Penn State Greenkeeper's Course By JOHN QUAILL

THE Penn State Short course was attended by twenty-one greenkeepers and lasted four weeks. The subjects taught were of vital interest to the greenkeeper and were well given. The professors who taught the greenkeepers are members of the staff of one of the largest and leading agriculture colleges in the United States. Each subject was covered well and thoroughly and the laboratories and experimental plots were at the greenkeepers' disposal.

The conference was of one week's duration and was attended by sixty-five men. This program was also well planned and all who attended were very well satisfied. The men in charge of the experimental plots at State are carrying out experiments that no other station in the United States is trying.

Following is a program of the course and conference.

Greenkeepers' Short Course

Feb. 2-28, 1930

The aim of this course is to give instruction in the broad underlying problems that have to deal with practical turf management. Anyone who is interested and who can read and write will be eligible. The course is especially designed, however, for those who have had some experience with fine turf management. During the first three weeks the subjects listed below will be studied. The fourth week those attending the short course will be expected to attend the Green-keepers' Conference.

The courses will be taught in the college classrooms and laboratories.

Expenses Living expenses and college fees for the four weeks need



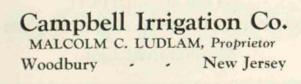
THE SLOW ROTARY

Mounted on a Sled or Roller Base as desired

A Putting Green can only be maintained properly with a perfect sprinkler-one that distributes the water evenly, gently and slowly.

The SLOW ROTARY, on account of its very wide covering (125 ft. on 50 lbs. pressure), is particularly well adapted for FAIRWAY watering.

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not exceed \$60.00. The largest single item of expense is room and board, which will be from about \$9.50 to \$10.50 a week. An incidental fee of \$10.00 is payable by all winter course students. Other expenses will consist of laundry, stationery, and miscellaneous items. In some of the courses books may be required.

Description of Work

1. Soils and Fertilizers-Discussion and laboratory studies covering the origin, formation and physical properties of soils, and soil acidity, as well as the purchase, mixing and use of fertilizers and lime.

2. Fine Turf Grasses-Class room and laboratory work on classification, identification, and propagation of the important fine turf grasses, including seed identification and analysis.

Weeds-The characteristics, life habits, and control means of the various weeds common to golf courses will be studied.

Some time will also be given to weed seed identification. 4. Insects—A brief study of the insects affecting fine turf grasses with particular reference to their control. 5. *Diseases*—A consideration of the nature of diseases and

their effect on plants, together with the principles of prevention and control. Application to turf problems will be emphasized.

6. Landscape Problems-Factors determining the location and layout of golf courses, a study of golf course plans; grading problems; discussion of trees and shrubs for golf courses and club house grounds; their identification, special uses, planting, and maintenance.

7. Machinery, Drainage, and Irrigation-Detailed study of gasoline engines, their operation, repair, care, and adjustment. The location, design, and construction of tile drainage systems. Power requirements, design, and operation of spray irrigation

systems; pipe friction, pipe sizes, and pumps. Greenkeepers' Conference Program From 9:00 A. M., February 24, to

Noon, February 28, 1930

Monday a. m.

Chairman, A. L. Patrick

9:00-Registration 10:00-Welcome Dean R. L. Watts 10:10-Greenkeepers' Research Committee Report Joseph Valentine Joseph Valentine

10:30-Outline of the Research Program at State College

.....J. W. White, C. O. Cromer, H. B. Musser Monday p. m.

Chairman, John R. Bracken

2:00-Golf Course Architecture Discussion Tuesday a. m.-Golf Course Construction

Tuesday p. m.

2:00-Commercial Fertilizers

3:00-Nature of Soil Acidity and Methods of

Determination F. G. Merkle 3:30—Lime J. W. White 4:00—Final Preparation of Seedbed Joseph Valentine Wednesday a. m.—Seeding Greens and Fairways

Chairman, H. B. Musser 9:00-Choosing Varieties

Classification and Identification of Fine Turf

Grasses H. B. Musser 11:00—Seed Identification and Analysis J. S. Cobb

- Wednesday p. m. 2:00—Seed Sources Nicholas Schmitz

- Thursday p.m.
- 2:00-Insect Problems H. N. Worthley Discussion

3:30—Records and Accounts E. L. Moffitt 4:00—Machinery G. M. Foulkrod 7:00—Dinner—Centre Hills Country Club Friday a. m.—Weeds Chairman, A. L. Patrick 9:00—Nature, Habits, and Chemical Control ... C. O. Cromer 10:00—Effect of Fertilizers and Lime on the Relative Growth of Grasses and Weeds C. F. Noll, J. W. White

11:00-Use of Fertilizers and Composts .. Nicholas Schmitz

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