(both similar to B-27 bluegrass), aggressiveness, freedom from weeds, ease of maintenance and heat, cold and drought and insect tolerance. Reproduced clonally.

From observations and from fragmentary data, the Committee expresses the opinion that one of the fruitful lines of research in specialized turf is the study of combinations of cool-season and warmseason grasses.

An approximation of acreage in grass and turf along highways in Texas, Kansas and Georgia indicates that roughly 2,000,000 acres of land are involved. It will be virtually impossible to obtain accurate figures for all the states, but it is at once apparent that the roadside areas in the United States should be of concern to all of us, regardless of our interests. Well-turfed shoulders can contribute to the safety and the appearance of a highway. Noxious weeds in highway areas are of direct concern to land owners in agricultural areas. Lowered costs of establishment and maintenance are of interest to everyone.

The committee recommends a continuing study of this phase of turf work.

The Department of the Army has furnished these figures which represent additional acreage in grass hitherto unreported:

2,073,626

Other military land classed as hay, pasture or range totals 1,780,500 acres.

It is obvious that the specialized uses of grass for various types of turf are receiving less than their share of attention in relation to the acreage involved, taxes paid and with respect to their relative value. It is recommended that the turf uses of various grasses be given their commensurate share with forage uses in research, teaching and extension programs. Experiment Stations are urged to develop close cooperation with turf associations to insure research studies of a practical nature for maximum support for the turf program.

1949 TURF COMMITTEE F. V. Grau, Chairman

## NATIONAL TURF FIELD DAY

Plans for the third annual National Turf Field Day at Washington, D. C., October 15, 16 and 17 have been discussed by the joint planning committee of the USGA Green Section and the Mid-Atlantic Association of Greenkeepers. The Committee consists of Hugh McRae, President, Mid-Atlantic Association of Greenkeepers, Robert Scott, William H. Glover, R. P. Hines, O. B. Fitts, Dick Watson, Marvin H. Ferguson, Charles G. Wilson and Fred V. Grau.

On Sunday evening, October 15, there will be a meeting of all technical men engaged in turf work for the purpose of outlining turf research work now in progress throughout the United States. The entire evening will be devoted to this feature.

On Monday, October 16, the group

will visit the turf plots at the Beltsville Turf Gardens, Plant Industry Station, Beltsville, Md. A short social hour and dinner are planned for that evening.

On Tuesday, October 17, visits will be made to two golf courses, the newly built Woodmont Country Club, near Rockville, Md., and the Fairfax Country Club in Fairfax, Va. At these courses the group will see various kinds of turf under actual play. There will be features on tees, greens, fairways and nurseries.

Field Day headquarters will be the Hamilton Hotel, 14th and K Streets, Washington, D. C. Please make your reservations directly with the hotel. Further information may be obtained from Hugh McRae, 3029 Klingle Road, N. W., Washington, D. C., or O. B. Fitts, Columbia Country Club, Chevy Chase, Md.

## Relationship of Hormones and Inhibitors to Seed Germination

An abstract of "Recent Developments in Seed Technology" by R. H. Porter, The Botanical Review, Vol. XV, No. 5, May, 1949.

The discovery of growth-promoting substances has resulted in their extensive use in greenhouses, nurseries and orchards. The effect of these new compounds on the germination of seeds has been investigated, but in general their value has been shown to be limited.

In contrast to the stimulatory effect of growth-promoting and other substances on seed germination, a number of workers have found little or no beneficial effect and in some cases injury from the use of various substances in certain concentrations. The compounds used with little or no benefit on a great variety of plant seeds include ascorbic acid, colchicine, Hormodin "A," indoleacetic acid, indolebutyric acid, indol-3-acetic acid, K a-naphthalene-acetate, lacto flavin, levulinic acid, naphthalene naphthalene acetic acetamide, thiourea, vitamin Bl and 13 commercial hormone dusts. The list of treated seeds included both dormant and nondormant types, and in most cases plantings were made in the field to observe plant growth and yield. In all these experiments significant increases in germination were rare; generally germination was the same or less than from untreated seed.

The data that have been published relative to the effect of growth-promoting and other substances on dormant and non-dormant seeds of many kinds of

COMING EVENTS

Aug. 8—New Jersey Field Day.

New Jersey Agricultural Experiment Station, New Brunswick, N. J. Ralph E. Engel.

Sept. 11-12—Penn State Field Day.

Pennsylvania State College, State College, Pa. H. B. Musser.

Oct. 15-16-17—Third Annual National Turf Field Day.

Beltsville

Turf Gardens, Plant Industry

Station, Beltsville, Md. Fred

V. Grau.

plants indicate that their value is limited to a very few special types, such as dormant lettuce seed, injured cereal seeds and seeds of orchids and some parasitic plants. Until more data to the contrary are accumulated, it appears that general use of these substances is not warranted.

[This abstract is published in answer to a number of questions regarding the value of "hormone-treated lawn seed." The members of the Turf Committee of the American Society of Agronomy were questioned as to their knowledge of any practical value of hormone treatments on grass seeds. All replies were in the negative. It is safe to say, then, that our members, subscribers and readers are not justified in paying a premium for turf grass seeds that are "hormone-treated."—Editor]

## FOR CLEAN SAND TRAPS

The USGA Green Section is making a nationwide survey of successful methods of keeping sand traps free of vegetation. Your participation is solicited. Within two weeks after you receive this issue, please write a paragraph or two telling "How I Keep My Sand Traps Clean." Send along a good 8 by 10 inch glossy picture showing how you do it if you have a picture available. We will close our files on this subject 30 days after

publication in order that the story can be published in time to be used during the 1950 growing season. Address your letter to:

> USGA Green Section Plant Industry Station Beltsville, Maryland

If you have another subject to discuss, please write it on a separate sheet so as to simplify our filing.