

condition at the end of 1931. I also had extra compost piles. I insisted my fairways and greens needed a light fall fertilizing in spite of the fact they had been fertilized in the spring. This gave me a real fine start this spring when our appropriation was cut \$5,000.

Of course, I feel clubs must spend a certain amount of money on their courses if they want them kept in first-class condition, but with a year like this the greenkeeper is doing a real job if he can give his members a satisfactory course and still keep under his depression appropriation. I feel it is foolish economy to neglect courses with the idea in mind they can be fixed up in a week, say two years from now.

I have been very successful here under our cut appropriation and feel it is due entirely to careful planning of work, using good seed, careful buying of supplies and above all using good, hard-working, experienced men on the course. I feel a good, experienced workman on the course is worth two of the other fellows who have to be told everything.

My men on the course are all experienced men and at the start of the season I told them just what we had to do to run the course successfully with our 1932 budget. They certainly have taken a big interest in everything to be done on the course and with their cooperation I have been able to make a real good showing.

O'Grady Has Brown Patch Trouble

By MICHAEL J. O'GRADY, *Greenkeeper*

Country Club of New Bedford, North Dartmouth, Mass.

IN RESPONSE to a letter received from our President, John Morley, for some information on Eastern conditions, I am only too glad to convey to the readers of the NATIONAL GREENKEEPER what I can at this time.

This is without a doubt the toughest year that the greenkeepers have come to and probably will be the hardest on greenkeepers for some time. Everybody seems to think that business conditions are improving; we all hope so, as it will leave money more plentiful around golf clubs which means that the budgets will be a little bigger for the year of 1933.

I have been to about twenty of the best courses around my district this summer and, believe it or

not, every greenkeeper I have met has his trouble and plenty of it.

The courses that I have seen this year with the exception of one or two have been visited with brown patch, both the large and small types. In most cases the small has been the worst. Different remedies have been applied and in some places have done a pretty good job on the large brown patch, but have not taken much hold on the small patch.

I haven't any doubt in my mind but the different fungicides are a pretty good preventative but if anyone will call any one of them a sure cure I would like to know which one it is as I have tried four different kinds and the results seem to be the same in each test. I have two greens that are located where there is very little air and I have tried Semesan and Nugreen every ten days during the hot weather. I think that I have it pretty well checked but even now they would not take a very good picture.

Some of the courses that I had the pleasure to see had been infested with both webworm and also the sod webworm. Some of the boys are using lead and some have tried kerosene emulsion and both the tests were successful.

On my own course here in New Bedford I am having a pretty hard time to keep it in fair condition as we have cut down on help, which means that lots of things that we would like to do have to stand for another time. I have eight men and one high school boy and we are kept moving all the time with four tennis courts and eighteen holes of golf course to keep.

I cut my greens at an average of four times a week instead of six, tees once a week where they used to be cut twice; traps and the rough are neglected somewhat also. Those things don't hurt in the long run as much as do weeds and watering of the putting greens if they are neglected.

Crab grass has been plentiful this season and has left quite a problem for the greenkeeper to get rid of as it is pretty hard to weed the small crab grass and leave any other grass. The large crab grass is not so hard to get rid of as it can be weeded by hand and the green will not look so bad afterwards. The only method to get the small is to scratch the greens with a rake and cut close after scratching, and while this may not do the trick altogether it will help to keep the greens true to putt on.

Greens that are infested badly with crab grass

generally when weeded make a very nice seed bed for bent to take hold when mixed with compost.

While the greenkeeper will always have something to scratch his head over I hope that his troubles will be less in 1933. I trust that you will find some helpful information in this.

Steubenville Had Webworms

By R. B. HILLIS, *Greenkeeper*
Steubenville, Ohio

OURS is a 9-hole public course, mostly on a hill-top, with tees for a background on most of the greens. The greens are Cocos bent with good surface drainage, but no under-drainage.

We have had very little trouble with brown patch this season, but had plenty of trouble with large brown patch the previous season of 1931. Used Calo-Clor early in June when we had our first attack of large brown patch and continued to use same about every three weeks, about 1½ ounces to a thousand square feet. Discontinued this tri-weekly application after August 12 and had a light attack of large brown patch Labor Day on four of our greens.

Our greatest trouble this season was webworms and next crab grass. Tried the kerosene emulsion treatment for the webworm, mixing it in an electric washing machine. Had some success applying from a fifty-gallon drum through a one-inch open hose, letting the open end of the hose rest on the green and moving it slowly across a five or six-foot swath so as to flood the green a little.

Discontinued this method as our laborers are all social service workers and are a different crew nearly every day. Some were careless and applied too heavily in spots leaving scars which took a long time to recuperate in the hot weather. Since then we used a small spike roller with sixty finishing nails for spikes. As their burrows are not difficult to see before the greens are cut we lifted out a number using an ice pick to turn back the burrow or hole.

We had four crops of webworms this season. I believe the third was the worst or most numerous. This latter method would be rather slow. The cad-dies took an interest in getting the worms for a time and used to count them to see who got the most. The webworms seem sensitive to fertilizer

and during watering in of fertilizer quite a number crawl on the surface.

Tried painting the clover this spring with sulphate of ammonia, about a small double handful to a quart of water (do not give the weight as our scales were stolen). The clover died and the scars were soon covered with grass which naturally left dark green spots for a time. This is not practical in hot weather as the grass does not come in very fast. Used about eighty pounds of ground limestone to the green, four thousand square feet this spring.

Fertilized with complete fertilizer once a month during April, May, and June about 8-12-3 mix—sulphate, phosphorus and potash. Used about three pounds sulphate to one thousand square feet. Used no fertilizer during July and August.

Our greens were thick, the color good and the grass was fine of texture. They stood the wear well and did not look worn out around the cup after heavy Sunday play. We had some clover and quite a lot of crab grass this season.

The fertilizing program had something to do with the weeds. A little too much PH and K, but our grass was not mushy or weak as with too much N. Used no arsenate of lead this season for financial reasons. Could see no need as we did not have June beetle in the greens. Used arsenate of lead in 1931 and did not have much crab grass—it may be partly a control for crab grass.

Left the cuttings on the green most of the time this season, using a pole to brush them in when needed. Think it does more good than harm. When you throw away the cuttings you throw away fertilizer, topdressing and some protection from the sun.

Did not topdress so frequently this season, but used the roller more often—both spike and smooth roller. This was partly because I had no method of sterilizing the topdressing. All topdressing should be sterilized against weeds. Used Sorbex peat moss in the topdressing this spring. Was not very successful as we had a heavy rain after topdressing and the peat moss floated to the surface and did not look so good on the greens so dumped what I had left in the soil bed and turned it under.

It has been dry in the Pittsburgh district for the past three months. The clubs that do not have some system of watering fairways have their courses burned up and the ones that do have enormous water bills.