RX for ULCERS

During August, 1976, this Golf Course Superintendent detected a fungal infestation on the 6th green at Tuscumbia Country Club. The affected area was approximately 2-1/2 feet in circumference and characterized by numerous "dimesized", silver-white spots of dead turf. infestation proved not only to be a turfgrass management problem, but, also, an infestation of my stomach, more commonly known as Agrostis palustris ulceris.

Following a short conference with Jerry O'Donnell, I treated for Anthracnose with Captan 50 WP at the recommended label rate. examination of the diseased area convinced me that no further fungal infection had taken place. however the previously affected area showed no signs of recovery. As the year progressed there was no further indication of recovery and the 6th green went into the 1976-77 winter with the "dime-size" spots still very much in evidence.

In the spring of 1977, it became apparent to me that a healing process had taken place during the



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previous winter. However, I noticed a recurrence of the infection in the same place on May 19th. The temperatures had been recorded in the 80 to 90 degree range, accompanied by 3.3 inches of precipitation since May 12th. On May 21st the disease spread over half of the green (not to mention Agrostis palustris ulceris spreading over half of my stomach].

In talking with Jerry O'Donnell, the concern over and suspicion of Pythium spp. was voiced. Plugs from the infected green were sent to Dr. Gavle Worf's lab but the samples did not culture out. My ulcer did.

On May 24th, with temperatures reading in the 90's, the disease spread over the entire green. An application of chloroneb was put down immediately with a subsequent application of the same material on May 27th. This action was followed by applications of benomyl, mercury and thiram, all with the same negligible results (milk didn't work on my stomach either]. Some control was obtained when the temperatures dropped back to a respectable 60 degrees. On June 4th however, reinfestation was initiated and the activity spread to other greens.

An attempt at control was made by combining chlorothalonil and chloroneb and applying this formulation every 5 to 8 days. Results, again, were negligible [as was the milk] and the fungal activity continued for the remainder of June.

By July 5th, the sixth green was virtually "wiped out". Benomyl was applied to this putting surface at a quadruple rate. This action appeared to arrest the fungal activity and three days later there were encouraging signs of turf [and stomach] recovery. As insurance, benomyl was applied again on July 8th at a normal rate.

My elation was short-lived however as, at 6:00 a.m., July 16th, 1977, I discovered an entire putting surface gray with mycellium. At this juncture, a double rate of Topsin M was applied [my stomach was to receive a double dose of Malox], and alternate day mowing of the green was instituted on the 17th of July. Benomyl was applied, again, as insurance on the 22nd. At last, control.

Wrong. Disease activity began, once more, on July 27th. Topsin M was applied on July 28th, followed by applications of benomyl on August 2nd and August 6th. However, August 7th proved to be a day of most accelerated fungal spread. 8 ounces of benomyl checked the activity until August 10th. August 9th, I had established 22 test plots comprised of every fungicide I "could lay my hands on". As previously noted, however, the 8 ounces of benomyl only checked the disease progress until August 10th. The fungal activity on that date was incredible as my putting greens were completely covered with mycellium.

In checking the test plots, the only area devoid of any fungal infestation was the one covered with dyrene at "twice the rate". This material was



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acquired in large quantities and applied [double rate] on a 5 to 7 day schedule. Recovery by the turf was almost complete by August 25th and on August 29th a call from Dr. Worf confirmed my suspicions: fungal activity of resistant Sclerotinia, homoeocarpa compounded by Pythium spp.

Three weeks later, I was able ro get rid of my "Agrostis palustris ulceris, my Malox and my milk.

Deak DeCrammer



Congratulations BELATEDLY

The Wisconsin Golf Course Superintendents Association wishes to extend congratulations to Jack Soderberg, Golf Course Superintendent at Merrill Hills Country Club, Delafield, Wisconsin for successfully completing the Golf Course Superintendents Association of America process and becoming a Certified Golf Course Superintendent.



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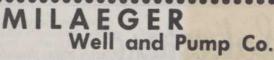
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The Editor has received information about another source of "Agrostis palustris ulceris" for Wisconsin Golf Course Superintendents from the office of Dr. Gayle Worf, Extension Plant Pathologist, University of Wisconsin-Madison. It seems that "an interesting disease of golf course greens has occurred in the last few years that produces a most dramatic and puzzling set of symptoms when it occurs."

"Turf is affected in a ring-like pattern, somewhat like Fusarium Blight, except that the diameters of the rings are usually greater, ranging from 6" to 24", and the border of the affected turf is narrow, no wider than about one inch. Turf in the affected border area may be killed; more often than not the turf becomes yellow and weak, but is not killed. The disease usually lasts a few days to a week or two. The rings are often nearly perfectly round. Both Poa annua and bentgrass have been affected, although we have not seen it on fairways or home lawns. Where it came from and whether it will become a serious problem is not known."

"We have been puzzled by its cause. The fungus we isolated from diseased tissue somewhat resembles Rhizoctonia, the brown-patch inciting organism. It is a little bit different, however, and it usually develops at cooler temperatures than the brown-patch fungus. Most symptoms have appeared in May, but we have encountered it about the Fourth of July in one case."

In checking with Ms. Pat Sanders of the Plant Pathology Department at The Pennsylvania State University the Editor discovered that, in Penn-sylvania tests at least, this "new" disease problem may be what has been referred to in the past as "Cold Weather Brown Patch". With the upswing in the use of systemic fungicides, certain benficial microorganism populations have been reduced allowing this "Cold Weather Brown Patch" fungus to become more active. According to Ms. Sanders, optimum temperature development range is between 40 degrees and 50 degrees Farenheit. In addition, the action of the disease inciting organism is to totally blight the leaf but not be destructive to either roots or crowns of the grass plant. Finally, best control of this "new" disease has been obtained with chloroneb or chlorothalnoil at regular label recommended rates. Benomyl has proven to be ineffective and, as in the case, as some beieve, of Helminthosporium, may actually aggravate the problem.