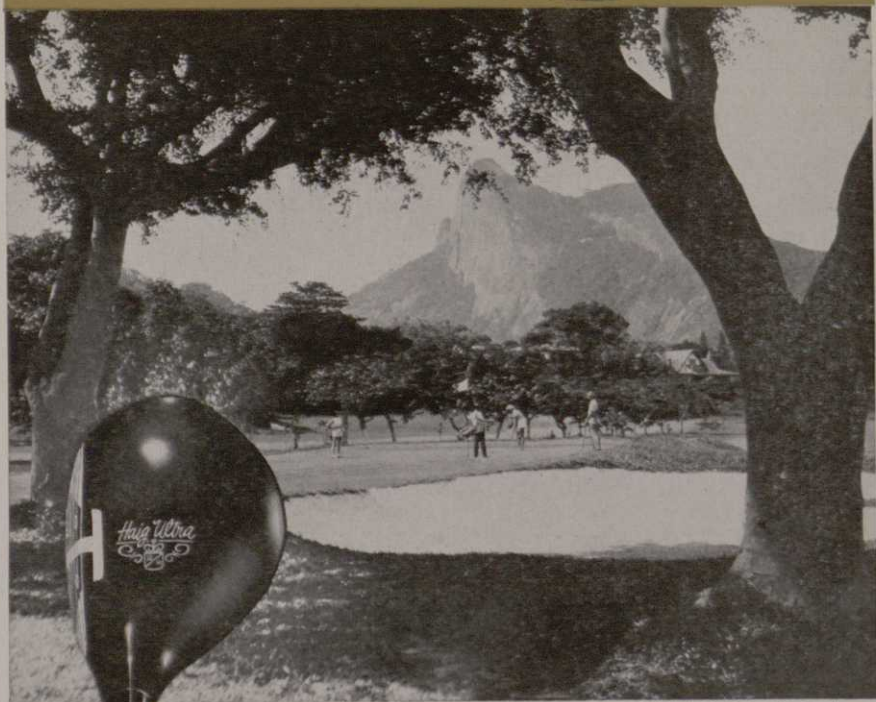


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Greens Slow in Snapping Back Following Harsh Winter in New England

*All Was Not Lost, Because Poa Annua Suffered, Too;
New Design, Construction Ideas Are Suggested*

By FRANKLIN HAMMOND

Supt. Shaker Glen CC, Tyngsboro, Mass.

THE tough winter of 1958-59 was perfectly contrived for injury of close cut turf in Massachusetts. Probably the same thing can be said of all New England.

The soil froze up early, before Thanksgiving day, but play on courses continued well into December. There were a few days when the ground thawed at the surface during this late fall period. Excessive play compacted turf on greens. Temperatures dropped close to zero on several days in December. Low temperatures continued from Dec. to Mar. Frost settled deeply under all turf. There was practically no snow cover throughout the winter. Wet storms were few and brought little snow which remained but a few days as ground cover.

Winds from the northwest were constant, strong and dry. Frost penetrated from two to four feet. By late Mar., temperatures finally came above the freezing point on many days. Turf on high areas thawed out and warmed up enough to start growth but low areas, particularly in the center of the greens, were so compacted that they thawed very little. The high dry winds soon carried off the moisture on these areas day after day. The result was that most of the grass plants did not have enough moisture to start growth. The dry surface, plus frozen ground slightly below the surface, brought about conditions which the turf could not cope with.

As late as the 19th of April there was frost 6 to 8 ins. below the surface on some greens.

No Water Available

April 19th traditionally has been golf opening day in Massachusetts. Many courses had been in play three weeks before this date. From the last of Mar. until Apr. we had but one heavy rain. There was not enough grass to cut on some greens as late as the last week in Apr. Water systems were not or could not be connected because of the frost. The greens

needed water. No water was available, neither rain nor irrigation.

Turf managers had to take it on the chin. The average golfer gave little consideration to the effects of winter. All he could think of was that the time to play golf had arrived and the supt. had failed to provide the turf. Winterkill was a poor alibi from the golfer's viewpoint.

The supt. could do nothing to help the situation except get his water system going as soon as possible and wait for nature to help.

Nature was not very co-operative. Temperatures, day after day, remained below 40 deg. Good growing weather didn't occur until the first of May. A good rain came about Apr. 27 but the temperature did not rise to the needed degree.

Center of Greens Hard Hit

On some courses, with several greens located in high areas exposed to northwest winds, the centers of the greens seemed to be completely dead. Large brown and yellow patches were numerous with lush green fringes about them. On the same courses, in low protected areas, no injury could be seen. These greens behaved almost in a normal manner except that they were slow in growth due to the cold frost area below the surface.

Following the rain of Apr. 27, first traces of green blades began to show in the dead areas of greens. At the time this is written (early in May) there is some hope for recovery of the grass. It is quite evident that frost doesn't form in the ground at a uniform level depth. There seems to be several factors which influence this. Low areas where water accumulates show deep frost layers. Also where the ground has been compacted the frost is deep. Observations indicate that in the low areas, even though frost is present below the surface, turf will recover rapidly if it is not subjected to compaction. In other words if there is enough surface

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moisture present grass will grow.

On the high areas of deep frost, if enough water can be supplied to the surface soil in the spring to keep it moist, turf will recover fairly soon. The before mentioned observations point to the fact that our old nemesis, compaction, is the chief culprit even in the winter.

The remedy seems to be to put enough moisture on the surface over the frost and keep the area free of compaction. On the golf course these two factors are very hard to bring about in the early spring. Water systems cannot be connected when there is frost in the ground. Golfers will play golf just as soon as they can get on the course.

Two Types of Frost?

Apparently there are two types of frost present in a green. (1) Around the edges frost seems to be very porous. It may be deep but thaws rapidly as warm weather comes. Since the soil is open warm air quickly penetrates this porous layer and dissolves it. Then we have a fringe of good grass around a central area of brown to straw colored turf. (2) The area where cups are placed on the green, being subject to compaction, is underlaid by a solid compact mass of frozen soil with practically no open pores. This naturally thaws out slowly. It keeps the surface of the turf cold and will not supply enough moisture for growth if high dry winds prevail. Unless supplemental water is applied to the surface the grass will die.

The bright side of the picture is the effect these conditions have had on poa annua. This grass is shallow rooted and thrives best on very moist, cool soil. The cool factor has been present but the moisture has not. The dry winds of winter have reduced moisture content of this grass to the extent that it has passed out of the picture. Greens which had a large percentage of poa annua last season now show the good grass turning green with clumps of straw colored poa scattered over the surface. I have seen no live blades of annual bluegrass on any our greens.

Revise Fertilizer Program

If good bents take over from the old poa annua perhaps the ill effects of the severe winter may be a blessing after all.

A little more nitrogen and potash feeding might be in order this year. O. J. Noer has said in the past that many of our greens here in the east are low grade phosphate mines, so perhaps we should eliminate this item.

Plenty of water will be needed if the fertilizer program is stepped up. Close

watch for surface wilting will be in order.

There is still time for the best grasses to recover their full vigor and with poa annua eliminated, the adverse winter may have been a welcome asset.

To the supt. — sit tight, let the gripes pass over. By mid-June you may be a hero, after all.

Later in May, Franklin Hammond wrote a postscript to the article describing the effect of Massachusetts' and New England's harsh winter and added some further observations:

By May 10 the situation in the East had changed somewhat. We had only one rain in 10 days. Temperatures were in the 40's or lower, and there were several nights of frost. Water became available from irrigation systems and the bad spots in greens started to recover. Poa annua started making a comeback but I feel that we gained ground in the battle against it. Bents started and became established in dead poa areas.

The effects of the winter suggest that perhaps the design of new or remodeled greens should be reconsidered from at least two points of view:

(1) Eliminate the flat or dished surface on greens. Make the center of the green the highest point. O. J. Noer suggests surface drainage should be in at least three directions away from the green. Greens should be large enough to provide adequate cup area to prevent concentrated surface packing.

Suggests More Porous Soil

(2) The soil of most greens today is rather fine and packs easily. I believe we should pay less attention to water holding capacity and more attention to open, coarse, porous soils. We can add water very easily by irrigation but we have little control over too much water. The addition of mineral soil conditioners may be more desirable than vegetative additives. Such materials as sand or Terra-lite, or both, possibly would make better green soils than peat or compost. They would hold less moisture in the late fall or winter and freeze as porous material rather than ice. This porous mass would warm up faster in the spring to aid early growth.

The following maintenance practices, I believe, would help to reduce winter injury. If it is necessary to permit winter play, approaches should be maintained in such condition that they can be turned into temporary greens in the winter. Regular greens should be fenced off so that there would be no play on them.

Say the Word In Texas and You'll Get Industrial Golf

A. B. (Monk) Keith, pro-mgr. and supt. of the Hughes Club GC in Houston, Tex., discussing the promotion of industrial golf in his area, says that it is only necessary to suggest a league to a single company or two or their employees and then step back and get out of the way of the rush. "Immediate enthusiasm seems to follow the suggestion," Keith declares.

Following his success with two petroleum golf leagues, organized about a year ago, Keith recently interested industries along the Houston Ship Canal in setting up at least one circuit that would include employees of refineries, chemical, rubber and paper companies. So much enthusiasm for the project was shown that the questions now are how many leagues will be formed and where will enough facilities be found to fit in their schedules.

The two Hughes Club leagues that operate on a weekly schedule from December until May, are composed of five teams each. One league has 20 players to a team and the other, 30. It was decided that with five team leagues one club would have a weekly open date in which it could

arrange matches with other companies and thus widen the sphere of industrial golf in the Houston area.

The Hughes Club, for employees of the Hughes Tool Co., has not only an 18-hole course with a golf shop and clubhouse but a swimming pool, picnic area, river frontage for fishing and boating and ball diamonds. Hughes employees can buy a membership in the club for \$10 a year while there are also golf memberships available for about 200 employees of other companies in the area for \$25 annually. The club is owned and operated by employees but the Hughes Tool Co. has made substantial financial contributions to it since it was organized.

Miniature Tournament Buildup

An increasing number of course, range and amusement center operators are signing up to get entrants in the second International Miniature Golf tournament, which is to be played Sept. 12-13 on the Boardwalk in Asbury Park, N. J. According to George Zuckerman, tournament dir., the local buildup for the tournament is resulting in increased business at miniature courses throughout the country.

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Eddy, WGA's Hard Working Tournament Official, Honored

Cameron Eddy, who has officiated at Western Golf Assn. championships for the last 22 years, was honored at a testimonial dinner at the Chicago Yacht Club, May 21. WGA and Chicago golf officials attended the event at which the Cameron Eddy trophy, to be awarded the medalist in the 72 holes of qualifying in the Western Amateur, was unveiled.

Since 1937, Eddy has officiated in 52 Western championships and since 1946, hasn't missed a single day of a Western event. All this has been on a "non-remunerative" basis. In attending various WGA championships, Eddy has travelled more than 70,000 miles and in setting up and officiating at tournaments, he has given at least one full year of his time to these activities.

Eddy who has been a WGA officer since 1941 is currently vp of the association. He has played a big role in the recent tremendous growth of the Evans Caddie Scholarship program, sponsored by the WGA. During Eddy's early days of service there were about a dozen caddie-scholars attending college; today that number has been increased to around 400.

Nan Berry Named PGA Editorial Associate

Nan Berry, a top-flight amateur golfer, has been named associate editor of the PGA magazine, the Professional Golfer. She joined the PGA Dunedin staff in 1958 as an editorial and public relations assistant.

A native of Atchison, Kan., Nan moved to Quincy, Ill., with her parents, Mr. and Mrs. George Berry, in 1939. Her parents continue to live in Quincy. She was graduated from Quincy High School in 1952 and attended Colorado Women's College in Denver, where she majored in journalism. She served as sports editor of Denver's college newspaper.

Majored in Advertising

After one semester at Florida Southern College, Nan transferred to the University of Missouri School of Journalism. Majoring in advertising, she was graduated with a bachelor's degree in 1957.

In 1950, Miss Berry competed in her first Illinois Women's State golf tournament. She has played in every Illinois State event since that time, her best finish being the semi-finals.

Many Clubs Moving Fast to Speed Up the Snails

This item is from an editorial that appears in June GOLFING.

More than 400 clubs have distributed to their members reprints of Louis Bertolone's article "Hurry Up! You're Spoiling the Game" which appeared in March GOLFING. Demand for these reprints continues.

Innumerable excerpts from this article have been printed in golf club bulletins and in golf writers' columns.

Obviously, club officials realize the seriousness of the slow play problem.

The problem is exceedingly serious at public as well as private clubs.

At numerous metropolitan district private clubs, members pay more than \$1000 as an initiation fee and about \$400 annual dues yet have to reserve starting times and take nearly five hours to play 18 holes. Members are complaining they could play just as fast at public courses.

Such foolish tediousness definitely is retarding the growth of the game. It certainly accounts for today's golfer playing fewer rounds per year than he did 10 or 20 years ago although the season, due to improved course conditions, is longer now.

Women golfers, who used to be scolded for slow play, have quickened their pace while improving their standard of scoring. In the meanwhile, the pace of men's play has slowed to a crawl. Male scoring hasn't improved appreciably on private or public courses.

If a round of golf takes four hours or more at your club, even if the slower players are old men dragging along, you'll have to do something about this regrettable habit that is injuring golf.

What are you going to do?

The 12th USGA Junior Amateur (for males) will be played Aug. 5-8 at the Stanford University GC in Palo Alto. The tournament is open to players who reach their 12th but not their 18th birthdays on Aug. 8th. Entries must reach the USGA office (40 E. 38th st., New York 16) by July 1. Sectional qualifying rounds of 18 holes will precede the match play Championship for which 128 players are eligible.

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St. Louis, Missouri



JOSEPH VALENTINE, Superintendent, Merion Golf Club, Ardmore, Pennsylvania, says: " 'Tersan' OM proved most satisfactory as a safe, easy-to-use, efficient turf fungicide. Under normal conditions, the preventive rate of 3 oz. per 1,000 sq. ft. held disease under control. Under the most adverse conditions of high temperatures and humidity, 'Tersan' OM at double the preventive rates caused no discoloring or retarding of growth, but stopped and/or controlled all disease activity present."

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Nature's Blessings

"NATURE in the raw is seldom mild." There was nothing mild about the winter and spring just past. Over a large part of northern United States and Canada the present refrain is, "Worst winter in 30 years! Never saw snow and ice so thick on the ground for such a long period".

Last fall everything was growing well when winter clamped down suddenly. There was no hardening off period. Heavy snow then started to melt, froze into solid ice and stayed that way (with periodic accumulations) until late spring. Smothering (lack of oxygen) resulted. When the ice left, the grass was a clean green. As Andy Bertoni, Meadowbrook CC, Northville, Mich., said, "I thought we had it made." The color was a delusion. The damage had been done. Cold dry winds for two to three weeks proceeded to suck the moisture out of the blades faster than the suffocated roots could pull it out of the cold soil. Progressive browning and loss of turf was commonplace. Many trees and shrubs were badly damaged and some were killed outright.

Winter Sports Hurt

The grasses that suffered greatest loss were Colonial bent and poa annua. Here and there a little other bent was hurt but it was not widespread. Certainly the losses were much greater where there had been winter sports on the ice and snow. At Sarnia, in Ontario and at Meadowbrook in Detroit all grass died on greens that

were the starting points of sled and ski runs.

Another refrain is heard from Toronto to Chicago to the effect that "Nature did us a favor. It was blessing in disguise". Jack Harris at Ancaster, near Toronto, said, "Nature saved me some money. I had bought a lot of arsenicals to kill my poa. Now I won't have to use it."

There was a "run on the bank" for Penncross seed. Many were unable to find any for reseeding the damaged spots. Some of the supts. were setting plugs of good creeping bents from their nurseries.

Low spots in greens stood out as islands of destruction. Here water had accumulated where roots were poor to begin with. Ice was thickest and stayed longest. Poor drainage became self-evident. Much rebuilding will be in order.

One club with Penncross greens came thru without a spot, then proceeded to turn all the greens brown with an application of an improperly-formulated mixed fertilizer. At another club proper fertilization greatly aided recovery as shown in the famous "Sunningdale Strips".

Strong Survived

No evidence presented itself to the effect that management could be held responsible for turf injury except the general observation that damage was greatest where an excess of phosphorous had been used. We simply had one of those brutal winters when only the strong survive. Let
(Continued on page 90)