

excelled the performance of bluegrass, while the fescues have disappeared completely.

#### **Highland Colonial Bent**

In general, fairways that were originally seeded to a shot-gun mixture containing a good percentage of bentgrass have fared best over the years. Where the percentage of bentgrasses was small, many superintendents have overseeded fairways with bentgrass in their long-range program of improvement. Recently Highland Colonial bentgrass has been used more widely, as it has many desirable qualities which measure up to the rigid requirements of fairway turfgrasses under today's heavier play.

A good program of feeding is necessary to the performance of any perennial turfgrasses. During the 1954 season it has been my observation that fertilizers applied within the bentgrass growing season have generally produced best stands of permanent fairway turf. Feeding with soluble nitrogen too early in spring or too late in fall usually gives *Poa annua* the edge it requires to be troublesome. In an "Open letter to the Midwest Association of Golf Course Superintendents" which was published in the September, 1954, issue of "The Bull Sheet," USGA Green Section, Western Director Charles G. Wilson advocated the use of true organic nitrogen fertilizers in spring. This coincides with our observations in the Northeast; organics applied in spring benefit *the permanent grasses*, help them over the summer months through slow, steady growth and don't add to the mowing difficulties in the spring rainy season when mowers normally are kept in operation continuously to stay ahead of growth.

## **26th NATIONAL TURFGRASS CONFERENCE AND SHOW**

**T**HE Golf Course Superintendents Association of America will produce its 26th edition of its Annual National Turfgrass Conference and Show at the Jefferson Hotel, St. Louis, January 16 through 21. The hosts for the conference and show will be the members of the Mississippi Val-

### **TURF MANAGEMENT**

The book "Turf Management," sponsored by the United States Golf Association and edited by Prof. H. B. Musser, is a complete and authoritative guide in the practical development of golf-course turfs.

This 354-page volume is available through the USGA, 40 East 38th Street, New York 16, N. Y., the USGA Green Section Regional Offices, the McGraw-Hill Book Co., 350 West 42nd Street, New York 36, N. Y., or local bookstores. The cost is \$7.

Additional applications are necessary which should include at least one balanced fertilizer application within the bentgrass growing season, preferably in early fall before the new crop of *Poa annua* begins growth.

In the southern portion of the Northeast (approximately from Trenton, N.J., southward) and in temperate portions of Long Island, the U-3 strain of Bermudagrass generally has been performing satisfactorily where it has been tried. Plantings of U-3 Bermudagrass have primarily been made on some courses with sandy soils, where greater difficulty was experienced in growing cool-season turfgrasses. For the most part, U-3 plantings have been limited in scale, and only a small part of the over-all picture in the Northeast. Here the growing season for U-3 Bermudagrass and other warm-season perennial grasses is short, and generally the cool-season grasses, maintained and managed according to their specific requirements, are performing nicely for northeastern superintendents.

ley Golf Course Superintendents Association.

The features of the conference will include the equipment show, where manufacturers of products and equipment related to the turf industry will exhibit their latest machines and materials for better

golf course maintenance. There will be an educational program, starting Tuesday afternoon, the 18th, and continuing through Friday morning. There will be various business meetings of the association. There will be tours of golf courses in the St. Louis area. And there will be numerous social activities. Among these are an annual banquet, a get-acquainted hour and a program for the ladies' entertainment.

The educational program will be another outstanding affair and among the speakers will be many well-known authorities on golf course maintenance. Topics for discussions will be: Club Relations, Business Management, Turfgrass Management in the North, Turfgrass Management in the South and Plant Nutrition. Speakers on these programs will include practical men, representatives of colleges and universities, the USGA Green Section and representatives of industry.

"Practical information that will produce a profit is the result of attendance to the National Turfgrass Conference and Shows," says Norman C. Johnson, golf course superintendent at San Jose Country Club, Jacksonville, Fla., and President of the Golf Course Superintendents Association, which annually sponsors this national event.

"From the inspection of equipment, materials and supplies to the reports of research and of practical golf course application, these meetings provide one of the best sources of up-to-date information for the golf course superintendent and others concerned with fine turfgrass care. Please accept my cordial invitation to attend."

The Mississippi Valley Golf Course Superintendents Association committees are looking forward to a capacity crowd. General Chairman is M. M. Parsons, Algonquin Country Club, Webster Groves. Assisting him will be the following committee chairmen: Publicity, Fred W. Maschmidt, Normandie Golf Club, St. Louis; Educational, Al Linkogel, Link's Nursery, Clayton; Transportation, Ralph Guyer, Westborough Country Club, Webster Groves; District Show Sales, Thomas V. Hayes, Meadow Brook Country Club, Overland; Entertainment, Mr. and Mrs. Alfred Longheinrich, Sunset Country Club, Sappington; Ways and Means, Clarence Plein, Lakeside Golf Club, Overland; Reception, Vertus Mitchell, Forest Park Golf Course, St. Louis.

Travel facilities to St. Louis from all sections of the country are excellent. Your club will be rewarded by having your superintendent attend this meeting.

## WINTER ENEMIES OF PUTTING GREEN TURF

**E**ACH YEAR a considerable amount of turf is lost due to winter injury. In most cases, winterkill or winter injury of turf is the result of drying out of the turf because of a lack of snow cover and the occurrences of dry winds that take the moisture out of the soil and out of the storage organs of the plant. This drying out of the soil and the grass is called "desiccation" by the plant physiologists but is usually called merely "winterkill" by the golf course superintendent.

Winterkill of this type may be avoided by using a mulch over putting greens that are exposed and that cannot be watered during the winter months. This mulch may take the form of straw, manure containing

large amounts of straw, pine branches or any number of mulching materials. Its purpose is to prevent the movement of wind near the soil so that the soil is not dried out so rapidly. A good cover of snow will accomplish the same purpose, but the covering of snow cannot be relied upon.

### *Danger of Snowmold*

There is one danger in providing a mulch or a snow cover on putting green turf during the winter. That danger lies in the encouragement of snowmold, which is caused by fungus organisms. Snowmold develops on putting green turf when there is a sufficient covering to slow down the movement of air near the soil so that the