**Wet Conditions Result in Widespread Turf Disease**
May 28, 2015

The wet conditions this May have provided ideal conditions for many turfgrass diseases to prosper. Dollar spot, leaf spot, red thread, and even pink snow mold are prevalent on sites ranging from golf course bentgrass turf to Kentucky bluegrass and perennial ryegrass lawns and athletic fields. The weather pattern looks to change during the first week of June with dew points forecasted to drop and the return of warm temperatures to western Nebraska. Those conditions would certainly help dry things out and reduce disease pressure. Fungicide may not be required in most situations, but systemic fungicides generally have better curative activity than contact fungicides. A description of some of the most prevalent diseases currently found across Nebraska this May can be found below.

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**Dollar Spot** *Sclerotinia homoeocarpa*

Occurrence: Creeping bentgrass golf turf and Kentucky bluegrass in southeastern Nebraska.

Symptoms: Sunken half dollar sized patches with light brown to white leaves on short mowed turf. Taller turfgrass typically has white lesions across the leaf with dark margins separating the green and diseased tissue. Patches are more diffuse on tall mowed turfgrass.

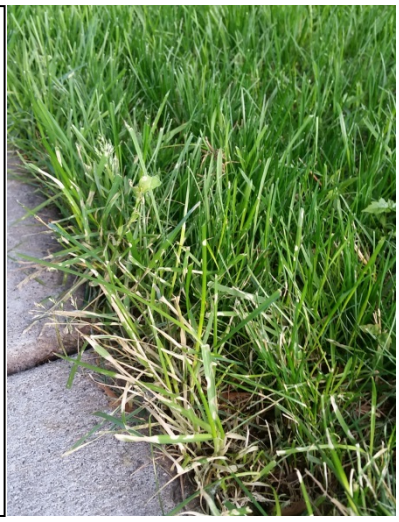
Signs: Pathogen mycelium can sometimes be seen on infected areas during the morning.

Environment: Dollar spot outbreaks are most likely to occur when the 5-day average relative humidity reaches 70% with minimum air temperatures 57°F[1]. Optimum infection temperatures range from 57-79°F[2].

Control: Increased nitrogen fertilization promotes recovery largely through removal damaged tissue during mowing. Rolling, early mowing, and morning irrigation can help reduce pressure in part because these practices remove morning dew. Rolling may also help disrupt the infection process. The weather forecast suggests that conditions will not be as favorable for dollar spot infection. Therefore, fungicide applications are not recommended for lower maintenance turf (i.e. home lawns). Fungicides may be required for areas with higher maintenance expectations. DMI fungicides, boscalid (Emerald), chlorothalonil (Daconil), fluazinam (Secure), fluxapyroxad (Xzemplar) and iprodione (Chipco 26GT) control dollar spot[3].

Left: Dollar spot on a golf course green. Patches are the size of half dollars with white sunken leaves

Right: On a Kentucky bluegrass lawn, dollar spot can have a more diffuse patch. Leaves can be girdled by a lesion that resembles an hourglass with a dark top and bottom border. Tall fescue is unaffected.



**Red Thread** *Laetisaria fuciformis*

Occurrence: Observed on mixed perennial ryegrass/bentgrass golf turf in southern Nebraska.

Symptoms: Irregular white, red or pink patches on the turf.

Signs: Possible to see red tufts of mycelium under heavy disease pressure and red thread-like tendrils at the tips of infected leaves.

Environment: Most prevalent on under-fertilized fine fescue and perennial ryegrass turf. Favorable conditions include air temperatures from 60-75°F and wet weather conditions[4].

Control: Increase nitrogen fertilization to increase recovery. Promote a dry growing environment when possible. Upcoming dry weather should reduce red thread pressure and promote turf recovery. The most effective fungicides for control include azoxystrobin (Heritage), flutolanil (Prostar), penthiopyrad (Velista), polyoxin D (Affirm), pyraclostrobin (Insignia) and triticonazole (Trinity, Triton)[3].

Red thread is commonly found on perennial ryegrass and fine fescues. It's promoted by cool and wet weather. Red thread gets its name because red fungal structures are sometimes visible and resemble red thread-like tendrils.

**Powdery Mildew** *Erysiphe graminis*

Occurrence: Observed on wet and shaded Kentucky bluegrass lawns and golf course rough.

Symptoms: Turf stand has a white cast with leaves covered in white powder.

Environment: Prevalent on shaded Kentucky bluegrass with poor air movement. Favorable conditions include air temperatures from 55-70°F and high humidity[4].

Control: Powdery mildew rarely damages the turf but reduces aesthetic value. The dry weather forecast will promote recovery where air movement and sunlight are sufficient. Prune trees to improve the growing environment where the disease persists. Plant resistant varieties of Kentucky bluegrass or establish tall fescue in areas prone to powdery mildew. Fungicide applications are generally not recommended but DMI products can work well to control this disease[3].

**Leaf Spot** Several pathogens

Occurrence: New seedlings and established turf across much of the state

Symptoms: Stand will have a brown tint with leaves covered by yellow chlorotic lesions

Signs: Black fruiting bodies can sometimes be visible on infected leaves

Environment: Most common on Kentucky bluegrass but can occur on creeping bentgrass and perennial ryegrass, especially during wet periods or frequent irrigation.

Control: Promote a dry surface and reduce irrigation frequency when re-establishing turf. The weather forecast suggests conditions will become less favorable for leaf spot. Treatment of highly maintained turf and seedlings can help alleviate leaf spot damage. Effective fungicides include azoxystrobin (Heritage), fludioxonil (Medallion), fluoxastrobin (Disarm), penthiopyrad (Velista) and pyraclostrobin (Insignia)[3].

Leaf spot on low mown creeping bentgrass will give the turf stand a brown tint. Closer examination of the leaves will uncover many small lesions. The upcoming dry weather should promote recovery.

**Pink Snow Mold** *Microdochium nivale*

Occurrence: Creeping bentgrass, perennial ryegrass and fine fescue stands in western Nebraska

Symptoms: Thin patches that appear water soaked. Patches can develop a pink coloration.

Signs: Cotton-like mycelium can be present around the border of the patch.

Environment: Cool, cloudy/shaded, and wet weather. Snow cover is not required for pink snow mold to form. High nitrogen fertilization can increase disease. Optimum temperatures for pink snow mold are 30-65°F[4].

Control: Promote a dry surface, and reduce irrigation frequency when re-establishing turf. Prune trees to increase air movement and reduce shade. Weather forecasts suggest warm temperatures and low humidity across western Nebraska during the first week of May. This will severely hinder further development of pink snow mold.

References

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4. Abler, S.W., and G. Jung. 2005. Turf Diseases of the Great Lakes Region: Identification and Control Guide for Golf Courses, Parks, and Lawns. University of Wisconsin-Madison Cooperative Extension, Madison-Wisconsin.