

## YELLOW PATCH DISEASE OR "COOL WEATHER BROWN PATCH" OF TURFGRASSES

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You may be aware of a rather new turf disease with several proposed names that has appeared in recent years; one which the golf course superintendents should know about. It has sometimes been referred to as "cool weather brown patch", or "Ceratobasidium ring". There are other names for it. Lee Burpee has just

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published a rather critical study of the disease, and has proposed "yellow patch" for its common name. These remarks should help familiarize you with yellow patch disease. It has occurred on several Wisconsin golf courses to date.

Symptoms of Yellow Patch Disease. The most typical symptoms are yellow rings of affected turf that develop very suddenly. Sometimes the rings are remarkably uniform and complete. Or they may be incomplete and somewhat serpentine. Like Fusarium blight, the turf in the center usually remains healthy. Unlike Fusarium blight, the band of affected turf is usually quite narrow, perhaps no more than an inch, although the diameter of the rings or arcs may vary from a few inches to as much as three feet. Also, the turf remains chlorotic, sometimes for several days or weeks, but the affected grass rarely dies. Circles may become tan, and a purplish cast may sometimes be observed when The chlorotic patches usually examined closely. "recover" rather suddenly due to growth to symptomless foliage. Thus, it does not have the potential severity of some diseases, but it can be very striking and alarming when it is noted. Solid, chlorotic patches, rather than the characteristic rings also can occur.



Its cause and name. Turf pathologists have associated a "Rhizoctonia like organism" with these symptoms for some time, and since its appearance is usually associated with cool, wet weather, one common name that has emerged is "cool weather brown patch" (Rhizoctonia solani is the cause of brown patch, a disease associated with high temperatures). Some tentatively identified the fungus as Ceratobasidium, a closely related fungus - thus the common name "Ceratobasidium ring" has also been suggested. Burpee's report argues rather convincingly, that the fungus is Rhizoctonia cerealis. Yellow patch is a better name than "cool weather brown patch", since the symptoms certainly do not look like brown patch disease, and weather responses can vary. Also, if the technical name of the fungus is changed yet another time, the name of the disease can stay the same!

Wisconsin's experience with Yellow Patch. The disease has been observed or reported to me with some certainty on nine golf courses in the state to date. A number of other "Peculiar fall and spring disorders" that have gone undiagnosed, may in fact, be a form of yellow patch disease. Interestingly, the courses are scattered over virtually the entire state. Seven of them were associated with cool, wet weather, both spring and fall. This fits the national pattern. However, two - in southern Wisconsin - have occurred during warm periods! Turf from five courses have been examined microscopically, and the Rhizoctonia - like fungus was evident in those samples. The mycelium may be a bit finer than "typical" Rhizoctonia. We have had good success making isolations from fresh specimens, obtaining buff-colored cultures typical of those reported elsewhere. Most courses that have encountered the

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P.O. Box 180 Lebanon, PA 17042 disease report that it frequently returns about the same time and location as in succeeding years. The first year we saw it was in 1973. Thus it has not shown much evidence of becoming widespread as yet. We have observed it affecting bentgrass and Poa annua greens, but according to reports from other states, it may affect virtually any turf.

Control. Though the disease has not caused serious damage, control measures are desired. Superintendents have tried several fungicides without encouraging results. An in vitro test (laboratory petri plate test) in Pennsylvania evaluated anilazine (Dyrene), chlorothalonil (Daconil 2787), iprodione (Chipco 26019), chloroneb (Tersan SP), benomyl (Tersan 1991), and PCNB (Terraclor) against 18 isolates of the fungus. None inhibited all isolates, but chlorothalonil and chloroneb were the most encouraging. Wisconsin superintendents experience indicated that Tersan 1991, Cleary's 3336, Actidione TGF, and Tersan LSR were not effective, but Daconil (6 oz/1000 ft2), or Dyrene (rate not available), "may help". (That is, the disease disappeared following those treatments, though weather changes may have been the reason). We would appreciate knowing of yellow patch appearance in Wisconsin. If laboratory examination is desired, bring the specimen to Madison if possible. Experience with yellow patch specimens submitted by mail have been disappointing to date.