

Trends in Turf Management

Show Progress in 1953

By O. J. NOER

REPORTS from the several regional directors of the USGA Green Section appear elsewhere in this issue of GOLF-DOM. Each director tells about the specific problems in his area. So it is proposed to deal here with the more general aspects and advances in golf turf management during 1953.

The labor situation on golf courses has been bad since World War II. There has been a progressive deterioration each year both in the number of workmen and in their quality. The situation was never worse than in 1953. At the start of this season many clubs were lucky to have two or three workmen. In industrial areas clubs recruited part-time factory labor from second and third shifts. These men worked half a day for several days a week. A few clubs engaged city firemen on their off day. Summertime labor was obtained by employing vacationing students. They, too, lacked experience and the know-how to competently water and to do other important routine tasks.

A satisfactory job of turf maintenance with only a partial crew during the fore part of the season is practically impossible. The superintendent is equally handicapped when he has inexperienced help during the hot summer months. Early spring is a crucial time. Unless turf is put in good condition it will suffer in bad weather. During hot, wet, humid spells inexperienced workers may unwittingly lose turf which an experienced man can save. These men may be eager to please, but do not have the self-assurance of a trained, experienced worker.

Before the war the staff of most clubs included a trained mechanic. They have departed for more lucrative employment. Some clubs do not have anyone with the simplest knowledge of mechanics. One club thought they needed a factory trained service man to start a stubborn power greens mower. The only thing wrong was a shattered porcelain in the sparkplug. Had the service man from the golf supply firm made the 280-mile round trip, someone would have been unhappy about the need-

less expense. Clubs should train or employ personnel to keep the equipment in good condition.

Change Labor Policy

The time has come for the superintendent and the club officials to solve their labor problems in a different and a permanent way. The superintendent must study the course and make changes which will eliminate hand labor without affecting the strategy of the course from the standpoint of play. Every manual operation should be scrutinized and mechanized wherever possible. Club officials should insist on the employment of a nucleus crew of four men at least on a year around basis. These workers should become a part of the club and know that they have permanent employment so long as they are loyal and efficient. Their pay should compare favorably with private industry in the locality, and they should have any other advantages enjoyed by these industrial workers, such as social security, a pension plan, etc.

There is nothing more pressing than the labor problem. When it is solved there will be better turf and fewer mishaps during the bad weather. In the long run good, well-trained labor will pay for itself. It is cheaper and better to preserve existing turf rather than lose it from carelessness or an indifferent attitude, and then incur the expense of coaxing recovery or renewing the grass. Further, the way to keep members happy is to give them good greens, tees, and fairways from the start to the end of the season.

Incidentally, competent superintendents are hard to find for new openings. The situation is critical and will get worse unless golf clubs are prepared to pay adequate salaries and make provision for retirement pay after say, 25 to 30 years of faithful service. That kind of thing seems to be the trend of the times.

Bent Grasses Do Well

The improved creeping bent grasses for greens have fared well, and even the old-timers such as Washington have behaved

well when given the right kind of care. A competent superintendent sometimes makes an inferior grass look better than it should, and likewise a poor man may have trouble with the best strain. Old Orchard and Toronto are holding their place, and have their staunch champions. The mixture of Arlington (C-1) and Congressional (C-19) seems to be gaining in favor, as well as the three-way combina-



Injury on edge of green from abrupt turning of mower.

tion of these two grasses with Collins (C-27). Those who have had most experience with these two combinations like to use a little more Arlington in the original planting mixture. They suggest an extra bushel of it per 1000 sq. ft. of area. Unless stolons are well mixed at planting time separation of the strains may occur, because it has happened. Some think Arlington has no equal for pocketed greens in ravines where air drainage is bad. Cohansey (C-7) is finding favor in Oklahoma and other parts of the South where bent is being used on greens.

Polycross looks like the best seeded bent grass. Seedings of it have been promising almost everywhere. Even though seed has been high priced, it would be cheaper to seed with Polycross than to plant stolons because coverage is obtained quickly with a seeding rate of one lb. per 1000 sq. ft. In most comparisons, coverage was obtained much quicker with Polycross than with Seaside or any other bent. The parent strains from which Polycross is derived were selections made by Professor H. B. Musser. Up to now Polycross looks like an achievement for which Musser may well be proud. Unfortunately, no seed was pro-

duced this year, but limited production in 1954 is expected. Some who have nurseries of Polycross have let the grass grow and plan to use the resulting stolons this fall to produce more turf.

Trend to Velvet in New Eng.

In New England and nearby New York some clubs are switching to Velvet bent for greens. The Kernwood strain is being used mostly. Elsewhere Velvet bent is not popular because of intense heat in the summer. Velvet is the finest textured of all grasses and is favored by many golfers. Its tendency to thatch with age to a point where surfaces become spongy and foot-print badly, and the fact that it fails to recover after abuse in hot weather are the two drawbacks to its use from a maintenance point of view. Iron chlorosis is another problem when the turf becomes old, but can be controlled and prevented by the regular use of a little iron sulphate.

Velvet bent requires a very different cultural treatment than creeping bent, because of the denser and tighter character of the turf. Top-dressings must be lighter in amount and sandier in character. Too much top-dressing smothers the grass and even with the right amount it cannot be rubbed into the turf unless the mixture is quite sandy. The leaves and stems of Velvet bent do not undergo complete decay. They accumulate as a peat-like mass. There is no use making a bad situation worse by applying more organic matter in the top-dressing. The tendency has been to over-water Velvet bent turf. Its dense surface mat checks the loss of soil moisture by direct evaporation. Best results are ob-



Goose grass in apron where mower thinned grass. Pao was good in spring, then came the goose grass.

tained by less frequent but thorough watering. Except in very hot weather an interval of seven days, or more, between waterings is not uncommon. After Velvet becomes matted keeping it continuously wet tends to aggravate iron chlorosis. Those most experienced with Velvet bent seem to think it needs slightly less nitrogen than the aggressive creeping bent grasses.

South Turns to Fine Bermuda

In the South interest in the finer textured Bermuda grasses for greens is tremendous. They have been used long enough by Hall in Savannah and in South Florida to prove their worth and superiority. The



Iron chlorosis on putting green.

Gene Tift Bermuda greens at Indian Creek, Miami Shores, Plantation Club, Fort Lauderdale, Lake Worth — just to mention a few — were very much like bent greens all last winter, and were considered as such by many northerners who played them. The new Tifton 127 developed by Dr. Glenn W. Burton looks like an outstanding grass. It is a cross of African Bermuda with Tifton 57. The resulting strain has the fine-leaf characteristics of African Bermuda and the robust growth characteristics of Tifton 57. A small temporary green of this grass survived last winter at Cincinnati Country Club. It looked very good in July. Last winter was a mild one, so the coming winter may be a better test. If the grass survives, it is the intention of the club to try it on a pocketed green where bent has never been good in mid-summer.

The finer textured Bermudas which can make a turf sufficiently dense to resist invasion by coarse, common Bermuda have a big future, and will dominate on greens where the use of bent is not feasible or impossible. But they will need different handling than common Bermuda. Top-dressing rates must be lighter to avoid

smother and nitrogen feeding should be more frequent, but at lighter rates. The timing of phosphate and potash applications may affect stubbliness. Red top may prove to be a better grass for winter play than rye grass. Thinning of the turf before seeding and light seeding rates are apt to prove best.

Leaf Spot Diseases Increase

Leaf spot diseases have had more attention this year than ever before. The helminthosporium type has been known for long as a devastating enemy of common blue grass. It has been blamed for the melting out of poa annua. In the days of Virginia bent there were times when leaf spot played havoc with it. The term "melting out" is now being used by some to designate damage caused by leaf spot disease.

Leaf spot fungus spores lurk everywhere ready to attack at the slightest provocation. As a consequence, leaf spot can be the primary cause of damage. Very often grass falls prey to leaf spot after the plant is weakened by something else. Then the disease is secondary. When leaf spot is the primary cause, it is reasonable to expect control by a fungicide such as PMAS or Acti-dione. Where the disease is secondary, the logical procedure is to eliminate those things which weaken the grass. Then leaf



Excellent grass on this apron is the result of enough width for wide turn of mower.

spot may automatically disappear, or respond to fungicide treatment.

In 1953, and in 1952 as well, there was no curvularia type of leaf spot on the Velvet bent plots at Rhode Island where Dr. DeFrance was using PMAS regularly for crabgrass control. It was present on the check plots, and was seen elsewhere in New England. In these cases curvularia was controlled by fungicide because it was

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assistant. It shows evidence that the pro has executive capacity and spends time and thought training his team-mates. Any sales manager who gets the compliments from his customers about his salesmen that I do is lucky."

In a small room off Harry's shop is his office. "The most important place in the shop. There I can plan, think and do the paper work. It's the place where I get groundwork laid for proper action," Obitz says. "I make notes. That keeps me from letting some remark about what a man needs or wants being forgotten. That habit has helped me make many sales."

Over Harry's desk is a sign that is pretty much the key to his operations. The sign reads:

DO IT

If it's worth doing . . . DO IT!

If it concerns me . . . DO IT!

If it concerns you . . . DO IT!

If it helps someone else . . . DO IT!

If you like it . . . DO IT!

Even tho' you don't like it . . . DO IT!

And get it done . . . NOW

Not five minutes later.

Harry Obitz.

A lot of pro shops would increase business and player pleasure by adopting the Obitz policies and practices, "Now and not five minutes later."

SHORT GOLF COURSES

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fill was required. A few thousand yards were obtained from surrounding high land. On the inspiration of Mr. Zinkus additional fill was obtained by digging a moat 40 to 50 feet wide and about six feet deep around three sides of the course. This fill together with that from surrounding areas brought the general level up 2 or 3 feet above the old level with greens some 2 feet above this. The moat now filled with clear fresh water from a shallow stream that previously cut across the property makes a very beautiful boundary to the course.

Experience on other courses has pointed out the need for relatively large greens on a floodlit course and those on Seaview have been built accordingly. Another fact determined by experience is that greens on floodlit courses stand up much better under the exceedingly heavy traffic if great care is taken in designing each in relation to the following tee. While the design varies for each hole it is important that the green be so shaped that the pin can always be placed to encourage traffic to the next tee

to leave the green as soon as possible. Observation of this point at Seaview will save untold headaches in years to come in greens maintenance.

The main cost items to consider in building a short floodlit course are the greens, fairways, floodlights and wiring, water system, cabin, fencing, parking lot, course furnishings, playing and maintenance equipment. With careful design and proper supervision a high quality 9-hole floodlit course can be installed on suitable land for \$9,000 to \$13,000 and an 18-hole layout for \$15,000 to \$22,000. These figures do not include real estate. With ideal soil and terrain they can at times be substantially reduced.

Short Courses Are Money Makers

A short golf course is a profitable business. Space does not permit listing all the locations in which one might be built as a valuable adjunct to another business or as a non-profit recreational facility for industries providing employee recreational programs.

We know that a broad cross section of the population will play and enjoy short golf when facilities are available. Undoubtedly we can expect the development of a substantial number of these attractive installations in all parts of the country in the next few years.

ADVANCES IN TURF

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the primary cause of injury.

Leaf spot of the helminthosporium type was very bad on the greens at a club in western New York during May. No fungicide would stop it. Apparently the same thing happened in 1952 and made the greens bad for play. The turf was badly thatched and contained considerable Virginia bent. A test showed the soil to be very acid and low in available magnesium and potash. The greens were cross aerified, part of the grass removed with a Verticut, and dolomitic type lime of a high magnesium content was applied. The new fertilizer program included the more generous use of potash. These things helped the grass stage a comeback and enabled fungicide to perform as expected.

Fairy Ring New Problem

The fairy ring problem is a worthy one for somebody to study and solve because the rings seem to be on the increase in putting greens. As yet no quick cure is known. The causal organism resides in the soil and is of the mushroom type. This

means it does not attack living tissue. The fairy ring fungus lives on dead soil organic matter. This statement may seem illogical to some who have seen dead grass in fairy rings.

A narrow irregular streak of darker green grass is one indication of fairy ring. In a few bad cases the grass withers and dies. When the fungus is active, the soil has a faint mushroomlike odor. It is often possible to see the white, thread-like mycelium in the soil. Unlike most plants, fungi do not have chlorophyll. They cannot manufacture sugar and must get their energy food from food previously produced by organic matter. In the case of fairy ring it is from the partially decayed grass roots, stems, and leaves in the soil. If there is enough energy material the fairy ring fungi compete with the grass for the soil supply of nitrogen and moisture. When there is not enough for both, the grass withers and turns brown. As the mycelium die and undergo decay the nitrogen in their tissue is released and grass becomes greener.

One club solved the fairy ring problem this way: The rings were very bad, due to the accumulated layer of organic matter in the surface thatch of partially decayed grass plants. The basis of their program was to reduce the soil supply of energy food. The greens were aerified repeatedly and small doses of dehydrated lime were applied periodically to speed organic matter decomposition. Combs and brushes were used also to keep the grass in check. Top-dressing was not used until decomposition was well advanced. Then one of the heavier fairway discs was used to rough the surface so top-dressing made contact with the soil. Until a better way is found, those plagued with fairy ring should try this prescription.

Despite all that has been written and said, there is too much surface thatch on many greens. The new Verticut machine has demonstrated its worth for removing surplus grass. Top-dressing should not be used on thatched greens until enough mat is removed so the top-dressing will make contact with the soil.

Although crabgrass was discussed in the September issue of *GOLFDOM*, it may be of interest to cite one example of a club where greens were rid of this weed in a single season. Last year the greens were unplayable, this season they were the equal of any in the district. Lead arsenate was applied in May at ten pounds per 1000 sq. ft. After that greens were sprayed

weekly with PMAS, and the rate of nitrogen feeding was boosted to a sound level. Lead arsenate is returning to favor for spring use on the greens. That is as it should be.

During the hot weather power greens mowers aggravate and may cause turf damage. Speed is partly to blame, but the slippage friction from driving through the drum bruises grass, especially when it is about to wilt. Many superintendents stop cutting at the first sign of wilt. Power mowing is responsible in part for some of the loss of turf on the aprons. Injury in both cases is aggravated by speed. Just



Wide aprons save grass because wide sweeping turns with power greens mower is possible.

as the mania for speedy cutting of fairways came to an end, slower cutting on greens is bound to come. This fact should be recognized by the mower manufacturer and encouraged. The workmen should be trained to walk at a steady but moderately slow speed, especially in hot weather. They should be taught how to make a wide sweeping turn on aprons, and aprons should be wide enough to make this possible.

Those who want nice turf on greens and on the aprons must not demand that the closely cut putting surface extend to within a foot or two of the edge of the green. In some cases injury to the turf around the edge of the green was aggravated by failure to train the water man to keep banks and slopes around the green thoroughly moist.

(To be concluded in January, 1954 issue)