

DIAGNOSIS OF SOME LAWN PROBLEMS

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As with any plant disorder, when one attempts to diagnose a turfgrass problem, the symptoms and signs must be examined and all the right questions must be asked. A symptom can be defined as the condition of the turf and varies from wilting to leaf spot to dead patches. A sign can be defined as a visible indicator of the agent causing the particular symptom and varies from insect frass to fungal mycelium:

A good example of a symptom and a sign is found with the disease red thread. The symptoms are 4-5" dying or blighted patches of grass with a reddish-pink tinge. The sign and key diagnostic feature is the presence of reddish-pink fungal mycelia extruding from the leaf blades. The questions to ask include during/after what particular weather conditions did the symptoms appear; are there any patterns; and what treatments (chemical or otherwise) did the affected area receive? Is there any healthy or nonaffected grass nearby and what was done differently?

These three steps: symptoms, signs and questions are usually all necessary if a correct diagnosis is to be made. A correct diagnosis is imperative if a worthwhile management strategy is to be attempted: There is no need to spray with a fungicide if it is an insect related problem. It is a waste of time and money. Some lawn problems will be discussed along with hints to help diagnose each.

Yellow Patch

As with other new problems this disease is bound to initially cause confusion. Little is known about this disease, but all of the information available should be used.

The symptoms generally appear as 6-12" dead patches or dead rings with healthy centers. Around the affected areas reddened blades or foliar lesions may be present. The disease is caused by the fungus Rhizoctonia cerealis and if one carefully examines the plants a sign of the organism can be found. The fungus produces dark mycelia (microscopic filaments) and sclerotia (small, round structures) which can be seen with a 10X-25X lens at the base of the sheath and on the crowns. Care must be exercised to not confuse this material with particles of dirt.

Another key to the diagnosis of yellow patch is to note when the symptoms appeared. This disease, also known as cool temperature brown patch occurs in the cooler times of the spring and fall.

Fusarium Blight

The final symptoms of this disease are similar to yellow patch, but the two diseases have very important distinguishing features:

1. yellow patch has no wilting state as found with Fusarium blight.
2. Fusarium blight occurs in the drought stressed periods of mid-summer.

Fairy Ring

Another problem potentially confused with yellow patch is fairy ring. However, fairy rings are generally larger than a yellow patch ring and have

a period of stimulation when the grass turns green. If one examines the thatch in a fairy ring, a layer of pinkish-beige-white fungal mycelia can usually be seen. It is this layer which produces the hydrophobic condition of thatch, resulting in the yellowing of the fairy ring.

There are many problems affecting turf that cannot be diagnosed by the naked eye, but require isolations in the laboratory or a soil analysis. The symptoms may be very general with no signs apparent. However, many can be easily diagnosed with some time and careful thought.