RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

RECORD

2025
Ornamental IPM Program Webinar

Contemporary IPM Topics and Management

August 12, 2025

Bill Errickson & Steve Rettke (Monmouth)

Tim Waller (Cumberland)

Support: Erin Quinn

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and Boards of County Commissioners, Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

TODAYS SPEAKERS

Tim Waller (Ag. Agent – Cumberland County RCE)

Guest Speaker:

Richard Buckley (Rutgers Plant Diagnostic Laboratory)

Disclaimer - Materials do not cover all possible control scenarios and are intended for licensed professionals. Tradenames do not imply endorsement and are used as examples. You must strictly follow the label for each compound prior to use. Rutgers is not responsible for misused materials or damages thereof. The label is the law. Labels will provide detailed information on use and restrictions. Additionally, application intervals, compatibility, surfactant use, PHI, PPE, important and other key information is described in detail. Always discuss treatments with your local agents. Note: Neonicotinoids can only be legally applied in commercial agriculture settings by licensed applicators. Guidelines and recommendations made in this presentation are specific to the state of New Jersey.

Updates

Current GDD: 8/12/25
North NJ: 1933 GDDs
Central NJ: 2310 GDDs
Southern NJ: 2526 GDDs

RUTGERS

Tuliptree Scale (2037-2629 GDD)



Magnolia Scale (2155-2800 GDD)



First crawler emergence is imminent – BUT WAIT TO SPRAY!

These soft scales have a very long period of hatching / vulnerability…

Meaning if we wait our treatments will be more effective

More on these scales' treatment windows on 8/26/25

Box Tree Moth (*Cydalima perspectalis*)

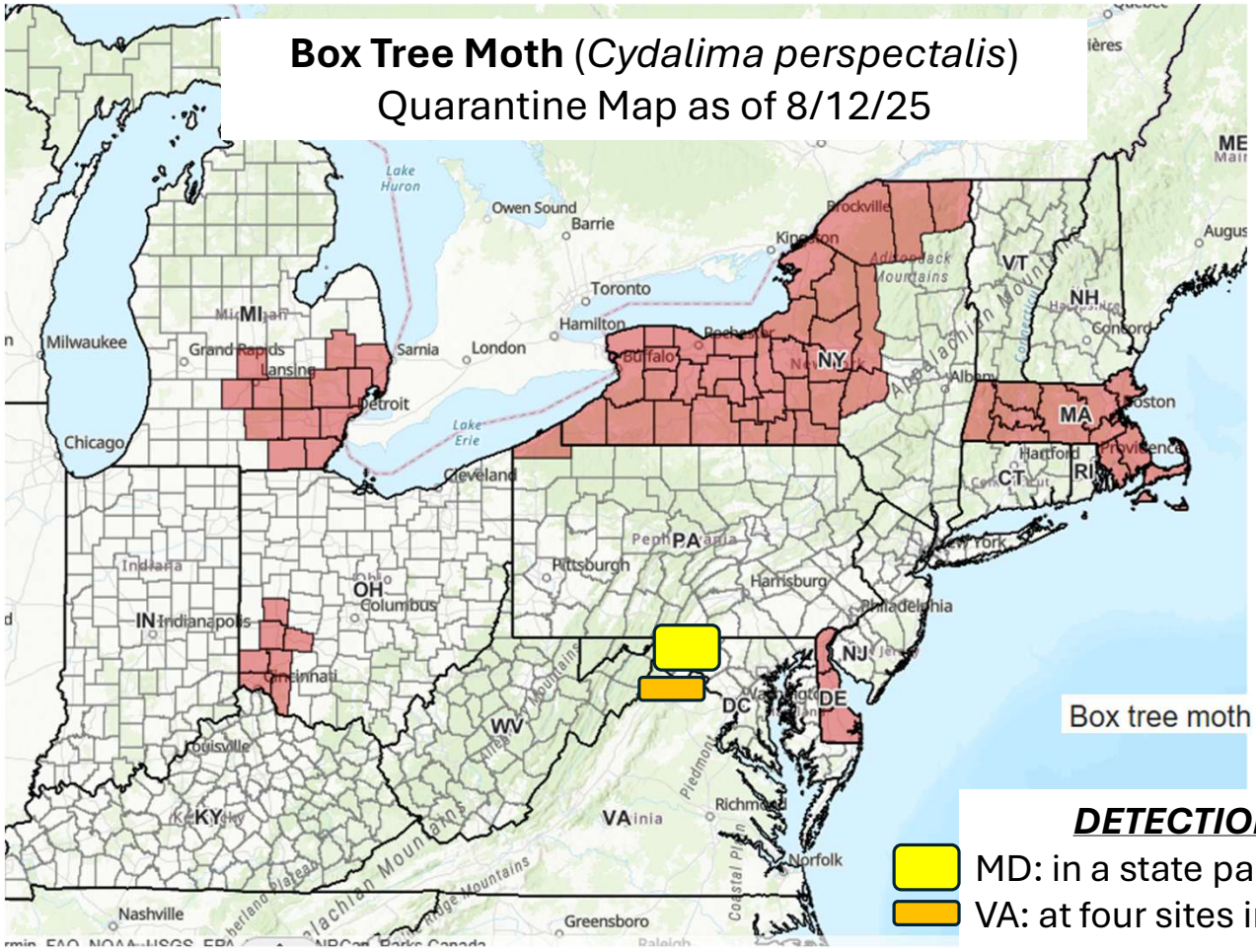


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RUTGERS

Box Tree Moth (*Cydalima perspectalis*)
Quarantine Map as of 8/12/25



PLANT & PEST ADVISORY
Rutgers Cooperative Extension

Box tree moth confirmed in MD, VA, and expanded quarantines in MI, OH.

DETECTIONS - NO QUARANTINE YET

- MD: in a state park in Washington County
- VA: at four sites in Clarke and Loudoun Counties

Updates

Current GDD: 8/12/25
North NJ: 1933 GDDs
Central NJ: 2310 GDDs
Southern NJ: 2526 GDDs

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White Prunicola Scale

(Pseudaulacaspis prunicola)

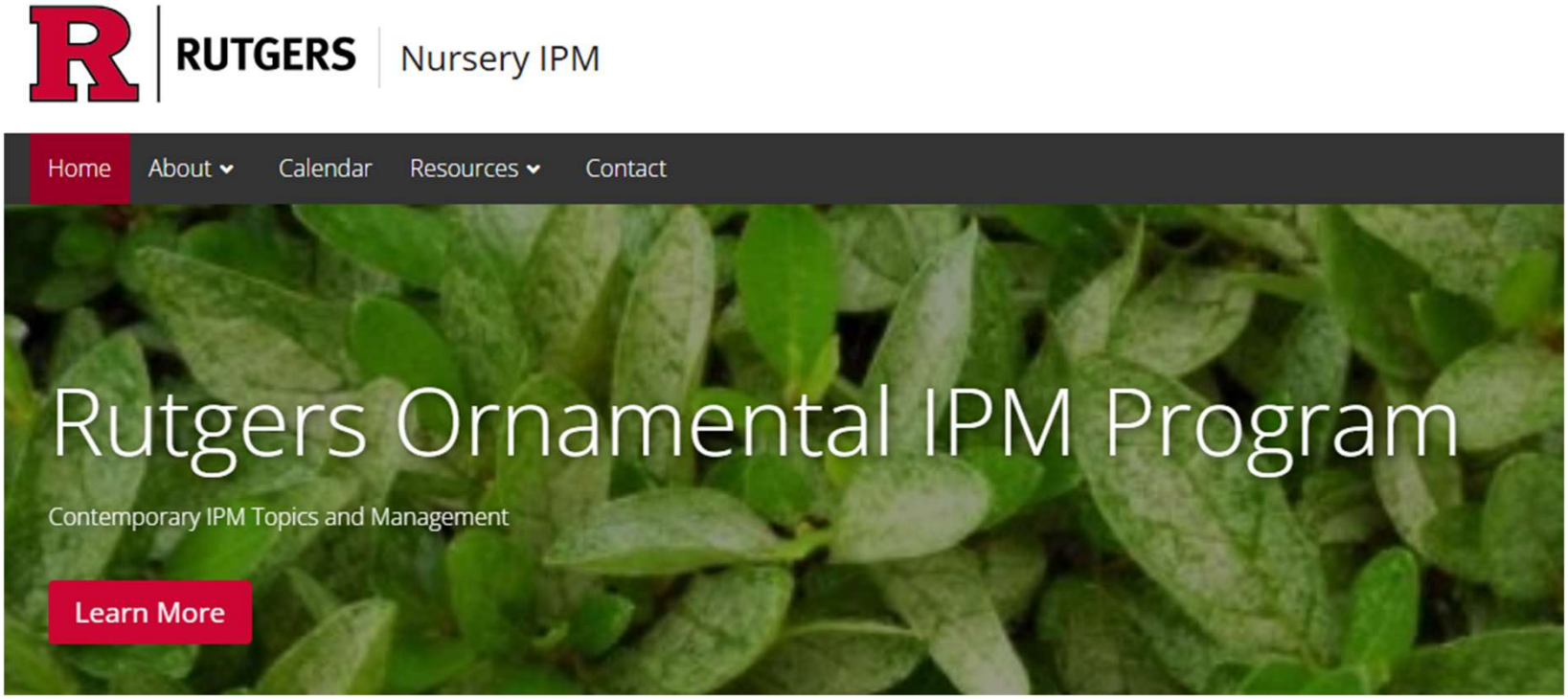
Potential Overlap of

Late second / Third generation

Crawlers (2314 -3270 GDD)

May 27th webinar ->

NEW WEBSITE - LIVE



https://sites.rutgers.edu/nursery-ipm/

RUTGERS

Presentation will be available on our website.

Next session: August 26th, 2025

Tentative key topics for next time:

PLEASE SHARE WHAT YOU SEE WITH US!

ALWAYS OPEN TO NEW TOPICS AND IDEAS

Funding provided by:
USDA National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE
Implementation of IPM in New Jersey -Ornamental Crops 2025

Updates:
Redheaded sawfly
Japanese maple scale
Spruce spider mite

1. Beneficial: dragonfly
2. Leafcutter bees
3. Nostoc
4. Nickel deficiency in river birch
5. Magnolia/Tulip tree scale
6. Douglas-fir needle midge
7. Slugs/Snails
8. Banded ash borer (clearwing moth)
9. Verticillium wilt

Richard J Buckley
Plant Diagnostic Laboratory
www.njaes.rutgers.edu/plantdiagnosticlab
richard.buckley@rutgers.edu

What Can the Plant Diagnostic Laboratory do for You?

NPDN National Plant Diagnostic Network

USDA NIFA

NEPDN Northeast Plant Diagnostic Network

FIRST DETECTOR PROGRAM www.firstdetector.org

Regional IPM Centers

American Public Gardens Association

Sentinel Plant Network

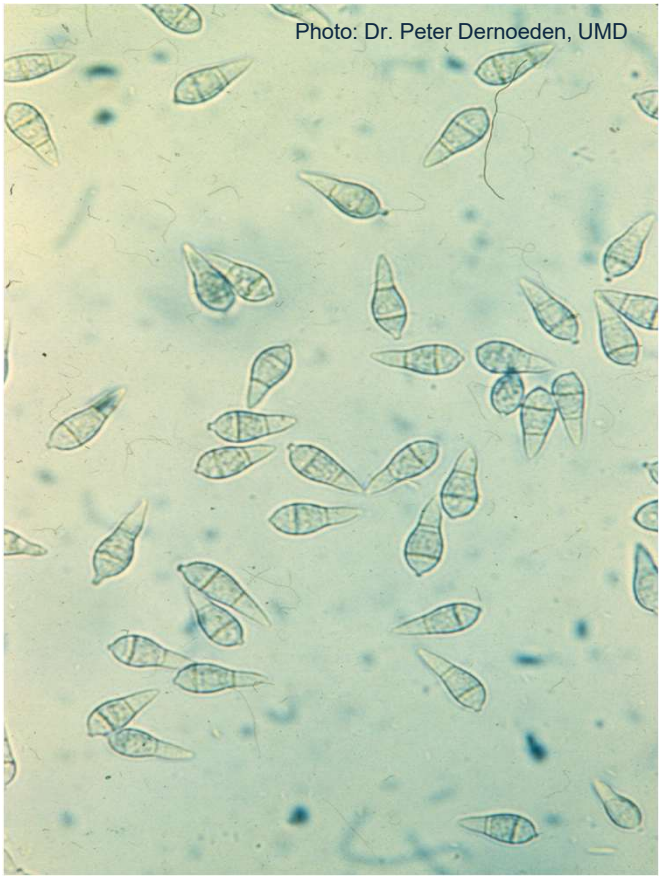
DETECTION
DIAGNOSIS
PROTECTION
EDUCATION

Plant Diagnostic Laboratory

Mission statement:

The mission of the PDL is to provide New Jersey citizens with the diagnosis of plant health problems.

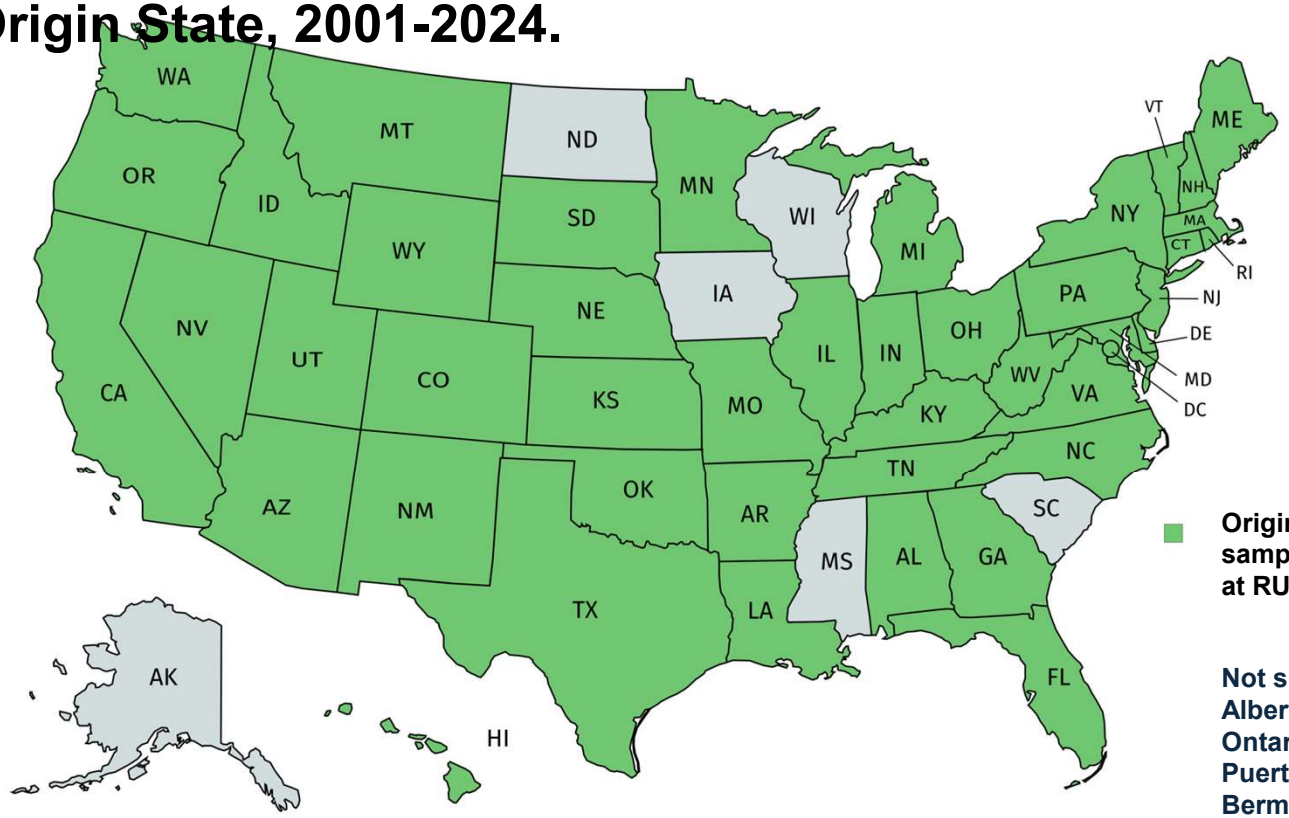
These services are to be provided in an accurate and timely manner to meet the increasing agricultural and environmental needs of the State.



Pyricularia oryzae

Plant Diagnostic Laboratory

Rutgers Plant Diagnostic Laboratory Turf Submissions by Origin State, 2001-2024.



Origin state of turf samples received at RU PDL.

Not shown:
Alberta, Canada
Ontario, Canada
Puerto Rico
Bermuda
United Kingdom

Plant Diagnostic Laboratory

Laboratory Staff:

Richard J. Buckley
Director

Sabrina Tirpak
Principal Technician



Plant Diagnostic Laboratory

- Disease and insect pest diagnosis
- Plant and weed identification
- Insect identification
- Fungus and mold identification
- Nematode assay
- Neotyphodium endophyte screening
- Fungicide resistance screening
- Pesticide residue testing
- Other services by contract



Laetisaria fuciformis

Plant Diagnostic Laboratory

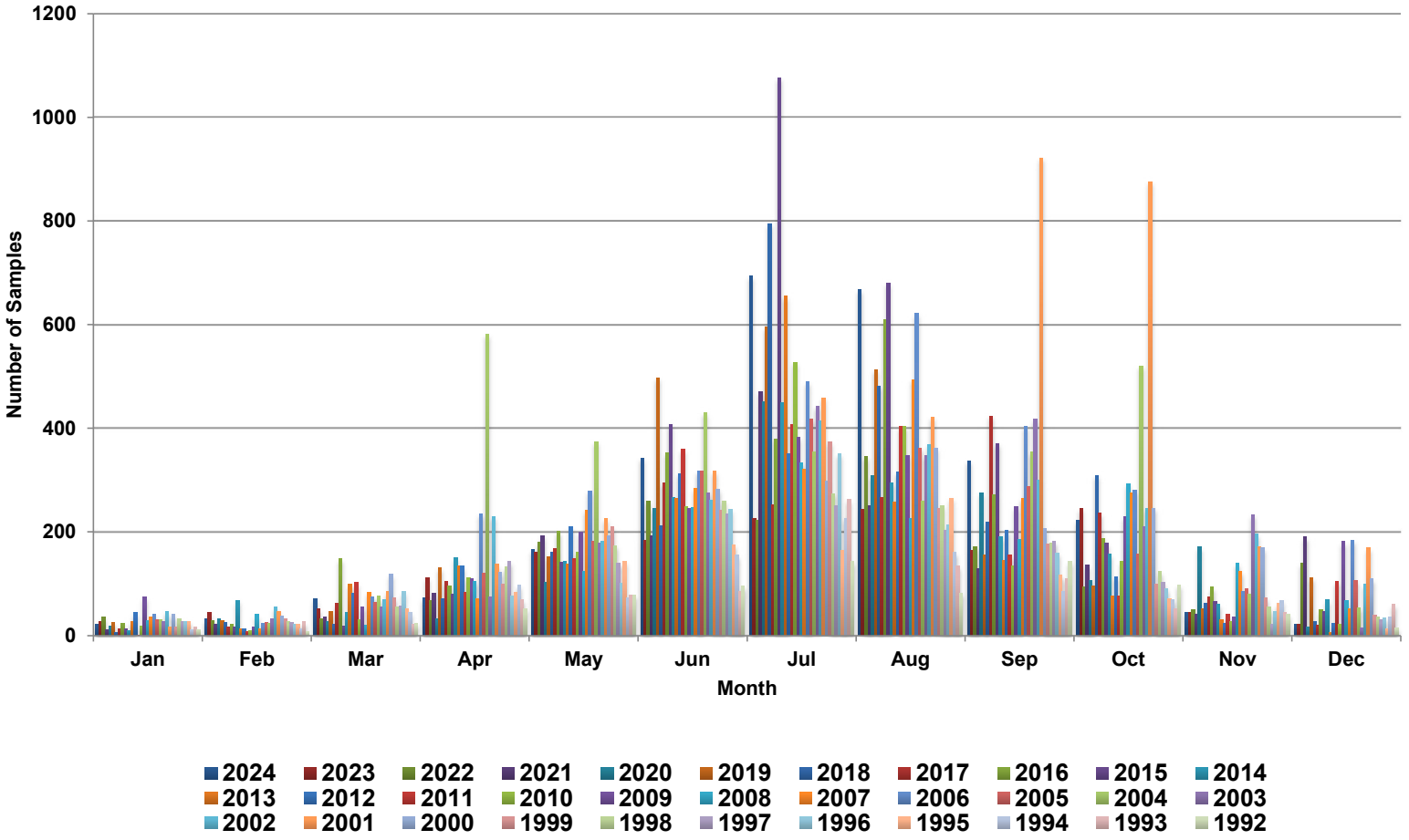
Sample Submission Trends



Photo: Richard Buckley, NJAES

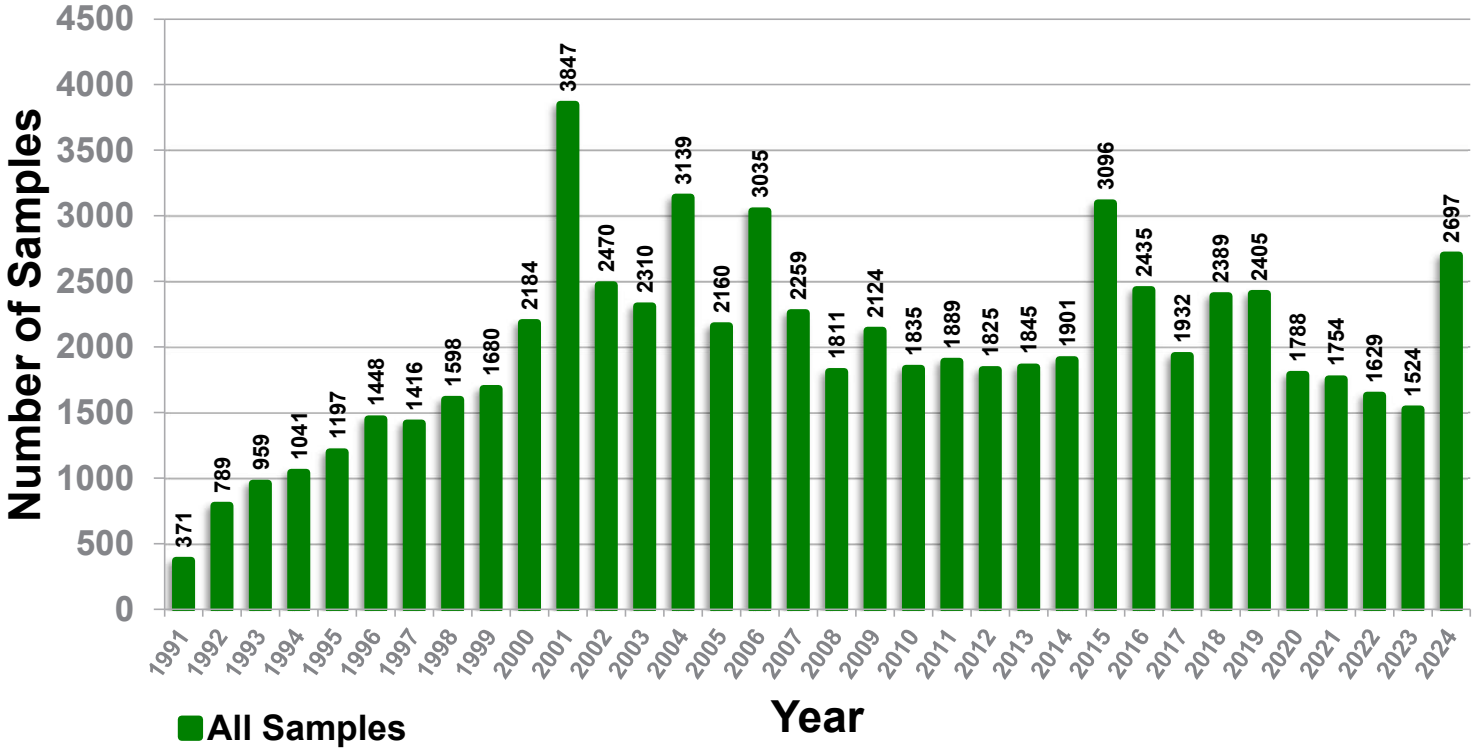
Plant Diagnostic Laboratory

Sample Submissions by Month, 1991-2024.



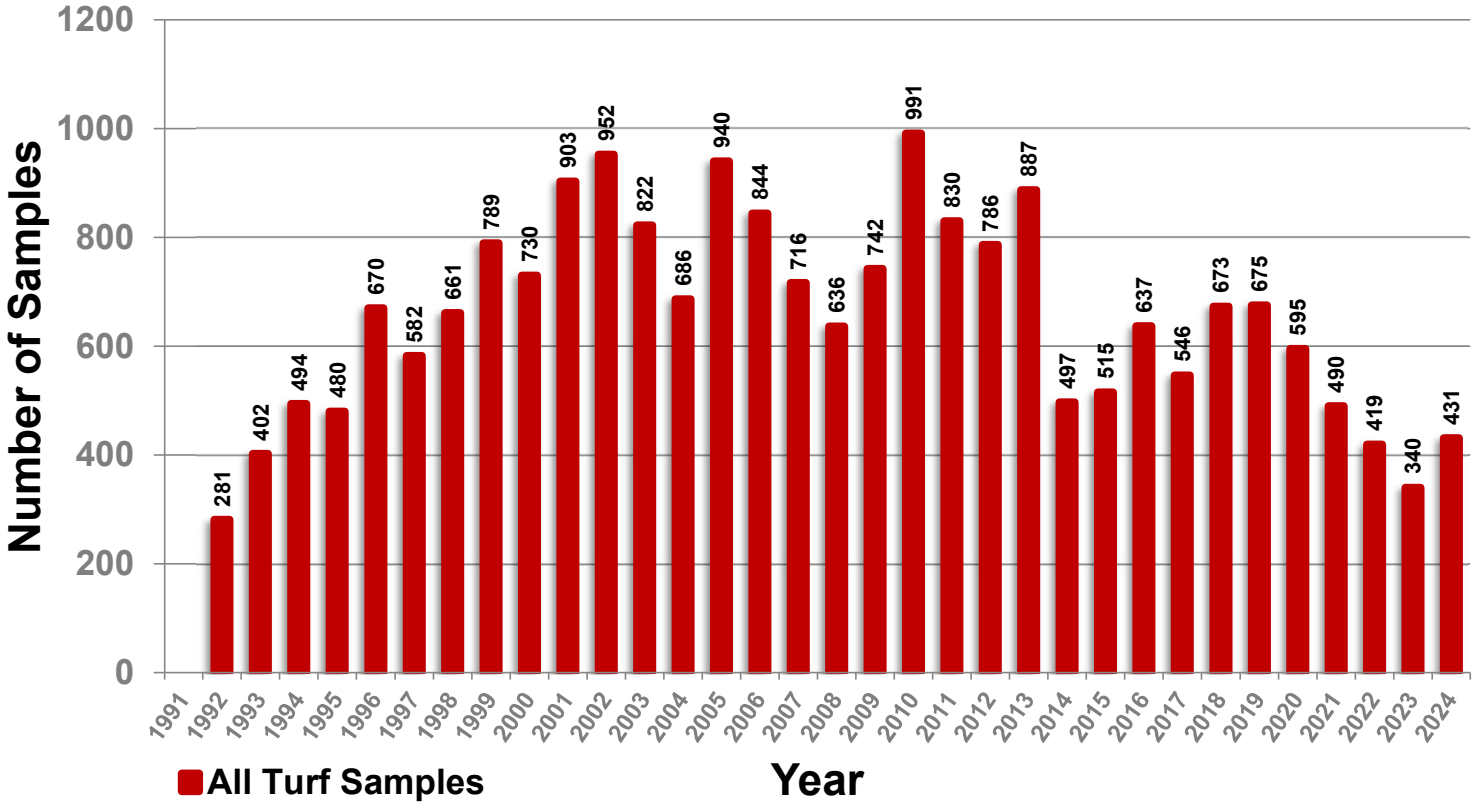
Plant Diagnostic Laboratory

Rutgers Plant Diagnostic Laboratory
All Samples 1991-2024.



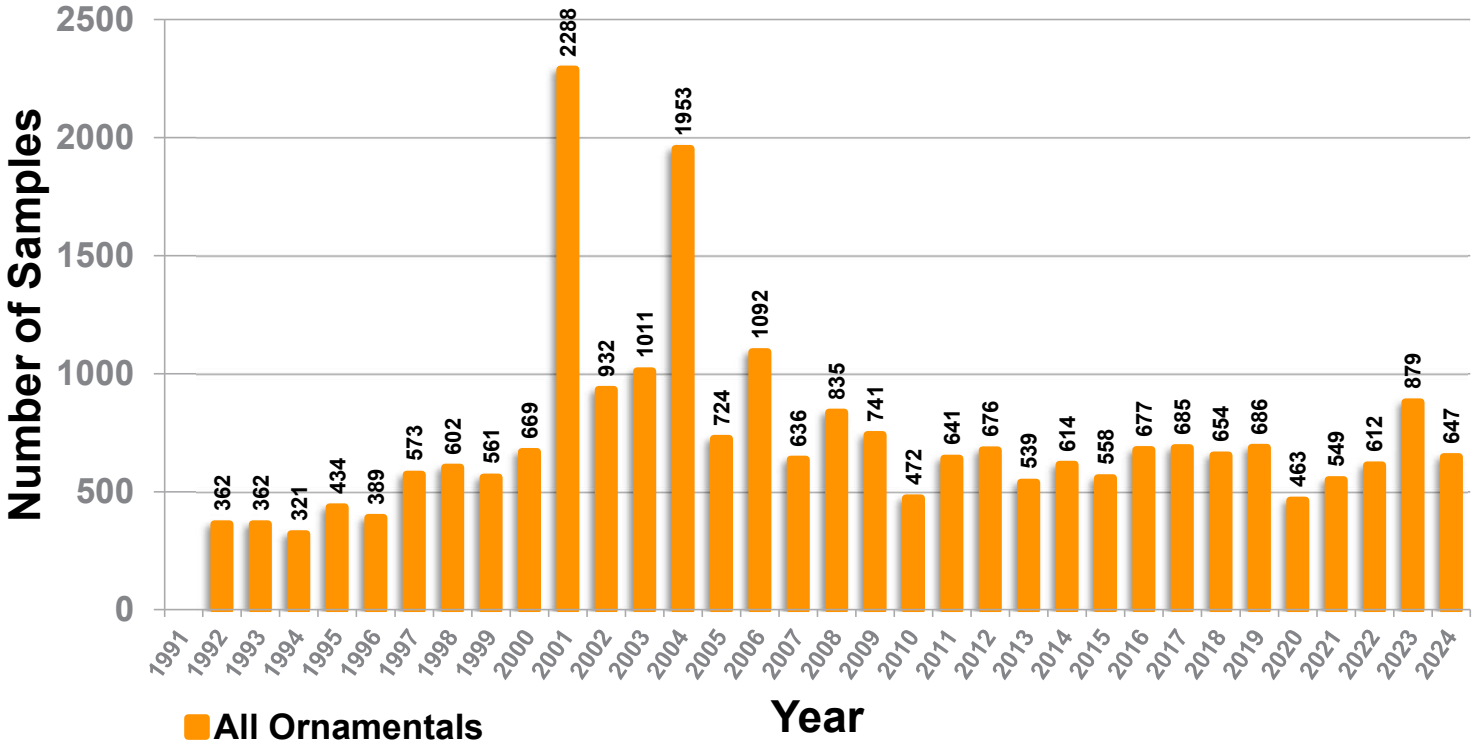
Plant Diagnostic Laboratory

Rutgers Plant Diagnostic Laboratory Turf Samples 1991-2024.



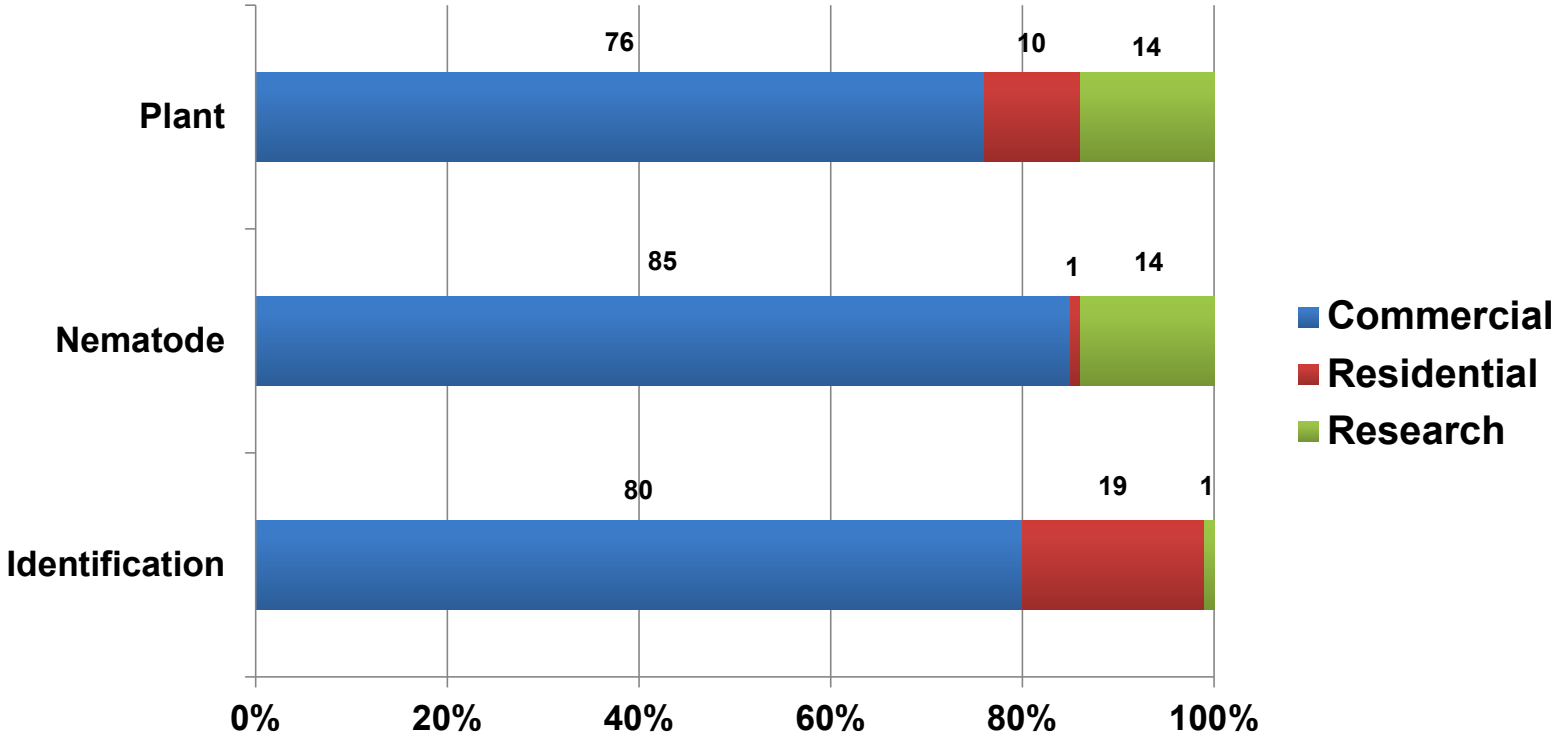
Plant Diagnostic Laboratory

Rutgers Plant Diagnostic Laboratory Ornamental Samples 1991-2024.



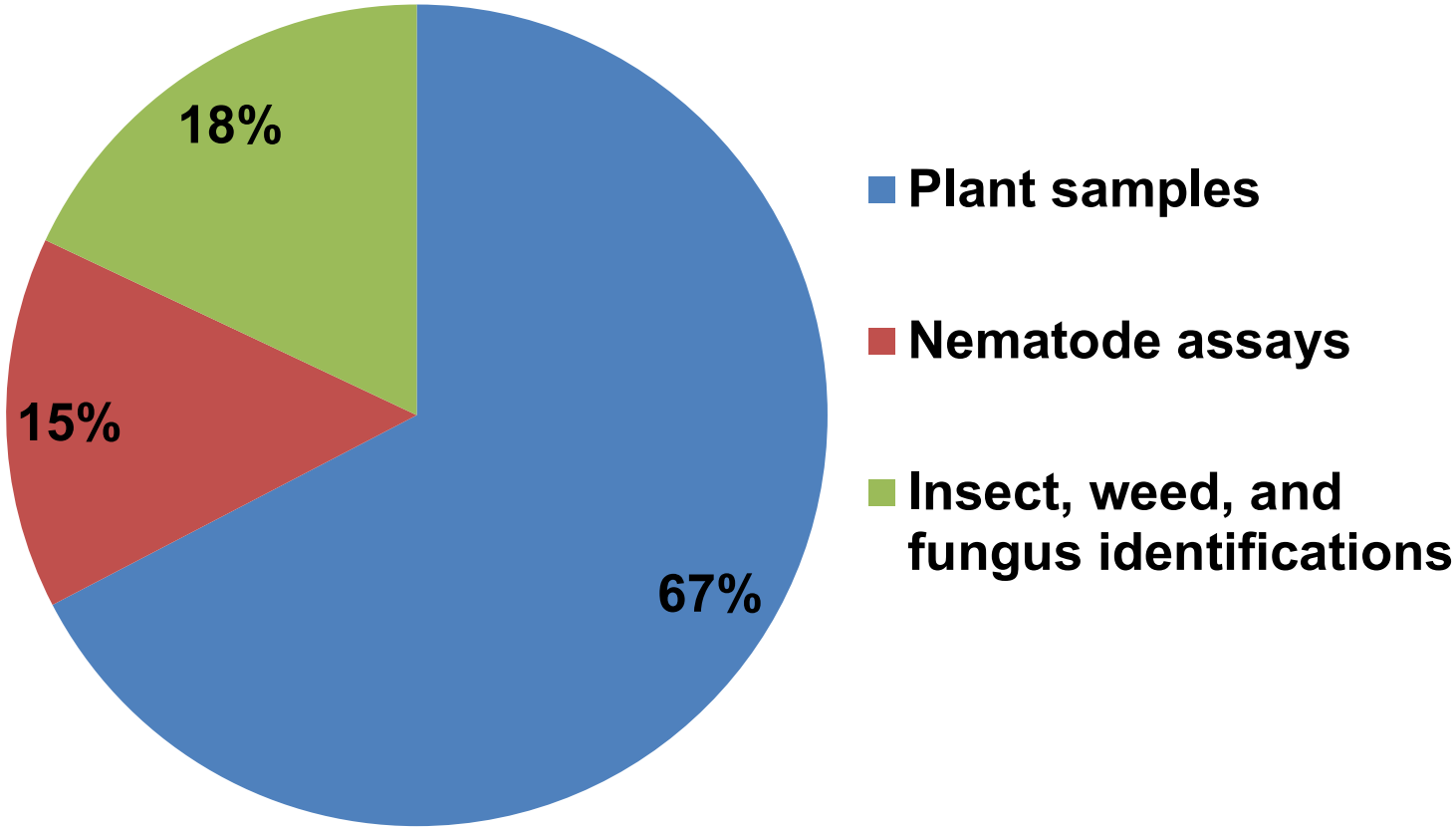
Plant Diagnostic Laboratory

Sample Submissions by Submitter, 2000-2024.

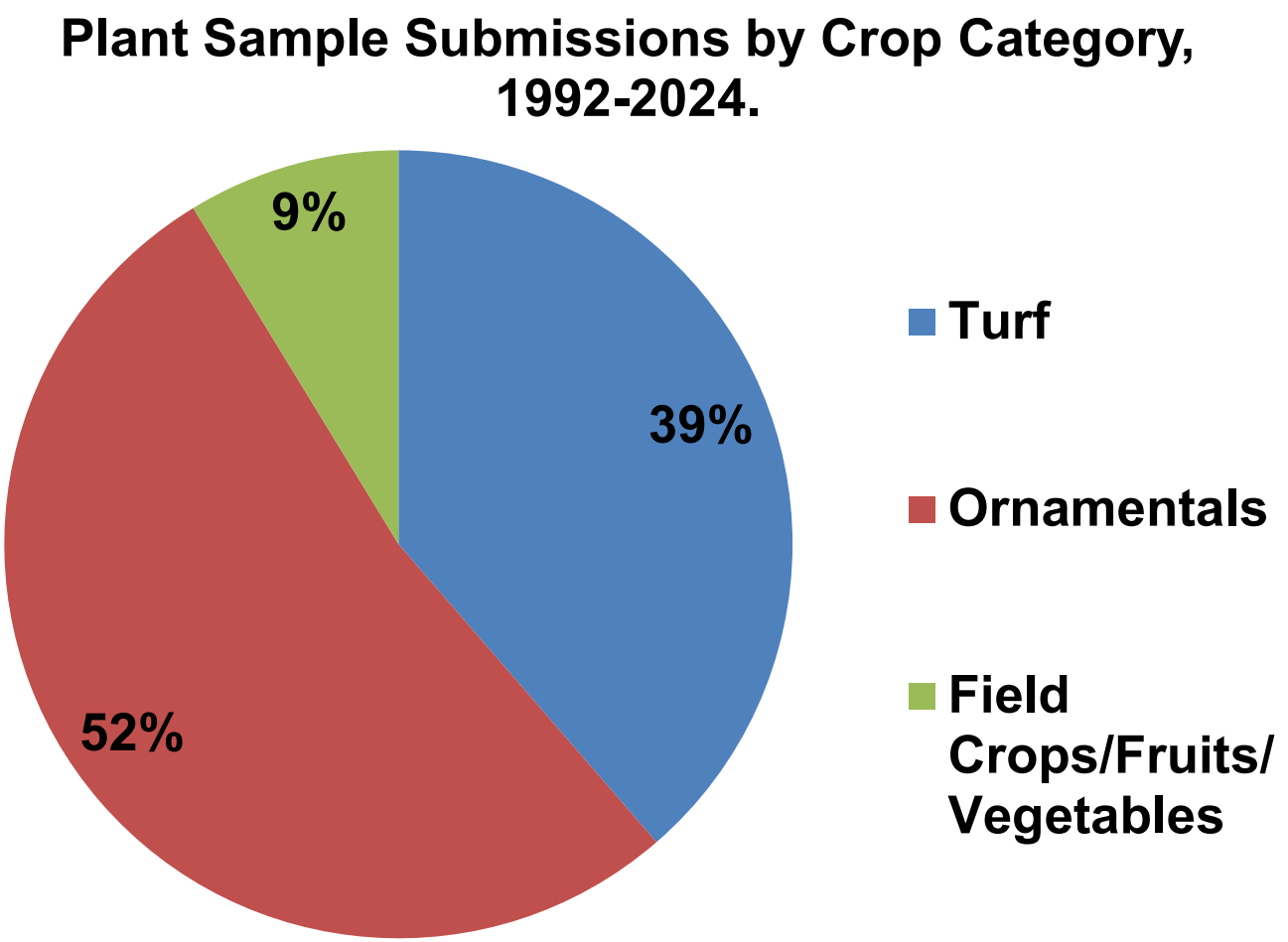


Plant Diagnostic Laboratory

Sample Submissions by Sample Type, 1992-2024.



Plant Diagnostic Laboratory



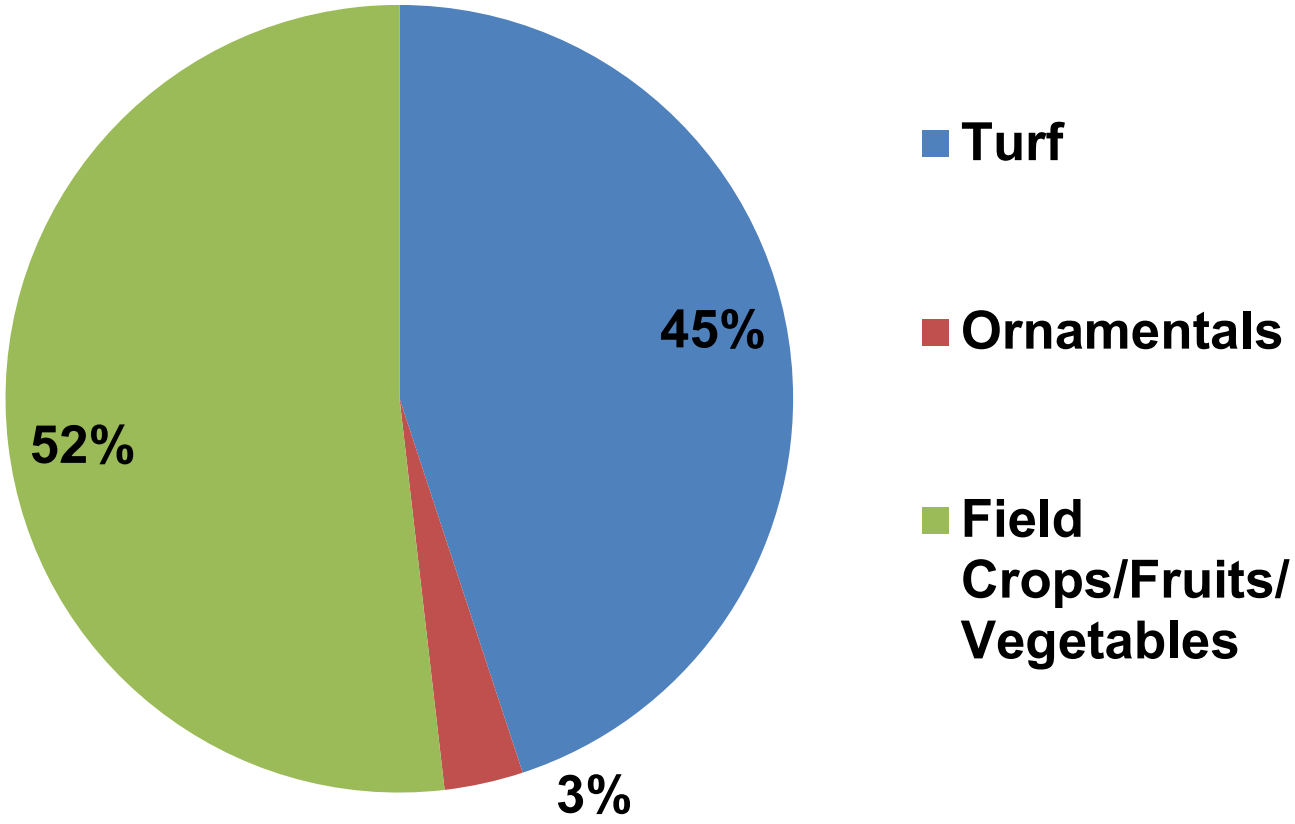
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Top 30 Plant Submissions by Genus, 2001-2024.

Quercus	3885	*Pseudotsuga*	347	*Malus*	156
Buxus	1319	*Rosa*	285	*Magnolia*	155
Picea	1028	*Cornus*	256	*Syringa*	155
Rhododendron	1005	*Pieris*	196	*Ulmus*	137
Acer	832	*Abies*	192	*Pachysandra*	133
Thuja	747	*X Cupressocyparis*	192	*Hydrangea*	131
Pinus	733	*Pyrus*	192	*Tsuga*	129
Prunus	572	*Viburnum*	185	*Chamaecyparis*	118
Juniperus	452	*Taxus*	179	*Platanus*	104
Ilex	430	*Fagus*	168	*Fraxinus*	99

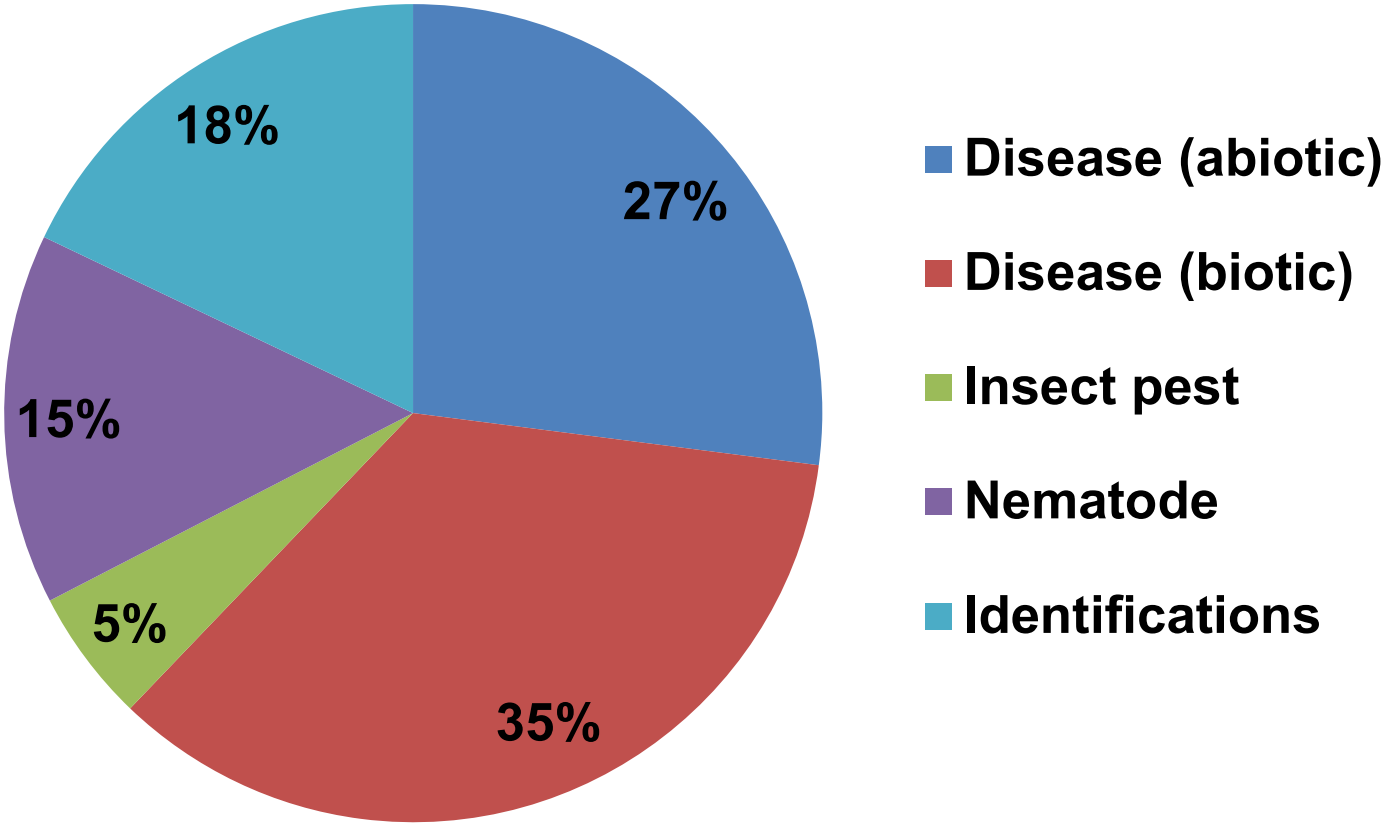
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Nematode Assay Submissions by Crop Category, 1992-2024.



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Sample Submissions by Diagnosis, 1992-2024.



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Submissions by Diagnosis 2024

Magnaporthiopsis poae – summer patch
Nematodes
Pythium root rot/dysfunction
Temperature and moisture stress
Colletotrichum cereale – anthracnose
Leptosphaerulina/Curvularia – blight
Gaeumannomyces avenae – take-all
Rhizoctonia solani – brown patch
Waitea circinata – brown ring patch
Bipolaris sorokiniana – leaf spot
Clarireedia sp. – dollar spot
Blissus leucopterus – chinch bug
Pyricularia oryzae – gray leaf spot
Chemical phytotoxicity/deficiency
Microdochium nivale – pink snow mold
Fairy ring
Listronotus maculicollis – ABW
Pythium blight
Unknown disease - winter fairy ring???
Bacterial wilt
Ascochyta sp. – leaf blight
Cyanobacteria – yellow spot
Drechslera poae – leaf spot and melting out
Gaeumannomyces graminis – root decline
Puccinia coronata – crown rust
Puccinia graminis – stem rust

Plant Diagnostic Laboratory

Rutgers Plant Diagnostic Laboratory
Fees (per sample)

Standard Sample (most samples except fine turf)	
$50.00	in-state
$100.00	out-of-state
Fine and Sports Turf	
In-State:	
$100.00	disease/insect diagnosis
$150.00	disease/insect diagnosis plus nematode assay*
Out-of-State:	
$120.00	disease/insect diagnosis
$200.00	disease/insect diagnosis plus nematode assay*
	*Combination price applies only to samples from the same green, field, etc.
Nematode Assay	
$50.00	in-state (except fine turf)*
$75.00	in-state fine turf*
$100.00	out-of-state*
	*Call ahead to discuss volume discounts for multiple samples.
Fungus and Mold Identification	
$50.00	in-state microscope identification
$100.00	out-of-state microscope identification
Insect Identification	
$50.00	in-state
$100.00	out-of-state
Plant and Weed Identification	
$50.00	in-state
$100.00	out-of-state
Special Tests and Services*	
1. Endophyte screening 2. Fungicide resistance testing 3. Pesticide residue and contaminant testing 4. Site consultation 5. Speaker request 6. Virus testing *Please call ahead to discuss available tests, fees, and specifics.	

Other services negotiable. Contracts and volume discounts available.
Fees are subject to change without notice.



Plant Diagnostic Laboratory

Other income sources:

Rutgers Cooperative Extension:

- ✓ Lecture fees
- ✓ Office of Continuing Professional Education
- ✓ Regional Extension Outreach
- ✓ Master Gardener programs

Green Industry:

- ✓ Lecture fees
- ✓ Professional associations
- ✓ Private suppliers

Grants and contracts:

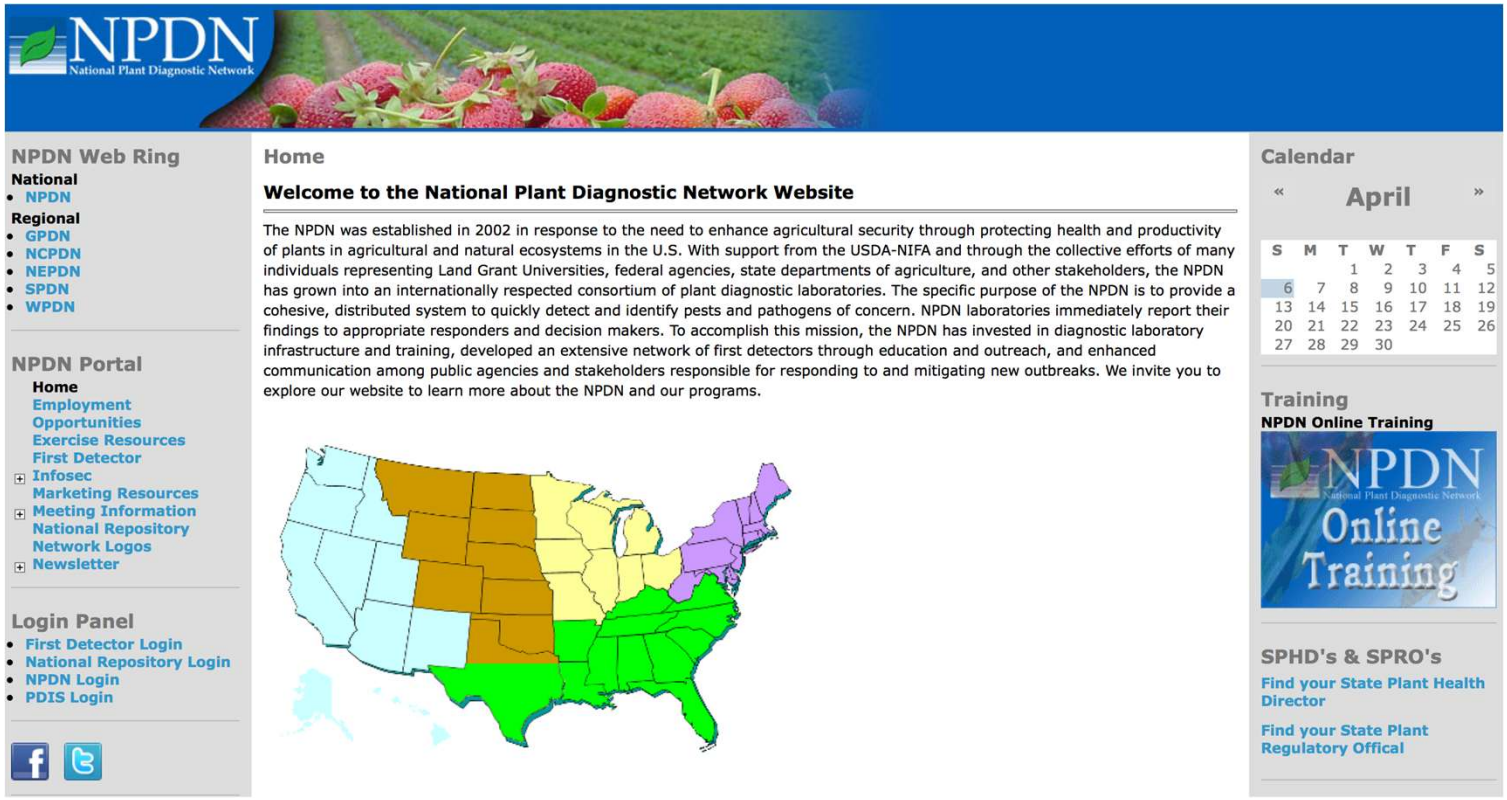
- ✓ NJ Agricultural Experiment Station
- ✓ NJ Department of Agriculture
- ✓ Cooperative Agricultural Pest Survey
- ✓ National Plant Diagnostic Network
- ✓ USDA/APHIS-PPQ/EPA
- ✓ Regional IPM Center

Field visits and on-site consulting



American plum borer damage

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Adapted from http://www.npdn.org

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Federal APHIS-PPQ – Land Grant University – State Department of Ag Cooperators

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Photos: Richard Buckley, NJAES





Box Tree Moth: *Cydalima perspectalis*
the larva produce extensive webbing
street planting - Rotterdam, Netherlands 2018

Plant Diagnostic Laboratory



CAPS

- Home
- The CAPS Program
  - CAPS Recognition
    - 2014
    - 2010
- Survey
  - Guidelines
  - Pest Lists
  - Approved Methods
  - Manuals
  - Supply Procurement
  - Data Entry
- Taxonomic Services
- Outreach
- CAPS'opedia
- Pest Tracker
- NPAG Notices
- Partner Links

PPQ

- Farm Bill
  - 2015 Farm Bill
- New Pest Response Guidelines

The CAPS Program

The CAPS program conducts science-based national and state surveys targeted at specific exotic plant pests, diseases, and weeds identified as threats to U.S. agriculture and/or the environment. It provides a second line of defense in detection of exotic pests.

The National CAPS Committee (NCC) representatives from each of the CAPS constituencies, State Survey Coordinators (SSCs), Pest Survey Specialists (PSSs), State Plant Health Directors (SPHDs) and State Plant Regulatory Officials (SPROs) advise the national and regional program managers on program direction.

CAPS Directories provide contact information for the core members in the CAPS community.

Outstanding contributions to CAPS are recognized by peer nomination.

An Interim Report of the CAPS Working Group on Volunteers in Survey

- The Use of Volunteers in Exotic Pest Surveys White Paper
- CAPS Volunteer Survey Guidelines – Draft Survey for ALB as an Example

CAPS Partner Login

Username or e-mail: *

Password: *

Log in

Create new account
Request new password

PURDUE UNIVERSITY | USDA | PEST DETECTION | NPB national plant board | CERIS

Plant Diagnostic Laboratory

Summer Fruit Tortrix



Cooperative Agricultural Pest Survey



Plant Diagnostic Laboratory

Fun Lab Factoids:

7/1991 to- 12/31/24

66,782 samples

4,311* talks, lectures, classes taught, and public presentations

$5,812,136* revenue

*as of July 1, 2024

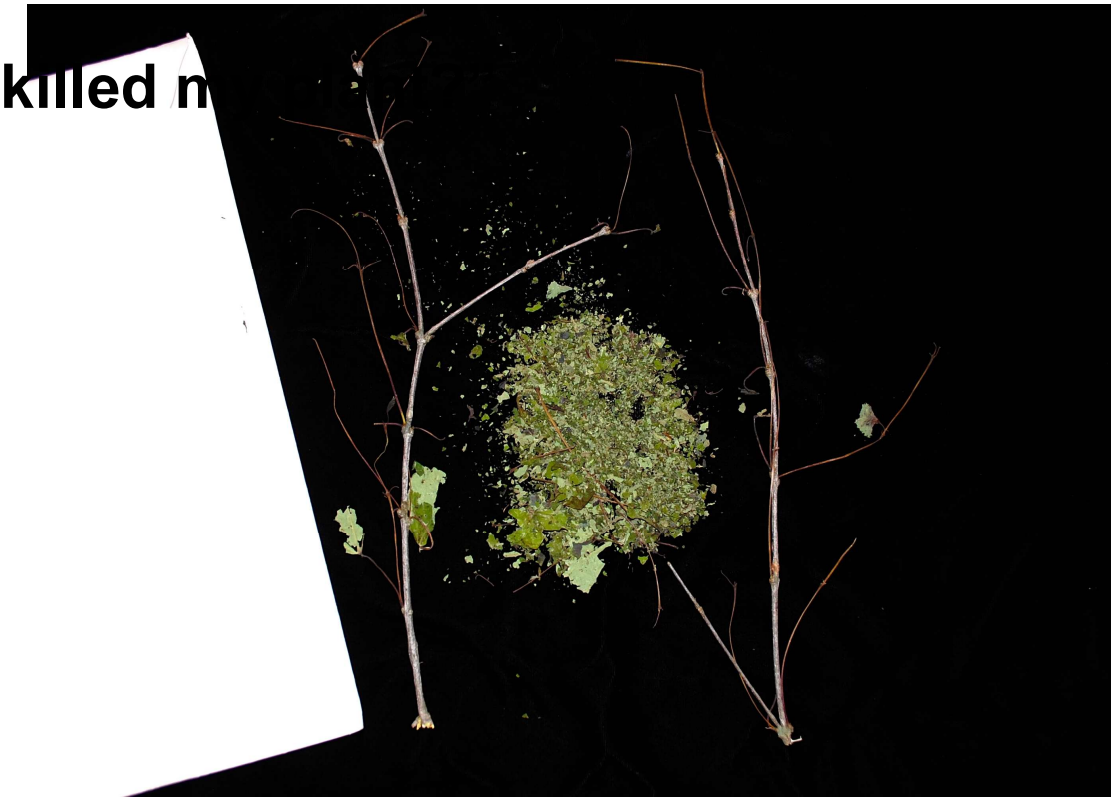
Photo: Sabrina Tirpak, NJAES



Dollar Spot

Plant Diagnostic Laboratory

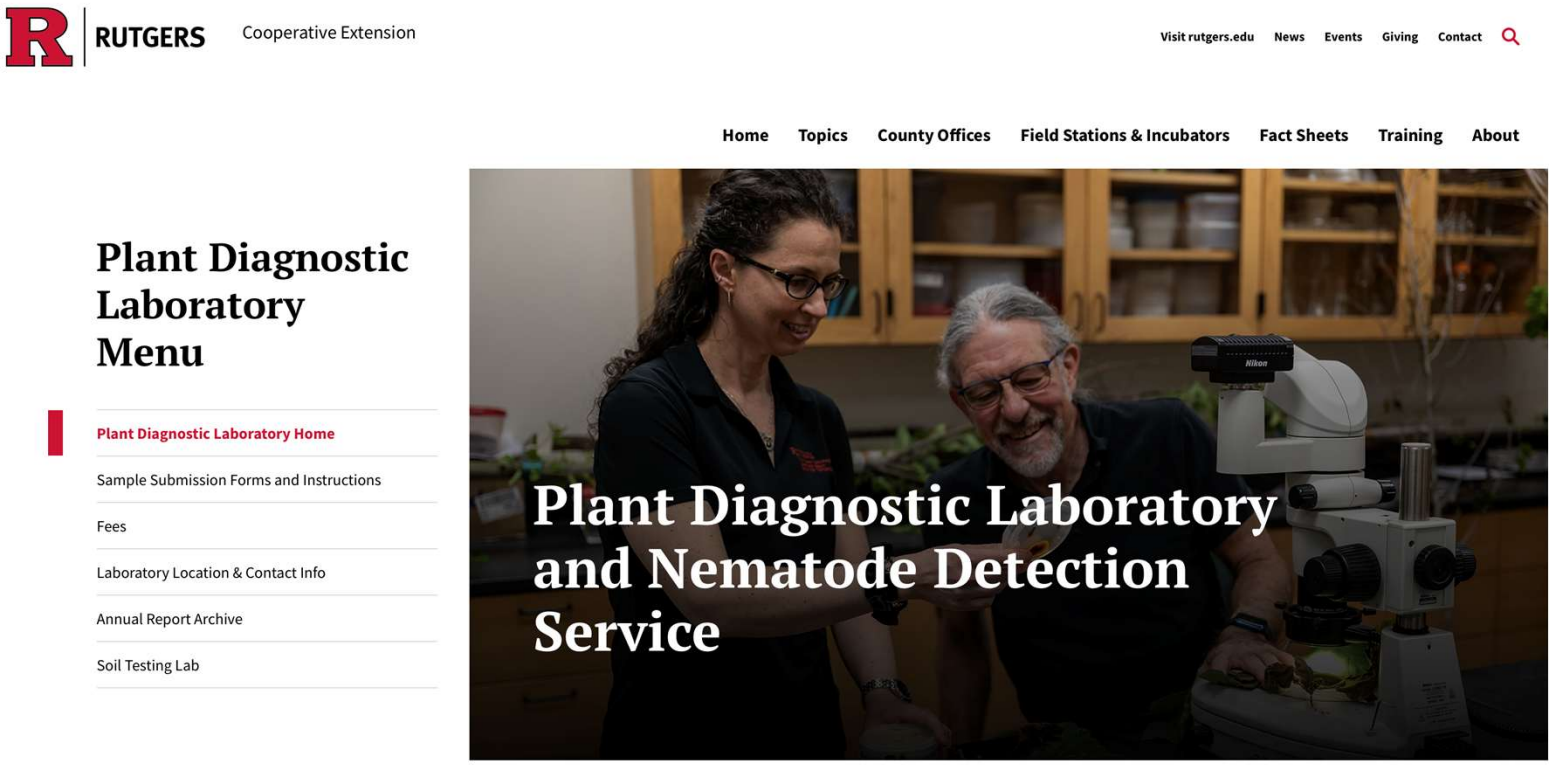
Photo: Sabrina Tirpak, NJAES



“What killed m

“Or…How to Send a Sample.

Plant Diagnostic Laboratory



https://njaes.rutgers.edu/plant-diagnostic-lab/

Plant Diagnostic Laboratory

Plant Diagnostic Laboratory Submission Guidelines

Get the proper submission form

Forms can be downloaded:
https://njaes.rutgers.edu/plant-diagnostic-lab/

Sampling and submission instructions are on the back of the forms and can also be found on our website

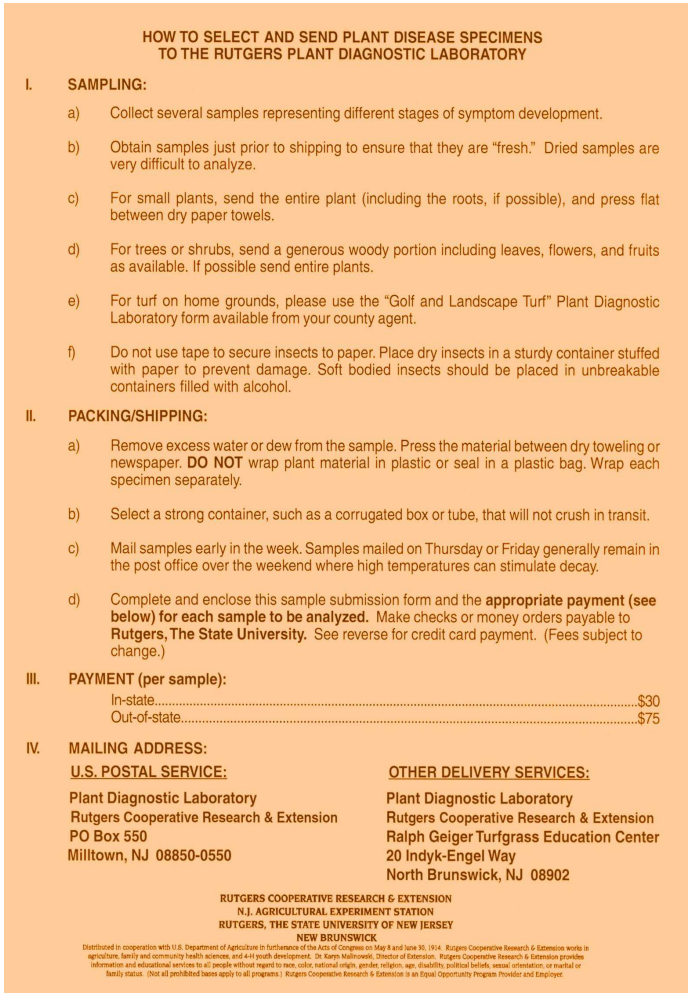
Samples can be mailed or delivered directly to the lab by private delivery services

Walk-ins are welcome

Directions and maps are also on the website

Phone: 732-932-9140

Email: rutgerspdl@njaes.rutgers.edu



HOW TO SELECT AND SEND PLANT DISEASE SPECIMENS
TO THE RUTGERS PLANT DIAGNOSTIC LABORATORY

I. SAMPLING:

a) Collect several samples representing different stages of symptom development.

b) Obtain samples just prior to shipping to ensure that they are "fresh." Dried samples are very difficult to analyze.

c) For small plants, send the entire plant (including the roots, if possible), and press flat between dry paper towels.

d) For trees or shrubs, send a generous woody portion including leaves, flowers, and fruits as available. If possible send entire plants.

e) For turf on home grounds, please use the "Golf and Landscape Turf" Plant Diagnostic Laboratory form available from your county agent.

f) Do not use tape to secure insects to paper. Place dry insects in a sturdy container stuffed with paper to prevent damage. Soft bodied insects should be placed in unbreakable containers filled with alcohol.

II. PACKING/SHIPPING:

a) Remove excess water or dew from the sample. Press the material between dry toweling or newspaper. **DO NOT** wrap plant material in plastic or seal in a plastic bag. Wrap each specimen separately.

b) Select a strong container, such as a corrugated box or tube, that will not crush in transit.

c) Mail samples early in the week. Samples mailed on Thursday or Friday generally remain in the post office over the weekend where high temperatures can stimulate decay.

d) Complete and enclose this sample submission form and the **appropriate payment (see below) for each sample to be analyzed.** Make checks or money orders payable to **Rutgers, The State University.** See reverse for credit card payment. (Fees subject to change.)

III. PAYMENT (per sample):

In-state.....$30
Out-of-state.....$75

IV. MAILING ADDRESS:

U.S. POSTAL SERVICE:

Plant Diagnostic Laboratory
Rutgers Cooperative Research & Extension
PO Box 550
Milltown, NJ 08850-0550

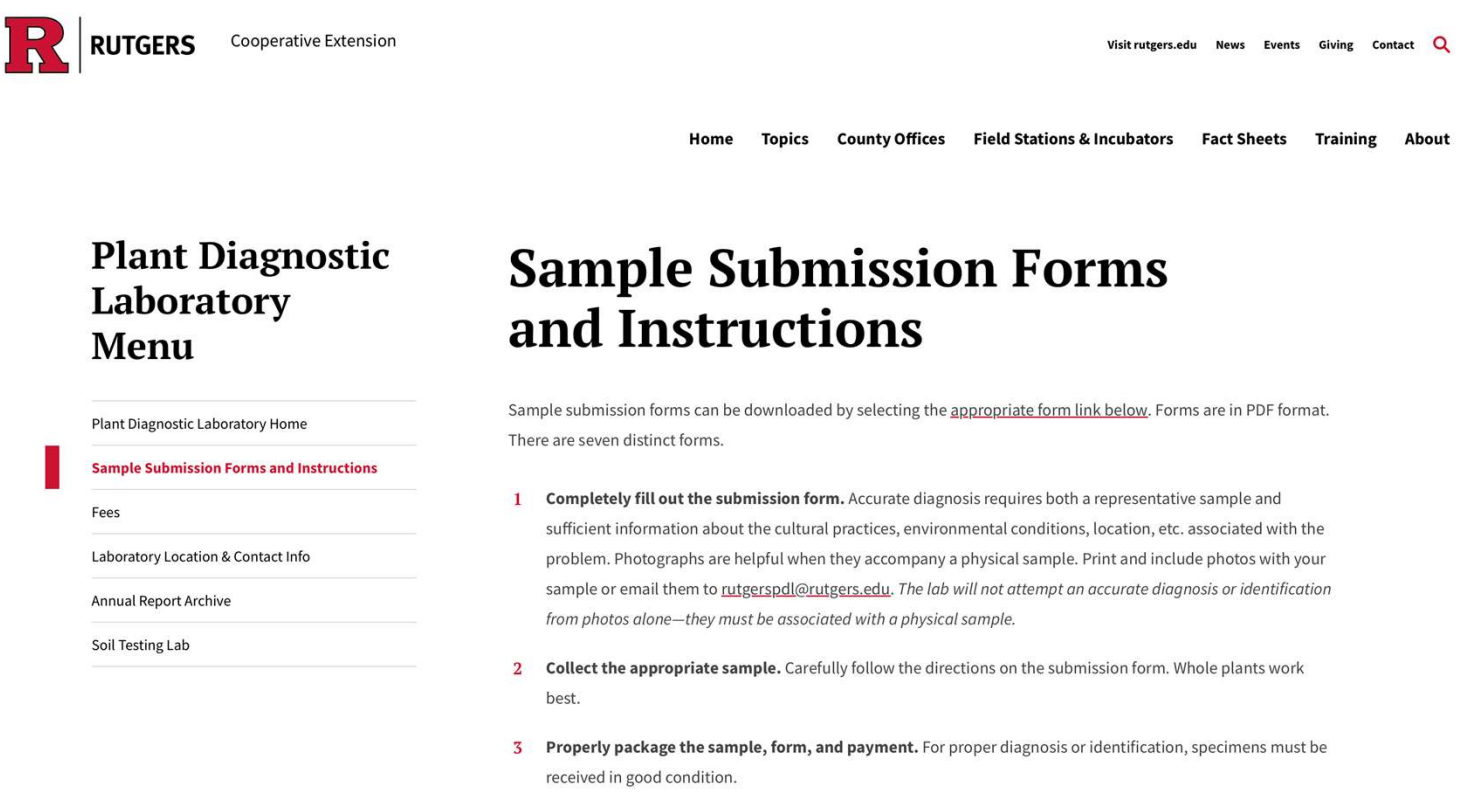
OTHER DELIVERY SERVICES:

Plant Diagnostic Laboratory
Rutgers Cooperative Research & Extension
Ralph Geiger Turfgrass Education Center
20 Indyk-Engel Way
North Brunswick, NJ 08902

RUTGERS COOPERATIVE RESEARCH & EXTENSION
N.J. AGRICULTURAL EXPERIMENT STATION
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
NEW BRUNSWICK

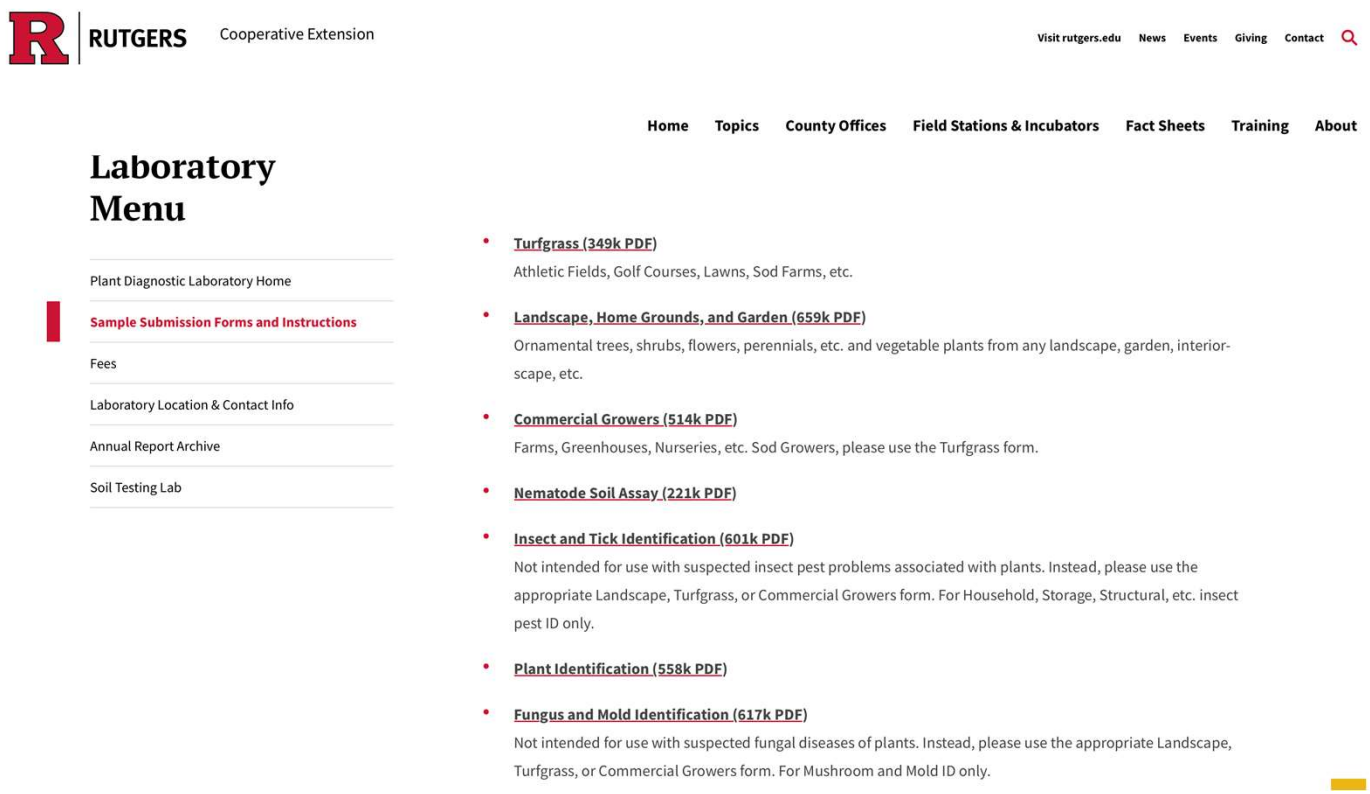
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https://njaes.rutgers.edu/plant-diagnostic-lab/

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https://njaes.rutgers.edu/plant-diagnostic-lab/

Plant Diagnostic Laboratory

Quality Samples = Accurate Diagnosis

Samples must:

- ✓ **Represent symptoms on the plant**
- ✓ **Represent severity of the disease in the field**
- ✓ **Contain the right plant material**
- ✓ **Be fresh and in good condition**

Plant Diagnostic Laboratory

Samples must accurately represent symptoms



Photos: Debbie Miller, Davey Tree



on individual plants and plant parts

across plant community or field site

Plant Diagnostic Laboratory



Send enough plant material to accurately represent the problem

Plant Diagnostic Laboratory



Photos: Richard Buckley, NJAES



Plant Diagnostic Laboratory

Dead Plants Tell no Tales



- ✓ Avoid dead plants
- ✓ Choose representative symptoms from mild to- severe

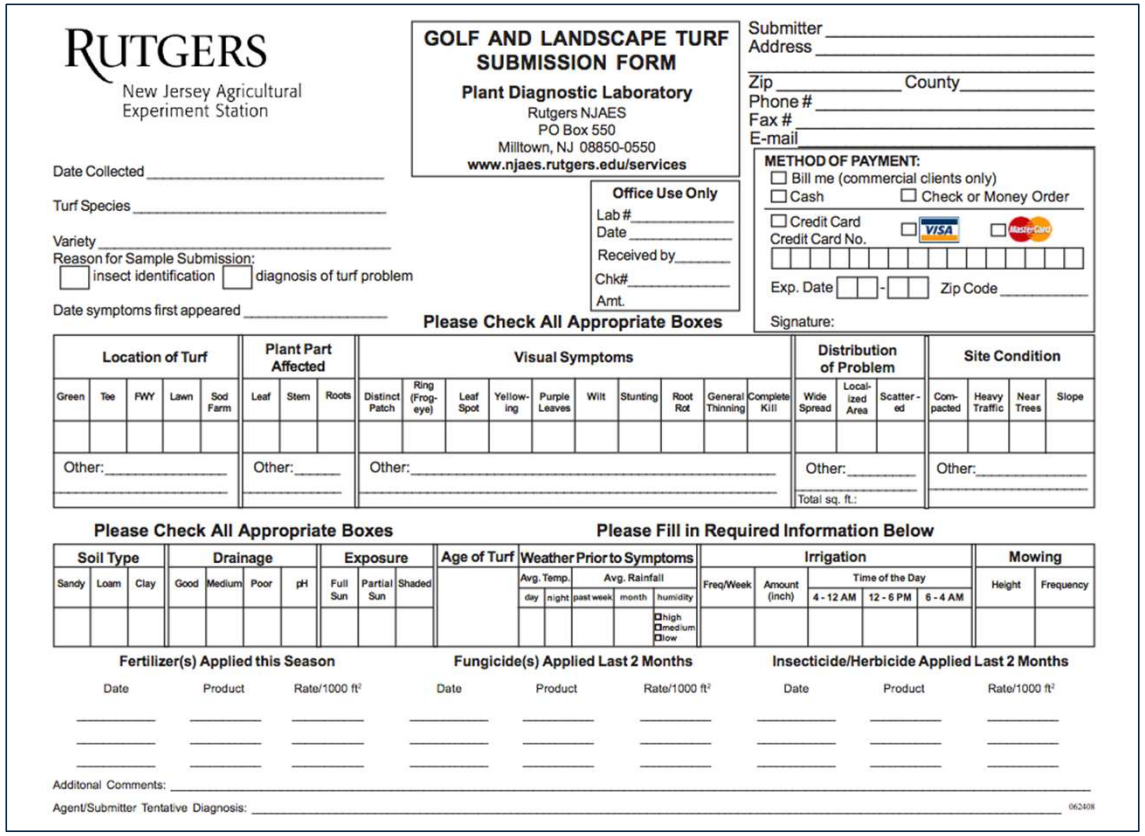
Plant Diagnostic Laboratory

Quality Samples = Accurate Diagnosis

Samples must:

- ✓ **Be accompanied by appropriate and complete information concerning the problem**
- ✓ **The more we know about the problem, the better we can assist**

Plant Diagnostic Laboratory



RUTGERS
New Jersey Agricultural Experiment Station

GOLF AND LANDSCAPE TURF SUBMISSION FORM

Plant Diagnostic Laboratory
Rutgers NJAES
PO Box 550
Milltown, NJ 08850-0550
www.njaes.rutgers.edu/services

Submitter _____
Address _____
_____
Zip _____ County _____
Phone # _____
Fax # _____
E-mail _____

Date Collected _____

Turf Species _____

Variety _____

Reason for Sample Submission:
☐ insect identification ☐ diagnosis of turf problem

Date symptoms first appeared _____

Office Use Only
Lab # _____
Date _____
Received by _____
Chk# _____
Amt.

METHOD OF PAYMENT:
☐ Bill me (commercial clients only)
☐ Cash ☐ Check or Money Order
☐ Credit Card ☐ VISA ☐ MasterCard
Credit Card No.
Exp. Date ☐☐-☐☐ Zip Code _____
Signature:

Please Check All Appropriate Boxes

Location of Turf					Plant Part Affected			Visual Symptoms										Distribution of Problem			Site Condition			
Green	Tee	FWY	Lawn	Sod Farm	Leaf	Stem	Roots	Distinct Patch	Ring (Frog-eye)	Leaf Spot	Yellow-ing	Purple Leaves	Wilt	Stunting	Root Rot	General Thinning	Complete Kill	Wide Spread	Local-ized Area	Scatter-ed	Com-pacted	Heavy Traffic	Near Trees	Slope
Other:					Other:			Other:										Other:			Other:			
																		Total sq. ft.:						

Please Check All Appropriate Boxes **Please Fill in Required Information Below**

Soil Type			Drainage				Exposure			Age of Turf	Weather Prior to Symptoms					Irrigation					Mowing	
Sandy	Loam	Clay	Good	Medium	Poor	pH	Full Sun	Partial Sun	Shaded		Avg. Temp.		Avg. Rainfall			Freq/Week	Amount (inch)	Time of the Day			Height	Frequency
											day	night	past week	month	humidity			4 - 12 AM	12 - 6 PM	6 - 4 AM		
															☐high ☐medium ☐low							

Fertilizer(s) Applied this Season

Date	Product	Rate/1000 ft²

Fungicide(s) Applied Last 2 Months

Date	Product	Rate/1000 ft²

Insecticide/Herbicide Applied Last 2 Months

Date	Product	Rate/1000 ft²

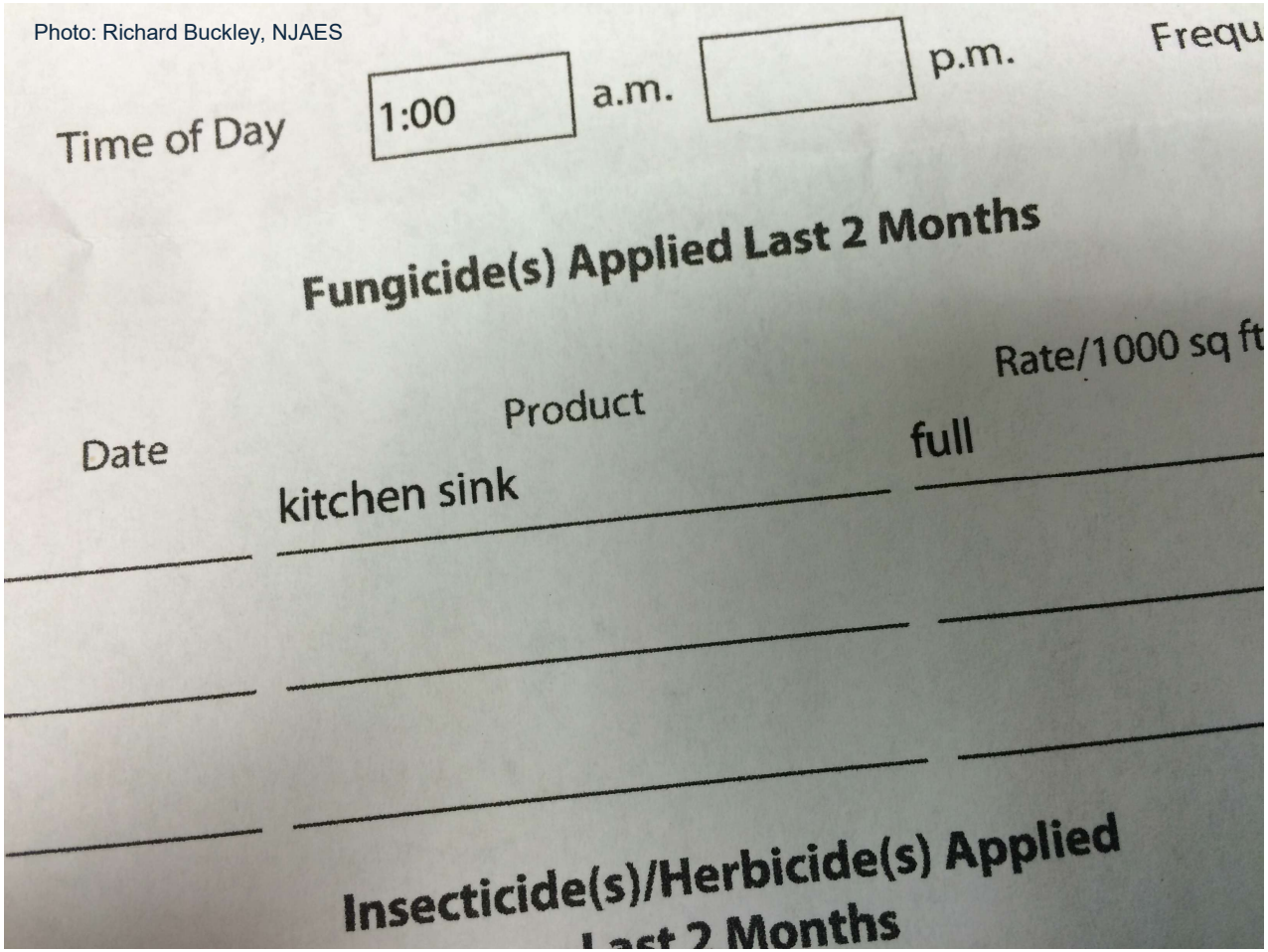
Additonal Comments: _____

Agent/Submitter Tentative Diagnosis: _____

062408

www.njaes.rutgers.edu/services

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Samples must accurately represent the symptoms!

- ✓ On individual plants and plant parts, but also across the field site
- ✓ Including digital images allows us to enter the field with you
- ✓ They show the site condition and other predisposing factors
- ✓ They show patterns and progression
- ✓ Helps determine incidence vs. severity

Plant Diagnostic Laboratory

Photo: Sabrina Tirpak, Rutgers NJAES



Pictures are worth a thousand words!
Email a photo with your sample.

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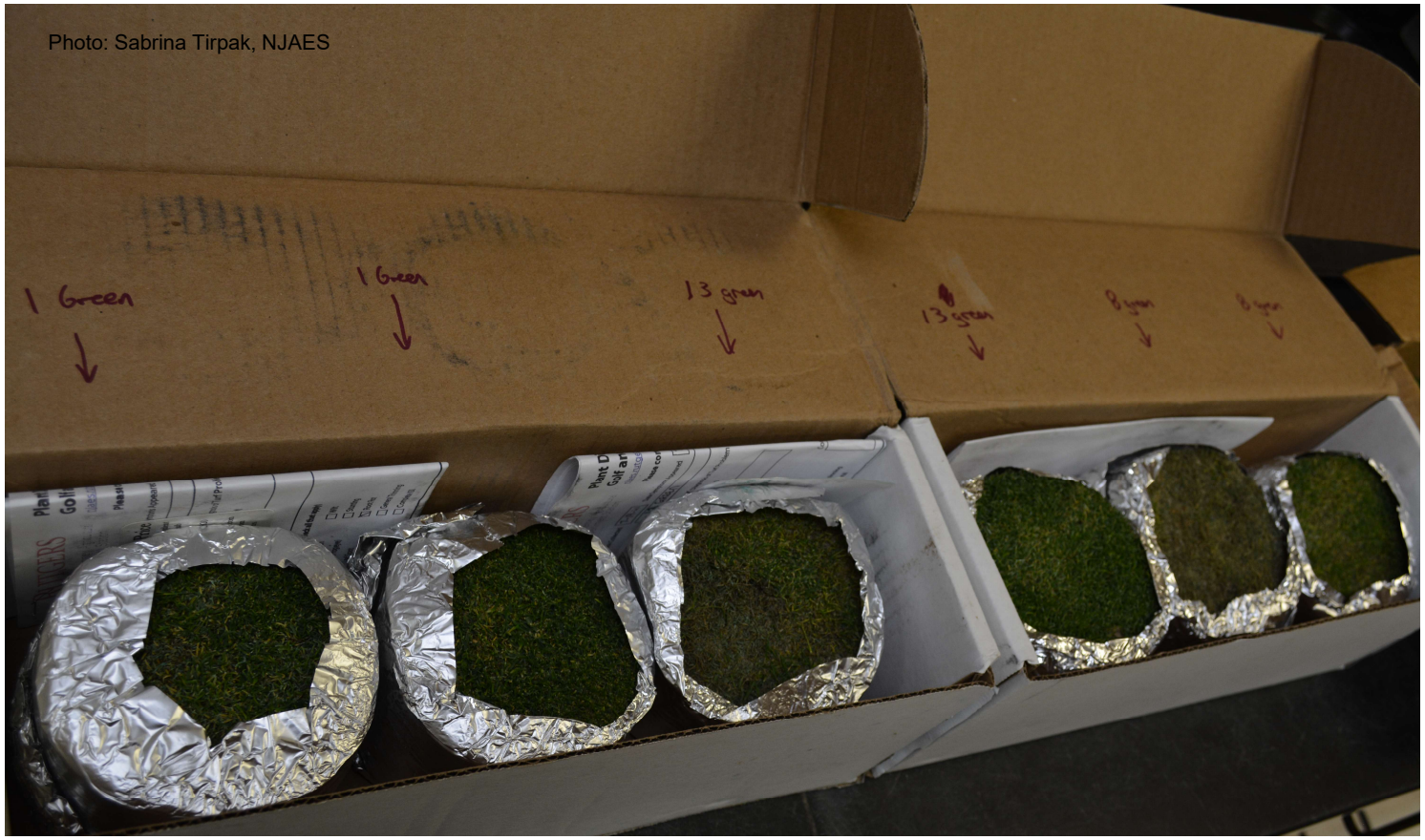
Photo: Richard Buckley, NJAES

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Samples Submission Tips

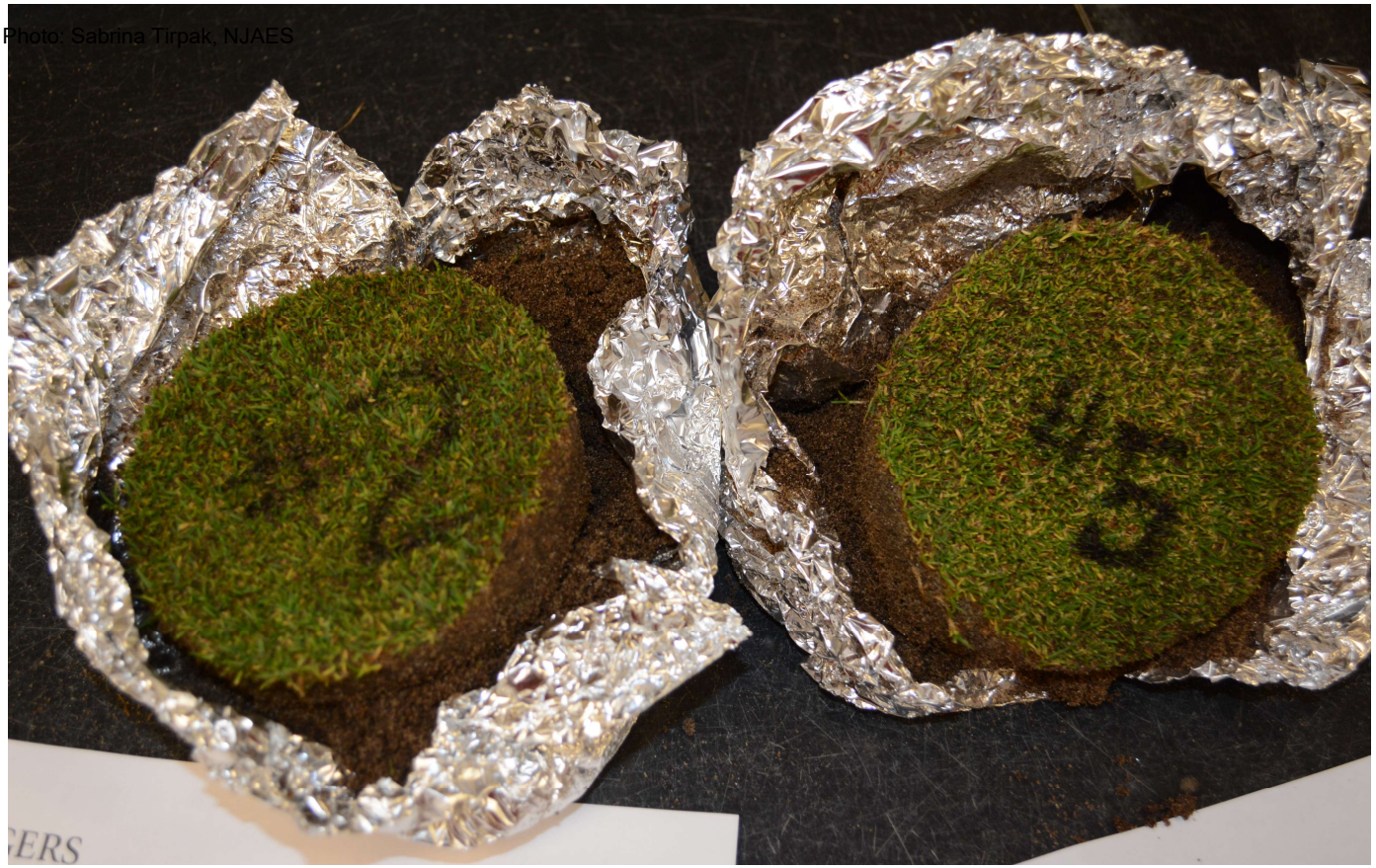
- ✓ Collect samples before applying pesticides
- ✓ Use a sturdy box and secure the sample within the package
- ✓ Avoid packaging samples in plastic unless they are to be shipped overnight
- ✓ Keep the samples and all the paperwork separate in order for the paperwork to stay dry

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Be sure they are properly packaged and secured!

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Be sure they are properly labeled!

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Photo: Sabrina Tirpak, NJAES



Good Intentions!

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Photo: Richard Buckley, NJAES

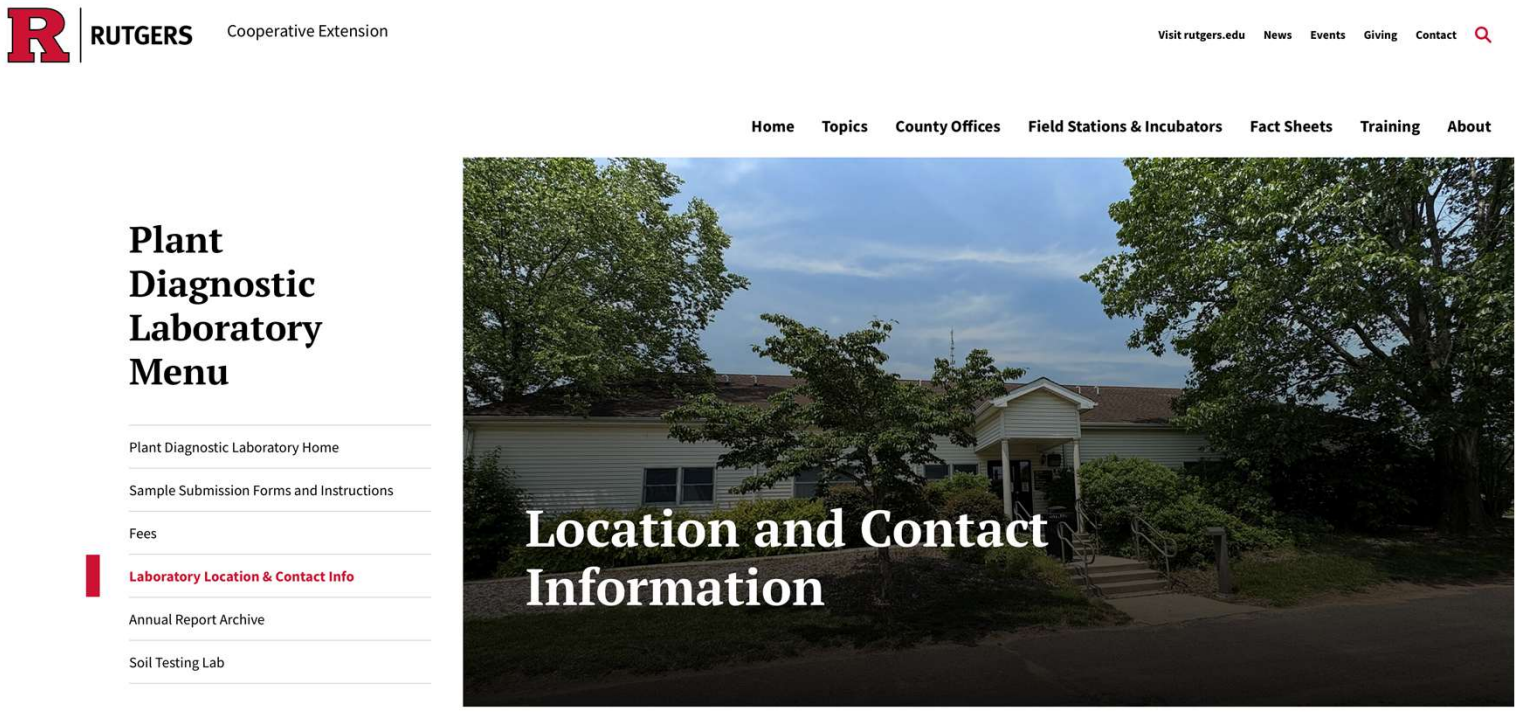
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Samples Submission Tips

- ✓ Send samples early in the week
- ✓ Samples mailed on Friday will sit in the post office or in delivery trucks.
- ✓ Use our street address:

  Rutgers Plant Diagnostic Laboratory
  Ralph Geiger Turfgrass Education Center
  20 Indyk-Engel Way
  New Brunswick, NJ 08901
- ✓ Rapid sample delivery is critical
- ✓ UPS and Fedex deliver directly to the laboratory

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https://njaes.rutgers.edu/plant-diagnostic-lab/

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Google Directions

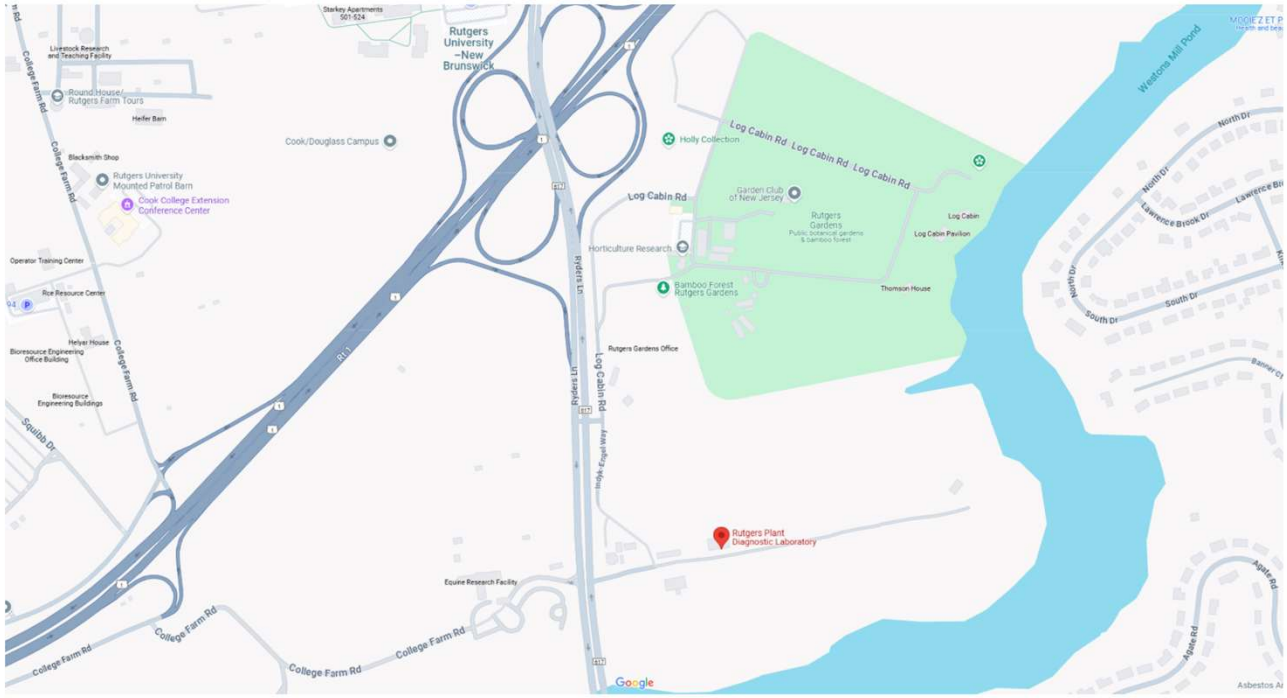
- Get GPS Directions from Google Maps

Turn-by-Turn Directions

- Take the N.J. Turnpike to Exit 9.
- Take Rt. 18 North to Rt. 1 South.
- Take the second Ryders Lane exit toward Milltown.
- Move to your left immediately upon entering onto Ryders Lane.
- Turn left at first break in the island onto Log Cabin Road and make an immediate right onto Indyk-Engel Way to parking area.
- The Education Center is up the hill on the left.

https://njaes.rutgers.edu/plant-diagnostic-lab/

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Google Map Directions

https://njaes.rutgers.edu/plant-diagnostic-lab/

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Photo: Richard Buckley, NJAES



Photo: Sabrina Tirpak, NJAES

All samples subject to standard operating protocols

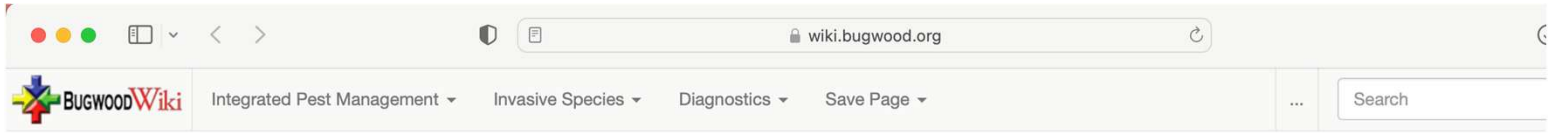
Photo: Ann Gould, NJAES

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Laboratory Diagnostic Protocol

- Visual observation
- Macroscopic observation
- Pathogen stimulation
- Microscopic observation
- Staining
- Pathogen isolation
- Special tests: ELISA or PCR

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Diagnostician's Cookbook

Welcome to the Diagnostician's Cookbook. This site is meant to help share information on techniques used in the diagnosis of plant diseases and disorders.

If you have expertise that you wish to contribute, please contact Joe LaForest and he will make sure you have access to author articles of add to discussions. When authoring, please pay attention to the Standard format for diagnosticians recipes and the Standard format for diagnostic tests so that we can keep things as consistent as possible. Articles are placed in the proper places using Categories. The NPDN Diagnostic Subcommittee will begin reviewing the recipes and approved procedures will be listed.

Contents [hide]

1 Media recipes
2 Diagnostic tests
3 Other related topics
  3.1 Fungal culture storage
  3.2 Bacterial culture storage
  3.3 Oomycete culture storage
4 NPDN Diagnostic Tips
5 Diagnostic Lab Manuals
6 Acknowledgments

Media recipes

- ATP extraction
- Clarified V8 juice
- Dilute water agar for soil dilution
- Luria broth
- Martins rose agar
- MMC medium
- WArad

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Diagnostic Tools

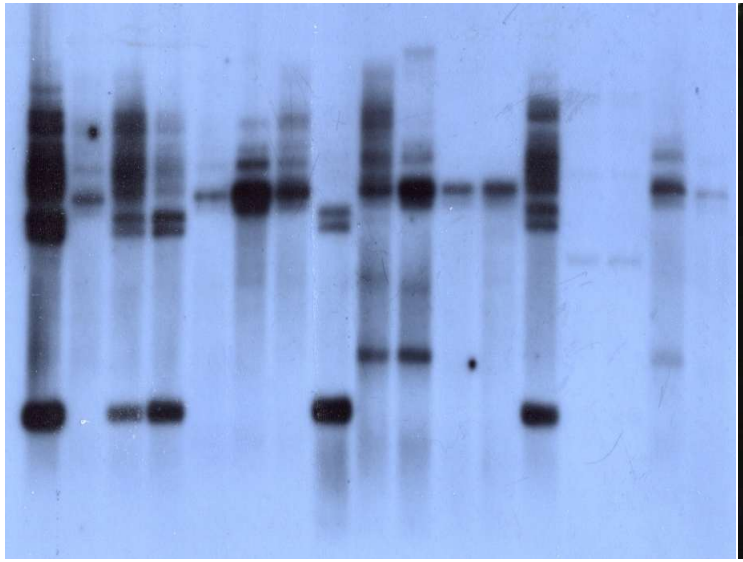


Photo: Dr. Ann Gould, NJAES

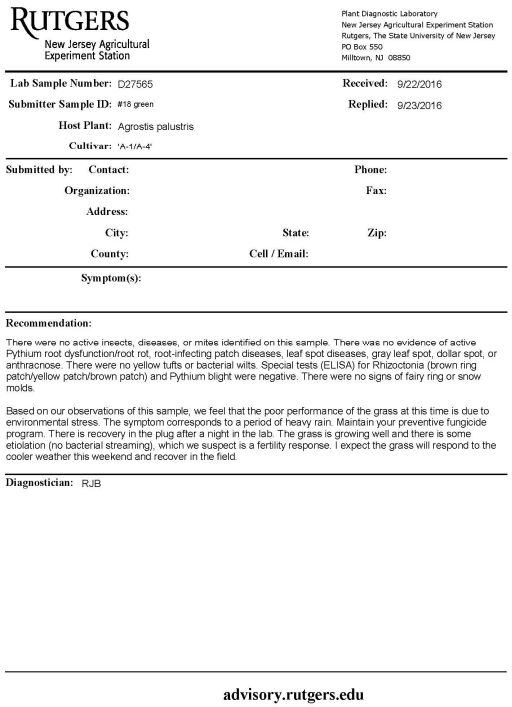


Photo: Sabrina Tirpak, NJAES

PCR **ELISA**

Plant Diagnostic Laboratory

Photos: Sabrina Tirpak, NJAES



RUTGERS
New Jersey Agricultural Experiment Station

Plant Diagnostic Laboratory
New Jersey Agricultural Experiment Station
Rutgers, The State University of New Jersey
PO Box 550
Milltown, NJ 08850

Lab Sample Number: D27565 **Received:** 9/22/2016
Submitter Sample ID: #18 green **Replied:** 9/23/2016
Host Plant: Agrostis palustris
Cultivar: 'A-1/A-4'

Submitted by: **Contact:** **Phone:**
Organization: **Fax:**
Address:
City: **State:** **Zip:**
County: **Cell / Email:**

Symptom(s):

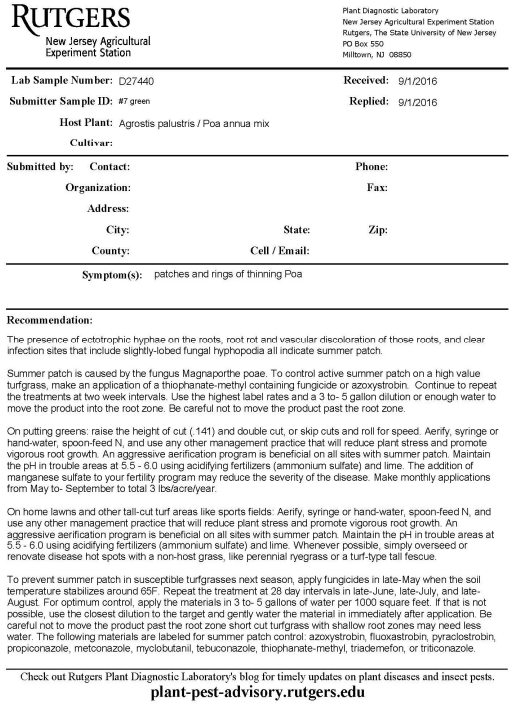
Recommendation:

There were no active insects, diseases, or mites identified on this sample. There was no evidence of active Pythium root dysfunction/root rot, root-infecting patch diseases, leaf spot diseases, gray leaf spot, dollar spot, or anthracnose. There were no yellow tufts or bacterial wilts. Special tests (ELISA) for Rhizoctonia (brown ring patch/yellow patch/brown patch) and Pythium blight were negative. There were no signs of fairy ring or snow molds.

Based on our observations of this sample, we feel that the poor performance of the grass at this time is due to environmental stress. The symptom corresponds to a period of heavy rain. Maintain your preventive fungicide program. There is recovery in the plug after a night in the lab. The grass is growing well and there is some etiolation (no bacterial streaming), which we suspect is a fertility response. I expect the grass will respond to the cooler weather this weekend and recover in the field.

Diagnostician: RJB

advisory.rutgers.edu



RUTGERS
New Jersey Agricultural Experiment Station

Plant Diagnostic Laboratory
New Jersey Agricultural Experiment Station
Rutgers, The State University of New Jersey
PO Box 550
Milltown, NJ 08850

Lab Sample Number: D27440 **Received:** 9/1/2016
Submitter Sample ID: #7 green **Replied:** 9/1/2016
Host Plant: Agrostis palustris / Poa annua mix
Cultivar:

Submitted by: **Contact:** **Phone:**
Organization: **Fax:**
Address:
City: **State:** **Zip:**
County: **Cell / Email:**

Symptom(s): patches and rings of thinning Poa

Recommendation:

The presence of ectotrophic hyphae on the roots, root rot and vascular discoloration of those roots, and clear infection sites that include slightly-lobed fungal hyphopodia all indicate summer patch.

Summer patch is caused by the fungus Magnaporthe poae. To control active summer patch on a high value turfgrass, make an application of a thiophanate-methyl containing fungicide or azoxystrobin. Continue to repeat the treatments at two week intervals. Use the highest label rates and a 3 to- 5 gallon dilution or enough water to move the product into the root zone. Be careful not to move the product past the root zone.

On putting greens: raise the height of cut (.141) and double cut, or skip cuts and roll for speed. Aerify, syringe or hand-water, spoon-feed N, and use any other management practice that will reduce plant stress and promote vigorous root growth. An aggressive aerification program is beneficial on all sites with summer patch. Maintain the pH in trouble areas at 5.5 - 6.0 using acidifying fertilizers (ammonium sulfate) and lime. The addition of manganese sulfate to your fertility program may reduce the severity of the disease. Make monthly applications from May to- September to total 3 lbs/acre/year.

On home lawns and other tall-cut turf areas like sports fields: Aerify, syringe or hand-water, spoon-feed N, and use any other management practice that will reduce plant stress and promote vigorous root growth. An aggressive aerification program is beneficial on all sites with summer patch. Maintain the pH in trouble areas at 5.5 - 6.0 using acidifying fertilizers (ammonium sulfate) and lime. Whenever possible, simply overseed or renovate disease hot spots with a non-host grass, like perennial ryegrass or a turf-type tall fescue.

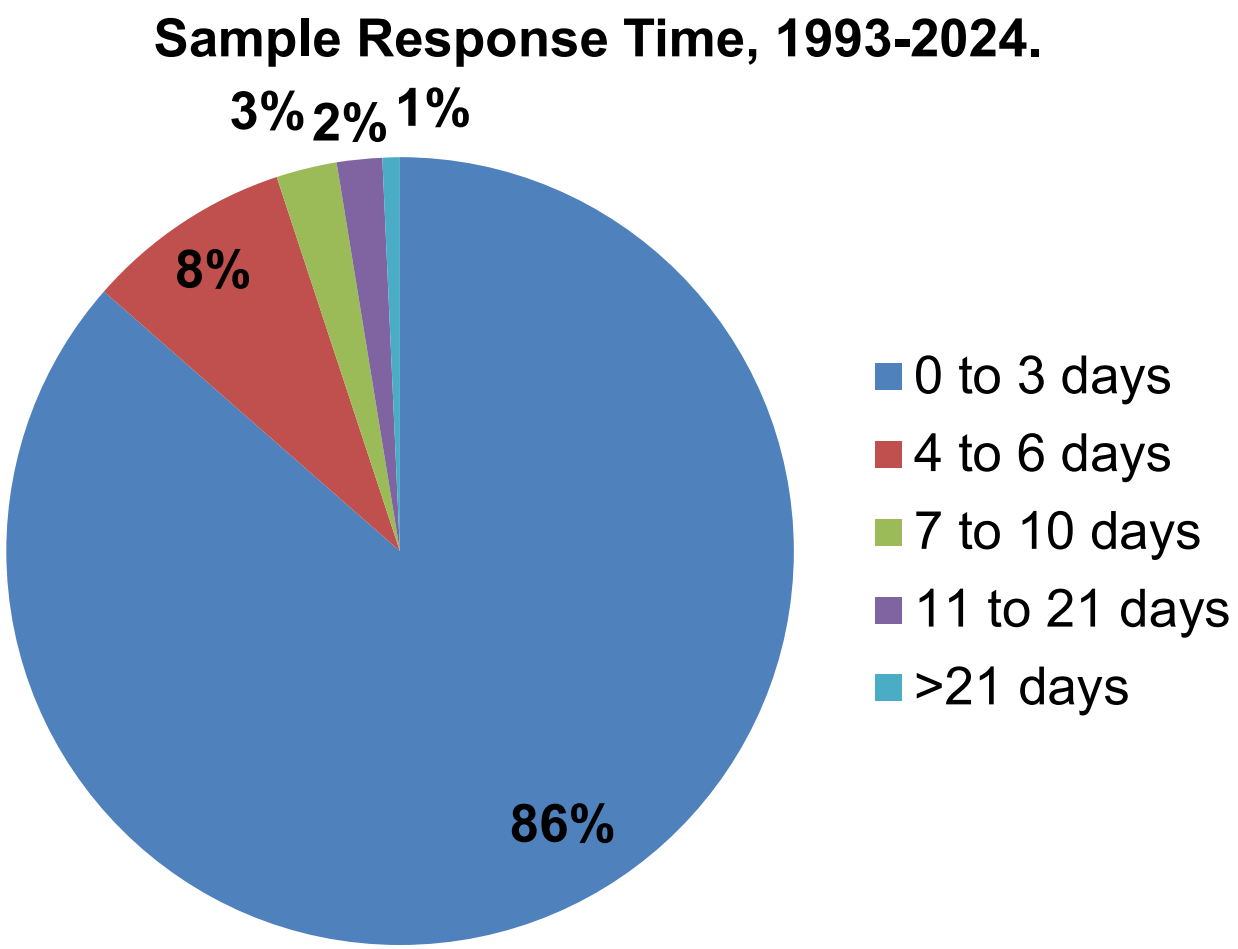
To prevent summer patch in susceptible turfgrasses next season, apply fungicides in late-May when the soil temperature stabilizes around 65F. Repeat the treatment at 28 day intervals in late-June, late-July, and late-August. For optimum control, apply the materials in 3 to- 5 gallons of water per 1000 square feet. If that is not possible, use the closest dilution to the target and gently water the material in immediately after application. Be careful not to move the product past the root zone short cut turfgrass with shallow root zones may need less water. The following materials are labeled for summer patch control: azoxystrobin, fluoxastrobin, pyraclostrobin, propiconazole, metconazole, myclobutanil, tebuconazole, thiophanate-methyl, triademefon, or triticonazole.

Check out Rutgers Plant Diagnostic Laboratory's blog for timely updates on plant diseases and insect pests.

plant-pest-advisory.rutgers.edu

Reports and invoices are generated for each sample and delivered via email

Plant Diagnostic Laboratory



Richard J Buckley
Plant Diagnostic Laboratory
www.njaes.rutgers.edu/plantdiagnosticlab
richard.buckley@rutgers.edu



www.njaes.rutgers.edu/services