

pose of increasing the water available for putting green turf; consequently the effect of even the very thin layer which was used in this tube of soil was decidedly instructive.

A French entomologist killed the ants in five hills by means of a poisonous gas and undertook to count the dead. In the smallest hill 18,000 dead ants were found, in the largest 94,000, and he was afraid to estimate how many live ants had escaped.

Annual Report of the Green Section for 1929

By Wynant D. Vanderpool, Chairman

Presented at the Annual Meeting of the Green Section in New York City,
January 10, 1930

During the past summer the Arlington turf garden was reorganized. Much of the turf which had served its purpose for experimental work was discarded. Approximately two-thirds of the garden was planted anew or sodded with old turf. During the season the experimental work was continued as usual. Particular attention was paid to the control of leaf-spot disease of turf grasses, and promising results in controlling this type of disease were obtained with certain chemicals. Further work will be necessary before these methods can be recommended for general golf turf use. The number of strains of velvet bent being tested at the turf garden was greatly increased and the work attracted much attention from visitors throughout the summer. A new soil and tool shed was built and the old clay road was graded and surfaced. These improvements should greatly facilitate the work in the future.

The new experimental garden at the Mill Road Farm Golf Course in the Chicago district developed rapidly during its first year. In the fall the planting at the garden was almost doubled, so that now practically the entire property leased to the United States Golf Association Green Section is in use. It was too early to expect any striking results from any of the tests started at this station, but the behavior of the various grasses proved of much interest to those working at the garden and to those who visited it.

During the season members of the Green Section staff availed themselves of the opportunity to work on turf problems at the universities of Chicago, Minnesota, and Wisconsin. Some investigations of physiological problems have been undertaken at the University of Chicago and snow-mold studies have been conducted at the universities of Minnesota and Wisconsin. These institutions have furnished laboratory facilities and personal advice gratis to the Green Section. The Green Section staff feels greatly indebted for the many courtesies and privileges they have received from these institutions.

The Green Section has continued its cooperation with State experiment stations in conducting turf investigations. The New Jersey, Florida, Nebraska, and Kansas experiment stations have received the usual small amount of financial assistance from the Green Section.

During 1928 demonstration turf gardens were planted on 15 golf courses in various golfing centers. In addition to those planted on

golf courses, similar plantings were made at the Massachusetts Agricultural College at Amherst and the Leland Stanford University in California. During the summer these demonstration turf gardens have been a source of much interest to greenkeepers and green-committee members in the neighborhood of the gardens. At intervals during the summer reports were made of the condition of the various grasses and treatments in these plantings. The reports were prepared in duplicate, one copy being retained for the home files and the other copy sent to the Green Section office in Washington. These reports have been consolidated for publication in the Bulletin. Although representing only a single season's observations, the summary has much of interest to those interested in golf turf production.

During the season many requests were made for further expansion of this work in sections not represented in the 1928 plantings. New plantings of this same series were made in 1929 on the course of the Druid Hills Golf Club, Atlanta, Ga., and on the Niagara Falls Municipal Golf Course, Niagara Falls, N. Y.

The demand for Green Section advice on turf problems showed an increase over previous years in spite of the fact that on the whole the season was a most favorable one for turf production. Due to the small personnel, most of the service to clubs had to be limited to correspondence. Approximately the same number of visits were made to golf courses as in the previous year. During these visits many problems were discussed with the club officials and many helpful suggestions were made.

There was the usual large number of interested visitors at the Arlington turf garden throughout the year. The new experimental turf garden in the Chicago district was frequently visited by club officials of the Mid-West. The new demonstration gardens throughout the country also attracted the attention of large numbers of those interested in turf culture. These visits to the experimental and demonstration gardens served to help the Green Section present its findings to those who are best able to carry them to the golf clubs of the country.

During the summer two Green Section meetings were held, one at the Arlington turf garden and one at the new experimental garden in the Chicago district. Over 300 greenkeepers and green-committee members attended these meetings. In addition to these meetings there were several local gatherings on the various demonstration turf gardens, at which members of the Green Section staff were present to take part in the program.

The Green Section had exhibits at the International Golf Shows in New York and Chicago, and at the National Greenkeepers' Golf Show in Buffalo.

Members of the staff were called upon to give lectures at or otherwise to take part in various meetings of greenkeepers during the year.

During the year there were printed nine 20-page issues of the Bulletin and three 16-page issues. The policy of this publication has been much the same as that adopted the preceding year. The paid circulation of the Bulletin showed an increase of 125 during the year, but many names were dropped from our complimentary mailing list, so that the total circulation is only slightly higher than last year. The present circulation is as follows:

United States Golf Association member clubs receiving Green Service service (2 copies per club).....	2,200
Privately owned or daily-fee golf courses receiving similar service (2 copies per course).....	38
Canadian clubs receiving Green Section service (2 copies per club).....	12
Canadian clubs receiving the Bulletin through the Royal Canadian Golf Association.....	165
Private subscriptions, domestic.....	382
Private subscriptions, foreign.....	69
Municipal courses receiving the Bulletin without charge...	45
Complimentary mailing list.....	221
Total Bulletin mailing list.....	3,132

It is very gratifying to report that the New Jersey State Legislature made an appropriation of \$5,000 for work to be carried on at the New Jersey Agricultural Experiment Station at New Brunswick, and it is understood that this appropriation will be continued from year to year. This research work, under the direction of Dr. Jacob G. Lipman, Dr. Howard B. Sprague, and Mr. Evaul, is being conducted for the development and improvement of turf for golf courses, parks, and homes. It is to be hoped that other legislatures may take similar action where the State agricultural colleges are cooperating with the United States Golf Association in research work.

It is a pleasure to report that Dr. R. A. Oakley has returned to Washington, and while he has not entirely regained his health and strength is still actively interested in the direction of the work of the association.

It is earnestly hoped that the Green Section will continue its active work for the next year and many years to come.

Carpet Grass for Southern Fairways

By Robert White

Ocean-Forest Country Club, Myrtle Beach, S. C.

(Mr. White was requested to present to readers of the Bulletin these experiences of his with certain Southern turf problems as detailed by him in a discussion of the subjects at the annual meeting of the Green Section in New York City, January 10.—Editors.)

In the construction of our course at Myrtle Beach we proceeded on the assumption that Bermuda was the only grass suitable for seeding fairways in the South. It is indeed the prevailing grass over most of the South for both putting greens and fairways. The suggestion, however, was made that we try some carpet grass in the fairways. We accordingly seeded the fairways with a mixture of 90 per cent Bermuda grass and 10 per cent carpet grass. Much to our surprise we got parts of fairways that are all carpet grass, and the percentage of carpet grass all over the course is increasing rapidly. It has proved to be much better for us than Bermuda grass. Like Bermuda grass, carpet grass wilts after a frost, but unlike Bermuda grass it will produce green leaves again after a few warm days have come. We have reached the conclusion that the solution of our fairway turf problem in our climate is carpet grass.