

Round table discussion of grasses.

Led by John Monteith, Jr., U. S. G. A. Green Section
 Drainage problems *O. E. Robey, Dept. Agricultural Engineering*
 Landscaping the golf course *C. P. Halligan, Dept. Landscape Architecture*
 Gas engines *H. H. Musselman, Dept. Agricultural Engineering*
 Laboratory study of gas engines.

H. H. Musselman and staff, Dept. Agricultural Engineering

WEDNESDAY, FEBRUARY 18

Introduction of Herbert Shave, president of Michigan and Border Cities Greenkeepers' Association.

Service offered by the department of botany of the Michigan State College.

J. H. Muncie, Dept. Botany

Turf Diseases *John Monteith, Jr., U. S. G. A. Green Section*

Round table discussion of turf diseases.

Led by John Monteith, Jr., U. S. G. A. Green Section, and

J. H. Muncie, Dept. Botany

Weed control *C. R. Megee, Dept. Farm Crops*

Mowers *H. H. Musselman, Dept. Agricultural Engineering*

Inspection of the Ideal lawn mower factory.

THURSDAY, FEBRUARY 19

Introduction by Prof. Halligan.

Service offered by the Michigan State College in insect control.

R. H. Pettit, Dept. Entomology

Control of turf insects *Kenneth Welton, U. S. G. A. Green Section*

Round table discussion of insect control.

Led by Kenneth Welton, U. S. G. A. Green Section, and

R. H. Pettit, Dept. Entomology

Grass Seeds *C. A. Stahl, State Seed Analyst*

Round table discussion of problems in green management, including cutting and

watering *Led by Kenneth Welton, U. S. G. A. Green Section*

Joint meeting of the greenkeepers' associations of Michigan.

Short Course of Instruction for Greenkeepers at University of Wisconsin

By James G. Moore

University of Wisconsin, Madison, Wis.

In 1930 a short course of instruction was given for greenkeepers at the College of Agriculture of the University of Wisconsin. This course was so well received that requests have been made for its repetition. Arrangements are therefore being made for the presentation of a similar course February 9 to 13, 1931. The course will be open to greenkeepers, members of greens committees, and officers of golf clubs. The enrollment will be limited to about 80 students. Requests for enrollment will be accepted in the order of their receipt. Applications should be made to James G. Moore, Department of Horticulture, University of Wisconsin, Madison, Wis. The enrollment fee is \$10, which must accompany the application. Other expenses, including hotel, should run from \$20 to \$30.

The 1931 program and staff of instructors are as follows:

MONDAY, FEBRUARY 9

Registration.

Fundamentals in preparing soils for green construction.

O. J. Noer, Soils and Fertilizers

Topography of the green in relation to drainage and play.

Kenneth Welton, U. S. G. A. Green Section

Other drainage problems of the green.

E. R. Jones, Dept. Agricultural Engineering

Orientation of the green as regards the snow problem.

J. G. Dickson, Dept. Plant Pathology



Greenkeepers in attendance at the short course of instruction in greenkeeping held at the University of Wisconsin, Madison, Wis., in 1930

TUESDAY, FEBRUARY 10

- What to look for in a fairway mower. *F. W. Duffee, Dept. Agricultural Engineering*
- Fundamentals in grass development. *G. B. Mortimer, Dept. Agronomy*
- What to look for in grass seeds. *A. L. Stone, Dept. Agronomy*
- Grasses for greens. *John Monteith, Jr., U. S. G. A. Green Section*
- Laboratory instruction. Four sections: (1) seeds and weeds; (2) mowers; (3) land drainage; (4) soil problems.
- Experience in growing bent. *C. T. Pedlow, Robert Zwerg, H. A. Arnold*

WEDNESDAY, FEBRUARY 11

- Sources of plant nutrients. *C. J. Chapman, Dept. Soils*
- Fertilizing and top-dressing greens. *O. J. Noer, Soils and Fertilizers*
- Mowing greens; its relation to maintenance and play. *John Monteith, Jr., U. S. G. A. Green Section*
- Controlling diseases of the green. *A. S. Dahl, U. S. G. A. Green Section*
- Laboratory instruction. Four sections: (1) mowers; (2) land drainage; (3) soil problems; (4) seeds and weeds.
- Landscaping problems. *F. A. Aust, Dept. Horticulture*

THURSDAY, FEBRUARY 12

- Grasses for tees, fairways, and rough. *John Monteith, Jr., U. S. G. A. Green Section*
- How cutting affects grass. *L. F. Graber, Dept. Agronomy*
- What the movies show. *F. A. Aust, Dept. Horticulture*
- Traps; their location and maintenance. *Kenneth Welton, U. S. G. A. Green Section*
- Laboratory instruction. Four sections: (1) land drainage; (2) soil problems; (3) seeds and weeds; (4) mowers.
- The greenkeeper's records. *F. H. Elwell, School of Commerce*

FRIDAY, FEBRUARY 13

- The well-kept course..... *John Monteith, Jr., U. S. G. A. Green Section*
 Fertilizers as related to the character of the turf on fairways.
G. B. Mortimer, Dept. Agronomy
- How to determine the need of plant food elements.
O. J. Noer, Soils and Fertilizers
- White grub control..... *C. L. Fluke, Dept. Entomology*
- Control of weeds on the fairways..... *A. L. Stone, Dept. Agronomy*
- Laboratory instruction. Four sections: (1) soil problems; (2) seeds and weeds;
 (3) mowers; (4) land drainage.
- Final conference.

Instruction in Greenkeeping at Cornell University

By Ralph W. Curtis

New York State College of Agriculture, Ithaca, N. Y.

Studies in greenkeeping are taken up in the New York State College of Agriculture at Cornell University, as a part of both the regular 4-year course and the special 2-year course in ornamental horticulture. These longer courses are designed to fit students for nursery management and for special landscape service. Our special one-term course in lawn making and greenkeeping can be taken by any student in Cornell University. It covers a period of 14 weeks in the spring, 7 weeks before the Easter recess and 7 weeks after the recess. It is a brief survey course designed to introduce the student to the field under discussion. The class meets only once a week for a 5-hour period on Saturday from 8 to 1 o'clock.

The first half of the term is used for a thorough review of the literature on the subject, including all important books, complete files of the Bulletin of the United States Golf Association Green Section and other magazines devoted to greenkeeping, and all special bulletins and reports by experiment stations and trade organizations. A topic is assigned to each student for a term report. The second half of the term begins with a study of lawn grasses and weeds. Fresh lawn material is used at all times—first in the greenhouse by collecting flats of material in the fall and bringing them into the greenhouse as needed, and second by field trips to the lawns on the college campus and in the neighborhood and to the 18-hole golf course of the local country club. This plant study is accompanied by seed testing and by practice in making lawns and in the handling of bent stolons both for making a nursery and for laying down a putting green by the stolon method. Two inspection trips are taken late in the spring—first to the south for studies on the Arlington turf garden near Washington, D. C., and to some of the best golf courses in Philadelphia, and second to the course of the Yahnundasis Golf Club, at Utica, N. Y.

More than half the agricultural land of the United States has been mapped and classified by the Bureau of Chemistry and Soils. The airplane has recently been employed for procuring photographs for a base map in a soil survey. This was in Jennings County, Ind., where the entire county of 400 square miles was photographed at a height of 13,000 feet at a cost of less than 1 cent an acre. The map was produced on a scale of 4 inches to the mile.