

Special Instruction for Greenkeepers at Pennsylvania State College

By H. W. Thurston, Jr.

Pennsylvania State College, State College, Pa.

The first short course of instruction for greenkeepers given in Pennsylvania was presented in 1929 by the School of Agriculture and the Agricultural Experiment Station of the Pennsylvania State College, located at State College, Pa. In that year the course lasted only two days, but was attended by over 70 students, representing 46 golf clubs. So marked was the success of this experiment that the following year a 4-weeks course was given, embracing lectures, demonstrations, and laboratory work in various subjects fundamental to the handling of fine turf grasses. This was followed by a one-week conference. The attendance at the 4-weeks course was 24, and at the conference 65. Funds for initiating research on turf production and placing such work on a permanent basis have become available through the instrumentality of a committee of greenkeepers who attended the first two courses and who obtained subscriptions totaling \$800 for the purpose, and through the generosity of the United States Golf Association Green Section, which followed with a donation of \$1,000. It is expected that the Pennsylvania State College will provide funds to continue and expand the work.



First class of greenkeepers at Pennsylvania State College, 1929

In 1931 a 4-weeks course will be given February 2 to 27, concluding with a 3-days conference February 25 to 27. Owing to limited facilities enrollment for the 4-weeks course will be limited to the first 30 applicants. Applications should be made to the Dean of the School of Agriculture, 111 Agricultural Building, State College, Pa. Applicants should give the name and address of the golf club or other organization to which they are attached. The instruction is intended for the benefit of greenkeepers, green-committee chairmen, superintendents of parks, and others interested in fine turf problems. No

limit is placed on the number who may attend the 3-days conference to be held at the conclusion of the 4-weeks course.

The program for the 4-weeks course embraces the following subjects. They will be taught in the college class rooms and laboratories.

Soils and fertilizers.—Discussion and laboratory studies covering the origin, formation, and physical properties of soils; soil acidity; purchase, mixing, and use of fertilizers and lime.

Fine turf grasses.—Class room and laboratory work on classification, identification, and propagation of the important fine turf grasses; seed identification and analysis.

Weeds.—Characteristics, life habits, and control of common golf-course weeds; weed seed identification.

Insects.—Characteristics, life history, and control.

Diseases.—Nature and effects of plant diseases; their prevention and control. Application to turf problems will be emphasized.

Landscape problems.—Factors determining the location and layout of a golf course; a study of golf course plans; grading problems; selection, identification, use, planting, and maintenance of trees and shrubs for golf courses and club house grounds.

Maintenance, drainage, and irrigation.—Detailed study of gasoline engines, their operation, repair, care, and adjustment. Location, design, and construction of drainage systems. Power requirements. Design and operation of spray irrigation systems. Pipe friction, pipe sizes, and pumps.

The conference, to be held from 1 p. m. February 25 to noon, February 27, is designed for greenkeepers, green-committee chairmen, and others who desire to keep informed on the most recent developments in fine turf management. The major portion of the time will be given to round-table discussions. The subjects to be considered will be essentially the same as those presented during the 4-weeks course. The speakers will be discussion leaders rather than lecturers. A prominent part of the program will be short talks by practical greenkeepers based on their own experience. The following program has been arranged for the conference:

WEDNESDAY, FEBRUARY 25

Registration.

Address of welcome.....*R. L. Watts, Dean of School of Agriculture*
Report of the Pennsylvania Fine Turf Research Committee...*Joseph Valentine*
Progress report on research projects at State College.

C. O. Cromer, J. W. White, H. B. Musser, Dept. Agronomy

THURSDAY, FEBRUARY 26

Soil types; outstanding physical and chemical characteristics of the important soil groups of the state.....*A. L. Patrick, Dept. Agronomy*

Organic matter; importance, functions, sources, and maintenance.

F. G. Merkle, Dept. Agronomy

Drainage and irrigation.....*W. P. Miller, Drainage Engineering*

Soil acidity; nature, cause, effect, and extent.

F. G. Merkle, Dept. Agronomy, and

C. K. Hallowell, Extension Dept.

Effect of soil fertilization on the development of grasses, weeds, and fungous diseases.

Nutritional requirements of plants; a discussion pointing out some of the important life processes of the plant, including the intake of nutrients and the manufacture of compounds.....*H. W. Popp, Dept. Botany*

Nature and value of fertilizer materials; special consideration to be given to availability, cost, and effect on soil reaction.

A. L. Patrick and J. W. White, Dept. Agronomy

Dinner (7 p. m.).

FRIDAY, FEBRUARY 27

Relation of soil treatment to fungous diseases.

John Monteith, Jr., U. S. G. A. Green Section

Relation of soil treatment to grasses and weeds.

J. W. White and A. L. Patrick, Dept. Agronomy

Summary of fertilizer studies; recommendations for fine turf grasses.

J. W. White, Dept. Agronomy

The expenses to students attending the 4-weeks course need not exceed \$60, including both living expenses and college fee. The largest single item of expense is room and board, which will be from about \$9.50 to \$10.50 a week. The college fee is \$10. Other expenses would consist of laundry, stationery, and miscellaneous items. In some of the subjects books may be required.

Greenkeeping Instruction at State University of New Jersey

By Howard B. Sprague

State College of Agriculture, New Brunswick, N. J.

Our first short course of instruction in turf management was held in 1929, and was attended by 54 greenkeeping students. The following year the attendance increased to 66 students. In 1931 we shall offer, in addition to the regular course, a special course for advanced students.



Attending group at the second annual short course of instruction in turf management given at the State College of Agriculture, Rutgers University, New Brunswick, N. J., February, 1930

The regular course will be held during the week February 16 to 21, 1931. There is no charge for tuition, but a registration fee of \$5 is payable at the time of registration, or may be sent in with the application for enrollment. A fee of \$1 also is charged for outlines of lectures. Applicants for enrollment must be at least 18 years of age. Applications should be sent to F. G. Helyar, Director of Short