K·STATE Research and Extension Plant Pathology EP164

Yellow Patch of Turfgrass

Yellow patch, also called cool-season brown patch, affects cool-season grasses. In Kansas, the disease primarily occurs on golf course putting greens and collars from fall through spring. The disease causes superficial ring patterns in turf that quickly recover during warmer weather.

Symptoms

Symptoms appear as reddish-brown or yellow rings (figures 1 and 2), arcs, and patches (Figure 3) on closely mowed turfgrasses. The size ranges from a few inches to several feet in diameter. Symptoms may initially appear in late October or early November during relatively cool (40 to 60 degrees Fahrenheit) and wet weather. Symptoms tend to subside in midwinter because the fungus is inactive at temperatures below 40 degrees Fahrenheit, and the turf itself is brown and dormant. The symptoms are often highly visible in late February and March when they are highlighted against the surrounding healthy turf as it greens up after winter. The turfgrass recovers quickly with the onset of warmer, drier weather. Recovery is more prolonged if conditions remain cool and wet.

Cause

Yellow patch is caused by the fungus *Rhizoctonia cerealis*. This fungus is related to *Rhizoctonia solani*, which causes brown patch and other turfgrass diseases.

Figure 1. *Yellow patch on bentgrass greens with a brownish ring symptom. Photo courtesy of Derek Settle.*

Disease management

Yellow patch is mostly a superficial disease and does not affect the playing surface of putting greens. The disease usually disappears after the onset of warm (above 75 degrees Fahrenheit) weather and with regular mowing. The warm temperature inactivates the fungus, and new growth of the turf is healthy. Therefore, fungicide application is usually not recommended for managing yellow patch. However, under conditions favoring severe infections or

Figure 2. *Yellow ring-like symptom of yellow patch disease on creeping bentgrass. Photo courtesy Ken Obasa.*

Figure 3. *Yellow patch on bentgrass greens with patch-like symptom. Photo by Megan Kennelly.*

where the disease is a chronic recurring problem, it can be suppressed using preventative fungicides.

Make the first fungicide application before or as soon as symptoms begin to develop in late fall. A second fungicide application can be made in spring if weather conditions are favorable to disease development. Several fungicides (see Table 1) are available for the control of yellow patch, although they are more effective when applied as preventative rather than as curative treatments.

Cultivate to improve drainage and reduce thatch. Provide adequate but not excessive nitrogen fertility.

Additional references

Identification and management of turfgrass diseases by B. Corwin, N. Tisserat and B. Fresenburg. 2007. Available online at: *ipm.missouri.edu.*

Compendium of Turfgrass Diseases. Third Edition. 2005. R.W. Smiley, P.H. Dernoeden, and B.B. Clarke. American Phytopathological Society.

Table 1.

Active ingredients	Efficacy*	Application/ Interval (days)	Examples of products
azoxystrobin	L	28	Heritage
chlorothalonil	L	7-14	Daconil Ultrex
fludioxonil	2.5	1x	Medallion
fluoxastrobin	L	28	Disarm
flutolanil	3	21-28	Prostar
metconazole	L	1-2x	Tourney
polyoxin D	L	7-14	Endorse
propiconazole	2	1x	Banner MAXX, Spectator

*4=consistently good to excellent control in published experiments.

3=good to excellent control in most experiments.

2=fair to good control in most experiments.

1=control is inconsistent between experiments but performs well in some Instances.

N=no efficacy.

L=limited published data available.

Table modified and used with permission from *Chemical Control of Turfgrass Diseases 2015* by Paul Vincelli and Gregg Munshaw, University of Kentucky.

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