



THE UNIVERSITY OF GEORGIA
**COOPERATIVE
EXTENSION**

College of Agricultural and Environmental Sciences
College of Family and Consumer Sciences

August 2013

Shades of Green

From Gardeners, To Gardeners

Athens-Clarke County Cooperative Extension

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Recent Rains Have Mushrooms Popping up By Jean Williams-Woodard

With the recent wet weather, mushrooms are popping up everywhere, particularly in lawns.

As a University of Georgia plant pathologist, I get numerous calls and emails concerning mushroom identification. People are curious and always want to know if the mushrooms are poisonous. Dogs (Labradors in particular) seem to eat mushrooms and we get calls from veterinarian offices about identifying mushrooms because a dog is in liver failure or very sick.

First and foremost, we cannot positively identify mushrooms from a picture. Even if we can identify the mushroom, there is no guarantee that the mushroom growing right next to the one imaged is the same species. So, one may be OK and the other highly toxic. For this reason, I never comment on the edibility of a mushroom from an image.

There is a saying about mushrooms. "All mushrooms are edible, just some are only edible once!"

To help with mushroom or conk identification, answer these questions:

To help with mushroom or conk identification, answer these questions:

1. Does it have a stipe (i.e. stem)?
2. Is the cap hard or soft, smooth or rough?
3. Does it have pores, tubes, gills, or teeth on the underside of the cap/conk?
4. What color is its flesh (cap, stipe, etc.)?
5. What color are the spores (from a spore print)?
6. Does it change color when bruised?
7. Are there any other distinguishing features?

8. What is the host it is growing in/on (i.e. turf, oak, etc.)?

For example, I took a mushroom that was growing in a lawn. The mushroom has a stipe and has a white cap and gills. I made a spore print by removing the stipe and placing the cap gill-side down on paper. I used white and black construction paper and placed the cap so half of it was half on the white and half on the black.

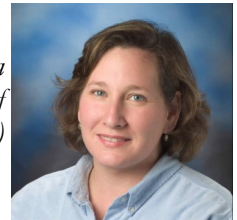
If the mushroom had white spores, I would be able to see them on the black paper. From the spore print, I saw that the spore color is olive-green. There is only one fungus with these characteristics - *Chlorophyllum molybdites*, a common fairy ring mushroom. Although this mushroom is usually not lethal, it is poisonous and causes severe gastrointestinal distress (vomiting and diarrhea) if eaten.

For your stomach's sake and your overall wellbeing, never eat an unidentified mushroom.

University of Georgia Cooperative Extension specialists say do not eat any mushrooms growing in lawns and certainly ones that have not been identified by an expert. Many are poisonous to some degree. At the very least, they will make you sick. At worst, you can die. Don't take the risk.

To prevent accidental ingestion of mushrooms by pets and children, rake, mow over, or otherwise remove the mushrooms from your lawn.

(Jean Williams-Woodard is a plant pathologist with University of Georgia Cooperative Extension.)





Steps to Maintaining Your Worm Bin

By Lisa Sehannie

Your worms are now living in their new home and are hard at work. They are chomping away at the delightful food scraps you are providing for them, and turning these items into a rich substance for you to use on your house plants and garden. As your worms work diligently to create vermicompost and help divert food scraps from the landfills, our job as their hosts is to maintain a healthy living and working environment for them to thrive in. However, do not be alarmed: Keeping your worm bin in good running order is very simple, and requires very little work. In this article, we will discuss some basic tips to maintaining your worm bin.

Worm Bin Bedding

The bedding in your worm's home is a critical step in the maintenance of the bin, and is an area that we will spend a good amount of time on because it can either make or break your bin. When setting up a worm bin, many of us initially include moist, shredded newspaper for our worms. Remember, the bedding in your worm bin is there to provide both air and moisture to your worms. Therefore, in addition to newspaper, other sources of bedding can also be introduced.

Types of Bedding



As you maintain your worm bin, it may be a good idea to combine different

bedding sources for your worms to make their home in. Think of the bedding as a plate of food. For example, on your plate, you tend to not just have one food group, such as a plate filled only with meat. But instead you have a variety of items, as they provide different nutritional value and therefore offer unique benefits. For example, you may have some veggies, starches, and proteins. The bedding in the worm bin can be viewed in a similar manner. For example, if you can include different types of bedding, they can provide your worms with different benefits. A good example of combination bedding could be as follows: Shredded newspaper or cardboard, combined with fall leaves or hay. By combining different bedding sources, you increase the chances of including good structure, along with good sources of water retention, as well as good food sources. Some scientists believe that one of the best bedding options is aged manure. The reasoning behind this is because it tends to include other bedding sources, for example straw; it does retain water; and also provides nutrition for the worms. Below is a table of potential items that you can use in your worm bin as bedding. You will see the bedding options listed in 2 columns: Source 1 and Source 2.

Source 1	Source 2
Shredded cardboard	Leaves
Shredded paper or newspaper	Straw/hay
Aged manure	Wood chips

By combining sources from Columns 1 and 2, you will be providing your worms with a richer bedding environment. However, if you only have access

to something like shredded newspaper, your worms will thrive just fine. Remember, they are not too fussy!



How Often to Add Bedding

A question I frequently get asked is "How often should I be adding bedding to my worm bin?" I believe that whenever you are adding food scraps to the bin, it may not be a bad idea to include a little bedding each time. In your bin, the main thing to keep in mind is that you always want to make sure the bin is about three fourths full with bedding. Remember, this bedding serves as your worms' home. It provides them with air and moisture, and is their living space.

Moisture in your Worm Bin

Another concern in the worm bin is moisture. Either too much or too little moisture in the worm bin can be detrimental to the well-being of your worms, and so the success of your bin. The good thing about moisture is that it leaves clues, which you can interpret and decipher. And the issues related to moisture are typically easy to solve. For example, if you find that your worms are dying, it could be that the bin has too much moisture. When there is too much water at the bottom of the bin, it could reduce the amount of oxygen, not allowing the worms to breathe. To

Worm Bins, continued... By Lisa Sehannie

solve an issue of too much moisture in your worm bin, there are a few things you can do. One simple way to reduce excess moisture is to add dry bedding and minimize water-rich foods until the moisture issue is under control. The dry bedding will absorb water, and so help solve this issue. Oppositely, you may also find that your worms are dying if the conditions in the bin are too dry. If this is the case, you can add a new layer of bedding that has already being moistened. Or alternatively, you can simply take a spray bottle and moisten the bedding slightly in the bin.

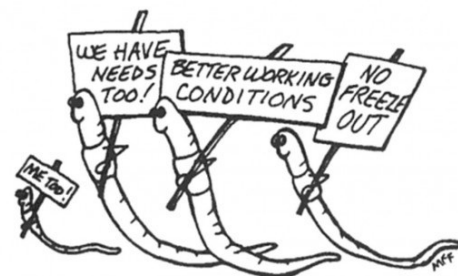


It is time to maintain your bin. Remember, your worms are adaptable and ready to work! As you work with your bin, you can experiment to see what works best for you and your worms. And again, remember that you and your bin are making a difference. Even

on a small scale, your contributions are having an impact and will positively affect your community as a whole.

(Resources)

(Lisa Sehannie is a University of Georgia Cooperative Extension Master Composter Volunteer.)



Q&A: Plants on a Septic Tank

by Amanda Tedrow

Are there any problems with planting a crepe myrtle on a septic tank?

- Jan M., Winder

While crepe myrtles are not huge plants with huge root systems, I still would not recommend planting one on top of a septic tank or on top of the drain field of the septic tank. Crepe myrtles are beautiful shrubs and trees, but try and find another place for the plant if at all possible.

At the end of this article is a link to a publication concerning planting around a septic tank and drain field. The drain field could be rather shallow under the soil surface, around 6 to 12 inches deep. This particular depth is right where

most plant roots are located. Since the drain field is going to be a source of nutrients and water for the plants, the plants will grow towards and into the field if the roots are invasive enough. Woody plants would have more substantial, invasive roots. Therefore, I would only plant turfgrass or shallow-rooted herbaceous perennials over the drain field to prevent clogging and damage. The planting of turf or perennials would also avoid the additional costs and labor involved with removing trees and shrubs if a problem did occur with the tank or field.

I also would never recommend planting a vegetable garden over the septic tank

drain field. While contamination should not be a problem with a properly functioning septic tank, things can always go wrong and may not be noticed immediately. If you insist on planting vegetables on the drain field, avoid root crops and leafy vegetables. Use staking and other supports of fruiting plants such as tomatoes, peppers and eggplants to ensure the fruits never come in contact with the soil.

www.ext.vt.edu/pubs/envirohort/426-617/426-617.html

(Amanda Tedrow is the University of Georgia Cooperative Extension agent in Athens-Clarke County)



Recent Rainfalls Create Septic Problems for Some Homeowners

By Frank Watson

Recent rains left some homeowners tackling septic tank problems. Saturated soils aren't able to take up additional water from drain field lines.



Hopefully, conditions will improve as soils dry out. Some soils, like those in Wilkes County where I am the county agent, have problems with drainage. Quite often septic tank problems in our area are caused by poor soil drainage. In these cases, problems may occur even during times of normal rainfall.

To solve this problem, the homeowner may have to lengthen the septic system's drain field lines. In the worse case scenario, another site may have to be

selected for the drain field.

Over-the-counter additives are not the solution. Several manufacturers of septic tank additives claim household cleaners cause improper functioning to residential septic tanks. They claim bacterial additives are needed to resupply the bacterial population required for anaerobic digestion in the septic tank.

Actually, bacteria responsible for digestion in septic tanks are commonly found in the domestic wastewater entering the tank as well as in the soil of the drain field. As long as the septic tank is being used and maintained properly, incoming wastewater from the residence will supply the septic tank with enough bacteria to properly carry out digestion.

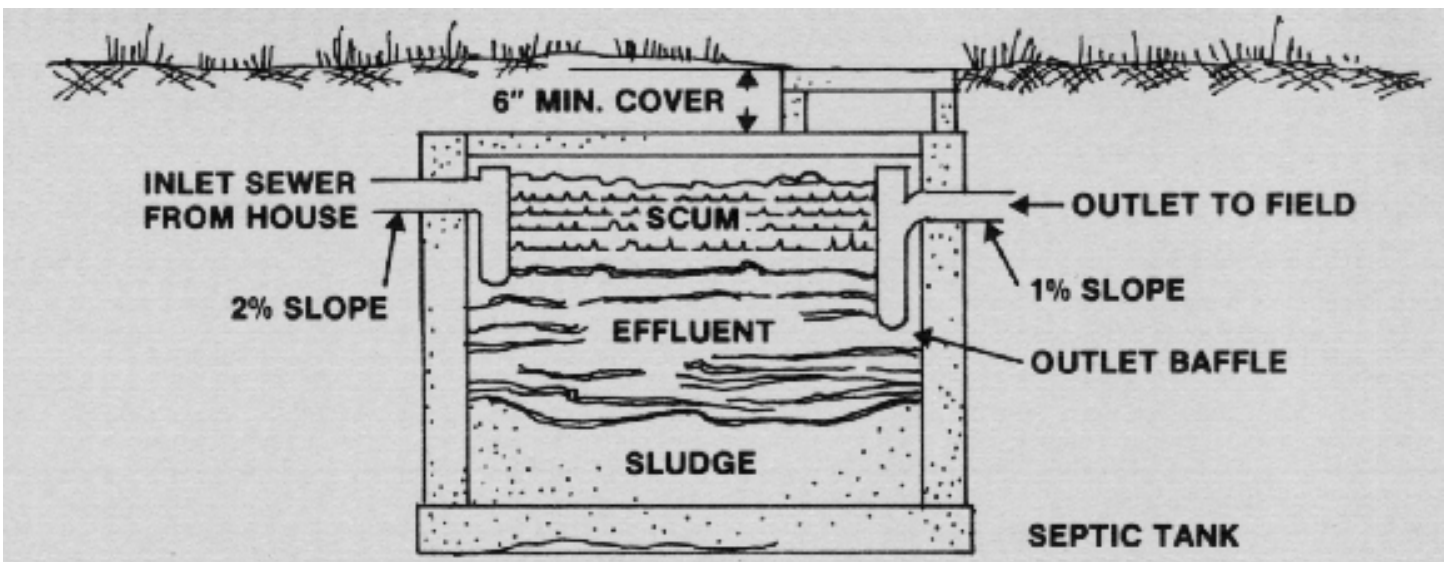
Research conducted over the past several years has concluded that, with normal use, household cleaning products do not adversely affect septic tank operation. Normal use of household

cleaning products is considered to be the amount recommended by the manufacturer.

With normal use, household cleansers and disinfectants will destroy bacteria in homes without harming the bacterial digestion required for a septic tank to operate properly. This is because the cleaning products are diluted once they enter the tank, and because of the absorption capacity of the tank's organic material.

To learn more about septic tanks, refer to Extension bulletin 1242-4: "On-Site Wastewater Management Systems and Their Environmental Impact" at pubs.caes.uga.edu.

(Frank Watson is the University of Georgia Cooperative Extension ANR agent in Wilkes County)



Wet Conditional Create Perfect Setting for Tomato, Cucurbit Diseases

By Elizabeth L. Little

Summer is a great time for fresh local produce, but Georgia summers can present many challenges for gardeners trying to keep crops healthy and alive. This is especially true for tomatoes and cucurbits.

Cucurbits are from the family Cucurbitaceae that includes squash, pumpkin, cucumber, gourd, watermelon and cantaloupe. Squash and cucumbers especially can be challenging crops to grow due to pests and diseases. Wet weather compounds the problems.

Some of the more common diseases that strike are downy and powdery mildew, anthracnose, and cucurbit yellow vine disease.

Downy mildew

The downy mildew pathogen survives the winters mainly in southern frost-free regions. The disease spores reach Georgia from late May into June. This year the arrival appears to be delayed, but the recent wet weather disease gives it the potential to be severe.

Symptoms start as bright yellow angular spots on the leaf surface. Leaves later turn brown, often starting from the edges, causing a progressive defoliation from older to younger leaves.



Manage the disease with a combination of cultural practices, resistance,

and, if desired, targeted sprays. Certain cultivars have some resistance. Keeping plants healthy with balanced nutrition and in an open sunny location will help lessen the effects of this and other diseases.

Powdery mildew

Powdery mildew does not survive winters in the field but greenhouses can provide a potential early source of spores. Powdery mildew has been prevalent this year and the disease has the potential to defoliate plants. This is one of the easiest of diseases to diagnose since it is the only foliar disease where the fungus grows on the surface.



Because of this surface growth there are more alternative and organic control products that may potentially prevent powdery mildew. There are also more cultivars available with powdery mildew resistance.

Anthracnose

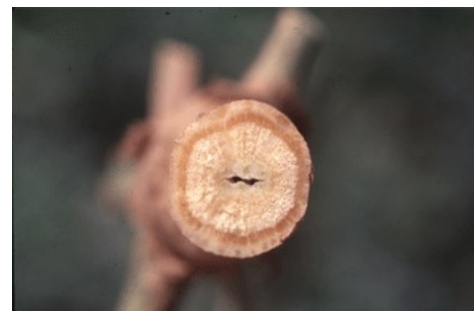
Anthracnose is mainly a concern on cucumbers and melons. The symptoms include leaf spots, defoliation, and sometimes fruit lesions. The diseases survive



in the infected debris, so rotation and the destruction of plant debris at the end of the season are important preventative measures. Wet weather is a major contributing factor. Trellising and/or the use of high tunnels, especially with cucumbers, can help reduce infections..

Cucurbit yellow vine

Cucurbit yellow vine disease is a new bacterial disease in Georgia that mainly affects squash and pumpkins. The disease is spread by squash bugs and results in the sudden yellowing, wilting and collapse of plants. The symptoms may be confused with stem borer damage. Squash bug management is the best way to prevent this disease. Losses are substantial where the disease occurs.



University of Georgia Cooperative Extension plant pathologists are mapping cucurbit yellow vine disease in Georgia. If you think you have this disease in your garden, contact Elizabeth Little at elittle@uga.edu or (706) 542-4774.

For more information on growing cucumbers in the home garden, see the UGA Extension publication at www.caes.uga.edu/publication.

(Elizabeth Little is the homeowner IPM specialist with the University of Georgia College of Agricultural and Environmental Sciences.)



Hay and Manure Can Bring Unwanted Herbicides to Vegetable Gardens

By Paul Pugliese

After fielding a number of calls and examining plant samples brought in to the Bartow County Extension Office, I have decided vegetable gardeners are probably better off not using hay or manure in their gardens.

Twenty years ago, manure was a great soil amendment to add to gardens. It was considered a good source of natural organic nutrients as an alternative to synthetic fertilizers. Today it is nearly impossible to find a manure source that doesn't contain herbicide residues. Ironically, this defeats the purpose of trying to be an organic gardener.

Most gardeners don't give much thought to where their manure comes from, aside from the obvious source. The vast majority of farmers spray their hayfields and pastures with herbicides for broadleaf weed control. Today's hay customers expect weed-free sources of hay for their animals and farmers must meet the demand of their customers.

Herbicides used today are safe as far as having low toxicity to humans and animals. In fact, many of these herbicides can be sprayed one day and grazed the next by livestock.

The problem is that many of these herbicides have long-lasting residual activity. Some commonly used products are known to last as long as 8 to 12 months in the soil. Herbicide residues also remain active on forage hay fed to livestock and grass clippings from lawns that are sprayed.

If you spray your lawn for weeds, don't put your grass clippings in your garden or your compost bin. These herbicides are very good at what they do: killing broadleaf weeds without killing the grass. Unfortunately, these products don't know the difference between a broadleaf weed and a prized tomato plant.

Whether the manure comes from horses, cattle, alpacas, goats or other livestock, there's a chance the animal could

have been exposed to an herbicide. Even if the livestock owner doesn't spray his pastures, hay that is purchased to feed the animals could have been sprayed.

You should assume that any hay that is mostly weed-free has been treated with an herbicide. About the only forage hay that will not have been sprayed is alfalfa, since most broadleaf herbicides cannot be sprayed without damaging the alfalfa, too. If livestock owners only feed alfalfa hay to their animals and don't spray their pastures, then you could use the manure in your garden.

Most livestock owners also feed grass hays such as fescue, bermudagrass and orchard grass that are likely sprayed for weeds. Ask the livestock owner if he sprays his fields and what type of hay he feeds his animals. If you can't get the answers to these questions, assume the hay has been sprayed with an herbicide and don't use it in your garden.

If you've already incorporated manures or hay mulches into your garden, watch your vegetables closely for unusual symptoms. Tomatoes are very susceptible to herbicide damage and are often the first indicator of a problem. If damaged, tomatoes will have extreme leaf curling and twisted stems. Usually, the newest growth on the plant is the first to show these symptoms. If you are unsure, bring a leaf sample to the local University of Georgia Extension office to rule out any other insect or disease problems.



Glyphosate damage on tomato. *Image credit: Elizabeth Little.*

(Paul Pugliese is the agriculture & natural resources agent for the University of Georgia Cooperative Extension office in Bartow County.)





Gardening Events in Our Area



West Broad Farmers Market is at the corner of West Broad and Minor Street on the first Saturday of every month (May-December) from 10:00 AM-1:00 PM. The next market is open on August 3. For more information, contact Athens Land Trust at 706-613-0122.

Seniors Garden Club hosted by the Athens Council on Aging meets every Thursday from 10:00 AM-11:30 AM. Meetings are FREE. Contact 706-549-4850 for more information.

Athens Farmers Market is at Bishop Park on Saturdays from 8:00 AM-12:00 PM and at City Hall on Wednesdays from 4:00 PM-7:00 PM. Saturday market events include live music, chef demos, and kid's activities.

Visit the **Oglethorpe Fresh Farmers Market** at 111 South Platt Street for on Saturdays from 8:30 AM- 12:30 PM in the heart of downtown Lexington. In addition to produce, there will

also be jams, jellies, honey, and friends! For more information, contact 706-743-3015.

The **Foxfire Mountaineer Festival** will be on Saturday, October 5 from 10:00AM-6:00PM at the Rabun County Civic Center on US Hwy 76 W in Clayton, Georgia.

Goodness Grows will host **The Legends of Oglethorpe** on Saturday, October 26 and Sunday, October 27 from 9:00 AM-5:00 PM at 332 Elberton Road in Lexington. Participate in this living history weekend with "in character" actors bringing to life nine individuals who have been a part of Oglethorpe County's rich history. There will also be carriage tour rides and self-guided walking tours. **Purchase tickets in advance** or call 706-743-5055 for additional information.

Become a **Nature Rambler** on Thursdays throughout August (8, 15, 22, 29) from 8:30 AM-10:00 AM at the State

Botanical Garden of Georgia Shade Garden Arbor. You'll learn more about the natural areas, flora, and fauna of the garden while making new friends and enjoying the cool, fresh air. Guides include Dale Hoyt, biologist and naturalist, and Hugh Nourse, author.

The Wylde Center is hosting **Sow Seeds for your Fall Garden** on August 21 from 7:00 PM-9:00 PM at 435 Oakview Road in Decatur. Get the most out of our long growing season with fall gardening. Join the center Director, Stephanie Van Parys, to learn how to prep your soil, sow your seeds, and give you tips on how to keep those little sprouts happy. Please bring any containers in which you would like to sow seeds: recyclables such as milk or juice jugs or boxes, margarine or yogurt tubs, 4 or 5" nursery containers or cell packs and a box to tote your containers home. Advanced registration is required at wyldecenter.org. \$20 members, \$25 non-member.



Amanda's Slice

Georgians beware! The emerald ash borer (EAB) *Agrilus planipennis* (Order: Coleoptera, Family: Buprestidae), an invasive forest insect, has been found in DeKalb and Fulton counties as of July 2013 according to a national detection survey and trapping program. This pest is originally from Asia, but was first found in North America in 2002. Since its introduction, EAB has killed millions of rural and urban ash trees throughout the mid-west and Canada. Unlike native beetles,

EAB kills trees that are not weakened and would otherwise grow vigorously. Georgia has 5 native species of ash and the estimated commercial value exceeds \$400 million. Though the economic impact may not be great, the ecological loss of ashes will be devastating if EAB spreads further. The easiest and best way for you, as a homeowner, to prevent further spread of this pest is to not transport firewood.

[Click here to learn more about EAB in Georgia.](#)

"If you want to be happy for a lifetime, be a gardener."- Chinese Proverb



Public Utilities
water. wastewater. conservation.

Non-Drought

Outdoor Water Use Schedule*

Effective August 8, 2013

allowed daily

Between 4:00 pm and 10:00 am

- Automated irrigation systems
- Hand watering (without a shut-off nozzle)
- Lawn sprinklers

odd/even schedule

No hourly restrictions

Even: Mon • Wed • Sat

Odd: Tues • Thurs • Sun

- Car washing at home
- Charity car washes
- Hosing driveways
- Outdoor cleaning
- Pressure washing by homeowner
- Topping-off pools

allowed anytime

By anyone

- Commercial pressure washing
- Drip irrigation or soaker hose
- Watering of food gardens
- Hand watering (with a shut-off nozzle)
- Hydroseeding
- Installation and maintenance of an irrigation system
- Irrigation of newly installed turf (for the first 30 days)
- Irrigation of public recreational turf areas
- Irrigation of plants for sale
- Irrigation of sports fields
- Water from a private well
- Water from an alternate source
 - grey water, rain water, condensate

Please note: The odd/even schedule still applies to non-landscape outdoor water use.

*This Non-Drought Outdoor Water Use Schedule is consistent with the Outdoor Water Use Rules set forth in the Georgia Water Stewardship Act that went into effect statewide on June 2, 2010.

Athens-Clarke County Water Conservation Office
706-613-3729 / savewater@athensclarkecounty.com

Outdoor Water Restrictions:

Barrow, Oconee & Jackson Counties

Outdoor water use for Barrow, Oconee, and Jackson Counties is now limited to three days per week with even number addresses allowed to water on Saturday, Monday, and Wednesday and odd number addresses allowed to water on Sunday, Tuesday, and Thursday. The ban on watering between 10:00 AM and 4:00 PM remains in effect for all scheduled watering days. No outdoor watering is allowed on Fridays other than exemptions below.

THE FOLLOWING USES ARE EXEMPT FROM ALL HOURLY/DAY OF THE WEEK RESTRICTIONS:

- Drip Irrigation
- Soaker Hoses
- Hand Watering
- Food Gardens
- New installations of plants and turf (with a permit)
- Grey Water, Rainwater and AC Condensation Reuse
- Golf Course- Tee and Green Irrigation
- Plants for sale, resale, or installation

Please be aware that water restrictions are subject to change.

For more information and additional exemptions please contact your county's water conservation department.



Helpful information online:

[Find my local Extension Office](#)
[Pest Management Handbook](#)
[SE Ornamental Horticulture Production & IPM blog](#)
[Bugwood – Pest Images](#)

[Georgia Turf](#)
[Pesticide Applicator Info](#)
[Georgia Certified Landscape Professional](#)
[Landscape Alerts online](#)

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Mission Statement

The Cooperative Extension's mission is to respond to the people's needs and interest in Agriculture, the Environment, Families, and 4-H/Youth in Athens-Clarke County with unbiased, research-based education and information.

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