

## Winter School for Greenkeepers at Massachusetts Agricultural College

By Lawrence S. Dickinson

Massachusetts Agricultural College, Amherst, Mass.

The Massachusetts Agricultural College, at Amherst, was the first college in the United States to offer a resident course of instruction for greenkeepers, and at present is the only institution carrying the course for a full term. This course was first proposed by the writer, in 1926, and accepted by the short-course department of the college the same year. Seven men registered for the first course on January 3, 1927. Succeeding courses have been oversubscribed, and as many as 40 applicants have been refused admission to a single course.

The geographical distribution of member students during the four years the course has been presented is as follows:

<i>State</i>	1927	1928	1929	1930
Canal Zone.....	..	..	..	1
Connecticut .....	..	..	2	..
Illinois .....	1	..	..	1
Indiana .....	..	..	2	..
Iowa .....	..	..	..	..
Kentucky .....	..	..	1	2
Maine .....	..	..	..	1
Massachusetts .....	5	16	9	9
Michigan .....	..	..	..	1
Minnesota .....	..	..	..	..
New Hampshire.....	..	..	..	1
New York .....	..	..	..	1
Ohio .....	..	..	1	1
Pennsylvania .....	..	..	..	2
Vermont .....	1	..	..	..
Total students.....	7	16	15	20

Every phase of greenkeeping is touched upon in the course and each factor governing results is discussed. The course is a specialized one for men engaged in greenkeeping and for members of green committees. The subjects included in the course can be effectively studied during the winter months.

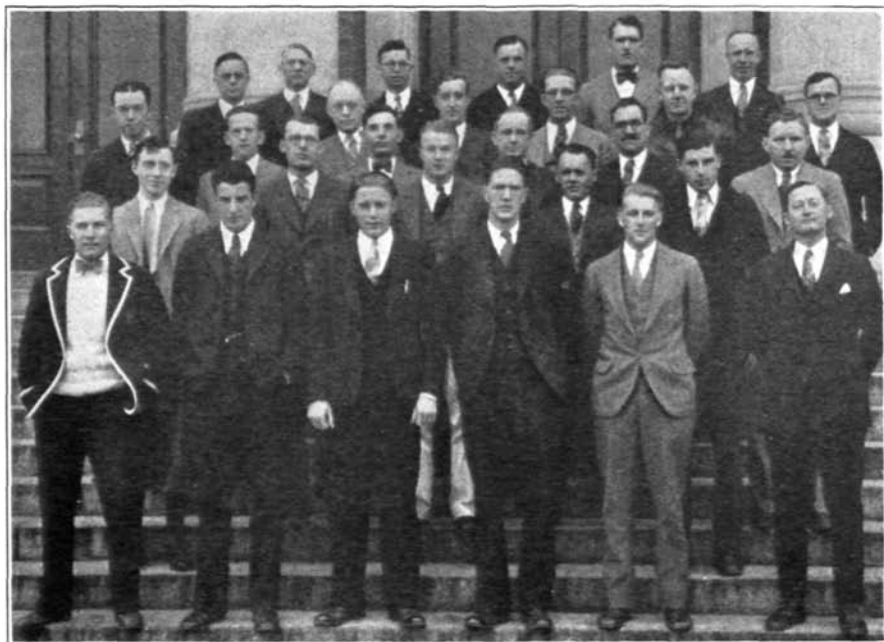
The duration of the course is about eleven weeks. Registration is the first Monday in January and the term ends about March 20. The last few days are devoted to an exhibition and convention. Four hundred and fifty greenkeepers and their chairmen attended the 1930 exhibition.

No entrance examinations are required, but it is expected that the student will have a reasonable education in the English language.

The number of students is now limited to 20 and applications are accepted in the order of their being filed provided the applicants are actual greenkeepers. Preference is given to greenkeepers and green-committeemen. Two applications have been accepted for the 1932 course. Certificate is given to those who complete the full course with credit.

There is a tuition fee of \$10 for the term, and each student is re-

quired to pay to the treasurer a \$5 registration fee in addition. No laboratory fees are charged. Board may be obtained at the college dining hall for approximately \$7.50 a week, also from private dining rooms. Furnished rooms may be obtained in private houses at prices varying from \$2.50 to \$4 a week for each occupant.



Greenkeepers' class at Massachusetts Agricultural College, Amherst, 1930

Instruction is given seven hours a day and five days a week, and in addition the hour after lunch is given over to a forum discussion or to talks by visitors. Representatives of the leading commercial houses, as well as greenkeepers, are frequent visitors.

#### COURSES OFFERED

Course	Weekly Periods	Length of Course	Instructor
Landscape background....	1 lecture	Full term	F. A. Waugh
Botany .....	1 laboratory, 2 lectures	Full term	W. H. Davis
Water systems.....	2 laboratories, 3 lectures	Six weeks	C. I. Gunness
Drainage .....	2 laboratories, 3 lectures	Five weeks	M. J. Markuson
Equipment .....	3 laboratories, 2 lectures	Six weeks	L. S. Dickinson
Managerial problems.....	3 laboratories, 2 lectures	Five weeks	L. S. Dickinson
Grasses and grass seeds..	3 laboratories, 2 lectures	Six weeks	L. S. Dickinson
Cost keeping and analysis	3 laboratories, 2 lectures	Five weeks	L. S. Dickinson
Soils and fertilizers.....	2 laboratories, 2 lectures	Full term	M. H. Cubbon

Forum and special lecture hour daily during full term. Professor L. S. Dickinson, leader.

A description of the courses follows:

I. Landscape Background.—Planting and pruning of shrubs and trees. Shrubs for club house grounds and the use of native shrubs and natural landscape resources. Paths, walks, and picking gardens are also discussed.

II. Water Systems.—A study of standard types of water systems, with particular reference to the relation of size of pipe, pressure, and nozzles to the flow and delivery of water.

III. Soils and Fertilizers (special for greenkeepers).—Fundamental properties of soils, and their management, as related to golf green conditions, will constitute the main part of the course. The study of fertilizers and their uses will be made as complete as possible. Individual problems and discussions will be given as much time and attention as are warranted.

IV. Equipment.—All equipment used in golf course maintenance is considered. A particularly thorough study is made of mowers (fairway, rough, tee, and putting green) and other major equipment. Practical efficiency data are obtained and studied. The results can then be applied to the student's individual problem.

V. Managerial Problems.—This course uses for its laboratory a very large and complete model of a golf course, about which the many problems of a greenkeeper are discussed. The model is so complete that the discussion is practical and not of a theoretical nature. The problems are not merely discussed, but figured and balanced to a conclusion both as to immediate results and cumulative effects.

VI. Grasses and Grass Seed.—This course enables the student to identify the various grasses, also grass and weed seeds usually found in seed mixtures. The soil and fertilizer requirements of the various grasses are discussed. Emphasis is placed upon seed judging and purchasing; also pests and turf diseases and their control.

VII. Drainage.—The entire problem of land drainage will be discussed and practical problems worked out. The student will be taught the use of the level and how to set ditch grades.

VIII. Botany for the Greenkeeper.—Laboratory demonstrations and lecture discussions dealing with the living plant and its parts and consideration of the work performed by each part.

IX. Cost Keeping and Analysis.—The value of cost keeping and its analysis is demonstrated and a method of cost keeping suggested. The many factors that enter into the cost of maintenance are noted and their effects analyzed. As much emphasis is placed upon remote and cumulative costs as upon the immediate expenditure.

X. Forum and Special Lecture Hour.—The course has become so popular that a day seldom passes without a visit from some practical greenkeeper, green-committee chairman, or a representative of some commercial house.

The forum hour is for the purpose of having an informal and confidential discussion with these visitors. The interest and cooperation shown by commercial houses is most gratifying. Their representatives very seldom appear as salesmen. They come to give information about their part in golf course maintenance. This hour makes the course a continuous convention.

In 1931 the climax in the course will probably take place in the form of a convention, with more time being given to an educational program than in past years. This does not mean that there will be no exhibition, but that exhibits will be supplementary. The exact dates of this convention, together with program, will be announced later. All green-committee chairmen, greenkeepers, professionals, and others interested in turf maintenance are invited.

Further information may be obtained by those interested in future courses by addressing either Roland H. Verbeck, director of short courses, or the writer, at Massachusetts Agricultural College, Amherst, Mass.