sects, and to wear. It is relatively easy to mow even with a hand mower when mowed regularly. It appears to thrive on all kinds of soils.

What are its disadvantages?

Poor winter color is the chief disadvantage, coupled with the fact that winter weeds come in while it is dormant. This can be overcome fairly satisfactorily by seeding adapted, improved cool-season grasses into the zoysia turf. The fact that Meyer zoysia grows rather slowly may be a disadvantage in some cases. On golf tees, for example, scar injuries may be rather slow to heal unless it is fertilized well or combined with a strong coolseason grass. It will not tolerate dense shade. It prefers open sun but will tolerate partial shade.

Meyer zoysia must be planted vegetatively. It will produce a good crop of seed when handled properly. Turf produced from this seed appears to be nearly as satisfactory as turf produced by the parent plant. There are, however, many "off-type" plants. There is need for further testing, and seed will not be available for some time.

How may Meyer zoysia be planted?

It may be planted by the use of sprigs or plugs, or it may be sodded. Sprigs may be planted successfully any time after the last spring frost and up to the middle of August. Plugs or blocks of sod may be moved successfully at almost any time when the soil is not frozen or baked by drought. Sprigs are rather slow to begin growth. They should be kept moist until growth is well under way.

## Fertilization Necessary

How should it be maintained?

Meyer zoysia should be fertilized about three times a year: early spring, early summer, and early fall. Fertilizer should be applied to the turf at the rate of 10 pounds of a 10-6-4 fertilizer (or equivalent) to 1,000 square feet at each application.

Z-52 is relatively slow-growing and does not require as frequent mowing as do some other turf grasses. Mowing at least once a week, however, will help to maintain a smooth, well-groomed turf. The mowing height may be any preferred height from  $\frac{1}{2}$ -inch up. Close mowing does not hurt this grass. This turf grass will provide satisfactory turf for long periods without fertilization, an advantage when fertilizer becomes scarce.

Is Meyer zoysia available commercially?

Yes. A few small nurseries have begun to sell two-inch plugs of Meyer zoysia. Also, it has been distributed to experiment stations for testing and increase. The first plugs were sold in Washington, D. C., in May, 1951. By spring, 1952, the Green Section will have a list of suppliers which can be had by writing to:

> USGA Green Section Plant Industry Station Beltsville, Md.

# AMERICAN SOCIETY OF AGRONOMY

DIGEST OF REPORT OF THE 1951 TURF COMMITTEE

The findings and conclusions of this committee again were derived from a mail survey. A high percentage of complete returns were received.

The development of Merion bluegrass is one of the bright spots in turf history, but the seed is limited and is high in price. The question was asked "Should Merion bluegrass be offered in" mixtures at this time?" Six said no, one said yes. Mixtures might cause loss of identity and may encourage adulteration. More information is needed.

### No New Grasses

No new strains of turf grasses have been suggested to this committee for consideration since our last meeting. This committee recommends unqualifiedly against the use of bent grasses in athletic field turf.

In general, the National Co-ordinated Turf Program appears to be moving satisfactorily in the right direction. The USGA Green Section's TURF RESEARCH REVIEW and the USGA's new book, TURF MAN-ACEMENT, appear to have met a demand for information and literature review. These publications are essential to anyone participating in the National Coordinated Turf Program. Continued strong leadership is needed.

Most educational facilities in turf management at agricultural colleges are considered inadequate. Only a few colleges are qualified to give instruction in turf management. Your committee again stresses the need for further expansion for research and extension testing facilities for turf management at major agricultural colleges.

Several suggestions have been received as to trends and progress in the National Co-ordinated Turf Program.

a. Greater emphasis on economy in the use of seeds, fertilizers, insecticides, fungicides, etc., is stressed.

b. Detailed studies on *Poa annua* are in order.

c. The homeowners deserve more attention because they are the real taxpayers who support agricultural research, but get so little on their main problem—their lawns.

d. Highways and slope control deserve greater emphasis.

## Aerating Data Needed

The need for more data on the effects of aerating and cultivating turf are agreed upon unanimously. We need not only many more replicated tests, with adequate control or check plots, but we need the assistance of well-trained research men to measure results.

Significant savings in the use of phosphate on turf can be accomplished. High-phosphorus fertilizers are most important for new seedings in phosphatedeficient soils. It is known that some turf areas have become lowgrade phosphate mines through unjustified continued use of high-phosphorus fertilizers.

There seems to be general agreement that less seed is needed of improved grasses. It is recommended that Merion bluegrass, for example, be seeded at no more than 40-44 lb./A maximum. Four to five pounds of centipede grass seed to the acre is adequate under good conditions.

There is a real need to inform athletic directors and others in charge that there is good information available on fertilizers, seeds, grasses, soil cultivation, mowing management, etc. Your committee strongly recommends closer co-ordination between authorities in charge of athletic fields and authorities responsible for development of information on turf management.

More emphasis must be given to the production of seed of superior turf grasses. In order to determine superiority there must be co-ordinated trials of performance of species and strains. This is one type of testing that requires duplication at every station capable of making such tests. The greatest enemy of the turf user today is the man or agency who promotes a "new" grass before it has been adequately tested for performance over a wide area.

We must educate the tax-paying public that turf plays a real part in our everyday life and in the national economy.

As we continue to study and work in turf management, we become even more impressed with the tremendous scope of turf.

#### Your Committee

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