

## PROGRESS IN FESCUE VARIETAL IMPROVEMENT AT MSU

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Major goals of the turfgrass breeding project are to develop improved cultivars of red fescue (Festuca rubra) which possess acceptable quality (color, appearance, texture), resistance to drouth, tolerance to shade, resistance to disease (particularly Helminthosporium leaf spot) and rhizomatous growth habit.

Four cycles of maternal line selection for growth habit have been completed. A majority of plants with rhizomatous growth habit are relatively coarse-leafed types from European introductions. A lesser number of fine-leafed plants has been identified. Seed from these was harvested in 1970 and several thousand seedling plants were subjected to Helminthosporium leaf spot inoculation during the winter 1970-71. A technique was developed using a spore suspension in an agar slurry which is sprayed onto the plants at the 10 to 12 leaf stage. A spore load of approximately 30,000 spores per c.c. has given the most effective results. Of the 67 plants which survived the initial inoculation, 26 survived a second inoculation. These plants had a rating of two on a 1-5 scale with one rating being free of infection and five being completely infected. No plants were found rating one.

The 26 surviving plants were cloned to four plants each and planted in an isolation block for intercrossing in 1972.

The first commercial quantities of seed of Wintergreen, an MSU chewing type red fescue with dark green color and fine texture, were produced in Oregon during the summer of 1971.

A winter hardy coarse-leafed fescue, tentatively identified as a meadow fescue, has survived in combination with Merion Kentucky bluegrass for ten years at East Lansing. 2.2 acres of this fescue were planted in Oregon in 1970 and several hundred pounds of seed were produced in 1971. This is being used for further testing.