

## PROPER SELECTION OF TURFGRASSES

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In the rapidly developing field of turfgrass technology, the production of improved varieties, (cultivars), is progressing at a pace equal to almost any other phase. Most of this improvement has come in the past ten years. The production of merion Kentucky bluegrass was a major milestone in the development of improved turfgrass varieties. Here for the first time was a variety which had such a high degree of improved disease resistance that the whole complexion of the turf industry was brought to a higher level and, indeed, a turfgrass industry in the production of sod was made possible.

Currently there are over 70 named cultivars of Kentucky bluegrass and nearly four dozen cultivars of red fescues. All available cultivars are being tested at Michigan State University at three locations. Those grown at the East Lansing Experiment Station are on upland soil, those at the MSU Muck Farm are grown on organic soils and are primarily being tested for the sod industry, and those at Traverse City, Michigan, are being grown on the sandy soils which are typical of much of northern Michigan. Turfgrass field days are held periodically at each of these locations and information is available from Michigan State University from these tests.

Selection of turfgrasses depends first upon the proportion of shade in which the grass is to be grown and second, upon the level of management which is to be desired.

In a cemetery situation, it is suggested that the approaches to the cemetery itself, the entryways, and the areas bordering the main streets are appropriate sites for high management level varieties. These may be carried on into the grounds proper to the extent that funds are available and high management is desired. Areas being held in reserve for future use and other back areas of a given cemetery may be more appropriately seeded to and maintained at a lower level.

High maintenance involves greater initial expense for seed, adequate supplies of water available for irrigation, higher levels of fertility, weed control, disease and insect control, and a need for more frequent mowing. The soil type which is available will also be a consideration in selecting the management program to be followed.

Kentucky bluegrass is the most important single cool season grass for the cool humid areas of the United States including Michigan. Improved cultivars are Merion, Fylking, Nugget, Baron, Pennstar, and Sodco. A series of highly improved cultivars is being produced at the Rutgers Experiment Station and, in the initial phases, these are being identified with the letters NJE P-- followed by a number, such as NJE P--106. In tests to date at Michigan State University, these cultivars appear superior to all others at the present time, and their availability should be watched carefully.

The low maintenance cultivars include Park, Delta, Newport, South Dakota Certified, Kenbl and Common. Research results indicate that where low maintenance cultivars are being used, a small proportion of seed in the blend from

a variety of one of those in the high maintenance list will greatly improve the quality of the resulting turf and this practice is recommended. This is primarily due to the leaf spot resistance which is available in the high maintenance varieties.

For shady sites, sandy soils, or soils on sites which will have relatively little irrigation, red fescue should be an important part of a seed mixture. Red fescue is tolerant to drought, heat, low fertility, and shade, and a mixture of approximately 50 per cent Kentucky bluegrass and 50 per cent red fescue is recommended for these sites.

Improved red fescue varieties include Pennlawn, Wintergreen, C-26, and Jamestown. These varieties have good quality and appearance, but lack resistance to Helminthosporium leaf spot, a disease which is severe at some time of practically every growing season.

For poorly drained sites which are in the shade, rough bluegrass or Poa trivialis should be included in the mixture. Ryegrasses are good for a situation where there is a danger of erosion before the seeding is established or as a temporary cover. They should not be used as a major part of a mixture unless either of these two factors is a consideration. Manhattan is an improved cultivar of perennial ryegrass which has excellent quality, good winter hardiness, and relatively acceptable longevity. It is a fine leafed cultivar and is decidedly superior to other existing cultivars.

The tall fescue cultivars which are often used on large areas all possess a coarse or broad leaf width, and none to date possess sufficient winter hardiness to be used successfully in most of Michigan. A new strain of meadow fescue which is winter hardy and which blends well with Kentucky bluegrass has been developed at Michigan State University and small amounts of seed are available for testing.

In purchasing seed, the cemetery proprietor is advised to buy certified blue tag seed if he wishes to obtain a named cultivar. He should avoid any seed lots which contain bentgrass seed, or tall fescue seed. These are contaminating species which cannot be selectively controlled with existing herbicides and ultimately present appearance problems in bluegrass or red fescue lawns.