



Extension Plant Pathology Update

April 2014

Volume 2, Number 1

Edited by Jean Williams-Woodward

Plant Disease Clinic Report for January – March 2014

By Ansuya Jogi and Jean Williams-Woodward

The weather over the past few months has oscillated from below freezing to above 80°F, which has led to “great” (from a plant pathologist’s perspective) environmental conditions for disease development on our winter and spring crops. I was interviewed for an article a few weeks ago where the writer wanted an upside to the freezing temperatures and asked if I thought disease incidence would be less this year because of the cold winter temperatures. I hated to disappoint him, but I explained that freezing temperatures would have little to no effect on the pathogens and that disease incidence may actually be higher since freeze-damaged tissues are often more susceptible to infection. In fact, we’ve seen quite a bit of winter injury on a large number of landscape plants (see page #10) and other crops throughout the state. We’ve also seen a large range of plant diseases. See Table 1 for the commercial and homeowner samples diagnosed in the UGA plant disease clinics in Athens and Tifton from January – March 2014.

Some of the “cooler temperature” diseases that we’ve seen have included downy mildews, *Exobasidium* leaf gall and leaf spot diseases, and *Sclerotinia* diseases. *Sclerotinia sp.*, causing lettuce drop, was identified in the Tifton clinic and, although we didn’t receive a sample of it this year, *Sclerotinia* stem rot is often seen in alfalfa and clover forages at this time of the year. Bacterial diseases are often thought of as “warmer temperature” diseases; however, quite a few bacterial diseases were identified over the past few months including bacterial leaf spots on cabbage, oats, onion, turnip, watermelon and yellow squash. Root diseases are ever-present and were identified on numerous crops. Several foliage/fruit diseases caused by *Phytophthora* spp. were also identified this winter including *Phytophthora capsici* on zucchini squash and late blight, caused by *Phytophthora infestans*, on greenhouse tomatoes (see page #8). Looking ahead, spring diseases such as powdery mildew, downy mildew, rusts and early season leaf spots are likely to be very common. Table 2 lists disease diagnoses for plant samples submitted a year ago in April 2013.

Table 1: Plant disease clinic sample diagnoses made in January – March 2014

Host Plant	Sample Diagnosis	
	Commercial Sample	Homeowner Sample
Arabidopsis	No Pathogen Found; Abiotic stress	
Azalea	Root Girdling, Abiotic disorder No Pathogen Found	
Bentgrass	No Pathogen Found	
Bermudagrass	No Pathogen Found	

Blueberry	Cane Blight; Canker [<i>Leptosphaeria (Coniothyrium) coniothyrium (fuckelli)</i>] <i>Botryosphaeria</i> sp./spp. <i>Rhizoctonia</i> sp./spp. Orange felt blight (<i>Cephaleuros virescens</i>) Algae, General <i>Colletotrichum</i> sp./spp. <i>Phyllosticta</i> sp./spp.	Cultural/Environmental Problem, Abiotic disorder
Boxwood	Volutella Blight; Canker (<i>Volutella buxi</i>) Environmental Stress; Abiotic disorder Black Twig Borer (<i>Xylosandrus compactus</i>)	Environmental Stress; Abiotic disorder
Cabbage	Downy Mildew (<i>Peronospora</i> sp./spp.) <i>Xanthomonas campestris</i>	
Camellia	Freeze; Frost; Cold Damage, Abiotic disorder Tea Scale (<i>Fiorinia theae</i>)	
Carrot	Fusarium Root; Crown Rot (<i>Fusarium</i> sp.) Abiotic disorder	
Cherry Laurel		Environmental Stress; Abiotic disorder
Cleyera	<i>Cercospora</i> Leaf Spot (<i>Cercospora</i> sp.)	
Collards	No Pathogen Found, Identification Analysis	
Cotoneaster	No Pathogen Found	
Cryptomeria	Environmental Stress; Abiotic disorder No pathogen found	
Eggplant	Unknown Bacterial Disease	
Gardenia		Root Problems, Abiotic disorder
Geranium	Pythium Root and Crown Rot (<i>Pythium</i> sp.)	
Holly	Tea Scale (<i>Fiorinia theae</i>) No Pathogen Found Environmental Stress; Abiotic disorder	Root Problems, Abiotic disorder
Honeysuckle	Sooty Mold (<i>Cladosporium</i> sp./spp.)	
Illicium (Anise)	<i>Colletotrichum</i> sp./spp.	
Juniper		Rust (<i>Gymnosporangium</i> sp./spp.)
Lettuce	Sclerotinia Rot (<i>Sclerotinia sclerotiorum</i>) No Pathogen Found	
Leyland Cypress		Cultural/Environmental Problem, Abiotic disorder
Loropetalum		Chemical Injury, Abiotic disorder
Magnolia		Insect Damage, Unidentified Insect
Muscadine Grape	Fusarium Root; Crown Rot (<i>Fusarium</i> sp.) Freeze; Frost; Cold Damage, Abiotic disorder Secondary Agents; Saprophytes; Unspecified.	
Mustard Family	<i>Pseudomonas</i> sp./spp.	
Oak	Not Pathogen; Secondary Agents	Cultural/Environmental Problem
Oats	Bacterial Mosaic (<i>Clavibacter michiganensis tessellarius</i>)	
Olive		Root Problems; Abiotic disorder

Onion	Bacterial Leaf Spot (<i>Pseudomonas</i> sp./spp.) <i>Botrytis</i> sp./spp.	
Osmanthus (Tea Olive)		Insect Damage, Unidentified Insect
Pecan		Environmental Stress; Abiotic disorder
Photinia		Chemical Injury, Abiotic disorder
Pittosporum		Environmental Stress; Abiotic disorder
Pomegranate	<i>Fusarium</i> sp./spp.	
Rhododendron	Yellow Leaf Spot (<i>Exobasidium</i> sp./spp.)	
Rye/Bermuda	<i>Drechslera</i> sp./spp. Root Decline of Warm Season Grasses (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	
St. Augustinegrass	Root Decline of Warm Season Grasses (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Take-all (<i>Gaeumannomyces</i> sp.) Rhizoctonia Blight (<i>Rhizoctonia solani</i>) Cultural/Environmental Problem
Strawberry	Phytophthora Stem Rot (<i>Phytophthora</i> sp.) <i>Phytophthora cactorum</i> <i>Rhizoctonia</i> sp./spp. <i>Botrytis</i> sp./spp. Mycosphaerella Leaf Spot (<i>Mycosphaerella</i> sp.) Spider Mites, Family Tetranychidae	
Sunflower	Pythium Root and/or Crown Rot (<i>Pythium</i> sp.)	
Sweet potato		Environmental Stress; Abiotic disorder
Tall Fescue	Pythium Root and/or Crown Rot (<i>Pythium</i> sp.) Cultural/Environmental Problem, Abiotic	
Tobacco	Collar Rot (<i>Sclerotinia sclerotiorum</i>) Rhizoctonia Damping Off (<i>Rhizoctonia</i> sp.) Black Root Rot (<i>Thielaviopsis basicola</i>) No Pathogen Found	
Tomato	Tomato Spotted Wilt Virus (TSWV) Chemical Injury, Abiotic disorder	Chemical Injury, Abiotic disorder Late Blight (<i>Phytophthora infestans</i>)
Turnip	Bacterial Leaf Spot (<i>Pseudomonas</i> sp./spp.)	
Verbena	Impatiens Necrotic Spot Virus (INSV)	
Watermelon	<i>Fusarium</i> Wilt (<i>Fusarium oxysporum</i>) <i>Pseudomonas</i> sp./spp. No Pathogen Found Abiotic disorder	
Wax Myrtle	No Pathogen Found Eriophyid Mites, Family Eriophyidae	
Wheat	Powdery Mildew (<i>Erysiphe</i> sp./spp.) Tan Spot; Yellow Leaf Spot [<i>Pyrenophora</i> (ana. <i>Drechslera</i>) <i>tritici-repentis</i>] No Pathogen Found	
Yellow Squash	<i>Pseudomonas</i> sp./spp.	
Zucchini Squash	Phytophthora Fruit Rot (<i>Phytophthora capsici</i>)	

Table 2: Disease diagnoses from plant disease samples submitted A YEAR AGO (April 2013)

Host Plant	Sample Diagnosis	
	Commercial Sample	Homeowner Sample
Bamboo		Rust (<i>Uromyces</i> sp./spp.)
Bentgrass	Anthraxnose (<i>Colletotrichum cereale</i>)	
Bermudagrass	<i>Rhizoctonia solani</i> <i>Bipolaris</i> sp./spp.	
Blueberry	Mummy Berry (<i>Monilinia vaccinii-corymbosi</i>) <i>Botryosphaeria</i> sp./spp. <i>Colletotrichum</i> sp./spp.	
Cabbage	<i>Xanthomonas campestris</i>	
Calibrachoa	Botrytis Blight (<i>Botrytis</i> sp./spp.) Rhizoctonia Root; Crown Rot (<i>Rhizoctonia</i> sp.) Pythium Root and/or Crown Rot (<i>Pythium</i> sp.) Black root rot (<i>Thielaviopsis basicola</i>)	
Camellia		Camellia Yellow Mottle Virus
Cantaloupe	Bacterial Leaf Spot (<i>Pseudomonas syringae</i>)	
Centipede/St. Augustine		Rhizoctonia Blight (<i>Rhizoctonia solani</i>) Take-all, (<i>Gaeumannomyces</i> sp.)
Centipedegrass	<i>Rhizoctonia solani</i> Root Decline of Warm Season Grasses (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>) <i>Bipolaris</i> sp./spp.	Cultural/Environmental Problem, Abiotic disorder
Hydrangea	Cyclamen Mite (<i>Phytonemus (Steneotarsonemus) pallidus</i>)	
Impatiens	Downy mildew	
Lettuce	Botrytis Blight (<i>Botrytis</i> sp./spp.)	
Magnolia		Algal Leaf Spot (<i>Cephaleuros</i> sp.)
Onion	Thrips (<i>Thrips</i> sp./spp.)	
Pepper	Sclerotinia Rot (<i>Sclerotinia sclerotiorum</i>) Pythium Root and/or Crown Rot (<i>Pythium</i> sp.) Phytophthora Crown, Root and/or Stem Rot, (<i>Phytophthora</i> sp./spp.) Bacterial Leaf Spot (<i>Xanthomonas</i> sp./spp.)	
Pine		Pitch Canker (<i>Fusarium</i> sp.)
Privet	<i>Cercospora</i> Leaf Spot (<i>Cercospora</i> sp./spp.)	Environmental Stress; Abiotic
Spinach	Abiotic disorder	
Squash	Bacterial Leaf Spot (<i>Pseudomonas syringae</i>)	
St Augustinegrass	<i>Rhizoctonia solani</i> Root Decline of Warm Season Grasses, (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Cultural/Environmental Problem
Strawberry	Leaf Scorch (<i>Diplocarpon earlianum</i>) <i>Alternaria</i> sp./spp. Botrytis Blight (<i>Botrytis</i> sp./spp.) <i>Phytophthora</i> Crown, Root and/or Stem Rot,	

	<i>Phytophthora</i> sp./spp. Two-spotted Spider Mite(<i>Tetranychus urticae</i>)	
Tall Fescue	Cultural/Environmental Problem, Abiotic Pythium Root and/or Crown Rot (<i>Pythium</i> sp.)	
Tobacco	Tobacco Mosaic, Tobacco Mosaic Virus (TMV)	
Tomato	Bacterial Leaf Spot (<i>Xanthomonas</i> sp./spp.)	Environmental Stress; Abiotic disorder
Unidentified		Algae, General
Verbena	<i>Fusarium</i> sp./spp. Pythium Root and/or Crown Rot (<i>Pythium</i> sp.)	
Watermelon	Gummy Stem Blight (<i>Didymella bryoniae</i>) Watermelon Fruit Blotch (<i>Acidovorax avenae citrulli</i>) Pythium Root and/or Crown Rot (<i>Pythium</i> sp.) <i>Pythium</i> Damping Off (<i>Pythium</i> sp./spp.) Bacterial Leaf Spot, (<i>Pseudomonas syringae</i>) Fusarium Wilt (<i>Fusarium oxysporum</i>)	
Wheat	Powdery Mildew (<i>Erysiphe</i> sp./spp.) <i>Colletotrichum</i> sp./spp. Viruses	
Zoysiagrass	<i>Rhizoctonia solani</i>	

Update: Extension Plant Pathology

2013 Extension Plant Pathology Updates are archived

Lots of information was contained in our 2013 Extension Plant Pathology Updates. Many of the topics are relevant for this year as well, such as “Rust fungi in eastern red cedar trees” in the April 2013 update and “What’s the orange goo?” seen on pruning and mechanical wounds on woody ornamentals and trees in the May 2013 update. Below is an index to topics covered in 2013. Plant disease clinic reports for the previous month were provided in all Updates. All past Extension Plant Pathology Updates are archived here:

<http://plantpath.caes.uga.edu/extension/ExtensionPlantPathologyUpdates.html>

Index of Topics in the Extension Plant Pathology Updates for 2013	
February 2013	<ul style="list-style-type: none"> • Changes in the Extension Plant Pathology web pages • Heuchera Rust has been seen • Wheat Foliar Disease Update • Diseases to watch for in Turf • Mummy Berry Apothecial Development and Potential for Disease Development following Freeze damage • Freeze Damage and <i>Botrytis/Botryosphaeria</i> Potential

March 2013	<ul style="list-style-type: none"> • Clarification on where to send samples and who to contact • Bloom Time is Brown Rot Time in Home Orchards • Freeze injury to strawberries • Mummy Berry Management with Indar • Downy mildew on Shrub Roses
April 2013	<ul style="list-style-type: none"> • Rust Fungi in Eastern Red Cedar Trees • Interesting samples: Spot Anthracnose on dogwood and Bulb mites on tulips • Watch out for Downy Mildews on Ornamental Plants • Spring Pepper Fungicide Spray Guide – 2013 • Small Grains: Wheat Foliar Disease Update • Turfgrass Disease Update • Winter in March could have important impact for row crops • Management of bacterial leaf scorch (<i>Xylella fastidiosa</i>) on blueberry
May 2013	<ul style="list-style-type: none"> • What’s the orange goo? • <i>Pseudomonas syringae</i> leaf spot on watermelons • Watch for Fusarium wilt of watermelons • Wet, cool weather has importance for early-season disease management • Wheat Diseases: Loose Smut, Sooty Mold, and Head Scab • Turfgrass Disease Update • Still getting questions about impatiens downy mildew • Rose Rosette Virus – an emerging problem
June 2013	<ul style="list-style-type: none"> • Summer tomato diseases in the vegetable garden • Ornamental fungicide efficacy table available online • 2013 Vegetable Spray Guides online • Gummy Stem Blight on watermelons • Turfgrass Disease Update • Small Grains Disease Summary – 2012-13 Growing Season • Recent Rainfall Could Have Impact on Disease Management in Row Crops • Slime molds in landscapes • Now is the time to protect plants from root pathogens
July 2013	<ul style="list-style-type: none"> • Cucurbit Diseases in the Home Garden • Rains Continue to Drive Concerns for Disease Management • Assessing Risk to Target Spot in Georgia • Dodder Management in Blueberries • Turfgrass Disease Update – Gray Leaf Spot and Rust • Mushrooms are everywhere • Wood decay and falling trees are of great concern
September 2013	<ul style="list-style-type: none"> • Turfgrass Disease Control: Emphasis on fall activities • Inquires about fairy ring, mushrooms and puffballs in turfgrass • Methods to Maximize Efficacy of Turfgrass Fungicides • Update on Sudden Oak Death, Thousand Canker Disease of black walnut, and Boxwood Blight: Where are they now? • Disease management for row crops nears end for 2013: What’s next?

October 2013	<ul style="list-style-type: none"> • Plant Disease Clinic Report • Turfgrass Disease Update: Dollar Spot, Yellow Bentgrass, and Bipolaris leaf spot • Wheat planting season is closer than you think • Be looking for anthracnose on pepper and downy mildew on cucurbits • Commercial Vegetable Spray Guides for 2013 are online • New fungicides for ornamental disease control • Rosellinia needle blight on eastern hemlock
------------------------------	--

Update: Small Grains

Wheat Foliar Disease Update

By Alfredo Martinez

Wheat Leaf Rust: Leaf rust was observed on an early-planted, highly susceptible variety in the UGA CAES Southwest Georgia Research and Education Center in Plains, GA on April 2. There is no indication or reports of wheat leaf rust in other areas of GA. However, environmental conditions are becoming conducive for leaf rust epidemics to develop. Therefore, field monitoring for leaf rust and/or Stagonospora (leaf-glume blotch) is advised. If leaf rust is present in a field, then fungicide application is warranted. Fungicide options include:

Triazoles – FRAC #3

metconazole (Caramba)
propiconazole (Tilt, Propimax)
prothioconazole (Proline)
prothioconazole + tebuconazole (Prosaro)
tebuconazole-containing products (Folicur, others)

Strobilurins – FRAC #11

azoxystrobin (Quadris)
fluxastrobin (Evito)
picoxystrobin (Approach)
pyraclostrobin (Headline)

Mixed mode of action – FRAC #3 + 11

propiconazole + azoxystrobin (Quilt, QuiltXcel)
propiconazole + trifloxystrobin (Stratego)
prothioconazole + trifloxystrobin (Stratego YLD)
pyraclostrobin + metconazole (Twinline)
tebuconazole + trifloxystrobin (Absolute)

Mixed mode of action – FRAC #7 + 11

fluxapyroxad + pyraclostrobin (Priaxor)

A complete list of wheat fungicides, rates and specific remarks and precautions can be found on page 58 of the 2013-14 Wheat Production Guide or on page 484 of the 2014 Georgia Pest Management Handbook. Always read product label for fungicide applications restrictions. Take a look at pages 9 to 11 of the 2013-14 Wheat Production Guide for wheat variety responses against leaf rust:

<http://www.caes.uga.edu/commodities/fieldcrops/gagrains/documents/2013-14WheatProductionGuide.pdf>

For more information on wheat leaf rust go to:

<http://plantpath.caes.uga.edu/extension/plants/fieldcrops/WheatLeafRust.html>

Reminder: Small grains physical samples should be submitted to the Plant Disease Clinic in Athens. If you need additional information on small grains and/or commercial turfgrass diseases, please contact Alfredo Martinez at 770-228-7375 or amartine@uga.edu.

Update: Commercial Vegetables

Commercial Vegetable Disease Spray Guides and Efficacy Tables for 2014 are available online

By David Langston

Plant disease management spray guides for 2014 and efficacy tables for commercial vegetable crops are available in the table below and online at:

<http://plantpath.caes.uga.edu/extension/extension/VegetableSprayGuides.html>

2014 Vegetable Disease Guides			
Spray Guides		Efficacy Tables	
Bean (snap, lima, pole)	Pepper	All	Pepper
Brassica Greens	Tomato	Bean	Tomato
Broccoli / Cabbage	Squash	Brassica	
Cantaloupe	Watermelon	Cucurbit	
Cucumber		Onion	

Update: Small Farm and Home Garden

Tomato Late Blight, *Phytophthora infestans*, found in Georgia Greenhouse

By Elizabeth Little

Late blight, caused by the fungal-like pathogen *Phytophthora infestans*, was confirmed in February of 2014 on organically-managed tomato plants in a heated greenhouse near Atlanta. Late blight can quickly decimate a tomato planting when conditions are correct. Late blight outbreaks are favored by moisture or high humidity combined with mild days and cool nights. In this case, some foliage and fruit were lost, but losses were kept to a minimum by early recognition and remediation. This outbreak was likely due to wet conditions in January which increased humidity levels, although the disease was likely already present at low levels.

Late blight occurrence has been sporadic in Georgia. Most outbreaks occur in the more northern areas where temperatures are cooler. However, late blight has been found in the Piedmont of Georgia for the past two seasons due to wet, periodically cooler summer conditions. Working in favor of growers is the fact that the late blight pathogen is a poor survivor without the live tomato plants. Therefore, good sanitation of old plant materials and tomato free periods are important to prevent initial outbreaks.

So what is the significance of this latest outbreak to Georgia growers?

With the increased production of tomatoes in high tunnels and heated greenhouses, the tomato season has been extended and therefore the time that late blight may be active. Currently tomatoes are being produced almost year round in north Georgia. The disease may have remained active into the fall of 2013 due to last

year's wet conditions, allowing spores to enter later plantings in greenhouses. In this way, the pathogen may be able to survive the entire winter. Depending on the weather conditions this year in Georgia, this could contribute to another outbreak of the disease this summer.

Late blight is a community disease. What happens on your farm can impact your neighbors. Unlike other foliar diseases such as early blight or powdery mildew, low levels of disease cannot be tolerated due to the potential for destructive outbreaks. Also, unlike most other tomato pathogens, the organism does not survive well without a host and disease outbreaks are sporadic. Vigilance is important to make sure you are not harboring the disease.

If you have greenhouse grown tomatoes inspect them regularly for any leaf blighting. Get a diagnosis from your county extension office to confirm the cause of any suspicious disease. Keep humidity down to the greatest extent possible with good air circulation around plants. Keep foliage dry at all times. If possible, increase night time temperatures to reduce condensation. Have a tomato free period on your farm of *at least a month*. Late blight, like most tomato diseases, does not spread to unrelated crops. In greenhouses and high tunnels, plan for long rotations between plantings of the same crop. This should be standard operating procedure for preventing problems in all type of crops. Destroy all old plant material and clean houses thoroughly between plantings. Do not produce transplants in the same houses where older plants are being grown. All of these measures will also decrease the incidence of the more common tomato greenhouse diseases such as powdery mildew and leaf mold, as well as the tomato russet mite. If potatoes are grown this spring, inspect them for the disease and, if possible, harvest potatoes before planting summer tomatoes. Use certified disease-free seed potatoes and, if purchasing tomato transplants, inspect them for any disease symptoms. Growing your own tomato transplants may be a better option.

If an outbreak occurs, remove and destroy all infected plant material either by containment in garbage bags or by burying. Do not throw old plants on top of a discard pile. Leaf lesions quickly dry up but stem and fruit lesions may remain active for some time. Coppers are somewhat effective in an organic system if applied before an outbreak, although repeated copper applications are best avoided when possible. For organic growers, the best solution for disease is prevention.

For more information or to report outbreaks, contact Dr. Elizabeth Little at UGA ([elittle @ uga.edu](mailto:elittle@uga.edu)) or your local extension office.



Images showing typical fruit, stem, and leaf lesions. The firm, brown fruit lesions are unique compared to most other diseases. (Late blight resources from Cornell, including more images: http://www.longislandhort.cornell.edu/vegpath/photos/lateblight_tomato.htm)

Freeze injury to ornamental plants

By Jean Williams-Woodward

There were three major freeze events affecting much of Georgia from November 2013 to April 2014 that damaged a large number of landscape ornamental plants. Some plants may have been killed, including dwarf gardenias in my own backyard. Freeze injury symptoms can include blackening or bleaching of foliage, tip dieback, stem or branch splitting, and plant death. The damage may not be readily apparent, especially on trees. Trunk damage and splitting may develop months to years later. Often weak pathogens invaded the damaged tissues resulting in trunk and branch cankers (usually from *Botryosphaeria* spp. infection) and secondary infection by weak pathogens, such as *Colletotrichum* spp. and *Pestalotiopsis* spp. The best approach to deal with freeze injured tissues is to prune off the affected tissues. Prune dead branch tips after bud break. Give plants, such as liriopse, a shearing to remove dead foliage.



Freeze injury symptoms of bleached, necrotic foliage and split bark (seen at arrows) on boxwood (left), cast-iron plant (upper right) and holly (bottom right). (Images of holly and cast-iron plant by Jean Williams-Woodward; Image of boxwood by Greg Bowman, Gordon County Extension Coordinator)

Who to contact in Extension Plant Pathology?

Alfredo Martinez, Extension Coordinator	Turfgrass (commercial, professional lawn care, sod, golf, sports fields); Small grains and non-legume forages	amartine@uga.edu	770-228-7375
Phil Brannen	Commercial fruit	pbrannen@uga.edu	706-542-2685
Jason Brock	Commercial pecans	jbrock@uga.edu	229-386-7495
Bob Kemerait	Row crops – corn, cotton, soybean, peanut	kemerait@uga.edu	229-386-3511
David Langston	Commercial vegetables	dlangsto@uga.edu	229-386-7495
Elizabeth Little	Home turfgrass, landscapes, and gardens, small farm and organic production	elittle@uga.edu	706-542-4774
Jean Williams-Woodward	Commercial ornamentals in greenhouses, nurseries, and landscapes, Christmas trees, forestry, urban forestry, wood rots, legume forages	jwoodwar@uga.edu	706-540-7738
John Sherwood	Department Head	sherwood@uga.edu	706-542-1246

Clinic Sample Type	Contact Name & Number	Shipping Address
Christmas trees, fruit, ornamentals, forestry, all homeowner samples, legume forages, mushrooms, turf and small grains, urban ornamental landscapes, wood rots	Ansuya Jogi Office Phone: 706-542-8987 Clinic phone: 706-542-9157 ansuya@uga.edu Fax: 706-542-4102	UGA - Plant Pathology Athens Plant Disease Clinic 2106 Miller Plant Sciences Bldg. Athens, GA 30602-7274
Tobacco, pecan, cotton, soybean, peanut, corn, kenaf, commercial vegetables	Jason Brock Phone: 229-386-7495 jbrock@uga.edu Fax: 229-386-7415	Tifton Plant Disease Clinic Room 116 4604 Research Way Tifton, GA 31793
All samples for nematode analysis	Ganpati Jagdale Phone: 706-542-9144 gjagdal@uga.edu Fax: 706-542-5957	UGA - Plant Pathology Nematode Laboratory 2350 College Station Road Athens, GA 30602-4356



The University of Georgia and Ft. Valley State University, the U.S. Department of Agriculture and counties of the state cooperating. The Cooperative Extension, the University of Georgia College of Agricultural and Environmental Sciences offers educational programs, assistance and materials to all people without regard to race, color, national origin, age, sex or disability.
An Equal Opportunity Employer/Affirmative Action Organization Committed to a Diverse Work Force