Today's Presentation - Getting Back To Turf Disease Basics
Master Gardener Lunch and Learn 2020

Todd Hicks
OSU Plant Pathology Turfgrass Program Coordinator

Cell (614) 778-9172
hicks.19@osu.edu

Turfgrass -
The amazing ground cover ...

Unfortunately This is what it usually looks like when you show up to answer the call for help!

Always Get Background Info On The Area
- Mowing: Frequency, Mower condition
- Water: Natural or Artificial, how much?
- Fertility: type used, application info
- Pest History
- Pets?
- Area Use
- Problem history: is it worse or better?
- Walk the surrounding area for clues
Tools of the Trade

- Pen and Paper, Recorder
- Hand lens or Magnifying Glass
- Knife or Hand Spade
- Soil Probe/ Profiler or Corer
- Camera
- Sample Containers- Bags/Jars/Boxes
- Tweezers
- Flashlight
- Books- L 187, Turfgrass Compendium, Weeds Book

Helpful Handouts

[https://turfdisease.osu.edu/handouts](https://turfdisease.osu.edu/handouts)

TURFGRASS DISEASE CALENDAR
FUNGICIDES FOR RESIDENTIAL TURFGRASS
LAWN TURFGRASS DISEASE - INFORMATION CHART
SELECTING TURFGRASSES FOR LAWNS
PROFILE OF POTENTIAL DISEASES IN TURFGRASS

Look at the Environment

- Weather history
- Topography
- Grass Type
- Time of the Year
- Sun exposure

In our current world, restrictions from covid 19 may require off site or remote diagnostics. Please make sure to inform the client you are going to help but, NOTHING can take the place of an on site diagnostic visit. With the help of background information and some detailed pictures MOST problems can be identified or a long list of probable problems can be ruled out!

Getting “Down” to Business Use your tools and investigate the problem up close and personal

Carefully examine the turf in question with your eyes and your hands.
What are We Looking For?

- Mycelium/ Fruiting Bodies
- Patches
- Lesions
- Soil Condition and Type
- Root condition
- Other Evidence

What is normal?
What does “healthy” turf look like?

Examine the entire plant ...

Take Plenty of Samples

Soil
Thatch
Turf- both healthy and problem areas

Do not make assumptions !
Check below the surface.
Are there indications of new growth?

There Are Going To Be Instances Where “I Don’t Know” Is The Only Answer You Can Come With!

In Case of “I Don’t Know”

- Make sure you see the turf recovering or new growth happening to fill in problem areas
- Have reseeding options for the client
A. Ruff up area with a rake, hand spread seed
B. Ruff up with a drag matt, broadcast seed, drag area for good seed to soil contact
C. Rent or have someone come in and slit seed area to insure good seed to soil contact

Decision Time

Easy - Make recommendations on the spot
Medium - Go back to the office for further investigation.
Uh Oh - Get help! Make a call and/or send in a sample

Sending Samples

Ohio State University Extension
Plant and Pest Diagnostic Clinic (PPDC)
C. Wayne Ellett Plant and Pest Diagnostic Clinic

ALL TURFGRASS SAMPLES GO TO:
Rm. 201 Kottman Hall
2021 Coffey Rd.
Columbus, OH 43210
(614)292-5006
ppdc.osu.edu
(check for forms, fees, & how to send a sample)
How to Take & Send a Sample
- ppdc.osu.edu (Info & Forms, YouTube...)

Taking a Lawn Sample

Sampling For Turf Diseases
- Minimum 4" Diameter by 1-2" Deep (Not Soil Probe)
  - Wrap In Towel and Then Aluminum Foil
  - Pack Tightly In A Box To Avoid Tumbling and Mixing Foliage With Soil
- Hand Deliver Or Ship Overnight Express So Sample(s) Is Received No Later Than Thur. Do Not Ship Thur-Sat

Collect samples from both ‘affected’ and ‘normal’ areas.
Red Thread

SUSCEPTIBLE GRASS
P. RYEGRASS
FINE FESCUE
Ky. bluegrass, Tall Fescue, Bentgrass

ENVIRONMENTAL FACTORS
Prolonged periods of wet leaves
Moderate temps
Red Thread
Management Strategies
1. Follow balanced fertilization program (nitrogen & phosphorous)
2. Select more resistant cultivars
3. Promote growth and health ....
4. Fungicide applications

Leaf Spot

SUSCEPTIBLE GRASS
P. RYEGRASS
FINE FESCUE
Ky. bluegrass, Tall Fescue, Bentgrass
ENVIRONMENTAL FACTORS
Prolonged periods of wet leaves
Hot and cold temps, depends on which Leaf Spot is present.
Problems When Dealing With Leaf Spots

1. This disease can disguise itself to look like other turf diseases.
2. With the wide variety of Leaf Spots that occur in both hot and cool temps, you may find Leaf Spot present, that doesn’t mean it is the “main” source of the turf problem!
Leaf Spot

Management Strategies
1. Ensure good drainage
2. Select more resistant cultivars
3. Promote growth and health ....
4. Fungicide applications

Rust—(*Puccinia* spp.)

**Susceptible Grass**
- Perennial Ryegrass
- Ky. Bluegrass (Some varieties are susceptible some resistant.)

**Environmental Factors**
- Low fertilizer programs (slow growth)
- Prolonged leaf moisture / high humidity
- Dry soils (slow growth)

Note the ruptured leaf surface and release of spores.
Rust-(*Puccini* spp.)

**MANAGEMENT STRATEGIES**

1) Choose resistant grass (types & varieties).
2) Manage an adequate fertility program.
3) Promote growth with irrigation and soil compaction management.
4) Fungicide applications.

---

**Dollar Spot**

**SUSCEPTIBLE GRASS**

- KY. BLUEGRASS
- P. Ryegrass
- C. BENTGRASS
- Fine Fescue

**ENVIRONMENTAL FACTORS**

- Low fertilizer programs
- Prolonged leaf moisture
- Moderate temps, day temps 60 – low 80’s
- Dry soils and excessive thatch

---

**Classic Dollar Spot Leaf Lesion:**

- Tan band across the leaf
- Lesion has darker edges ‘margins’ (between tan and green tissue)
- The lesion may have an ‘hourglass’ affect

---

**Dollar Spot in high cut lawn made up of Kentucky bluegrass & perennial ryegrass**
Dollar Spot

MANAGEMENT STRATEGIES

1) Choose resistant grass varieties.
2) Manage an adequate fertility program.
3) Minimize the time foliage is wet.
4) Use more resistant turf cultivars.
5) Avoid & manage excessive thatch.
6) Promote turf growth / avoid dry soils, check
   the soil moisture level.
5) Fungicide applications.

Brown Patch/Rhizoctonia Blight
(Rhizoctonia solani)

Brown patch on Tall fescue

MANAGEMENT STRATEGIES

1) Avoid excessive watering & poor drainage.
   (evaluate the irrigation system)
2) Avoid excessive Nitrogen fertilization.
3) Improve drying conditions;
   Increase air circulation by removing
   surrounding vegetation & increase sun light.
4) Mowing, dew removal, turf selection, etc.
5) Fungicide applications.

Brown Patch/Rhizoctonia Blight
(Rhizoctonia solani)

SUSCEPTIBLE GRASS
TALL FESCUE P. Ryegrass
BENTGRASS Ky. Bluegrass
Fine Fescue
ENVIRONMENTAL FACTORS
-Hot / Wet, high humidity, free moisture (wet...)
-Days > 80 to mid 90s and warm nights, mid 60's +
-Abundant water, wet soils, poor drainage, poor air
   circulation, excessive Nitrogen fertilizer
Turf Tips Video Post
During the growing season Posted on
The Ohio Turfgrass Foundation Website
http://www.ohioturfgrass.org/index.php
OSU Plant Pathology – Turf Pathology Program
http://turfdisease.osu.edu/
Ohio Lawn Care Association Page
Turfgrass Pathology YouTube Page-
https://www.youtube.com/channel/UC5mDkPN6QcJtc-2VP_Ys8ug