requires mowing. Tractors and mowing equipment must run over the wet soil and compaction is inevitable. Aerification of fairways will alleviate compaction. There is need for extensive and intensive research to determine when and how often and under what conditions aerification will best improve soil tilth and encourage better growth.

Kentucky bluegrass will long be relied upon throughout the middle west for general turf purposes. Good management will do as much for bluegrass, as it does in maintaining golf greens. Botanists tell us that there are some 400 species of poa. Kentucky bluegrass, based on long years of experience, shows as the queen of them all.

**New and Special Purpose Grasses** 

Based on our plot experiments at the Iowa Agricultural Experiment Station, and experiments of a similar nature which are being conducted in practically all the cool season grass areas of the United States, we have convincing evidence that turf research is on the threshold of discovering, or originating new and superior grasses, that may produce better turf for general or specialized use.

One advance appears to be Merion blue grass. The plots at Ames, part of which were established in 1949, and a larger plot area in 1952, demonstrate that Merion is superior to Kentucky bluegrass, as a lawn grass. There is every reason to believe that Merion will prove to be a superior turfgrass on fairways.

Merion in our plots required a year longer to develop into a good tight sod than is required by ordinary bluegrass. It tends to be dwarfish in growth and probably would require less frequent mowing than Kentucky bluegrass.

At no time has disease been a problem in any of the bluegrass plots at Ames. Helminthesporium can be found in most seasons, but apparently there has been no damage of consequence. Curvularia has never been serious. Rust on unclipped Merion was severe in 1954. Merion plots mowed at 1 in. have not been attacked by rust. Unclipped Kentucky blue and Arboretum adjacent to Merion were not attacked by rust.

Common creeping red fescue, Illahee and Pa. 74 in combination with the bluegrasses in sunny unirrigated plots have not been impressive. Our conclusion to date is that on Iowa's rich black loam soils, the red fescues are not likely to be valuable in a blue grass mixture except in shaded or partially shaded areas.

Seeded alone in 1952 plots Pa. 74 suffered considerable winter kill during the dry open winter of 1953-54. When mixed with bluegrass, little or no winter damage to the fescues was apparent, but there is no evidence that the bluegrass and Merion plots were improved by seeding with the fescues.

Alta fescue alone and in bluegrass mixtures has been very impressive. During the hot dry summer and fall of 1953 the Alta plots remained green until November, a remarkable characteristic as contrasted with the bluegrass plots which browned off in August.

It is interesting and pertinent that the 1949 mixed plots of Alta and Kentucky bluegrass have remained green and succulent until November nearly every fall. These plots were seeded to equal parts by volume of bluegrass and Alta. The Alta has never been dominant but has been present and very noticeable because of its broad leaves. During 1954 it became apparent that Kentucky bluegrass was gradually becoming dominant in these plots. In fact in plots which were seeded to Alta



## **BE NICE TO THE COURSE**

This is the educational sheet, measuring  $8\frac{1}{2}$  in. by 11 in., that the Green committee of the Forest Lake CC (Detroit dist.) gives to its members and guests in telling them how to cooperate with the superintendent and his staff in keeping the course in good condition.