soil to call unduly upon its reserve energy and natural resources.

4. It is essential that the management of the golf club be directed by a person who, in his cultural practices and distribution of labor and machine effort, will apply scientific facts and sound business principles.

5. It is essential that only experienced laborers be employed on the golf course and that their wages should be high enough to compare favorably in total with those of laborers in year-around work in other occupations.

6. The minimum total number of labor hours available should be at least 20% in excess of that required for routine work; a higher percent is very desirable.

7. The minimum ratio between available labor hours and routine hours should be maintained regardless of the amount of machinery used.

8. It is not only fair, but a sound business investment for a golf club to send its greenkeeper to one of the schools for greenkeepers and pay his entire expenses. A sum of \$150 plus travel would cover the cost at the longest school.

9. Any remedy, cure, or proposal that implies it is a panacea, very seldom acts as such and its use is usually costly in money and cultural conditions.

10. A comparison of maintenance costs of golf courses can not be made because there is no common factor measuring stick, or accepted standard.

## Maryland's First Short Course Proves Popular

THE state of Maryland's first annual greenkeeping short course, held January 25-27 at the university of Maryland, was very successful, both from standpoints of fine attendance and of presenting a most interesting and informative educational program. The Mid-Atlantic Assn. of Greenkeepers has been plugging for such a course for quite some time, and judging from the fine things said about the inaugural school, the Maryland session will hereafter be one of the fixtures of the annual greenkeeping courses.

More than 75 greensmen heard Dr. H. C. Byrd, president, U. of Maryland, open the session Wednesday A. M. with words of greeting, to be followed by O. B. Fitts, Columbia CC greenkeeper and president of the Mid-Atlantic group, who responded for the organization. R. P. Thomas, U. of Md., got the educational program under way with a talk on "Relation of Soil Classes and Types to Plant Growth." J. E. Metzger and F. S. Holmes, both U. of Md. staff members, spoke on fertilizers and seed testing respectively; J. S. Houser, Wooster, Ohio, and John Monteith, Jr., USGA Green Section, concluded the first day's program, Houser speaking on ants, chinch bugs, cutworms, etc., and Dr. Monteith on turf watering practices.

R. P. Thomas opened the second day's proceedings with a talk on "Significant Rapid Tests for Available Soil Nutrients." Demonstrations and questions on this topic immediately afterward brought forth many interesting thoughts. W. B. Kemp, U. of Md., spoke next on new developments in grasses; J. B. S. Norton conducted a weed identification clinic right after lunch, and then Fred V. Grau, department of agronomy at Penn State college, took over, speaking on modern methods of weed control. Grau followed his talk with some very interesting moving pictures on the subject. Monteith's informative talk on turf diseases and their control, concluded Thursday's program.

On Friday, drainage was discussed by R. W. Carpenter, U. of Md. and "Factors Affecting Turf Injuries" by O. J. Noer, Milwaukee Sewerage commission. S. S. Steinberg, U. of Md., opened Friday afternoon's program with an interesting paper on Road Maintenance; C. H. Hadley, U. S. Dept. of Agriculture, spoke on "Control of Japanese Beetle and Other Grubs in Turf," and Monteith concluded the educational sessions with a talk on new developments in turf culture. The course closed with a dinner-banquet at a Washington hotel.

Clemens Named Midwest President— 1939 officers of the Midwest Greenkeepers Assn., elected at the annual meeting held January 5 at the Sherman hotel in Chicago, are: president, Harold Clemens, Sunset Ridge CC; secy-treas., John Darrah, Beverly CC. John MacGregor and A. A. Germann, retiring president and secytreas. respectively, were given a rising vote of thanks for their services as officers for the past two years.

Speakers at the dinner meeting were national president Joe Ryan, and O. J. Noer, Milwaukee Sewerage Commission. Other guests were Fred Grau, Penn State college, who put in a surprise appearance, and Leo Feser, Wayzata, Minn.

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