

in management. I can see no increase in weeds on the aerified half over the unaerified half."

In discussing the "how," it was brought out that depth of cultivation should be as great as possible without unduly marring the surface. Even though the greatest amount of compaction occurs near the surface, deep cultivation is needed to encourage deep root growth. When cultivating heavy soil for the first time, it is not always possible to obtain deep penetration. Increased cultivation depth can be obtained in succeeding aerifications.

No special mechanical skill is needed to operate an aerifying tool, but the person who does should have an ap-

preciation of the job to be done and the results to be obtained.

Practical work in aerifying is ahead of research. There are no prepared references to use as a guide in aerifying. Why, when and how to aerify are questions that can be answered only by experience and observation, with technical men pointing out the soil fundamentals involved. Golf course superintendents have had the most experience in aerifying. The free exchange of their experiences provides fundamental information from which aerification programs for other turf areas can be developed. Members of the Philadelphia Association appreciate the opportunity to pass along their ideas and look forward to hearing of the results obtained by others.

"TEMPORARY GREENS TODAY" OR "COURSE CLOSED UNTIL FURTHER NOTICE"

A contribution from the Middle Atlantic Association of Greenkeepers working co-operatively with the USGA Green Section Staff. Prepared by W. H. Glover, James E. Thomas, and Admiral Phillips, USN, Retired.

Do you recall when one of the above notices was posted on your bulletin board in the Golf Shop with similar signs on the first and on the tenth tees? It happens during the late winter season after a thaw when the greens are spongy and wet, or it could happen during the regular playing season after a very heavy rain.

The Middle Atlantic Association of Greenkeepers held their February meeting at the Plant Industry Station at Beltsville, Maryland. As the season had been one of frequent freezes and thaws, the need of closing the courses to play during such period, especially the greens and tees, was a subject that came in for much lively discussion. At this gathering, green committee chairmen, greenkeepers and the staff of the USGA Green Section represented a cross section of golf organizations in the immediate vicinity.

This group was in agreement with the general principle that alternate freezing and thawing, along with intermittent wet-

ting and drying of the soil, produce a soil of proper tilth and crumb structure. When these conditions occur, contraction and expansion take place and the resulting pressure separates the soil particles and fills the top layer of the earth's surface with numerous pore spaces. This is one of nature's ways and means of cultivating the soil under turf. Through such action the proper balance of air, moisture and food can be regulated and made available to plants so they are able to live and survive. To be brief, they can breathe, eat and drink.

The arch enemy of everything good on a putting green is poor drainage. Excess water causes the roots of plants to suffocate and drown. When there is no oxygen available to permit the roots to breathe, the roots cannot absorb water and thus food becomes difficult or impossible to obtain.

How does golf affect the ideal playing conditions? It is very easy to explain. The foot traffic of players over a small

NOT A LOST BALL — JUST INSPECTING MERION BLUEGRASS



Ed Geary looking over a 60-acre field of Merion (B-27) Bluegrass grown for seed on his ranch near Klamath Falls, Ore. He was the first to produce commercial supplies of seed for this superior turf grass.

area such as a putting green or a tee develops surface compaction, especially when the soil is saturated. A compacted crust develops which prevents the easy flow of food and water and air into the lower soil regions where plant roots normally grow. Plant roots do not grow in soils where the natural channels and voids have been destroyed by the compressing and crushing action of foot traffic on soils which are too wet. Where there is no air there are no plant roots and thus there can be no turf.

From the golfers' viewpoint it may be a perfect day to indulge in the royal and ancient game. So, out to the golf course they go, only to find the course closed or that they must play temporary greens. At this point the greenkeeper and the pro may need sympathy — and perhaps the green committee, too, if any of its members are present, because the bombardment of "beefs" range from an insulting "Why" to "Who pays the freight in this club? Let's get a greenkeeper who knows

his business" and "That Green Committee is lousy—they ought to be kicked out."

Well, let's face the facts. The greenkeeper is one of the best. He went around the course early that morning; examined the greens; advised the chairman; received authority to close the course or to shift to temporary greens and gave instructions to post necessary notices. The chairman has every confidence in the greenkeeper and is ready to back him up to the hilt.

Where does the authority to close a golf course to play exist? The first move should be initiated by the superintendent. He should explain to his immediate superior the need and reason for such action; the latter should authorize the move and acquaint the members with the facts. Such action might help to avert the wholesale loss of turf which occurred on many courses in the seasons of 1928 and again in 1949.

Now let's be sensible and try to convince the fair-minded golfers why the

course should be closed. The majority of members have no desire whatsoever to injure the course unnecessarily and particularly to injure the greens. So, we begin by telling them walking on wet, soggy turf causes compaction of the soil and playing balls to soft wet greens tears the sod and leaves bad scars and bumpy greens. They understand the scar business all right and also the bumpy putting, but an explanation of compaction and the effect it has on good golf is harder to explain. The simple truth is that compaction and good golf turf just don't go together. The course is closed temporarily so the players can be assured of good playing conditions for the rest of the season. If the course is not closed under such unfavorable conditions, the greens may be injured to the point where it will be impossible to provide good playing conditions for the remainder of the playing season. Thus, the wishes of a few may interfere with the pleasurable golf of the many later on.

They're Grateful Later

"Well, live and learn," is the usual reaction of a reasonable member. Another says: "They're playing at the X Club and several other courses — what about that?"

The answer is simply this: Either they shouldn't be playing, or else their drainage conditions are far superior to the course in question. If the turf on the other course is not wet and soggy it should be playable. If it is wet and soggy, they will pay the price, which is a bumpy, rough putting surface; frequent aeration and topdressing during the height of the season; or, in extreme cases, the rebuilding of the greens themselves. "Boy, am I glad we didn't play!" is the invariable reply of those who really care.

Recently a sports writer for a Washington, D.C., paper made a lengthy comment on this fact. One warm sunny day in February he had called all of the golf courses in the local area and had found that all but one were closed to play because the soil was too wet, in spite of the fact that it was a beautiful day for golf. It is extremely interesting to golf

course maintenance men finally to see some positive results from an educational program which has been aimed at the best interest of golf and golfers. Our efforts finally are paying off. It must mean golf committees and golfers are recognizing the fact that because of highly variable climatic conditions, it is impossible to use golf course turf every day of the year in the Washington area and expect to have good turf surfaces at all times. The golfer pays the bill but no one but the golfer pays the price when a few permit their selfishness to interfere with the established processes of nature and the rights of others.



FERTILIZER - SEED MIXTURES

So many times we get the question, especially from homeowners: "How long should I wait after fertilizing before I can sow my lawn seed?"

Our answer invariably is: "Why not mix them and put them on together?"

Contrary to popular misconception, fertilizers *do not burn lawn seeds*. We have known of fertilizer-seed mixtures which laid in the bag for more than a year without damage. Storage was dry, of course.

When a fertilizer-seed mixture is sown, the moisture in the soil starts at once to dissolve the fertilizer and to swell the seeds. By the time the seeds have sprouted (7 to 14 days) the fertilizer has been sufficiently dissolved not to damage the seedling plant. Naturally, if a great excess of fertilizer be used, there might be some damage but even that is unlikely.

The extra bulk of the fertilizer helps the homeowner (or anyone) to distribute a small amount of seed more uniformly. One cemetery superintendent we know seeds some of our new improved grasses at the rate of four ounces of seed to the acre, mixed with fertilizer, to increase bulk and to provide stimulation for the seedlings.