Calo-Clor For Brown Patch

By THOS. M. TODD, Greenkeeper Rolling Green Country Club, Arlington Heights, Ill.

I N ANSWER to the questionnaire sent out by our president, I will give a brief outline of our troubles this summer and how we handled our greens fertilizing during the season.

We were not troubled with webworm seriously enough to require treatment. There were some to be found but were so few that very little or no damage was caused by them.

We have nine greens seeded with South German bent and redtop which were attacked quite severely with large brown patch. Eighteen Washington bent greens were infected with small brown patch at times, but it was never very severe and we have never yet found any large patch on them.

We were less troubled with the small brown patch this year than we were the preceding two years that I have been here. One and one-half ounces to two ounces of Calo-Clor mixed with water and put on with sprinkling carts at the rate of one barrel to approximately one thousand feet was sufficient to check the disease in every case except on the large brown patch which required two successive treatments during the hot spell we had in June.

I have found that Calo-Clor does not have a harmful effect even when used on a hot day and without sprinkling afterwards if no more than one and one-half ounces are used to a fifty gallon barrel of water. It gives better control than a heavier dose washed in.

The only organic fertilizer I have used this summer was some pulverized poultry manure. I used it mixed with a complete mineral fertilizer and put it on dry with a fertilizer spreader. The mixture was put on the last week in May or rather about ten days before the last of May. A few greens were given some more of the same mixture during the first week of August, while the rest of the greens received the mineral fertilizer alone. Between the last part of May and the first part of August, two rather light applications of sulphate of ammonia were put on with the sprinkling carts. In the early spring a fairly heavy application of the complete mineral fertilizer was put on.

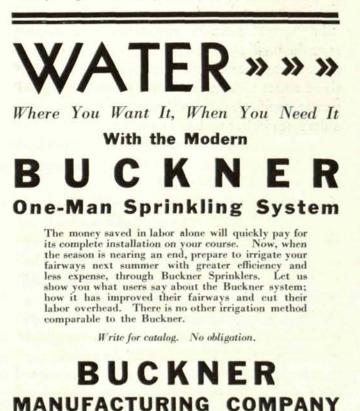
We water greens every other night but as our

water supply is somewhat limited we cannot water very heavily.

The grass on our greens has never appeared healthier or of a better color than it has this year, nor has it ever before resisted the attacks of brown patch so well. I believe that over-feeding does hasten fungus diseases by making the grass too soft to resist disease. So all of my fertilizer applications after the first spring feeding are rather light.

I think that if the grass has a constant supply of food to draw from it is better than to have periods of starvation alternating with periods of overabundance of food. As for watering, perhaps it may hasten the attack of fungus diseases if the green is not well drained, both underneath and on the surface, so that the grass becomes weak from air starvation.

I have not been able to observe the action of diseases on greens that have been dried out for lack of water as I have not been on a course where such a condition existed. However, our fairways, which are not watered, sufferd badly this summer from "fairy ring." The rough, both bluegrass and fescue,



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was also affected. Due to the entire course being brown and dry the disease did not show up much until after the recent rains. Since the rains the damage is very apparent. Heavy rains in June followed by extremely hot weather is in my opinion responsible for the disease and scald on the fairways.

Hammond Uses Milorganite

By FLOYD HAMMOND, Greenkeeper Ella W. Sharp Park, Jackson, Michigan

N REPLY to your questionnaire, I will say that we had some trouble from the webworm on three or four greens. We applied arsenate of lead at the rate of six pounds to each one thousand square feet of turf and had very good results from this treatment, although on one green we had to make a second application.

The rest of the greens had a treatment of arsenate of lead in the month of May. This was applied for chickweed and I think this was the reason that the worms did not affect them.

In regards to brown patch, we had an attack of large brown patch about the 28th of June. We used a spray of corrosive sublimate—three ounces to one thousand square feet. This stopped the fungus for a time but we had two more attacks at intervals of about three weeks. We applied the same treatment each time and did not suffer any serious results from it, but we had a case of sun scald. The grass seemed to die out in quite large areas around the outside of the greens. We had to patch some of them.

Later I noticed that the roots of the bent seemed to be nearly all dead. The grass did not seem to respond to applications of fertilizer and browned up very badly wherever the cups were placed. The greens were very fast on account of this and did not hold pitch shots well. We disced them with a spiked disc, going over them three or four times and topdressed with sharp sand mixed with our regular topdressing about one-third sand. As a result our greens are back to normal now. We use about five pounds of Milorganite and two pounds of sulphate at three-week intervals during this period.

Over-watering or over-feeding may have a bad effect on greens in some cases, but I think the weather conditions have a great deal to do with it. We have used the same methods for four years and have had very little trouble with fungus diseases.

In 1930 we had no trouble at all. Our greens were in perfect condition all year. In 1928-29 we had but very little trouble either, so it would seem that the weather or some other factor influences the fungus quite materially.

Season Caused Gray Hairs

By BERT BARROWS, Greenkeeper Kenosha Country Club, Kenosha, Wisconsin

VV ITHOUT a doubt this season has caused greenkeepers of this country plenty of grey hairs. I know my best friend, Mr. F. T. Neff, Green committee chairman, and myself received our share.

As to your questions on webworm and turf problems, I am answering them as follows:

Our greens were affected more or less with the webworm. We applied five pounds of arsenate of lead to one thousand square feet, using the barrel, following with a light topdressing using no organic fertilizer, but good soil and one part sharp sand. In case the green was damaged we use a small part of Milorganite for quick recovery.

We had no sun scald this summer as the greens were watered all night sometimes up to ten A. M., just removing sprinklers long enough to mow, cutting every day.

We have just finished harvesting this year's crop of Bent seed. We are threshing and cleaning it and filling orders upon receipt of letter or telegram. Winter hardy BENT GRASS SEED grown I have had a great deal of experience covering twelve years in furnishin follow the simple directions in applying the seed that I recommend to

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