

SUMMER PATCH AND NECROTIC RING SPOT (FUSARIUM BLIGHT SYNDROME)
OF KENTUCKY BLUEGRASS

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In recent years, the investigation into the cause of Fusarium blight has been re-opened. Research conducted in the 1960's had established a link between the diseased plants within the typical "frog-eye" patch and Fusarium fungi. This research left unanswered a number of questions regarding the Fusarium blight syndrome, so research has continued during the intervening years. There are currently two schools of thought regarding the cause of the Fusarium blight syndrome. Research at Penn. State University suggests that a basidiomycete fungus is responsible for the development of the "frog-eye" symptom while research at Cornell has shown that the fungi Leptosphaeria korrae and Phialophora graminicola are responsible for the field symptom and the death of infected plants. The fungus Gaeumannomyces graminis also causes "frog-eye" symptoms on bentgrass and, to a lesser extent, on bluegrass and other grasses.

Since it now appears evident that Fusarium fungi play an insignificant role in the development of the "frog-eye" patch, researchers have changed the name of this disease to summer patch where Phialophora and, occasionally Leptosphaeria are involved, and to necrotic ring spot when Leptosphaeria only is involved. Summer patch causes "frog-eye" patches in summer months (June-Sept.) when heat and drought stress are greatest. Necrotic ring spot, however, can occur in spring, summer or fall, where it may be confused with yellow patch (Rhizoctonia cerealis) which is another severe spring and fall "frog-eye" of Kentucky bluegrass.

In light of this new information regarding patch diseases, control recommendations may need to be revised as we now try to target these newly identified disease organisms. For the present, cultural practices such as good site preparation, the use of Fusarium blight syndrome resistant cultivars, and daily, mid-day irrigation of disease prone areas would still be advisable. Moderate summer fertility has also proven helpful in combatting this disease complex. From a chemical control standpoint, it has been our experience in Michigan that Tersan 1991, Fungi 50 and Clearys 3336 are effective both preventatively and curatively while Bayleton and Chipco 26019 are effective preventatively.