
From: K-State turf information [K-STATE_TURF@LISTSERV.KSU.EDU] on behalf of Megan Kennelly [kennelly@KSU.EDU]
Sent: Friday, August 14, 2009 12:48 PM
To: K-STATE_TURF@LISTSERV.KSU.EDU
Subject: [K-STATE_TURF] K-State turf: dollar spot, localized dry spot
Attachments: aug 14 localized dry.pdf

Hello,

Attached is some information about dollar spot and localized dry spot.

In addition, here's a link for info on gray leaf spot. GLS tends to arise in Kansas in Aug/Sept.

<http://www.plantpath.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=982>

Finally, I should mention the LACK of brown patch in tall fescue. The relatively cool weather, including cool evenings, leads to reduced disease pressure. Is anyone out there still seeing brown patch? I can barely find a lesion here at Rocky Ford.

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Megan Kennelly
Assistant Professor
Extension and Research: horticultural crops

4603 Throckmorton PSC
Dept of Plant Pathology
Kansas State University
Manhattan, KS 66506

phone: 785-532-1387

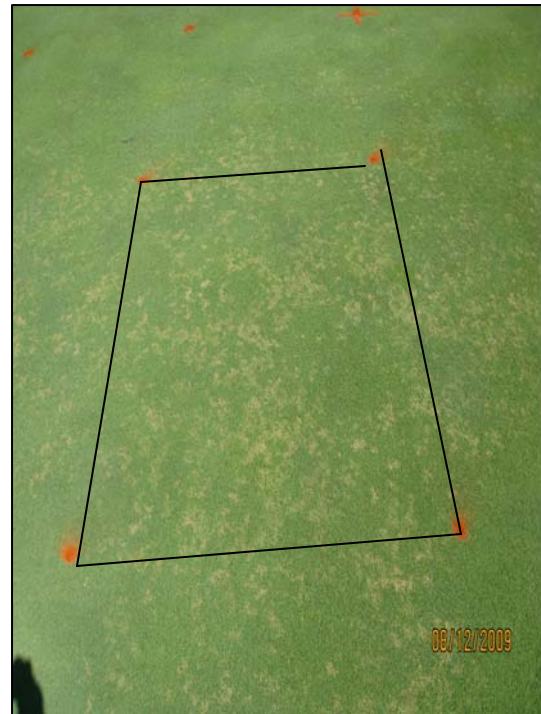
K-State turf, Aug 14th

Dollar spot is active in our putting greens and fairway height creeping bentgrass.

The image below shows dollar spot symptoms in fairway height bent.

The two images on the right show plots in a dollar spot trial on the research green in 'Crenshaw-Cado' which is very susceptible.

I'll be wrapping up the study soon and will send all the details out once I have everything analyzed.



Untreated plot



Fungicide-treated. I'll send out the final results when this study is completed.

Localized dry spot in sand-based putting greens

I had a putting green sample come in the other day where the turf was wilted. There were 4 cup-cutter plugs. When I picked up the first one, I immediately noticed that the sand felt powder-dry on my fingers. This can indicate hydrophobic soil (water-repellent soil), otherwise called localized dry spot (LDS).

I did the old trick of placing some water drops on the soil and seeing if they wicked in. They did not wick in—they just sat there, and when I turned the plug on its side the drops ran right off. As I read online somewhere, putting water droplets on normal soil is like putting it on normal paper—the drops get wicked in. Putting droplets on hydrophobic soil is like putting them on wax paper—the drops just sit there beaded up.

I examined the other 3 plugs. One was fine—sand felt wet, and water drops wicked in fast. With the other two, parts of the profile were okay, but parts were hydrophobic. Hydrophobic conditions are usually in the top one inch of the soil, but it can be variable. In this case, the top 1-inch was fine and the lower 1-inch was hydrophobic.

The photos on the next page show the water drop tests on the sample plugs

So, what's the deal with localized dry spot? LDS has been associated with the decomposition of organic matter, where the sand becomes coated with hydrophobic molecules. In some cases this has been associated with fungal growth—some fungi produce and secrete hydrophobic chemicals. In particular, fairy ring fungi can produce hydrophobic chemicals, leading to the most damaging types of necrotic rings, but LDS is not always associated with fairy rings.

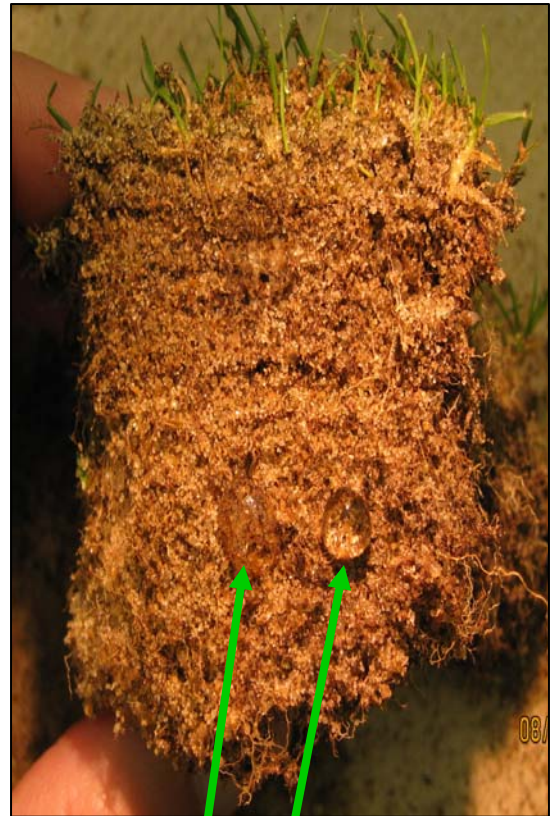
This particular green did have some fairy ring issues, but not in the sites where the plugs were taken. There could be a correlation, but it is hard to say.

Wetting agents can help to move water into hydrophobic areas and to evenly distribute the moisture. Be careful, though, as some products can cause phytotoxicity under some conditions. Be sure to read the label carefully, and maybe test on a small area first. Most require watering-in.

We had some LDS on the putting green at Rocky Ford last year. We used solid tines then applied a wetting agent and watered it in.



These 3 drops of water here just sat there...



The upper ~1 inch of the profile was fine, and the droplets wicked right in. But, the bottom ~1-inch was definitely hydrophobic

The case of the wrong diagnosis.

As a plant pathologist, I always recommend knowing what you are dealing with before treating. Recently, I failed to do this for myself. While at my recent plant path conference my nose started running, and I 'thought' this was some of my usual hayfever, which is a common problem for me, and treated it as such. "Oh, I know what I'm doing, I've seen this before" is what I thought. After 10 days, a lot of Kleenex, and lot of sleep deprivation, I finally went to the doctor and got diagnosed with a sinus infection. Probably picked it up on the plane. A couple of days of the correct treatment is working wonders.

Treating the sinus infection like allergies was like spraying brown patch fungicides for Pythium. Ain't gonna work.