



Front Porch Event – Fast Facts

Title: Lavender Diseases and Using a Diagnostics Lab

Event Date: Thursday, November 2, 2023, Supporting slides and Fast Facts Summary can be found at <https://www.uslavender.org/front-porch-event-common-lavender-diseases>

Featured Presenter: Tom Creswell – Clinical Engagement Professor and Lab Director Purdue University
Plant & Pest Diagnostic Laboratory

Tom Creswell is the Director of the Purdue University Plant and Pest Diagnostic Lab (PPDL) in the Department of Botany and Plant Pathology at Purdue University with 35 years of experience and having authored or co-authored over 40 publications in the area of plant pathology and diagnostics.

Facilitators: USLGA Education & Research Committee, Barbara Cesiro & Mary Pilotte

Tech Lead: Jenny Connors

Event Goal: Coverage of the more common lavender diseases, with the focus being: 1)How to collect a good sample to get problems diagnosed; 2)How to document site history to provide essential information to the diagnostic lab, and 3)How to get in touch with a diagnostic lab in your state (the National Plant Diagnostic Network of labs).

Terms used during the event:

- **Symptom:** A plant's reaction to a disease. (Rot, spots, blight, etc.)
- **Sign:** Physical evidence of the pathogen/disease affecting the plant. (Fungal threads, fungal spores/structures, bacteria.)
- **Abiotic:** A non-disease-based impact on plants. (winter damage, poor drainage, etc.)
- **Bacterial Disease:** A class of disease producing symptoms of black and water-soaked plant matter/roots.
- **Fungal Disease:** A class of disease which includes Black Root Rot, Botrytis Blight, Fusarium, and Rhizoctonia.
- **Oomycetes** – The class of water traveling molds which can stay in soil indefinitely. Phytopthera and pythium are in this class of disease.
- **Phytophthora** – The number one most commonly reported disease in the national lab network.

Key Points Summary:

- **Bacterial diseases** can be managed by removing infected plants, ensuring you only propagate healthy plants, minimizing leaf wetness and through sanitary farm practices. ***Pro Tip***- Use disposable Lysol wipes on all plan clippers/nippers/cutters/shovels to reduce the spread of bacteria disease.
- **Fungal disease** can be identified by the symptom of leaf spots, with a wide variety of color and die back. Wet leaves and humidity can be culprits. ***Pro Tip***- Remember this rhyme to help with plant symptom diagnostics, "If it's spots with dots, its fungal you got!" Starting with "clean" disease free plants will help reduce fungal disease.
 - Black root rot is a common fungal disease infecting all age plants, but very damaging to young plants. The disease is soil born, but good sanitation practices are the best preventative.
- **Pythium disease** (an oomycete) can be seen in a plant's roots. Management is best achieved through water management.
- **Phytophthora disease** (an oomycete) can be seen in both the crown and the root of the plant. ***Pro Tip***- This is best confirmed by a lab; however, testing strips for home use do exist and work like COVID testing kits.
- **Soilborne pathogens** can be managed through careful soil management practices, hygiene, and when necessary, the careful application of prescribed fungicides.
- **A "sick" plant is rarely suffering from just a single disease or impact.** This is where testing your plant at a laboratory can help you determine your best approach and ways to move forward. ***Pro Tip***- If you decide to take a plant to a lab for testing, make sure the plant is NOT fully dead and that there is sufficient living/green material so adequate testing can be achieved. Follow presentation video procedures for digging and packing a plant for delivery to the lab.
- **There are 180 labs in the national lab network.** Find your regional lab at npdn.org.
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- When sending a plant off to a lab, **be prepared to respond to a range of questions with the lab diagnosticians** (see slides for details). ***Pro Tip*** Remember that diagnosis of abiotic problems is presumptive – No tests to allow confirmation, and each individual plant tested will have its own unique results.
- "Plant Doctor" diagnosis help tool exists at Purdue University and be accessed at this QR
- Other landscaping and advice tools exist at Purdue University and can be accessed at this QR.



Q&A Summary:

Q: If you think you have some form of fungal pathogen, should you spray when you notice, or wait for dormancy?

A: It would be advisable to test your plants first, so you are sure what you are treating for – which informs the fungicide to use and the application approach.

Q: Is there evidence that certain varieties of lavender are more susceptible to certain diseases?

A: No evidence that certain varieties are more or less susceptible to certain diseases, however every variety has its issues, so learning about those, relative to your location/conditions is important.

Q: If there are signs of dead wood on my plants, should they be cut off?

Y: Yes, however wait until the wood is dry to reduce further spreading of disease to other plants.

Other Session Notes:

Attendees – 45

Pulse Poll Results

1. What is your greatest area of interest when researching lavender plant health? (Single Choice)

27/27 (100)% answered

Dominant Diseases/Plant Pathogens	3/27 (11)%
Disease Symptoms	12/27 (44)%
Soil Health/Ideal Growing Conditions	11/27 (41)%
Insect management	1/27 (4)%
Something else	0/27 (0)%

1. Do you routinely test your soil or plants for "ideal" health/ conditions? (Single Choice)

30/30 (100)% answered

Yes - I test both my soil and plants.	2/30 (7)%
Yes - I test my soil, but have not routinely had plants tested.	14/30 (47)%
No - I do not currently routinely test my soil or plants for ideal health/conditions.	14/30 (47)%

1. Do you know where the closest National Plant Diagnostic Network facilities are located? (Single Choice)

35/35 (100)% answered

Yes	5/35 (14)%
No	23/35 (66)%
I think so...maybe.	4/35 (11)%
What is the National Plant Diagnostic Network??	3/35 (9)%