Lawn Disease Identification Guide

Brown Patch (Rhizoctonia solani)

Symptoms:
- Rings or patches of blighted turfgrass that measure 5 inches or more in diameter.
- Leaf spots and “smoke rings”—wet, brown borders around the leaf spots.
- Yellow, straw-colored or brown-blotched turfgrass that most frequently occurs in the early morning.

Conditions Favoring Disease:
- Active at cool temperatures on warm-season turfgrass.

Symptoms:
- Yellowing of the leaves followed by brown or straw-colored areas that measure 10 inches or more in diameter.

Conditions Favoring Disease:
- More severe in dry soils.

Symptoms:
- Leaf spots and “smoke rings”—wet, brown borders around the leaf spots.

Conditions Favoring Disease:
- Sunken, circular patches that measure 1 to 8 inches or more in diameter.

Symptoms:
- Edges of the leaf.

Conditions Favoring Disease:
- Lower leaves of infected plants are blackened or rotted sheaths with tan centers on the leaf blade.

Symptoms:
- Circular or oval shaped lesions that measure several centimeters in diameter.

Conditions Favoring Disease:
- Continuous high humidity at 60°F in wet conditions.

Symptoms:
- Patches can increase to several inches or more in diameter.

Conditions Favoring Disease:
- Microdochium nivale is commonly called Fairy Ring or Fair Ring.

Symptoms:
- Visible as yellowing of the leaves followed by brown or straw-colored areas that measure 1 to 8 inches or more in diameter.

Conditions Favoring Disease:
- Yellowish-brown borders around the diseased turfgrass that measure 10 inches or more in diameter.

Symptoms:
- Leaf spots on cool-weather turfgrass that measure up to 8 inches or more in diameter.

Conditions Favoring Disease:
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Symptoms:
- Leaf spots on cool-weather turfgrass that measure up to 8 inches or more in diameter.

Conditions Favoring Disease:
- In severe cases, almost all of the blades of the leaf blight during the growing season.

Symptoms:
- Blackened or rotted sheaths with tan centers on the leaf blade.

Conditions Favoring Disease:
- Evident after snow melts.

Symptoms:
- Tan, pink, or salmon-colored patches 10 inches or more in diameter.

Conditions Favoring Disease:
- Typically follows the appearance of leaf spots on cool-weather turfgrass.

Symptoms:
- Brown to white, oval-shaped lesions that measure 1 to 8 inches or more in diameter.

Conditions Favoring Disease:
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**Cultural Disease Management Tips:**

Minimize the amount of shade.

Improve soil drainage.

Use an adequate level of nitrogen, particularly in the spring and early summer.

More grass at regular intervals.

Turf stress deeply and as infrequently as possible to avoid drought stress.

**Management Tips:**

- **Cultural Disease**
  - **Erysiphe graminis**
    - **Powdery Mildew**
      - **Conditions Favoring Disease:**
        - Favors low-light areas.
        - Favors night temperatures of 68°F to 80°F.
        - Favors relative humidity greater than 90% for several consecutive days.
      - **Symptoms:**
        - First appears as a film of white to infect turf.
        - Later develops yellow, then tan and brown patches—can also occur as `Frog-eye`—a symptom where infected areas are brown and become thinned.
      - **Product Options:**
        - **Limonomyces roseipellis**
        - **Laetisaria fuciformis**

- **Red Thread and Pink Patch**
  - **Symptoms:**
    - Roots and rhizomes of the fungal mycelium (cottony blight) are pink mycelium with water soaked and dark-colored leaves. Infected patches may appear bronzish-orange in color and 1 to 4 inches in diameter. Patches that are red can coalesce to form large, circular, greasy red or brown patches.
    - Leaf blades turn yellowish-orange to reddish-purple and can coalesce to form large, circular, greasy red or brown patches. Severe rust infections occur on the leaves of deciduous trees, causing the leaves to have a glossy, instead of a matted appearance.
    - Severely infected trees turn yellow. Liver and deciduous trees typically show severe symptoms.
    - Severely infected trees can be killed.
    - Severely infected trees, especially in rural areas, can become brown.

- **Rusts: Crown, Leaf, Stem, and Stripe**
  - **Symptoms:**
    - Rust spots are red, pink, or greenish-brown and can expand up to 3 feet in diameter.
    - Occurs in areas with poor air circulation and low-light areas.
    - Controlling rust in areas with poor air circulation and low-light areas is critical to avoid a field-wide rust epidemic.

**Product Options:**

- **Caravan G**
  - **Fungicide**
    - **Technical Highlights:**
      - Broadest 28-day control available at full label rates.
      - Longest-lasting broad-spectrum strobilurin fungicide.
      - Leading-edge MAXX formulation technology.
      - Little to no odor in a highly compatible, easy-mixing formulation.
      - Cost-effective fungicide with dual modes of action and an optimized novel formulation.
      - Warranted turfgrass, particularly in high-traffic areas.
    - **Conditions Favoring Disease:**
      - Temperatures between 50°F to 70°F in locations that are low, humid, and have low wind.
      - Occurs in areas with poor air circulation and low-light areas.
    - **Symptoms:**
      - Rusty flecks enlarge, elongate, and can coalesce to form large, circular, greasy red or brown patches.
  - **Insecticide**
    - **Technical Highlights:**
      - The premier fungicide for pink thread, leaf spot, summer patch, take-all patch, and more than 10 other turf diseases.
      - Available in a granular formulation, as well as a broadcast (DG-Lite™) formulation, and conventional granular formulation.
      - Finally, the granular that works like a spray.
    - **Conditions Favoring Disease:**
      - Outlasting disease protection without spraying. Availability, the trusted active ingredient in Heritage, is now available in a granular form. The DG Lite™ carrier breaks down rapidly for long-lasting, even coverage. Perfectly suited for low-volume applications.
  - **Heritage**
    - **Fungicide**
      - **Technical Highlights:**
        - Outstanding disease protection without spraying. Availability, the trusted active ingredient in Heritage, is now available in a granular form. The DG Lite™ carrier breaks down rapidly for long-lasting, even coverage. Perfectly suited for low-volume applications.
      - **Conditions Favoring Disease:**
        - Temperatures below 50°F to 70°F in locations that are low, humid, and have low wind.
        - Occurs in areas with poor air circulation and low-light areas.
      - **Symptoms:**
        - The premier fungicide for pink thread, leaf spot, summer patch, take-all patch, and more than 10 other turf diseases.
        - Available in a granular formulation, as well as a broadcast (DG-Lite™) formulation, and conventional granular formulation.
  - **Syngenta Lawn Fungicide Portfolio**
    - **Product Options:**
      - **Caravan G**
        - **Fungicide**
          - **Technical Highlights:**
            - The only combination fungicide and insecticide, which creates better looking turf by providing both insect and disease control in one application.
            - **Conditions Favoring Disease:**
              - Occurs in areas with poor air circulation and low-light areas.
            - **Symptoms:**
              - Rusty flecks enlarge, elongate, and can coalesce to form large, circular, greasy red or brown patches.
  - **Not just grub control. Not just disease control. Better looking turf by providing both insect and disease control in one application.**

For more information about the Syngenta portfolio of granular fungicides and insecticides, as well as the full line of sprays, contact your local Syngenta representative or visit www.greencastonline.com. For technical assistance, please call 1-866-SYNGENT(A) (763-4368).