

often determined by what it is being used for or with.

The Louisiana Geological Survey Office at Baton Rouge (LSU Campus) can provide at a small cost the locations of operative or abandoned pits in Louisiana.

SUMMARY

Economical and technically sound greens and tees may be constructed or improved by the proper use of native materials and by-products.

I have tried to leave the idea with you that the selection, use, and management of such construction will require additional knowledge and effort on your part. It is often possible to get needed technical information and basic data without cost from state,

REFERENCES:

The Use of Sawdust For Mulches and Soil Improvement by F. E. Allison and M. S. Anderson, U. S. Department of Agriculture, Circular No. 891.

Sawdust And Other Natural Organics For Turf Establishment And Soil Improvement by M. S. Anderson, USDA-ARS 41-18.

Composts, Peat And Sewage Sludges by H. W. Reuszer - *Soils - 1957 Yearbook of Agriculture*.

federal, and other sources, not excluding members of your golf club. It may be necessary in some circumstances to pay for some "know how" or for specific information.

You have heard considerable reference to organic matter additions in golf course construction. It may be well to remember that regardless of the kind added in the mix, it will not remain un-decomposed very long in our climatic zone. Also, the greatest value of organic material, regardless of the kind, comes after it has been altered through decomposition. I am relating the above to soil structure improvement. This in turn influences infiltration and permeability rates and other attributes of a good green or tee.

The Case For Temporary Greens

AN OPEN LETTER

To Members of
Northeastern Golf Clubs
Gentlemen:

The question of whether to allow play on regular greens in winter is very difficult to answer precisely and finally because so many variables must be considered. The difficult part is that any one of these variables can change daily, or even hourly and play at such time could cause serious injury. At other times play could be allowed without causing injury.

Speaking from the agronomic point of view, we would say without reservation that it is best to keep winter play off regular greens and to use temporary greens for the following reasons:

(1) So many more golfers play each course now in regular season that injury due to the increased traffic is mounting and off-season play can only add to the total traffic injury problems. This was very evident during the winter-spring season of 1962-63 when many courses suffered severe winter damage. These have been documented in articles written in the USGA Green Section Record for July 1963, September 1963, and November 1964. If you do not have these, we would be pleased to send them to you.

(2) In late fall or early winter when frost enters the ground, turf becomes frozen and the upper fraction of soil becomes moistened with frost. Traffic at these times will break or crack the stiff and frozen blades of

grass, weaken them, and *Poa annua* or other weeds could subsequently encroach, and so the turf is generally weakened. Traffic imposed upon moistened soil results in a cementing of the soil due to the lubricating action of the moisture. This undoubtedly adds to compaction.

(3) In winter when the ground is frozen solid, turf blades would suffer only if play were allowed while the grass, too, was frozen, as under (2) above. The danger here is that during the day while players are on the course, sufficient thawing could occur in the upper fraction of soil to cause footprints and a cementing action of the soil. This occurs when air temper-

atures are higher than normal and, of course, these are the very days when golfers prefer to play.

(4) The most difficult time for turf is in late winter and early spring, from mid-February through March when the top inch of soil (or less) is thawing but the soil beneath is frozen. Traffic on greens at this time will result in severe compaction.

(5) Any time water stands on a green in winter, no play should be allowed. This results in extreme softness of the upper fraction of soil and turf.

One reason why some courses now have little or no *Poa annua* in greens is the fact that they have used tem-

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I certify that the statements made by me above are correct and complete.
Don Weiss, Managing Editor

porary greens for several years. When permanent turf (bentgrass) is injured by traffic, ball marks, etc., *Poa annua* quickly fills in. Members don't notice this change, but those versed in agronomy do. Members usually judge cover by green color, and only in summer when *Poa* weakens do they notice several kinds of grasses in one green. The more *Poa annua*, the more potential summer trouble.

All told, any amount of play in winter generally means more rigid management during the growing season, especially more aeration and more topdressing to true and level greens. If play is allowed on regular greens, we cannot stress too vigorously that the days must be very carefully chosen; that someone must make these day-to-day decisions; and that your course must be treated as an individual problem. It should not be kept open or closed simply because a nearby course is open or closed.

The only way to insure against possible trouble is to have temporary greens. It has often been suggested that the word "alternate" be used in place of temporary, because the latter bears a negative connotation.

Finally, Dr. Fred Grau, prominent turf authority and former Green Section Director, proposes that this sign be displayed at the club:

"In the interests of all the members, and in an attempt to preserve the high quality of our greens, the course is closed to play until conditions warrant resumption of traffic.

"Foot and wheel traffic on frozen grass causes the grass to turn brown and die. Ice crystals within the grass blades are distorted and rupture living cells, causing death.

"When the frost is thawed by the sun, the greens remain overly wet for a short time. In this condition foot

traffic can cause severe damage by breaking roots, creating compaction, and footprinting so badly that pleasurable putting is not possible.

"Every effort is made to keep the course continuously playable, but when Nature fails to cooperate and brings frost or floods we have no choice but to limit play. The understanding and consideration of the members are greatly appreciated."

We don't know if we've answered the problem but we hope we have provided some useful information upon which to base your decision. If any questions arise, please write.

Sincerely,

THE GREEN SECTION STAFF
NORTHEASTERN DISTRICT
OFFICE

COMING EVENTS

- | | |
|------------|-----------------------------------------------------------------------------------------------------------------|
| Jan. 4- | |
| March 11 | ..Winter Turf Course
Rutgers University
New Brunswick, N. J. |
| Jan. 25-26 |Virginia Turfgrass Conference
John Marshall Hotel
Richmond, Va. |
| Jan. 26-27 |Rocky Mountain Regional Turf
Conference
Colorado State University
Ft. Collins, Colorado |
| Jan. 28 |USGA Green Section Conference
Biltmore Hotel
New York, N. Y. |
| Jan. 31- | |
| March 11 | ..Illinois Turf & Park Management
Short Course
University of Illinois
Urbana, Illinois |
| Feb. 8-11 |Weed Society of America
Weed Control in Turf Program
Sheraton-Jefferson Hotel
St. Louis, Missouri |
| Feb. 13-18 |International Turfgrass
Conference and Show
Hotel Muehlebach
Kansas City, Missouri |
| Feb. 21-24 |Cornell Turfgrass Conference
Cornell University
Ithaca, New York |
| Feb. 21-24 |Penn State Turfgrass Conference
Pennsylvania State University
University Park, Pa. |
| Feb. 28- | |
| March 1 |Southern Turfgrass Conference
Hotel Peabody
Memphis, Tenn. |
| March 3-4 |Massachusetts Turf Conference
University of Massachusetts
Amherst, Massachusetts |
| March 7-9 |Midwest Turf Conference
Purdue University
Lafayette, Indiana |