

TURF TROUBLES PROBED

by Jersey Advisory Service

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DUE TO a drastic reduction in the financial assistance given the New Jersey Agricultural Experiment Station in July 1932 for the continuance of the local experimental turf work, it was deemed necessary that a reorganization be effected in order that all of the essential parts of the work might be continued. In this shuffle my new duties called for the assumption of a new "Turf Advisory Service," sponsored jointly by the Green Section of the New Jersey State Golf Assn. and the New Jersey Agricultural Experiment Station, with an effort made to place this part of our program on a paying basis. Having been associated with the experimental turf work of this station since the turf work began here, an opportunity was offered whereby our experimental findings could be carried directly into the field of application. Despite the fact that at this time the financial condition of the clubs in this area was not rosy, and that greenkeepers' budgets were materially reduced, I was personally pleased with the opportunity offered to be of some material help to them.

After a year and a half trial, it may be said here with all modesty that this service to date has been of considerable value to both the clubs and the greenkeepers utilizing it. The success of such a plan of service is determined largely by the greenkeeper. Without the greenkeeper's good will, confidence and cooperation, the above mentioned advisory service is doomed to fail. Fortunately it has been my privilege to enjoy all of these.

Treatments Vary Widely

Every course visited presents different problems, and each green, tee, and fairway on the course has its own peculiarity. Thus, it takes no "brain trust" to see that if maximum results are to be obtained, no single treatment will meet the needs of all greens, tees, and fairways, regardless of

whether they are on the same course or on different courses.

The metropolitan area this past season has been particularly fortunate in having climatic conditions favorable for the growth of grass. The season was cool and moist for the most part, with an exceptionally good distribution of rainfall despite the fact that August was one of the wettest on record. Temperatures were cool at the beginning and moderate throughout most of the season. There were only two short periods in which the temperatures were relatively high and the rainfall low, but neither of these periods caused loss of turf directly as their duration was broken by timely rainfall.

Good Weather Helps Budgets

On some unwatered and under-fertilized areas, the "chinch-bug" established itself during these periods and was credited with causing some loss of turf. There were three general outbreaks of disease, one of dollar spot just prior to Decoration Day, one of large brown patch and algae just before Labor Day, and one of dollar patch late in the season. Thus, the area was comparatively free from disease and suffered only slight turf injury on greens that were well drained. However, poorly constructed and poorly drained greens showed a considerable loss of turf from large brown patch and algae during periods of heavy rainfall in August. The better constructed greens showed no loss of turf, and were in good playable condition throughout the summer.

More mercury burning of turf was observed in this district this year than ever before. The misuse and abuse as to the rate of application, and a change to the use of inorganic mercury carriers from organic mercury is largely responsible for this condition. The favorable climatic conditions in this area during the past season account in a large measure for the good turf condition of our eastern courses despite budget and labor reductions.

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In our turf advisory work, an effort has been made to locate soil deficiencies, toxins, and abuses of fundamentals of plant growth, and to correct these conditions before an emergency arises. Soil samples for testing are taken from the courses far enough ahead so that there is ample time for drawing up a definite maintenance schedule. These samples are taken to the laboratory and tested for available or replaceable plant nutrients and toxins. The results of these determinations are recorded and studied.

Foresight Prevents Trouble

After a careful consideration of this data, together with notes made on the course as to the past and present maintenance practices followed, along with vegetation and soil characteristics, a written report of conditions found, and suggestions for their correction or improvement, is made to the greenkeeper in charge.

By following this method of attack, it has been possible to prevent the loss of turf due to excesses or deficiencies of any particular element needed by the plant for its normal growth. In addition, it has provided a method to supplement our present inadequate knowledge of turf and in a measure provided something to take the

place of pure guesswork. However, it has not and will never do away with the good judgment of the greenkeeper. It is merely another tool for his use.

A Research Goal

I firmly believe that the time will come when our research work on turf will establish certain basic limits for the plant foods needed by our various turf grasses grown under widely different soil and climatic conditions. Once these facts have become established, then it will probably be possible to place simplified soil tests for the determination of the amounts of available nutrients and toxins into the hands of practically all the greenkeepers. When this time arrives, these tests will meet a definite need and prove a very important tool.

New Jersey is the first state in the union to have adopted and sponsored a "Turf Advisory Service" for golf clubs. This type of service to date has proved of benefit indirectly to the clubs through the greenkeepers' utilization of the service. They have found it a convenient tool to support their judgment, and it has provided them with some definite data upon which they can base applications.

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