I think more damage has been done in the Cincinnati district this year by too much water followed by scald due to such very hot weather. Brown patch has done its share, of course, but so has water, rain and hot sun.

5. Yes, I have where a high nitrogen fertilizer was used—but not just a disease. I have some trouble on high parts of greens because I gave my fall feeding a few days too early and then came rain into the hot weather we have had the past eight days.

Wyandot Had Its Troubles

By LAWRENCE HUBER, Greenkeeper
Wyandot Golf Club, Worthington, Ohio

I will try and answer your questions received in today's mail to be published in our magazine.

1.—Our turf, both greens and fairways, were hit hard with the webworb. The greens were hit the hardest. My first remedy to rid the greens of them consisted of 1/9 ounce of strychnine alkaloid to 5 pounds sugar mixed in a bucket of sand and broadcast over the green.

I got fine results from this treatment but found that it wasn't strong enough to get all of the worms so finally decided that it was too dangerous to players handling wet balls on the greens if it were made stronger so quit the strychnine and went to arsenate of lead. Personally I don't think I got very good results from the arsenate of lead treatment and as you all know it certainly does not do the soil any good especially in hot weather.

Our greens were weak enough from brown patch, and the worms and applying the arsenate treatment sickened them all the more. At the present time they are fine due to better weather conditions and the abundance of compost I applied trying to bring them back during the webworm siege.

2. I had both the large and small brown patch and have had practically all season. I had more large patch than small. I use one-third corrosive sublimate and two-thirds calomel mixture as a preventative once a week for brown patch, but it didn't prevent the large patch at all this summer. I used 3 ounces of this mixture to a bucket of sand, put on in the evening and did not water in until the following morning. I do think it helped to check some small brown patch.

3. I use light applications of compost all season.

In each bucket of sand that I have the mercury in, once a week for brown patch, I use four or five pounds of fertilizer such as 8-5-3 or 10-6-4 or 4-12-4. I alternate using the different fertilizers each time.

- 4. I think over-feeding with high nitrogenous fertilizers during hot weather hastens large brown patch, but don't think it does the small. As to overwatering, I have found that on the lower levels of the greens that are always damp the longest, we have the least small brown patch. On the other hand the large brown patch seems to be worse in these damp places.
- 5. I notice that greens that are dried out on the high contours take the small brown patch much quicker when they are dry than they do when wet. This is true where the greens are out in the open and have plenty of air and sunlight. I don't think that any of us aereate our greens enough and I think the spiker should be used more often.

Being a man-killer of a job in hot weather prompted me to build a power spiker and since using it once a week on my greens they have improved 100%. I think spiking has more effect in the top two or three inches of the soil than using these scratching rakes that are on the market. I am anxious to read others' troubles in the coming bulletin and that this is satisfactory to you.

Semesan Checks Brown Patch

By RAY R. SPRINGER, Greenkeeper Mauh-Nah-Tee-See Country Club, Rockford, Ill.

FOLLOWING are my answers to Colonel Morley's questionnaire.

- 1. My greens were not infested with webworm so did not have to apply treatment.
- 2. I had only one attack of small brown patch this season which was on three greens. I applied Semesan immediately which checked it. Then applied, after one week, ammonium sulphate at the rate of two and one-half pounds per 1000 square feet and top-dressed with compost.

On those greens that were not attacked I did not apply any mercury compound, but gave them a top-dressing of compost every 4 to 6 weeks, depending on weather conditions. Compost consisted of black loam, barnyard manure and sand. I treated with sulphate 2 to 3 weeks after the composting,

varying the amount from two and one-half to four pounds per 1000 square feet, depending on weather conditions.

- 3. Will refer you to answer No. 2 which I think covers this question. However, I will say that I lighten my topdressing and sulphate treatment during the summer months.
- 4. I think over-feeding and over-watering hastens fungus diseases. During periods of fungus diseases I lighten all of my treatments and watering.
- 5. I have not observed the various diseases on greens that have been dried out for lack of water, but that have received plenty of air.

Am happy to say that I have had no trouble with my greens this season with the exception of the one attack of small brown patch on three greens as I mentioned above, which happened on July 18th, but which recovered very quickly after treatment.

This is an 18-hole course and has had heavy play for a private club, but my greens have stood up in fine shape. We have had a very dry and hard season this year as every greenkeeper knows, so I am very thankful for conditions on my course.

Brown Patch At Ann Arbor

By WM. SLACK, Greenkeeper University of Michigan Golf Course, Ann Arbor, Michigan

In Reply to your questionnaire, I hereby submit the following answers:

- 1. Did not have webworm.
- 2. Had both small and large brown patch. On May 12th had small brown patch very bad on three greens. Used corrosive sublimate with excellent results, then gave light topdressing without fertilizer and had no trouble with said three greens since. For large brown patch I used Semesan and Nu-Green.
- 3. I use no organic fertilizer after June. Perhaps over-feeding or over-watering hastens brown patch but as I do neither and get disease just the same it is hard to say with any certainty whether it does or not.
 - 5. No, not on this course.

Note—Greenkeepers are Requested to Send in Letters for Publication Next Month.

Birds Kill Webworms

By JOS. WILLIAMSON, Greenkeeper Scioto Country Club, Columbus, Obio



JOS. WILLIAMSON

THE sod webworm made its appearance on several Scioto greens this summer, but the birds were able to combat this pest and did not find it necessary to use chemicals of any kind to eliminate them, the birds kept them well under control.

2. Our greens were affected at intervals with

small brown patch and especially No. 2, a new green, had a severe attack of the large patch. I depended solely upon Calo-Clor as a preventative with good results and used a 10-6-4 fertilizer in small quantity, well watered in.

- 3. I do not use organic fertilizers during the summer.
- 4. Over-feeding and over-watering are the fatal mistakes of many greenkeepers and cause most of the troubles, especially does it hasten fungus growth.
- 5. No, but I have seen a deal of scald and sunburn this summer and thinning out of the grasses on greens owing to the many rains during July and August. The root system being close to the surface the grasses were unable to stand the many hot, scorching days of the past few weeks.

Brown Patch At Hartford

By J. O. CAMPBELL, Golf Course Superintendent Wethersfield Country Club, Hartford, Conn.

We have had no webworms so far and I have heard of none in the Hartford district.

I have had brown patch and plenty of it, but have been able to check it, before it had damaged my greens to any great extent, although some greens in this district were completely destroyed. I used Semesan and some Nu-Green applied at the rate of one-half pound to 1000 feet, every three days until there were no signs of the fungus.

When the weather was hot and humid, I watched very closely and on the slightest indication of the