## FAIRY RINGS

Turf areas over all the world are affected to some degree by fairy rings. The circular areas usually are marked by grass of a different color, by a different growth rate, by the absence of grass or by the appearance of mushrooms. In the days of superstition in England, these rings were supposed to mark the paths of dancing fairies. In France these circles were inhabited by "huge toads with bulging eves." In Germany the dead grass on the inner side of the ring was attributed to the resting place of a red-hot dragon. In Holland the devil was supposed to have churned his butter in the circle, and for a milk cow to eat the taller, greener grass would mean ruination of the animal.

Dr. H. L. Schantz, in the USGA Green Section BULLETIN, June 17, 1922, Vol. 2, No. 6, page 180, gives a most interesting discussion of the subject. A diagram of the action of the fungus below the soil surface is especially interesting.

The suggested control in 1922 was to soak the soil with copper sulphate or Bordeaux mixture. This method would kill the fungus but, unfortunately, it had a tendency also to kill the grass. This such of control is not recommended.

The reason that fairy ring fungi are detrimental is that the mycelium (threadlike body of the fungus) render the soil waterproof. Water cannot enter the soil, and the grass dies because of drought.

In the BULLETIN for 1924 the suggested control was iron sulphate (1 pound to  $1\frac{1}{2}$  gallons of water). The soil was thoroughly soaked after loosening. The treatment was repeated in two weeks at half strength. This may injure grass temporarily but should not kill it.

In the BULLETIN for 1932 the subject was reviewed. In addition to the iron sulphate treatment, forking and drenching with "weak" solutions of corrosive sublimate were suggested. Removal of sod and replacing the soil to a 6-8 inch depth was suggested. Well-fertilized, watered turf rendered fairy rings less conspicuous.



Fairy rings occurring on the fairways of old Bannockburn Golf Course, Glen Echo, Md. This picture was taken in 1932.

In TIMELY TURF TOPICS for 1940, it was suggested that the depth of the fungus in the soil largely was responsible for poor control with fungicides. The surface soil filtered out the fungicide and rendered it ineffective.

In 1950 fairy rings are still with us and no doubt will be for many years. No specific chemical control measures have Leen developed to date. Best recommendations are to open the soil thoroughly and deeply with suitable aerating equipment and to soak the area liberally to prevent the loss of grass. The use of copper fungicides is not recommended for fear of copper poisoning on the turf. No objection can be found to the use of iron sulphate or corrosive sublimate. There is no assurance that they will give results. In many cases the fairy rings disappear and may not become evident again for many years.

We invite our readers to share with us their experiences with fairy rings. Any authenticated control measures will be welcome.