

Aeration of Turf Is Important in Conditioning Program

By G. H. CALEY

Sup't, Waterford Woods Golf Course

THE GENERAL OUTLINE of the fertilizing and watering programs we have adopted is this: Watch the amount of grass that comes off each green; note its condition, color texture; aim to feed turf just enough to keep it growing. Water just enough to keep soil fairly moist. Keep soil in good physical condition as regards fertilizer. If you use fertilizers that are quickly assimilated, use less; fertilize often. We use Milorganite and while it is not a complete fertilizer, it is very easy to add what it lacks. We keep a complete outfit for applying fungicides ready, but did not use over 10 lb. of NuGreen the last two years, notwithstanding the fact that they were bad years for brown-patch, snow-mold, etc.

Small and large brown-patch both seem to me to be produced by unhealthy soil conditions, aggravated and sometimes possibly produced by over-fertilization and too much water or sometimes by too much humid heat which hastens development of serious conditions.

The brown-patch germ apparently is always with us, as are soil and other plant disease germs, ready to multiply to dangerous proportions when the right conditions are present. When we see an attack of snow-mold forming, we try to dry the spots, apply fungicide and when we can, aerate the soil which is possible with no frost. For top-dressing snow-mold we use coarse sand only. It holds your fungicide where it belongs, it provides temporary, quick absorption and positive drainage, and does not disintegrate as soil will. After the attack is controlled, work the sand down through the turf; we use a potato fork.

Aerate for Brown-patch

For an attack of brown-patch, we try to remedy soil conditions right after applying fungicides. We use an iron rake on the spots, get the rake teeth into the turf at least an inch by stepping on rake head,

move the rake handle up and down and sideways to get air around the turf roots, leave the turf without further treatment until it is fairly well dried out and then apply top-dressing made of soil from top of compost pile (it is clean, aerated and free from excessive fungus organisms) mix with 40 per cent sand (plastering size sand). I like this method because I have provided what I think the sick turf needs, fresh dirt which admits air and sun. Still a mulch, if you please, to protect grass if the sun is too severe.

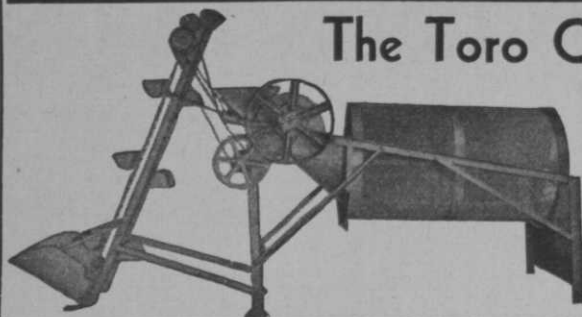
By aeration one is able to get fresh soil close to the feeder roots of the sick turf. We top-dress so that not more than $\frac{1}{8}$ in. grass shows above top-dressing. This allows the grass to escape at least two mower cuttings which saves the grass from losing more strength. I am also reasonably sure that the fresh loose dirt top-dressing acts mechanically and does the same thing to the mycelium growth as you do when you pole a green, only it is on the job 24 hrs. a day.

During an attack of brown-patch I would caution the greenkeeper to water the grass very lightly. If it has had the above treatment, so as not to spoil the favorable condition of the soil he has provided to prevent an attack, it is fairly easy to remedy soil conditions favorable to brown-patch. There are so many conditions to bear in mind when you are taking care of turf that I have given only those things which bear on the effects of too much fertilizer and water which can cause brown-patch and mold.

Grub Danger Looms

Just a word about white grubs. The grub stage is a part of a three-year cycle. There were many beetles or June bugs on courses in southern Wisconsin last June. While the turf on most greens was too thick to allow the bugs to lay their eggs yet we have places on bunkers and fairways that are and were favorable for a big

The Toro Compost Machine



Grinds and screens in one operation. Handles the material as fast as your men can shovel it in. Nearly a thousand of them in use at very small upkeep cost. Write for full information.

Toro Manufacturing Co.

3042-3168 Snelling Ave., Minneapolis, Minn.

crop of grubs. We may have to use arsenate of lead next May.

In conclusion, I have found it possible to cure an attack of fungus growth quickly by the method we use. Remedy sick soil conditions before they get away from you. You do it with much less expense than it costs you to over-fertilize and hire men to work your sprinkling system overtime and then have to treat for brown-patch, etc. We do not use any more fertilizer or water or cut grass oftener than we can help and still provide a good place to play golf.

Everytime we top-dress we fertilize if the grass needs it. We use about 1 cu. yd. top-dressing to 1,000 sq. ft. about every three weeks. We are governed by the wear on the grass, and by the amount of rainfall. In the spring, top-dressing disappears faster because of the rains and because the turf is much more porous from heavy frost. Then too, the rate of grass growth determines to some extent how often we keep the grass roots covered. About watering: Some years we have gone until July 1st with only natural rainfall; at other times we have had to supplement rainfall as early as May 1st.

Western Michigan Greensmen Meet at Sparks Course

WESTERN MICHIGAN Greenkeepers' Assn. with 30 members and their wives in attendance met July 11th at the William and Matilda Sparks Foundation at Jackson. The morning was devoted to a trip through the new prison, after which luncheon was served at the clubhouse. O. J. Noer of Milwaukee gave one of his interesting turf talks at the meeting. The golf tournament in the afternoon was won by Floyd Hammond from the Ella W. Sharp park in Jackson. Several of the boys stayed to see the spectacular electrically lighted cascades at the Sparks park in the evening.

The 6,540 yard layout at Sparks Foundation is part of a 465-acre park development which Mr. William Sparks of Jackson is financing and which will be given to the city of Jackson when completed.

CONCEALED traps and bunkers have no place on the golf course because when they are out of sight they do not register on the player's mind as he is about to play the shot and therefore offer no mental hazard.



Bag Rack, \$5.50

**LEWIS
WASHERS,
TEE BENCHES
and
EQUIPMENT**



Tee Data Plate
\$1.50



Showing Portion
of Tee Ensemble

Tee Ensemble—lots of 1 to 10 \$10.25
" " —lots of 11 or more. \$9.75

G. B. LEWIS CO.
Dept. GD832 Watertown, Wis.

**SAVE YOUR GREENS
AND BANK ACCOUNT
WITH FUNGO
AND VEG-E-TONIC**



FUNGO
FOR BROWN PATCH AND SOIL VERMIN

The 2 in 1 compound that controls Fungous Diseases, Earthworms, Sod Webworms, Grubs, Beetles, etc. Applied either wet or dry. Will not burn or impair soil fertility. Very economical.

VEG-E-TONIC

Golfdom's "no filler" fertilizer. Dissolves in water, producing a "cool food" which does not burn or streak your greens. No "watering in." 21% Nitrogen, 13% Phosphoric Acid, 10% Potash. Prompt and lasting results guaranteed.

Small samples of FUNGO and VEG-E-TONIC mailed upon request. Write for our Monthly Schedule System of Green treatment. All free.

McCLAIN BROS. CO., 127 2nd St., Canton, Ohio