



Shades of Green

Athens-Clarke County Agriculture and Natural Resources E-Newsletter

December 2020



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A note from Athens-Clarke County Agriculture & Natural Resources

Hello readers! We hope everyone thoroughly enjoyed the Thanksgiving holiday and is looking forward to Christmas and New Years. Are you in need of a gift idea for a family member or friend? Look no further! Some of our Master Gardener Volunteers have recently published a cookbook and are accepting orders now.

Make sure to check out the [There is a Season flyer](#) in this issue.

We are in the process of planning for next year's programming and are especially looking forward to our 2021 topic line-up for our monthly, [virtual Green Thumb Lectures](#). Be on the lookout for the official schedule in the weeks to come.

As always, we hope you enjoy all that is incorporated within this month's issue of "Shades of Green".

Take care and happy gardening,
Athens-Clarke County Agriculture and Natural Resources





Pruning Tips For Ornamental Plants by Brandon Crumsey

To prune or not to prune, that is the question. Pruning is an important part of maintaining plant health and maximizing plant productivity. This is often a topic that brings fear and confusion, but pruning is, in fact, a beneficial and routine task.

Ornamental plants in the home landscape are pruned for several reasons, including maintaining a desired size or shape; promoting healthy, vigorous growth, flowering or fruiting; and removing sections damaged by insects, disease or weather.

Each plant in the landscape has its own growth habit and different requirements for pruning. Some shrubs have dwarf growth habits and may never require pruning, while vigorous, large-growing shrubs may require frequent pruning. Anyone can prune, but not everyone prunes properly.

Improper pruning, or pruning at the wrong time of the year, can result in misshapen plants, reduced flowering or plants that are more likely to be damaged by insects, diseases or winter cold. Because flowering ornamentals form their flower buds at different times of year, pruning times

must be adjusted accordingly.

Many spring-flowering plants such as azalea, dogwood, forsythia, redbud and rhododendron set flower buds in the fall, so pruning during the fall or winter months eliminates or decreases their spring flower display.

Plants that typically flower during the summer form flower buds on new growth and can be pruned during the winter with no effect on their flowering. However, sometimes plants may need to be pruned outside of these ideal windows to remove damaged or dead plant parts, to remove obstructions from windows or buildings, or to help stop the spread of diseases.

As a general rule, plants that flower before May should be pruned after they bloom, while those that flower after May are considered summer-flowering and can be pruned just prior to spring growth.

One exception to this rule is the oakleaf hydrangea, a summer flowering shrub that forms flower buds the previous season.

Another exception is late-flowering azalea cultivars, which bloom during

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Like It Or Not, Joro Spiders Are Here To Stay

by Beth Gavrilles

Chances are, if you live in northeast Georgia you've come across an East Asian Joro spider this fall.

At almost 3 inches across when their legs are fully extended, they're hard to miss. While they're roughly the same size as banana spiders and yellow garden spiders, the distinctive yellow and blue-black stripes on their backs and bright red markings on their undersides are unique. Their enormous three-dimensional webs are a striking golden color and tend to be located higher off the ground than those of other spiders.

"We've been getting lots of calls and emails from people reporting sightings," said Byron Freeman, director of the Georgia Museum of Natural History. "They seem to be really common in riparian areas and in urban areas around people's houses, but they're also in the deep woods."

Joro spiders have spread widely since they were first spotted in Hoschton, Georgia, in 2013. They probably arrived by hitching a ride in a shipping container from China or Japan, according to Freeman. He and Richard Hoebeke, associate curator of the museum's arthropod collection and a research professional in the University of Georgia College of Agricultural and Environmental Sciences Department of Entomology, confirmed the identity of those early arrivals based on genetic analysis in 2015.

Now, five years later, Joro spiders appear to have successfully established themselves in the area, with recent confirmed reports from as far afield as Blairsville, Georgia, and Greenville, South Carolina. But there is still much that remains unknown about them.

One important question is how they might affect the local ecosystem. Will they outcompete other orb weaving spiders? Will they reduce insect populations through predation?

"We don't know what the impact is going to be,"

said Freeman, a faculty member in the University of Georgia Odum School of Ecology. "Right now, we're trying to learn as much as we can about them."

So far, early observations indicate that Joros are coexisting with the area's other orb weaving spiders, with webs close to, and in some cases even attached to, one another.

And Joro spiders also appear to be able to capture and feed on at least one insect that other local spiders are not: adult brown marmorated stink bugs, an invasive pest that can infest houses and damage crops. In turn, Joro spiders are vulnerable to predators like mud dauber wasps and birds.

Freeman noted that dewdrop spiders, a kleptoparasite—as the name implies, they steal food from others—have been spotted in Joro webs.

"They may be switching from what we thought was their principal host, the banana spider, to this new kind of orb weaver," he said. He pointed out that banana spiders, a relative of the Joro, are native to the Caribbean and Central America. They were first recorded in the U.S. in 1862 and have since naturalized.

"My guess is that this will be no different than the banana spider, and I don't know that we can assess what the effect of the banana spider has been at this point," he said.

Another question Freeman hopes to answer is how the males find their mates.

Joro spiders travel by ballooning, letting the wind carry them on a strand of gossamer.

"The male has to drift in and find the female," Freeman said. "Sometimes there'll be four or five males on a web, sometimes there'll be one, so the males are moving between webs. When you have a large population it seems feasible that a male could just drift from one spot to the next, but when you don't have a lot

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Biodegradable Containers Can Benefit Gardeners

by Allison Fortner



Professional and home gardeners alike can grow landscapes sustainably with the help of biodegradable plant containers, but gardeners may wonder whether these containers decompose quickly enough to avoid hindering plant growth.

A study conducted by University of Georgia researchers determined that, under standard cultivation practices, certain types of biodegradable containers will decompose within a single growing season.

In a recently published article in the **Water, Air and Soil Pollution**, UGA scientists determined how industry-standard growing practices affected the decomposition of widely available biodegradable — or alternative — growing containers. This study was led by Bethany Harris while she earned her doctorate in horticulture under the guidance of Professor Bodie Pennisi and soil microbiologist Mussie Habteselassie in the College of Agricultural and Environmental Sciences at the UGA Griffin campus.

“Under standard cultural and environmental conditions (fertilization, organic soil amendment, irrigation), alternative containers made of recycled paper, coconut fiber and wood pulp fiber will degrade in the soil within a single season,” said Pennisi.

Pennisi, a horticulture specialist with UGA Cooperative Extension, said that although alternative

containers made of animal- and plant-based by-products have been available for more than 10 years, consumers and industry professionals have been slow to adopt these environmentally friendly options.

“One of the reasons is the perception that, when annual bedding flowers are installed in plantable containers in the landscape, the container does not degrade rapidly enough by the end of the growing season and thus necessitates manual removal of remnants,” Pennisi said.

Evaluating paper, wood pulp and coconut fiber containers

The study focused on three factors involved in decomposition — moisture, fertilization and organic soil amendment — and their effects on alternative containers. Researchers examined three container types and measured the response of each to these factors.

“In our study, we chose three types of biodegradable containers — recycled paper, wood pulp fiber and coconut coir containers — due to their market availability and their varying levels of cellulose and lignin content,” said Harris, who also earned a bachelor’s degree in environmental resource science and a master’s degree in entomology from CAES.

Harris reviewed the literature of previous studies on biodegradable containers and how they were used in the horticulture and **(Continued on page 6)**

Biodegradable Containers Can Benefit Gardeners (continued...)

nursery industry. Then she worked with Pennisi and Habteselassie to determine the best way to conduct laboratory trials for results that could educate that industry.

Over the course of the project, the team examined soil samples with specific combinations of water content, organic soil amendments and fertilizer. They conducted three separate studies to evaluate the decomposition of each type of alternative container. Each study took 182 days, representing the length of a typical growing season for annual bedding flowers.

Researchers used control groups for each study in which soil samples without a biodegradable container received the same treatment of water content, organic amendment and fertilizer. They distinguished this study from past research by conducting the trials in a controlled lab setting rather than in the field, where other environmental factors could influence the findings. Harris said multiple factors like soil pH, container thickness and density of soil microorganisms can also contribute to container decomposition.

At set intervals throughout each experiment, researchers measured each sample's decomposition rate using carbon dioxide traps. The more carbon dioxide released in the soil, the higher the rate of decomposition. This method offered precision and a novel approach from past studies, which assessed remaining container weight rather than amount of carbon dioxide released.

Looking forward

Pennisi said that her lab will expand on this research to examine container decomposition over longer periods of time. Further study of this subject in the field will enable researchers to develop best practice recommendations. Pennisi's team plans to extend outreach about the benefits of alternative containers to increase their overall use among the public, green industry producers and landscapers.

Harris and Pennisi conducted a study in 2017 that found that both consumers and industry professionals may be unaware of the benefits of plants grown in alternative containers. They hope this new knowledge will inspire consumers to request plants grown in sustainably produced containers rather than plastic.

"Product development and research have spoken. It falls on us as consumers to actively seek plant material that has been produced in alternative containers, thereby creating the demand that will encourage the green industry to widen its use of environmentally friendly pots," Pennisi said.

Now the director of education at Callaway Resort and Gardens, Harris directly interacts with the public and industry on a daily basis and educates them about topics of sustainability through strategic programming. She says her research and time working with Extension prepared her well for this role.

"I really learned the importance of the land-grant mission, which encompasses research, teaching and extending research-based knowledge to those in the community in which you serve," Harris said. "At Callaway Gardens, I have had the opportunity to extend this research-based knowledge and educate the public, including visiting guests, about the use and adoption of biodegradable containers as well as other research-based topics."

For more information on the UGA Department of Horticulture, visit hort.uga.edu.

(Allison Fortner is a master's degree student and a graduate research assistant in the Department of Agricultural Leadership, Education and Communication at UGA.)



Pruning Tips For Ornamental Plants (continued...)

May, June or July. Prune both the oakleaf hydrangea and late-flowering azalea cultivars after they bloom. Newer azalea varieties like the 'Encore' line, which bloom in the spring, summer and fall, don't require much pruning — if any at all — as long as they are planted in the right place. At most, you may need to prune taller shoots back into the body of the plant immediately after spring flowering. 'Knock Out' roses start flowering in spring up until frost, but should be pruned back to about 12 inches to the ground in early spring, after the threat of last frost has passed, to help stimulate vigorous growth throughout the season.

Other types of plants, like broadleaf evergreen shrubs, generally require little or no pruning at all because they usually develop a naturally sym-

metric growth habit when left alone, but late winter when they are dormant is usually a good time if pruning is desired.

Pruning is only harmful to a plant if done incorrectly or at the wrong time. With the right information and confidence, pruning should become a normal part of your landscape maintenance routine.

To learn more about pruning ornamental plants, see UGA Extension [**Bulletin 961**](#), "Pruning Ornamental Plants In The Landscape," and [**Bulletin 949**](#), "Basic Principles of Pruning Woody Plants," which can be found at extension.uga.edu/publications.

(Brandon Crumsey is the Agriculture and Natural Resources agent at Clayton County Extension, Georgia)

Like It Or Not, Joro Spiders Are Here To Stay (continued...)

of webs around, how does the male show up?"

Freeman is also conducting further genetic analysis to determine what causes some Joro spiders to have a different color pattern. While most have distinctive black and yellow striped legs, some have legs that are solid black. These black morphs have other physical differences that are only apparent when viewed under a microscope, and Freeman has determined that they are genetically distinct members of the species.

Despite their size, Freeman said that Joro spiders don't pose a threat to people.

"All spiders have venom that they use to subdue prey," he said. "If you put your hand in front of one and try to make it bite you, it probably will. But they run if you disturb their web. They're try-

ing to get out of the way."

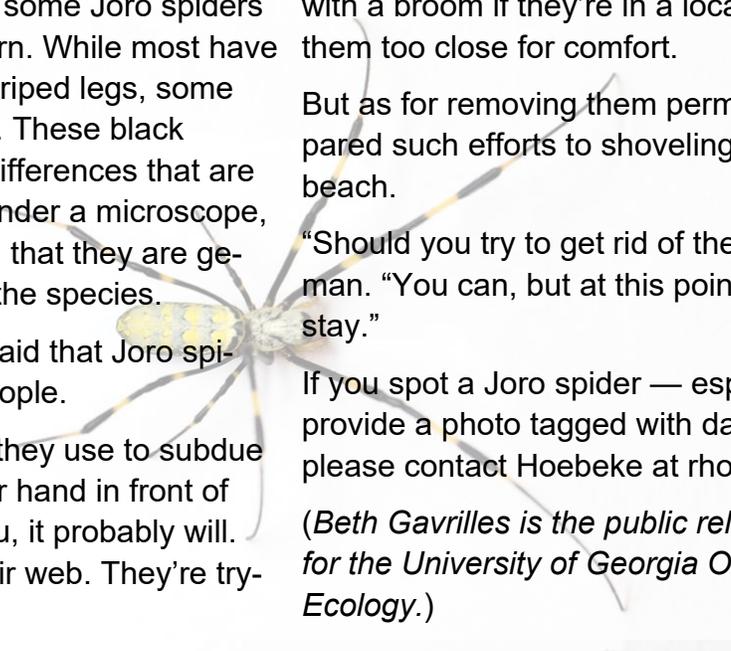
Freeman said that Joros can be shooed away with a broom if they're in a location that puts them too close for comfort.

But as for removing them permanently, he compared such efforts to shoveling sand at the beach.

"Should you try to get rid of them?" said Freeman. "You can, but at this point, they're here to stay."

If you spot a Joro spider — especially if you can provide a photo tagged with date and location — please contact Hoebeke at rhoebeke@uga.edu.

(Beth Gavrilles is the public relations coordinator for the University of Georgia Odum School of Ecology.)



*Athens-Clarke County Extension
Green Thumb Lectures
2021 Free Monthly Gardening Class Series*



Coming soon in 2021...

We are in the midst of planning for next year's Virtual Green Thumb Lectures. We look forward to you joining us in 2021 for informative monthly presentations on various gardening topics.

Gardeners of all experience levels will be welcome!

Be on the lookout for the full 2021 line-up for our Green Thumb Lectures in the January 2021 issue of "Shades of Green"!

WHERE:

Online via Zoom

TO REGISTER:

Registration will open at the beginning of next year. Keep an eye out by visiting

www.accgov.com/gardening.

For questions:

Contact Laura Ney, Extension Agent at
706-613-3640 or lney@uga.edu

*The University of Georgia is committed to principles of
equal opportunity and affirmative action.*



Stay in the loop! (local activities and events)

Athens-Clarke County Leisure Services Trails and Open Space Programs

Visit [their website](#) for a full list of fun outdoor trails and activities

Atlanta Botanical Garden— Garden Lights, Holiday Nights

Visit [their website](#) for more details.

Athens on Ice at the Foundry Pavilion

Visit [their website](#) for tickets and more details.

Light Up Athens

Friday's and Saturday's in December
Community Christmas Tree
Holiday Character Appearances
Official Santa's Mailbox for children to drop of their wish lists
Holiday Music
S"elfie" Spots
Visit [their website](#) for more details.

Local Farmers Markets

The **Athens Farmers Market** is taking place on Saturdays from 8am-12pm at Bishop Park. Make sure to visit [their website](#) for updates and details.



Find them on Facebook: [@AthensFarmersMarket](#)

Follow them on Instagram: [@athensfarmersmarket](#)

West Broad Farmers Market

Online ordering with pick-up and delivery options are available on Saturdays from May 9 — Dec 12, 2020

Visit [their website](#) to find out how to order online.

Find them on Facebook: [@WestBroadMarketGarden](#)

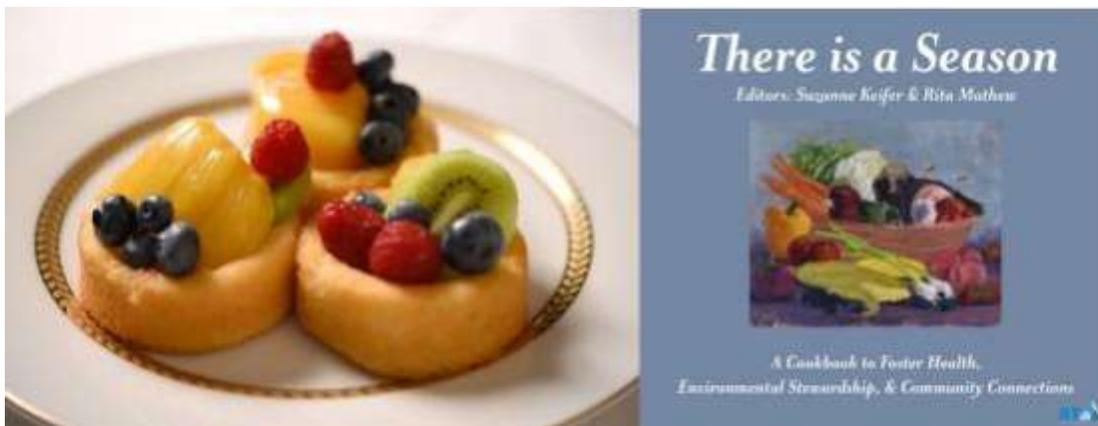


Cookbook raises funds for Athens Clarke County Extension

Pick up your copy at the Heirloom Café

815 N. Chase Street, Athens GA

Sunday, Dec. 6th 2020 from 9am to 2pm



**Great Gift Idea: \$30/- per copy
(10% discount for Master Gardeners)**

COMMENTS FROM THOSE WHO HAVE PURCHASED THE BOOK

“Beautiful”,

“I can’t wait to curl up and dig into it”,

“I’m so looking forward to trying out the recipes”,

“Wow, here’s some information about raised beds”.....

An excerpt from the Introduction by Co-Editor, Rita Mathew, states, “***There is a Season*** is more than just a book of recipes. It is a recipe for intentional living, the three Cs – conscious, creative, and connected. Research shows that these qualities and others such as empathy, compassion, and gratitude offer mental and physical resilience at a time of crisis.....”

With over 240 local and international recipes arranged seasonally, infographics, nutrition charts, and art by award-winning artists, this “legacy” cookbook harbors the hope that the purchaser will use it often and find it to be not only a kitchen necessity, but also a resource for seasonal eating, and intentional living!

To purchase your copy please call or email:

1 (706) 316-3640 or lney@uga.edu

Payment by cash or check.

Join Athens-Clarke County 4-H!



Students in 5th - 12th grades in Athens-Clarke County can sign up for 4-H now. The mission of Georgia 4-H is to assist youth in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive and contributing members of society. 4-H meetings will look different this year and are online. There is no charge to be a member or participate in a competition.

To start your 4-H Adventure e-mail the ACC 4-H Agent, Elizabeth Conway, at ebarber@uga.edu today!



Virtual 4-H Programs can be viewed on the ACC 4-H website:

<https://tinyurl.com/acc4hvvirtual>

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Concerned about the state of your garden?

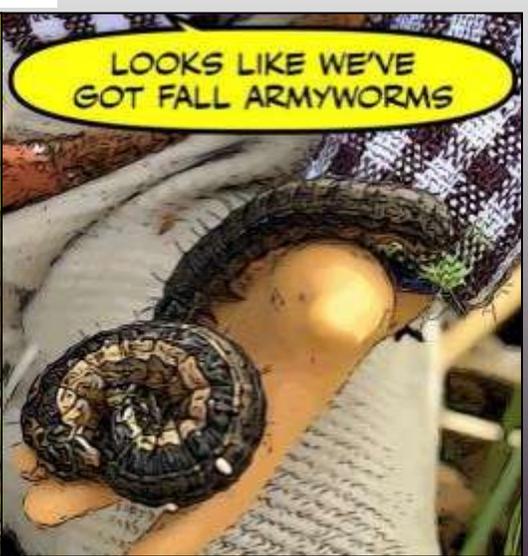
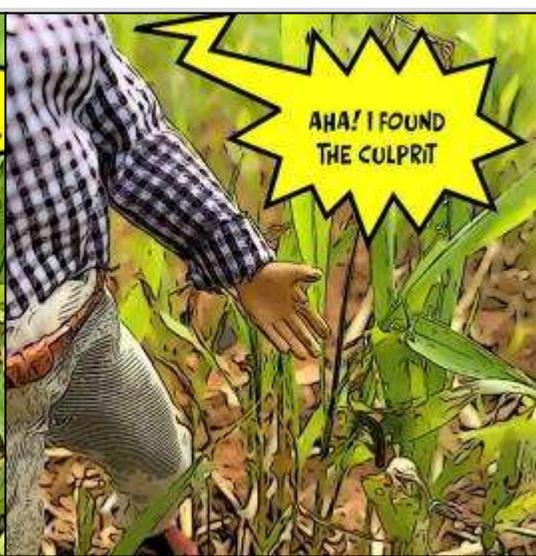
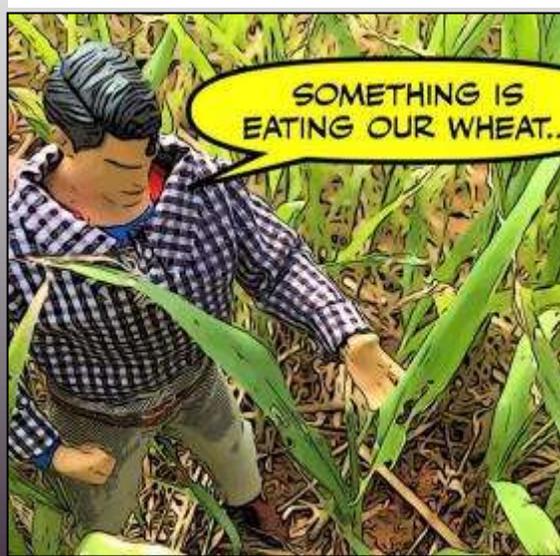
Are weeds taking over your landscape?

No need to fear, Clarke is here!

Follow @gardenwithclarke on Instagram  and learn how to battle pests, identify weeds, build your soil and so much more as you garden alongside Clarke, Athens-Clarke County's super gardener!



gardenwithclarke
UGA Extension Athens-Clarke County



2020 Outdoor Water Use Schedule

Allowed Anytime

- Drip or soaker hose irrigation
 - Hand watering with a hose with an automatic cut-off spray nozzle or hand-held container
 - Hydroseeding
 - Irrigation of newly installed turf (for first 30 days)
 - Watering personal food gardens
 - Installation, maintenance, or calibration of irrigation systems
 - Pressure washing
 - Irrigation of athletic fields, golf courses, or public turf recreational areas
 - Irrigation of plants for sale, resale, or installation
 - Water from personal well or alternate source (gray water, rain water, condensate)
 - Washing vehicles, driveways, parking lots or sidewalks WITH a shutoff valve or nozzle
-

Allowed only between 4:00 PM - 10:00 AM

- Automated irrigation systems
 - Hand watering without an automatic cut-off spray nozzle
 - Lawn sprinklers
-

Not allowed at anytime

- Failing to repair or bypass a leaking sprinkler head or emitter, valve, faucet, pipe, or toilet
 - Allowing tap water to flow into public rights of way such as alleys, streets, or gutters or onto another person's property
 - Operating an irrigation system during rain events exceeding 1/4 inch
 - Washing vehicles, driveways, parking lots, or sidewalks WITHOUT using a shutoff valve or nozzle
-

This 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 20, 2010 and the Georgia Drought Management Rules, Chapter 391-3-30 Level 1 and Non-Drought Response. Water wasting prohibitions are per Athens-Clarke County Code of Ordinances Article 7, Sec. 5-3-123. This schedule may be changed by Athens-Clarke County Unified Govt. of the State of Georgia due to drought conditions.

Athens-Clarke County Water Conservation Office / 706-613-3729 / ThinkAtTheSink.com

Helpful resources online:

[Find My Local Extension Office](#)

[Bugwood— Pest Images](#)

[Landscape Alerts Online](#)

[Pest Management Handbook](#)

[Georgia Turf](#)

[Free Online Webinars](#)

[Pesticide Applicator Info](#)

[SE Ornamental Horticulture Production & IPM Blog](#)

[UGA Center for Urban Agriculture](#)

[Georgia Certified Plant Professional](#)

[Extension Publications](#)

Athens-Clarke County Extension Agriculture and Natural Resources

Mission Statement

The UGA Athens-Clarke County 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.

Visit us online:



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