

water logging. Poa population is zero.

That makes a lot of sense. Today many of us feed our greens like a hydroponic garden, using all water soluble chemicals in solution. There isn't need for clay, mulch or even horse manure in the top-dressing to support plant life. We have testing tools to tell us what plant nutrients are needed or how to bring a green into balanced fertility. The more coarse sand in the green the more easily it is for the nutrients applied to go to work where we want them and not be tied up into insoluble forms with the clay, muck, peat, etc. In other words there is less competition between the plants and the soil for the nutrients we apply.

Another friend of uniform coarse sand is Ralph Bond, Old Orchard Turf Nurseries, Madison, Wis. Ralph stopped in to look us over a year after we had had a lot of trouble. (Something every GCSA member has to go thru). He tells this story: "Down on Daytona beach where they race high speed cars the sand is so fine that it packs when wet and makes the smoothest driving surface available, yet, several hundred yards inland the sand becomes so coarse that one wades in it shoetop-deep, wet or dry."

Reconditioning Greens

We were lucky and had an extra green where we could try out Ralph's idea. Here are the three easy steps that even a farmer greenkeeper like myself can take:

1. Use a sharp tooth piano wire rake and work it vigorously against the grain. This thins out the mat so the sand can be worked in. Mow off the "fur."

2. Use a Soilaire machine to punch clean holes that will easily fill with sand. Sweep up the plugs with a leaf sweeper. Mow again for a clean job.

3. Spread a uniform coarse sand with a shovel or a Root spreader. Mat in with a steel mat. Let grow for three days to a week before mowing.

The last step is a critical one. Where is one going to get a coarse uniform grade of sand free from fines that will not pack and stratify. We hunted for three years before we could find the supplier of the right stuff. It is graded as No. 816 and comes from the Industrial Silica Corp., Youngstown, O. The grade analysis is as follows:

U.S. Std. Mesh	Per Cent
6	0.00
8.5	0.5
12.0	63.0
16.0	36.0
Pan	0.5

Some GCSA men may frown on the idea of sanding greens in view of the fact that they or their neighbors have greens that

have sand layers in them. The answer to that is that all sand is not alike and from the sand layers that we have seen the sand was fine enough to be used for traction material in a locomotive.

Once you start this program don't stop and switch to some other kind of top-dressing or you will form a layer due to the heavy root structure that will form in this No. 816 sand. On many golf courses one can read the history of changing ideas about top-dressing by taking a profile sample from the greens and counting the layers of different top-dressing mixtures.

When Ralph Slates, owner of Meadow View, Ravenna, O., saw our little old No. 6 green, 2500 sq. ft., par 3, taking 2000 players a week he went to work and used No. 612 Silica (coarser than No. 816) on a green that was always hard even when it was wet. In three days time he told us this green softened.

Last year was the first year in 20 years that grass had held on our No. 6. The poa population went down and from somewhere bent came in and we did not seed or stolon-plant this green. To the many men who have studied this green (there have been many) the evidence is clear that poa is a soil problem. Keep a crumb structure in the top surface of the green by using a material that will not break down and you have gone a long way in eliminating poa. Your greens will stay soft even when dry.

All the greens on the Firestone public course and the Firestone CC were treated in the fall of 1951. You are invited to see and play them.

The cost of weed-free No. 816 Silica Sand to us is about one-fourth the cost of making our own top-dressing mixture. We can purchase it in bags or bulk.

In a future issue of GOLFDOM we will tell you about the grass we had to invite people to walk on.

Golf Is 36% of Athletic Goods Sales in 1950

Athletic Goods Manufacturers Assn. census report for 1950 sales recently released, shows golf equipment accounting for \$41,789,127 of total sales volume of \$117,051,885 (at factory selling price, excise tax excluded) of reported athletic and sporting goods.

Baseball and softball equipment is second in volume with \$29,220,703; athletic shoes is third with \$12,478,224 and inflated goods fourth with \$11,299,996. The recapitulation also includes athletic clothing, tennis equipment; helmets, pads, etc.; boxing gloves and miscellaneous items produced by leading manufacturers.