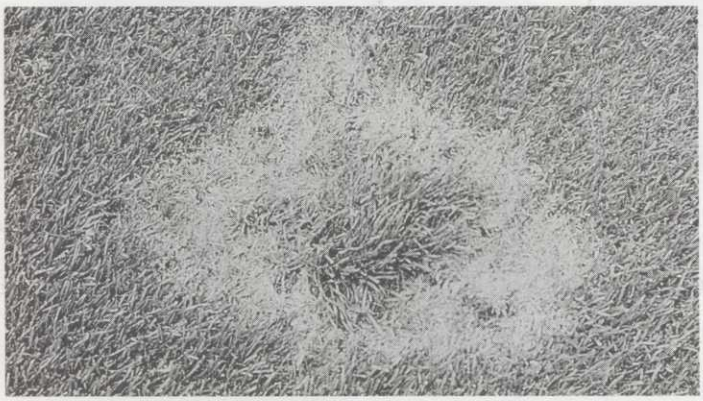
AN INDEPENDENT NEWSLETTER FOR COOL SEASON TURF MANAGERS

Turf Grass TRENDS

Issue 1

June 1992



"Frog-Eye" symptom of Summer Patch. Test results seem to indicate that the classic "frog eye" symptom shown here is either an early sign of infection or an indication of very high local concentrations of the fungus.

Summer Patch

The biology and conditions that favor its growth

by Dr. Eric B. Nelson

SUMMER PATCH IS ONE OF A GROUP of major turf management problems commonly referred to as "patch diseases." These diseases are all characterized by circular areas of dead and dying turf that result from root, crown, and rhizome infections by related, but quite distinct fungi. The most common patch diseases affecting cool season turfgrasses are Summer Patch, Necrotic Ring Spot, and Take-all Patch. Summer Patch and Necrotic Ring Spot were formerly grouped under the disorder called "Fusarium blight syndrome." Summer Patch and Necrotic Ringspot are primarily diseases of Kentucky bluegrasses, annual bluegrass, and fine-leafed fescues. Take-all Patch is primarily a disease of bentgrasses.

Complications

CONTROL STRATEGIES FOR SUMMER PATCH are complicated by several factors:

- UNLIKE MOST foliar turgrass diseases, there is a time difference between the infection period and the appearance of symptoms,
- THE CONCURRENT PRESENCE of other diseases with similar symptoms,
- AND EFFECTIVE LONG-TERM treatment may require a combination of actions designed to address underlying factors that contribute to its reappearance.

The infection of a turf stand and the expression of the disease's symptoms usually do not occur simultaneously. Thus, although Summer Patch is typically considered a disease of mid- to late summer, management strategies must be initiated in mid-spring to achieve the most effective control.

The second complicating factor is that the symptoms of Summer Patch are often similar in appearance to those of other root and crown diseases—and also to damage caused by various environmental conditions and insect infestations. It is not uncommon to find symptoms of Necrotic Ring Spot, Pythium Blight and Pythium Root Rot together with the symptoms of Summer Patch.

If a turf stand is subject to attacks by other root infecting fungi, such as Pythium Root Rot or Necrotic Ring Spot, then the damage from subsequent or concurrent attacks of Summer Patch can produce truly disastrous results. The limitations of space do not allow a full discussion here of how to identify and treat these other problems. Nonetheless, a turf manager needs to be informed about them, and to coordinate treating them, if they are present, with his treatment of Summer Patch.

Thirdly, beyond the fungicidal control of acute symptoms, control strategies may have to include both modifications to cultural practices and actions aimed at correcting site specific conditions favoring Summer Patch. These site conditions are useful in helping to determine whether the problems at a particular site are, in fact, due to Summer Patch. Sample control strategies are discussed in-depth in Christopher Sann's article *(see page 6).*

– continued on page 2

IN THIS ISSUE