

Winter School Alliance Pushing Advance of

With the annual exhibit and conference on golf course maintenance at Massachusetts Agricultural college, Amherst, March 13-15, the winter schedule of greenkeeping schools came to an end.

Massachusetts, Pennsylvania, New Jersey, Wisconsin and Michigan state

agricultural institutions have contributed greatly to the advance of course maintenance with programs plainly of practical value. In promoting a mutually helpful alliance between the scientists and practical men concerned with course construction and operation the winter schools undoubtedly have been responsible for a

Initial Michigan Course Draws Eighty Students

SOME 80 students attended the first greenkeepers short course offered by the Michigan State College, Lansing, held from Feb. 16 to 19. This course was held at the request of the Western Michigan Greenkeepers association and received the hearty cooperation of not only this association but of the Eastern Michigan Greenkeepers association and of the U. S. G. A. greens section, which was represented by John Montieth, Jr., and Kenneth Welton. The meetings also had the support of some of the leading specialists of the state in associated lines.

All of the men in attendance at these meetings were experienced in greenkeeping work and the round table discussions following the lectures proved very valuable to all of those present.

Wednesday afternoon the members of the short course inspected the factory of the Ideal Power Lawn Mower company. Following this inspection the entire group were guests of the company at a banquet.

Prof. Charles Halligan, landscape architectural member of the faculty, who organized the course, says:

"It is expected that this course will be repeated another year and many in attendance this time are planning to return when the course is given again. It was most satisfying to the authorities of the college to note the interest and enthusiasm that was shown and in the cooperation received

(Continued on page 129.)

Wisconsin Course Emphasizes Greens Maintenance

THE short course for greenkeepers, given by the Wisconsin College of Agriculture at Madison, held its second annual session February 9 to 13. Sixty-two greenkeepers from five states were registered for the course. There were many new members in addition to those who returned for their second year.

While the 1930 program dealt with the care and management of golf grounds in a general way, this year the various phases of the subject of greens were covered in detail, and all instruction was made as practical as possible. The aim was a better understanding of the fundamentals underlying the work on golf greens.

Grasses for greens and the care of the turf received a great deal of attention each day of the course. This was ably handled by John Monteith, Jr., of the Green section. He discussed in particular the advantages of using certain kinds of grasses for fairways, tees, and rough, and he emphasized especially the proper mowing of greens, its importance in maintaining a well-kept course, and its relation to the game. This phase of the work was supplemented by G. W. Mortimer of the Agricultural College's agronomy department who explained the principles of grass development and factors that affect the character of turf. L. A. Graber of the same department spoke on how proper and improper cutting affects the health of grass. To

(Continued on page 124.)



GREENKEEPER STUDENTS AND THEIR INSTRUCTORS IN THE 1931 WINTER SCHOOL AT MASSACHUSETTS AGRICULTURAL COLLEGE

1. Harry Bairstow, two-year student at M. A. C.; 2. Julius W. Torok, Wee Burn Club, Norton, Conn.; 3. Dr. Davis, Botany Department, M. A. C.; 4. James F. Carberry, Lake Bluff, Ill., Shoreacres C. C.; 5. Timothy O'Connell, Sidney (N. Y.) G. & C. C.; 6. Sylvanus H. Martinage, Methuen, Mass., Merrimac Valley C. C.; 7. Sanborn Caldwell, Lynnfield Center, Mass., Sagamore G. C.; 8. Professor Gunness, Engineering Dept., M. A. C.; 9. George Figel, Turtle River, Minn., Bemidji C. C.; 10. Robert L. Mitchell, Salem, Mass., Kernwood G. C.; 11. Parker Moulton, Peabody, Mass., two-year student at M. A. C.; 12. Edwin Hansen, Concord (Mass.) C. C.; 13. Paul Wanberg, Waltham, Mass., Weston G. C.; 14. Carl Treat, Auburndale, Mass., Woodland G. C.; 15. Charles F. Carter, Cedar Rapids, Iowa, Kenmore G. C.; 16. Thomas F. Burke, Woburn, Mass., two-year student at M. A. C.; 17. Harry F. Quinn, Franklin (Mass.) C. C.; 18. Charles F. Bernard, Sandwich, Ill., Sannank C. C.; 19. James Twohig, Springfield, Mass., two-year student; 20. Henry J. Travers, Lexington, Mass., Paul Revere Club; 21. Henry J. Toole, Amherst (Mass.) G. C.; 22. Professor Markuson, Engineering Dept., M. A. C.; 23. Dr. Cubbon, Agronomy Dept., M. A. C.; 24. Professor Dickinson, Horticultural Div., M. A. C., in charge of winter school; 25. Joseph Whitehead, Cromwell, Conn., Middletown G. C.; 26. A. Wells Hare, Springfield, Mass., two-year student at M. A. C.

Massachusetts Conference Has Attendance of 200

(Continued from page 29.)

college; "Appreciation of Landscape in Golf Courses" by F. A. Waugh, landscape authority from M. A. C.; and round table discussions on "Soils and Fertilizers," "Golf Course Drainage," and "Water Systems," led by members of the M. A. C. staff; "How the Massachusetts Golf Association Can Help the Greenkeepers" by Talbot C. Chase, president of that body; "Some Water Relations of Turf Plants" by H. B. Sprague of the New Jersey Experiment Station; "Some Interesting Facts on Golf Course Mowers," by L. S. Dickinson of the division of horticulture at the college and director of the winter school; and motion pictures which included golfing with Jess Sweetser and construction and other factors in golf course management.

Wisconsin Course Emphasizes Greens Maintenance

(Continued from page 28.)

further the value of these talks, F. W. Duffee of the agricultural engineering department discussed the best kinds of mowers to select.

Detailed instruction in preparing soils during the construction of greens was given by O. J. Noer, formerly of Wisconsin's soils department. The subject of fertilizers was also assigned to Mr. Noer, and to C. J. Chapman of the soils department. E. R. Jones, professor in agricultural engineering, explained the drainage side of the question.

Pests that attack greens were, of course, a theme of vital interest to many of the greenkeepers. A. S. Dahl, disease specialist of the Green section, gave worthwhile instruction in controlling snow mold and

Reduced in price as much as 33 1/3%

Takes spreading
off the payroll.



WRITE
at once for
full details and
name of nearest dealer.

HOFMANN

All-Purpose
DISTRIBUTORS

NEW SIZES AND FEATURES

Increased and simplified production now brings you a Distributor that seeds, fertilizes, sands, top dresses, and spreads chemicals—at a big saving. Four sizes, ranging from 18" to 48" spread, and priced from \$8 to \$30. New Automatic Control feature. Write for Circular and nearest dealer's name.

THE SALEM TOOL CO., Salem, O.



Greenkeepers from five states are here in this group photo of the 1931 Wisconsin short Course.

large and small brown-patch. C. L. Fluke, agricultural entomologist, explained how to rid greens of white grub. Weed nuisances, their avoidance and control, were taken up by A. L. Stone of the agronomy department.

New Features on 1931 Program

New subjects on this year's program were introduced by Kenneth Welton of the Green section, by J. G. Dickson, plant pathologist in the College of Agriculture, and by F. H. Elwell, professor of accounting at Wisconsin. Mr. Welton gave an excellent talk on the proper locations for

traps, and how they should be cared for to give the best service. Mr. Dickson's subject was that of the orientation of the green in regard to the snow problem in the northern states. Mr. Elwell, who is secretary of Maple Bluff G. C., Madison, in addition to his university duties, explained a new system of keeping accounts which would help to make a greenkeeper's work in budgeting a simple and accurate matter.

Besides giving clear instruction in the use of native plant materials for beautifying greens, F. A. Aust, of the department

Clean and Dry golf balls

QUICKLY-SAFELY-THOROUGHLY

with **Ann Arbor**

GOLF BALL WASHER and DRIER

Backed by a Liberal Guarantee

ANN ARBOR GOLF BALL WASHER and DRIER
948 GREENWOOD AVE.



Eliminates entire
towel cost—that's
economy!

of landscape design, showed moving pictures which demonstrated a practical method of tiling around trees for subirrigation purposes. The moving picture machine also came into play for illustrating how various diseases appear when they affect turf, and for showing views of experimental plots where work in growing different kinds of grasses was being done.

Discussion and laboratory periods were as practical as both students and faculty members could make them. The discussion periods were rich in worthwhile experiences which the greenkeepers themselves related. The laboratory periods, held each afternoon, gave the men opportunity to study drainage and soil problems, to see the latest and best in mowers, and to examine grass and weed seeds.

Fine Varied Program Given at Penn State

(Continued from page 29.)

Featuring the program Thursday afternoon was the effect of soil fertilization on the development of grasses, weeds, and fungus diseases. Professor H. W. Popp, of the department of botany, presented the nutritional requirements of plants. He pointed out the important life processes of plants, including the intake of nutrients and the manufacture of compounds.

Professors Patrick and White discussed the nature and value of fertilizer materials.

Green Section Experts Help

Friday morning the conference continued the discussion of the effect of soil fertilization on the development of grasses, weeds, and fungus diseases. John Montieth, Jr., Greens Section, U. S. G. A., presented the relation of soil treatment to fungus diseases. Professors White and Patrick gave the results of experimental work dealing with the development of turf grasses and the control of weeds. Professor White then summarized the fertilizer recommendations for fine turf grasses.

Starting February 2 and running until the conference opened was the annual greenkeepers' short course. Nineteen men attended this and also stayed for the conference. They were Allison, Beck, Cruikshank, Derr, Dygert, the two Erbs, Evans, Frable, Grosjean, Henriksen, Hornby, Lenikus, Ludwig, Rye, Snyder, Swan, Wolford, and Wrye.

Soils and fertilizers, fine turf grasses, weeds, insects, diseases, landscape prob-

FERTILIZERS

for Golf Courses

BONE MEAL
SULPHATE OF AMMONIA
SUPERPHOSPHATE
MOWRAH MEAL
MURIATE OF POTASH
SHEEP MANURE
NITRATE OF SODA

In addition to supplying the above basic materials, we are in a position to advise and supply mixtures for various conditions, or furnish mixtures made up to your specifications.

**NEW JERSEY
FERTILIZER COMPANY**
FERTILIZERS & CHEMICALS
375 Tonnelle Ave.
JERSEY CITY, N. J.

One Sure Way to Cut Maintenance Costs

Use CALO-CLOR for brown-patch control. It will save 67% to 75% and keep your greens free from this pest.

*Full Information
on Request*

MALLINCKRODT CHEMICAL WORKS

2nd & Mallinckrodt Streets,
St. Louis, Missouri