# SHEETS FROM A GREENKEEPING NOTEBOOK

THE late Ralph Barton, architect and supervisor of maintenance for a number of New England courses, supplied superintendents at courses he advised with notebook sheets giving recommended practice and much handy reference data.

These sheets were much worn by the end of each season and were highly regarded by men who were not associated with Barton as well as considered by Barton's own team-mates invaluable guides and time-savers.

Herewith are some excerpts from Barton bulletins:

## Soil Topdressing

It is extremely difficult to place soil so that it will lie evenly distributed. When throwing with the shovel a very good job can be done if the material is so thrown that it leaves the shovel parallel to the ground. That is, be sure to turn the shovel so that its short edge in front makes a right angle with the ground. Do not load the shovel to full capacity about one-half.

There are two essentials in placing soil topdressing: that it be evenly distributed; and that it all be worked through the grass to the soil underneath. It is fatal to leave soil or other covering on grass to cause it to sweat.

The following figures are well to keep in mind:

When evenly distributed, 1 cubic yard of soil topdressing covers:

Sq. Ft.	In. Deep	
2700	0.12	
4500	0.072	
5400	0.060	
5994	0.054	
6300	0.051	

One acre is 43,560 square feet. Hence a putting green of:

5000 square feet equals 0.1149 acres 6000 square feet equals 0.1375 acres

### Seed

Never place seed and fertilizer at the same time. Allow fertilizer to get incorporated in the soil before placing seed. Five days is, in most cases, a sufficient time to allow between fertilizer and seed.

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If excessive watering, either natural or artificial, follows fertilizing, seed may be placed in two days; if the fertilizer is not too strong, in one day.

It is interesting to note the comparative size of seeds used on the golf course as indicating the comparative number required to fill a given space, and an indicator of what happens when placed from a seed mixture with seeds of considerable variation of size. This points directly to the worth of placing each variety separately.

Seed	No. of Seeds
Varieties	per Lb.
Bents	6 000,000
Red Top	2,150,000
Kentucky Blue	2,150 000
White Clover	. 680,000
Chewings Fescue	545,000
English Rye	226,000

#### Watering

In general, long period watering at intervals is much better than light watering daily. Of course, the greenkeeper must be guided at all times by weather conditions of rainfall, heat, dryness, and the apparent condition of the soil. But as a general procedure for normal July and August weather, watering for one to two hours per green two or three times a week is much to be preferred to watering daily for a quarter to a half hour.

Nobody has yet determined the best time of day to water greens. Of course, watering when the sun is up and at its hottest is no time for water to be running on a green, but if it is cloudy, watering may be effective any time of the day. This pretty generally reduces us to morning and evening watering. From my experience early morning watering seems to give better results.

We should always keep in mind that wind drys the soil quite as rapidly as the sun's heat.

There are times in drought and very hot weather when it seems impossible to place enough water artificially to meet the need. Such a condition may often be avoided and always minimized by following a good rainstorm with artificial



Yes, now is the time to plan a "Washer Fund" to provide Lewis Washers at every tee after the war. Loss of players (let's not kid ourselves) has been a big problem . . . and getting them back to the game is going to be a still bigger one. So let's plan now to make them want to play . . . a clean ball from every tee helps increase player enjoyment by providing the means to FASTER PLAY, FEWER LOST BALLS, LONGER DRIVES, MORE ACCURATE APPROACHES and PUTTS.

Of course, there are no new ones available . . . so in the meantime, do everything you can to keep up the Lewis Washers now on your course. There is a limited supply of Lewis repair parts

available. Contact your golf supply dealer as soon as possible to keep those Lewis Washers on the job next year.



watering in about 24 hours, and then following the regular watering schedule. It takes much longer to fill an empty pail than one which has water almost up to the brim. When the green is filled with water the top soil carries a supply for 4 or 5 days. To wait that 4 or 5 days and try to fill the green artifically is attempting the well nigh impossible.

When it happens that a green has gone empty and artificial watering is inadequate we may greatly aid by:

(1) Applying 5 lbs. to 10 lbs. of sulphate to the green.

(2) Give light soil top dressings at intervals of three or four days.

Both these processes appear to bring moisture from below when sufficient is not available from above.

All night watering is to be avoided except in emergencies, for it coarsens the grass and packs the soil.

## **Miscellaneous** Notes

Farm yard manure stored in the open should be covered with 2 in. to 3 in. of soil.

Soluble manures placed when the plant is dormant will be lost and do no good.

Lime liberates potash.

Potash creates starch.

Lime loosens clays.

Lime binds sandy soils.

Never mix: Dung with lime, guano with lime, guano with slag, nitrate with superphosphate, sulphate with slag, superphosphate with slag, lime with sulphate of ammonia.

# Sprague's Liming Table

Soil Acidity Pounds per 1000 sq. ft. Light

	Sandy	Medium	Loam and	Clay
pH	loam	Sandy	Silt loam	loam
4.0	60	80	115	145
4.5	55	75	105	135
5.0	45	60	85	100
5.5	35	45	65	80
6.0	0	0	0	0

One acre equals 43,560 square feet.

Therefore, to obtain amount per acre, multiply by 44.

Successful turf building involves not only a yield of grass and turf fruition such that it serves pleasingly the purpose for which it was builded, thereby paying for its keep, but as well the future and permanent productivity of the soil upon which the turf depends.