid to share your experiences with others. Write reports. If each supt. would help the members of his club to have better lawns, what a change there would be in the lawns of the country. There are many free services to turf through Extension Service. See and learn to know your County Agent. Keep your membership informed of what you are doing for them and keep in touch with GOLFDOM for your reference list of turfgrass publications for your library. When the pinch on water really comes, don't get caught with a bunch of succulent turf.