

Year's Turf Round-up Shows Labor Better, Weather Worse

By O. J. NOER

FOR THE FIRST TIME since before World War II golf course labor has been more plentiful and more efficient. Yet many clubs continue to rely upon student help from mid-June to mid-September. They are satisfactory for many tasks, but are not suited by temperament to do some of the exacting jobs. Temporary help seldom handles water properly unless supervised closely.

In too many instances youngsters have been made responsible for watering of greens without any instruction about the evils of over- and underwatering. They have not been taught the importance of detecting and stopping wilt promptly on hot, windy days. Those who have selected the water man carefully and taken the time to instruct him in his duties have had the least trouble with bent or poa annua putting greens. Even then it has been important for the superintendent to check every green several times a day during bad weather.

Conferences Help South

The South is making big strides as a result of the investigations and turf grass conferences at Tifton, Ga.; Gainesville, Fla.; Stillwater, Okla.; Memphis, Tenn.; and College Station, Tex. The trend in the Deep South is toward fine textured Bermuda grasses on greens, and the use of selected strains on fairways and tees. There are many excellent greens of Gene Tift in South Florida and elsewhere. The Everglades selections are being used by some, and the Hall selections of Bermuda have done well on some courses. The Tifton 127, otherwise known as "Tiffine" is

now on many greens. The Texas selection T-35A should become another one of the good fine Bermudas. The better selections will provide superior putting surfaces. They must have player acceptance, and must have the ability to resist invasion by common Bermuda grass. The fine Bermuda must be handled differently than common Bermuda.

Overseeding of fine textured Bermuda may not be necessary everywhere. Some selections stay green despite cool weather, if cut close and fed properly.

Winter Greens with Finer Bermudas

Rye is not apt to be the best grass for winter greens with these finer Bermudas. Redtop alone, or possibly a mixture of redtop and seaside bent should be superior to rye grass because of their fine textured leaves. The bents germinate as fast as redtop, but do not spread quickly. It is a month before stooling starts. Redtop begins to spread at once and makes playable turf in a couple of weeks. Although seaside is a slow starter, it makes a wonderful putting surface by the first of the year. From then on it stays exceptionally fine. By using some redtop with seaside the greens will be ready for play right from the start.

Bermuda selections, such as Tifton 57, Ormond, etc. are being used to plant the fairways on many new courses. They are being used to improve established fairways on some of the old courses and are finding favor for tees. Anyone seeing the turf produced by these and other similar improved selections is impressed with their superiority over common Bermuda.

U-3 Bermuda, which should be called "Hall's U-3" according to Dr. Grau, is becoming more popular in the transition belt from Philadelphia and Washington across to Kansas City. There are many tees of it in that area, and a good start is being made on fairways.

The 17th Tee at Hercules CC in Wilmington, Del., is excellent, and among the fine examples of U-3 Bermuda turf. It was produced in less than two months. The old turf was skinned, the soil underneath was loosened then fertilized and the tee was planted vegetatively with Hall's



Bill Kerr, pro at Beaconsfield, gives putting test of results of aerifying and Verti-cutting the club 18th green during Quebec Turf Field Day.

U-3. It covered fast because planting was done in late spring when warm weather was assured. This and other Bermuda tees at Hercules club are cut close with a greens mower and kept that way.

Over a period of years U-3 Bermuda tees may not survive if subjected to heavy play during the time Bermuda is dormant. An alternate tee of cool season grass may be one answer. Another possibility is to confine play to the front of the tee in fall, winter, and spring. This portion can be sodded or replanted with U-3 Bermuda in late spring each year.

Hall's U-3 on Fairways

The fine examples of U-3 Bermuda turf on the fairways at Pine Valley and on several courses in the St. Louis area are arousing interest in this grass for fairways. Since seed is not available, U-3 Bermuda must be planted vegetatively.

The use of small shallow plugs is not favored by some. They think plugs should be 3 to 4 in. in diameter and of about that thickness in order to survive in the struggle with existing vegetation. This is believed true on watered as well as unwatered fairways. A little fertilizer is dropped in the hole and mixed with the soil before inserting the U-3 Bermuda

plug. Other faster methods are being tested.

Seeding of hulled Bermuda grass seed into established turf of northern grasses has been disappointing up to now.

Just how far north Bermuda can be used is not easy to answer. The U-3 Bermuda plot at the nursery of the Milwaukee County Park Commission was planted in late May, 1953. A good cover was obtained by fall. The winter was mild. The grass was alive in early March, but by late May it was dead. Not one sprig survived. Desiccation injury from drying winds during the extremely dry spring was the probable cause. Another plot, established in late May, 1954, produced good turf by August. A portion of this plot will be protected with a straw cover during the first winter. Professor H. L. Lantz reports loss of Bermuda at Ames, Ia., by winterkill. The same thing happened in Chicago during the 1952-1953 winter.

Just because Bermuda fairways are good at Pine Valley and in St. Louis is no sign or proof that the same thing will be true in Chicago or in New York. Rather than struggle to get a cover of Bermuda there and lose it during the first severe winter, more progress should result from developing and using better strains of cool season grasses. There are enough examples of golf courses with good tees, fairways, and greens to substantiate and justify that kind of program.

The use of Bermuda grass in the north beyond the transition zone, and bent grasses in the deep South, should wait until there is more evidence at hand about their adaptability. Trials with them should be limited in scope.

Report on Bent Greens in South

The bent grass greens at Knoxville, Chattanooga, and Nashville, Tennessee, came through the season very well and are popular with the golfers. Arlington alone and the mixture of Arlington and Congressional performed well. In Oklahoma the Cohansey strain has been a good grass. Patches of it in several seaside bent greens stayed green and healthy when the seaside collapsed in a period of bad weather.

Success with bent in the near South depends upon several things. Weather comes first. Bent will withstand considerable heat in places of low humidity. That is the case in Oklahoma, West Texas, New Mexico, etc. Daytime watering to stop wilting in mid-day is necessary every day in the summer. The grass should be one of the bents like Arlington or Cohansey. The

Arlington-Congressional mixture has done well in Tennessee and Kentucky. Good drainage and the right kind of top soil are extremely important.

The necessity for good surface drainage is more important than most people realize. Water should leave the green as surface run-off in several directions. There must be ample cupping area. Both are matters of design. There must not be any depressions, pockets, or low spots to collect and hold ponded water. Grass is bound to die in these spots during bad spells of weather. This important construction detail is ignored by those accustomed to growing Bermuda. Newly built Bermuda greens are smoothed after the Bermuda starts growth by heavy dressings of soil. Those who do this to a new bent green smother the grass. The surface of a bent green must be perfect before seeding or planting with bent grass stolons.

Escape Snow Mold

The fall of 1953 was very dry almost everywhere in the North. The winter was a mild one with less than the normal amount of snow. There was little or no snow mold. The customary treatments stopped it. Polycross was the only one attacked by snow mold on the turf nursery at Royal Ottawa CC. Calo-Clor was used on the entire nursery and protected the other bent grasses. The injury to Polycross was not severe. This one instance does not justify condemning this fine grass. It has looked good in the States. Further testing in the snow mold belt is justified. With age the more resistant strains may assert themselves and make the turf behave differently with respect to snow mold.

Incidentally, the dominant strain in the Polycross seed production program has been named "Pennlu" and released for vegetative planting. The plots of Pennlu have been outstanding in performance at State College and at Purdue. Certified planting stock can be procured from Purdue at a nominal cost per bushel.

The spring was just as dry as the fall in many areas. There was desiccation injury on many greens and on matted patches of bent grass in fairways. Injury was reduced and recovery hastened by applying enough water in late fall to bring soil moisture up to field capacity and by starting to water earlier than usual in the spring.

Rains started in the Mid-West during June, but not until later in the East. In the Milwaukee-Chicago region rainfall was 15 in. by mid-July. There was enough

after that to keep roughs as well as fairways green. Weather was dry during the extremely hot part of the summer in Kansas City and St. Louis. There would have been worse trouble except for the limited amount of rain.

Iron Chlorosis Puzzles

Iron chlorosis was very bad in the Mid-West for the first time. It occurred during the rainy spells. Turf did not respond to fertilizer.

Some failed to recognize the off-color symptoms of iron chlorosis and were puz-



Mike Omelanoff, Detroit GC, supt., points to large patch of bent in poa annua approach. Mike set 4 in. plugs of bent scattered over poa annua area.

zled at the failure of grass to respond when fertilized.

Iron chlorosis is caused and aggravated by the presence of too much organic matter and too much available phosphorous in the soil. When it occurs from these things it is associated with overwetness from rain or overwatering.

In the West, a high pH or distinctly alkaline condition causes iron chlorosis.

Loss of grass can be prevented by prompt use of a little ferrous sulphate (copperas). The rate should not exceed 2 to 3 ounces per 1,000 sq. ft. with not more than 5 to 7 ounces of water. The iron sulphate must be deposited on the grass leaves and not watered-in. Prompt recognition of the symptoms and quick treatment is the only way to prevent loss of grass. Chelated iron performed no better and did not last any longer on the test plots at Fort Collins, Colo. The same thing happened in Milwaukee and Chicago. Additional investigations are needed to find out the conditions under which chelated iron will produce lasting results on putting green turf.

Leaf spot, anthracnose, and other related diseases caused damage to putting green turf. Sometimes they were not the

primary cause of injury. They attacked the grass when it was in a weakened condition. These diseases invariably followed bad cases of iron chlorosis.

Need Wider Aprons

The collars and aprons continue to be a problem, partly due to fast operation of power greens mowers and improper turning by the operator. Several clubs are testing Merion blue grass. Most of them sod from a nursery of this grass. Aprons of this grass improve the appearance for play because of the deep blue color. Merion does not do too well when watered heavily, so the grass should not be condemned if it does not persist on aprons.

No matter what kind of grass is used, wide aprons for turning are badly needed.

Merion is being tried on tees at a number of clubs. It is too early yet to pass judgment upon this otherwise fine grass for that purpose. In one or two instances the Merion is giving way to poa annua. Overwatering is blamed by some, but that has not been the case in every instance. Several test plantings of supposed Merion showed a high percentage of common Kentucky blue grass or off-type Merion.

Mention of the Hall U-3 Bermuda grass fairways in the Philadelphia to Kansas City area has been made. Farther north, bent continues to be a good grass on unwatered courses even though it may have disadvantages from several standpoints.

Poa Annua Trouble on Approaches

The invasion of poa annua on the approaches of many greens has caused concern. When it "melts-out" in hot weather, these important areas become bad for play. Detroit Golf Club seems to be on the way to the solution of this problem by planting four in. plugs of better bent patches in the nearby fairway area. They are spreading and doing better than seed.

Clover control on fairways with 2,4,5-T has been excellent. However, there was one instance at least of serious injury to the grass in the Chicago area, even at the light rate of one-half lb. actual 2,4,5-T to the acre. The application was made in July. The weather was hot. May or June would seem like safer times to apply this material for clover control.

Club Managers Plan Meet at Philadelphia, Feb. 9-12

CLUB MANAGERS' ASSN. of America officials are preparing the program for the association's 28th annual convention. This meeting will be held Feb. 9

thru 12 at the Bellevue-Straford hotel, Philadelphia.

Regional chapters are being queried about topics of most urgent concern in club operation as well as the over-all problems. From the replies the program will be set and specialists assigned to topics.

The round table on golf club operating problems again will be a most practical, profitable CMAA convention feature.

PGA Program Set for Annual Meeting at St. Paul

HARRY L. MOFFITT, sec., PGA of America, has released schedule of the association's annual national meeting to be held at Hotel Lowry, St. Paul, starting Nov. 29.

A radical change has been made this year in that the Educational and Teaching sessions will be held on Monday and Tuesday, Nov. 29-30, with the president's annual dinner on Tuesday evening.

The business sessions of the delegates will open on Wednesday morning, Dec. 1, and extend through Friday, Dec. 3, starting with the informal meeting of delegates on Wednesday morning.

The annual meetings of the members and directors of National Golf Fund, Inc. will take place Dec. 1.

The meeting will be preceded by the following meetings: On Saturday, Nov. 27 — (1) Executive committee, (2) National Advisory committee and (3) these two committees jointly; On Sunday, Nov. 28 — (1) Tournament committee, (2) Tournament, Executive and Advisory committees jointly, (3) these three committees and a committee representing the Sponsors' Assn., (4) Executive, Advisory, Manufacturers' Factory Relations and PGA Manufacturers' Relations committees, and (5) National Caddie Assn.

There will also be a cocktail hour on Sunday afternoon at which PGA committees and delegates will entertain those others mentioned above and other manufacturer's representatives who are present.

Members of the National Advisory and Executive committees should plan on being in St. Paul, Friday evening, Nov. 26, Tournament committee members on Saturday evening, Nov. 27, and delegates on Sunday afternoon or evening, in order to be present in time for the respective meetings which will require their attendance.