Brown-Patch, Worms, Scald and Pythium Fight Greensmen

IF IT WILL cheer anyone to get the news, tales of this year's golf course troubles all were about the same. One of the course superintendents tells of his troubles by leading off with the statement, "When I saw how many dandelions we had early this season I knew that we were in for trouble. I've never failed to see a big crop of dandelions that didn't mean grief with the greens and fairways later on, and not alone because of weed eradication. The conditions favorable to luxuriant growth of dandelions seem to be those that call for action if fine turf is to be preserved."

Among the simple remedies that seemed to have rather quick and uniform effect was that of aerating greens by spiked roller application at frequent intervals or by more heroic treatment of aeration. It played hell with putting but a number of greenkeepers credit the treatment with saving their greens from some threatening trouble that was in an advanced stage.

Out of GOLFDOM'S reports on the conditions and treatments at clubs where turf trouble was experienced this year, we select a few that are representative.

Insect pests had their inning this year and Carl O. Watkins, green-chairman of the Mattoon (Ill.) C. C., tells of this sort of distress at his course. Mr. Watkins writes:

Worms Destroy the Grass

"About July 11, during an unusually hot spell, we noticed some dry spots appear at certain places on our greens, which are of Washington Bent grass. These spots were mostly around the edges. The ground seemed to get hard and the water would run off to softer places. We should have spiked these places, but did not. After the dry spots had been in existence a few days we noticed the appearance of a number of small, dark colored worms ranging in size from about the size of the lead in a pencil and ½" long up to 1" long. We decided that they were cut-worms or wire-worms. We noticed that the grass seemed to grow thinner in an increasing area away from the dry spots and we came to the conclusion that the worms must be there in larger quantities than we saw and that they were feeding on the grass.

"We gave all of the greens a treatment of arsenate of lead at the rate of two pounds to 50 gallons of water. We gave an extra heavy treatment to the spreading line, which was gradually creeping in to the center of the green and in one case almost destroyed an entire green. Forty-eight hours later we applied a similar application and 12 hours later began to find these worms in large numbers dead or almost dead, on top of the ground and in the greatest numbers along the boundary line between the dead turf and the live turf. When we would water the greens the dead grass would wash off the greens in great quantities. We had similar damage in the fairways.

"With the killing of the worms the area of dead spots quit increasing. The grass showed little tendency to come back until August 11, when we finished weeding the greens and were favored with a little cool spell during which time we topdressed them and gave them a liquid application of sulphate of ammonia at the rate of 1½ lbs. to the thousand square feet. Since that time the grass has made a rapid recovery. We might mention that in the meantime we had installed a new pump which enables us to put on a great deal more water.

Seed for Emergency

"There are certain portions of the greens that show no tendency to come back. We are seeding these portions with redtop seed, as we were fortunate in having a very heavy strain of bent grass, which will no doubt spread over the dead areas by the middle of next summer. If we can provide a green surface on these dead spots in the meantime we are satisfied that the bent will soon displace the redtop. At the present time our greens show a very good putting surface.

"In my opinion our trouble was caused by the fact that we were not able to apply enough water in the early part of the night to give the greens a thorough soaking and be absorbed before the hot sun came out

on them the next day. It seems to be the history of all insect pests that they thrive in dry years, and as we had quite a number of the worms last year the ground was filled with the eggs which hatched in unusually great numbers as soon as the soil became dry enough to permit them to do so. When the hatching began the feeding started and the grass was the victim.

"I do not maintain that this is the general cause of the increasing loss of turf this year, but in our particular case and in the case of two other neighboring clubs I am thoroughly convinced that the cut worms did the damage, and when we permitted the soil to become dry we aided the hatching of these worms.

An Eastern Experience

James M. Smart, grounds supt. at Dutchess G. & C. C., Poughkeepsie, N. Y., reports on the injury suffered at his course. Mr. Smart tells that the trouble was confined to the greens. There the finer bent grasses died out in spots. The first apparent damage was on July 3, after a brown patch attack on eight greens. The brown patch was especially virulent and several attacks were suffered despite preventive applications. Dutchess has several mixed bent greens which, according to Smart's statement, stood up well. At practically every course where *poa annua* was in greens it went out suddenly and completely.

In repairing the damage Mr. Smart fertilized lightly and seeded to redtop. The recovery of the greens is proceeding satisfactorily. In making a diagnosis of his trouble, the Dutchess superintendent brings up the matter of watering practice. He believes that the alternate watering and scorching of the greens may have had something to do with the recurrent attacks of brown patch. Debate has been keen about watering this season. A number of greenkeepers have switched their watering practice from evening to early morning, and to that attribute some immunity to trouble. Others maintain that this morning watering followed by a blazing day is fatal to good greens. It is evident that further study of watering practice is important among the subjects for turf research and with fairway watering installations increasing rapidly, there is more than ever need for course watering investigations.

Older Courses Hard Hit

Many of the older courses that have long been envied for their excellent condition this year were hard hit. Because the same maintenance methods and the same experienced men have been at the affected courses for years, the mystery of the recent trouble is deepened.

A typical case of an older course being hit is that at Oak Park C. C. (Chicago district). The morning of June 30 Oak Park's course was in splendid shape. By mid-afternoon of the scorching day the greens lost color and by the next morning many of them were brown. Greens that were lost were those having *poa annua* and *poa trivialis*. The bent stolon spots came through in good shape. Tees, as a whole, stood up well. The only noticeable injury was in the loss of the *poa annua*.

C. M. Melville, grounds supt., is of the opinion that the heavy rain immediately preceding the hot spell was too much for the greens to handle. When the high temperature prevailed for long, Melville states the injury was simply a bad case of scalding. Small brown patch hit Oak Park hard on the high spots on the fairways. In the lower spots of fairways scald was suffered. Generally, though, the watered fairways of Oak Park came through well. Topdressing, seeding and light fertilization have brought the greens back in good condition although the recovery here, as at other courses, has not been the overnight miracle the eager golfers desire.

AMONG THE many fee course business development methods used profitably by Willie Hunter is a handicap card record. Hunter's handicap card rack has about 500 cards. This gives the fee course player a handicap rating for his competitive matches and is a good stunt for making a habit of play at the course.

GREENSMEN should use judgment whether or not to stop work when players approach. If the nature of the work is such that the players may be disturbed, workers should stay quiet until the match has passed on. If there is little chance of interfering with the golfers' shots, they should keep on working to avoid any chance of being thought loafing on the job.

ARE THE roof gutters on the clubhouse clogged so water stands in them after every rain? If so, you are furnishing an ideal spot for mosquitoes to develop.