LEAF SPOT PROBLEMS ON FAIRWAYS

J. M. Vargas, Jr., Assistant Professor Michigan State University

Leaf spot can be a serious problem on golf course fairways. The disease attacks the four major grasses which occur on golf course fairways; bentgrass, Kentucky bluegrass, red fescue and annual bluegrass (<u>Poa annua</u>). Today, I would like to talk about the problem on Kentucky bluegrass and annual bluegrass, the two most commonly occurring grasses found on golf course fairways in Michigan.

The secret to Helminthosporium or leaf spot free Kentucky bluegrass fairways is starting with resistant cultivars. There are many improved Kentucky bluegrass cultivars with resistance to leaf spot that can be used. Check the "Turfgrass Diseases of Michigan" handout for more information on them. In spite of the fact that there are many resistant, improved Kentucky bluegrass cultivars available, many new golf courses are still seeding their fairways to the common non-leafspot resistant type Kentucky bluegrasses because they are cheaper per pound. However, in the long-run they are really more expensive, because if common types are used, a preventative fungicide spray program will have to be followed every spring and fall to prevent leaf spot from destroying the fairway. This becomes very expensive over the years. If a fungicide spray program is not followed, both time and money were wasted putting common Kentucky bluegrass into the fairway because within 5 years the leaf spot will have destroyed most of it and annual bluegrass will have taken over. One would be better off to have started with annual bluegrass! So, in the long run, it is cheaper to pay a little more for a blend of Helminthosporium resistant cultivars.

Most of the older golf course fairways in Michigan are primarily annual bluegrass, which can be maintained under our climatic conditions provided there is proper drainage. Annual bluegrass fairways also have a leaf spot problem which is more subtle than what we see on the Kentucky bluegrass fairways. The leaf spot occurs here, likewise, during the cool wet weather of the spring and fall, but very little thinning occurs. However, the grass plants are left in a weakened condition by the disease. Then, during the warm weather of the summer, they begin to wilt and die. Most of this loss of the annual bluegrass is attributed to the high temperature, heat stress, or drought stress which certainly play an important role. However, the role the early spring infection by Helminthosporium plays in weakening the grass plant is overlooked. I believe that most golf course superintendents with annual bluegrass fairways would find them much easier to maintain during warm weather if they had treated for Helminthosporium early in the spring.

The ideal spray program for Helminthosporium is to start early in the spring of the year, about the time the grass begins to grow, and continue this spray program on a 10-14 day schedule until the warm weather arrives (+75°F during the day). As long as cool wet weather continues, the spray program should be followed. A similar program should be followed in the fall, beginning as soon as the cool wet weather sets in and continuing until it is time for snowmold treatment or the grass plants become dormant. Some of the better materials for the control of the Helminthosporium disease are Dyrene^R, Daconil 2787^R, and Acti-dione-thiram^R, Acti-dione- RZ^{R} , or Scotts FFII^R. The last two fungicides contain (PCNB) and should not be applied during warm weather, as they may be phytotoxic.