



## Recommended Treatments for Lawn Problems

### DISEASES

There are a handful of diseases that could affect lawns in central Illinois. Weather conditions, how the lawn is taken care of, and time, are the three conditions that contribute to disease development. Your best defense against any disease is to maintain a nice thick and dense turf.

Below we have listed the top 5 diseases that effect central Illinois, what may cause them to appear, prevention tactics, and what course of action you should take for treatment.

### DISEASES

### DESCRIPTION/OCCUR

### PREVENTION

### TREATMENT

*Dollar Spot*



- Small silver dollar shape, but can be as big as a small grapefruit
- Tan-colored, occurs in clusters
- Occurs in low fertility (deficient in nitrogen)
- Occurs in moist soils
- Kentucky Bluegrass most at risk

- Aerate often
- Water in the morning
- Fertilize with more nitrogen year round

- Fungicide
- 2 applications 7 -10 days apart

*Summer Patch*



Photo by: University of Wisconsin - Madison

- Light green patches that spread, turn reddish-brown then die
- Occur in heavy clay soil
- Soil compaction
- Thatch
- Poor establishment

- Do not over fertilize
- Maintain adequate soil moisture

- Fungicide
- Apply the fungicide in late Spring

*Rust*



Photo by: University of Illinois | Extension

- Reddish-orange appearance to blades
- Rust powder on shoes and equipment
- Occur in summer heat, drought stress, and in the shade
- Low nitrogen fertility
- Soil compaction
- Kentucky Bluegrass most at risk

- Aerate often
- Water in the morning
- Reduce the shade
- Fertilize with more nitrogen year round
- Mow frequently

- Fungicide
- Multiple applications every 7 - 14 days until improvement is seen

*Powdery Mildew*



- Grass has a white powdery look
- Occurs in the shade
- Occurs with slow growing turf
- Occurs with extended cool, damp periods
- Kentucky Bluegrass most at risk

- Aerate area
- Reduce shade
- Check drainage in the area
- Water only in morning
- Avoid excess levels of nitrogen

- Fungicide only if absolutely necessary
- Disease is rarely responsible for any long lasting damage to turf

*Leaf Spots*



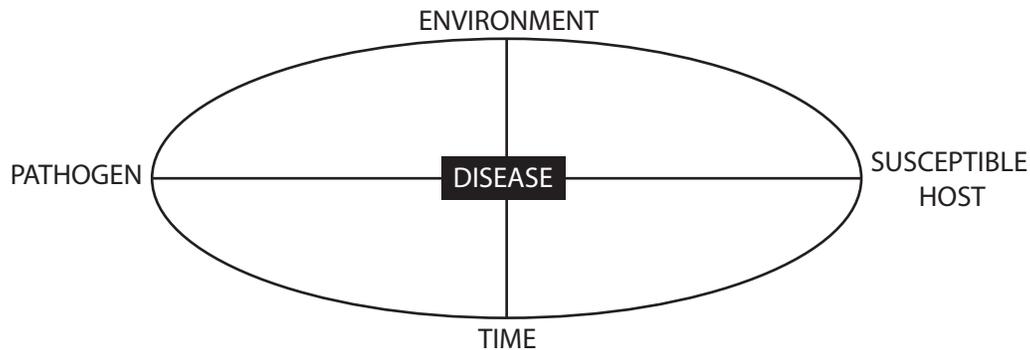
Photo by: University of Minnesota | Extension

- Brown to purple lesions (spots on blades)
- Irregular dying areas in grass
- Occur with excess nitrogen fertility
- Occurs in warm weather
- Mowing too short
- Kentucky Bluegrass most at risk

- Aerate area
- Mow at a higher setting
- Remove excess thatch

- Fungicide

In the graph below it shows the four factors required for infectious disease development:



### Development of Infectious Disease

There are four elements necessary for the development of infectious plant disease:

1. Susceptible host. All plants are not susceptible to all pathogens. For disease to occur, a given plant must be able to be infected by a particular pathogen.
2. Plant pathogen. A microorganism capable of causing disease is a vital component of infectious disease. Most plant pathogens are host-specific and will cause disease in only a few host plants.
3. Favorable environment. Plant pathogens have certain temperature and moisture requirements for growth and entry into plants. For example, environmental factors can influence the production of fungal spores. Without a favorable environment for infection, a plant pathogen will not be able to cause disease - even on a susceptible host.
4. Time. The interaction of host, pathogen, and environment must occur over some particular period of time (usually hours) before infection takes place. Time also influences the growth stage of the host and the development of symptoms on an infected plant. Symptoms often change considerably over the course of weeks or months.

Infectious disease occurs when all four of these elements are present. The process can be stopped or reduced when one or more of these elements is missing or changed. These elements are useful to remember when you consider various methods of disease management.

\*All information cited above is from the University of Illinois | Extension.