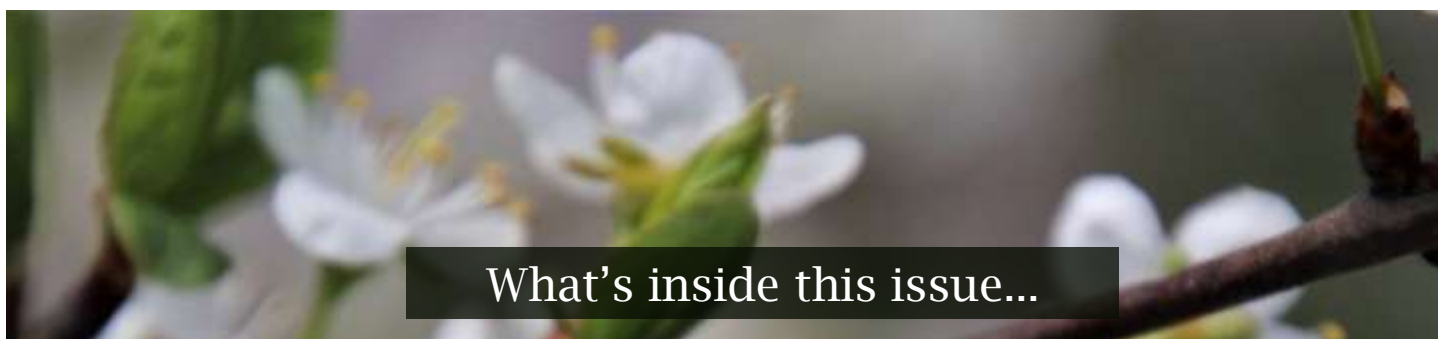




# Shades of Green

Athens-Clarke County Agriculture and Natural Resources E-Newsletter

April 2021



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# A note from Athens-Clarke County Agriculture & Natural Resources

Hello readers and happy spring! We hope you all are enjoying the sunshine and warmer weather we have been having. We are excited for a busy spring season. This issue of the newsletter is full of timely information as well as a listing of all the local plant sales going on this month through next month!

Make sure to take a look at out our [“Stay in the Loop!”](#) page for upcoming classes the aforementioned plant sales, and our next upcoming Smoked Boston Butt Fundraiser. We have added back our [“Local Farmers Market”](#) page which includes details on each of the local markets we have in our county. We will be continuing our Green Thumb Lecture Series this month with a class on [Herb Gardening](#). View the [flyer](#) for this class later in the issue. If you are getting your garden beds prepped for planting veggies, flowers, etc. and run across any questions, don't hesitate to give us a call or send an email. Have a lovely April and we hope you enjoy this month's issue of “Shades of Green”.

Take care,

Athens-Clarke County Agriculture and Natural Resources





# Master Gardener Project Highlight

**By Laura Ney**

Athens-Clarke County Extension

Agriculture and Natural Resources Agent



## **“Best Public Garden, You’ve Never Heard of”**

Have you visited the 10,000 ft<sup>2</sup> Athens-Clarke County Extension Office Garden? It is a site to see. Its gravel paths wind through an array of beautiful spaces, created and maintained by a team of Athens-Clarke County Master Gardeners. There are areas to sit and have lunch, or to just take in the buzzing and chirping of the garden. There is also an expansive produce garden, with raised beds full of seasonal vegetables, herbs and several kinds of fruits.

The creation of this peaceful getaway was no small feat. Kristi Sego and John Aitkens began planning for this garden two years ago, when they discovered that there would be space, behind the new ACC Cooperative Extension building. After Extension moved to the new site, in fall of 2020, Kristi, John and cohorts of fellow Master Gardener Extension Volunteers, went about transforming the football field-sized patch of red clay, into a beautiful, productive garden. An eight-foot deer fence was erected, soil was amended, raised beds were built, irrigation was installed and plants were planted.

Whether you have never seen the garden, or you’ve passed through, before, come and visit. There are always new plants and new additions. The latest project, underway, is the butterfly palace! If you are stopping by to drop off a soil sample, or just in the area, feel free to take a stroll through the garden. This garden is free and open to the public, to visit any time!



**Top left:** Starting from scratch! John and Kristi putting stakes in the ground where the garden will go



**Top right:** Aerial shot of garden progress



**Bottom right:** Hellebores happily blooming in the garden this year

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# Butterfly Increase and Decline Related to Climate

By Josh Paine

**C**limate is likely the biggest driver of butterfly abundance change, according to a new study by University of Georgia entomologists.

Researchers in the UGA College of Agricultural and Environmental Sciences found notable increases in butterfly populations centered around the Southeastern and Pacific Northwest parts of the U.S., while the Southwestern and Mountain States show a decline, a finding consistent with **another recent study** focused on Western butterfly trends.

The team of scientists examined abundance and biodiversity trends for North American butterflies over a period of 25 years using a unique citizen-science dataset that has recorded observations of over 8 million butterflies across 456 species, 503 sites and nine ecoregions. They compared these observations with precipitation, temperature, and urban and agricultural land use.

Butterflies are ecologically important because they are pollinators, herbivores and prey, making them useful indicators of changes in the environment.

“They have a really important role,” said entomology professor **Bill Snyder**, who tracks ecological and species trends and has been following reports of insect declines in recent years.

“The whole idea of the ‘insect apocalypse’ is interesting to talk about, but there’s a whole lot of complexity. It really is region-specific,” he said.

Overall, the data showed a very slight decline of less than 1% per year. However, drops in two



invasive butterflies, the Essex skipper and small cabbage white, disproportionately contributed to overall abundance declines. The mix of butterfly populations showed decreasing, stable or increasing populations depending on location and species.

Michael Crossley, a postdoctoral researcher in the department and lead author of the paper, sought to uncover the drivers of the changes. “There are all sorts of human-caused issues, and we sought to determine which might be causing the increases and decreases,” he said.

Average precipitation and temperature during the sampling period appeared to be the strongest drivers of this complex mosaic of abundance responses. Butterflies that are increasing in abundance might be benefiting from locally improved food resources or reduced stress in areas that have become wetter, according to the study.

“Even this complex mosaic in the changes of butterflies doesn’t mean it’s unpredictable. In this case, we’re finding this single driver. Where places that are hotter and drier there are decreases, and increases in places that are wetter and cooler,” Crossley said.

The data used in the study was compiled by the North American Butterfly Association from citizen-scientist monitoring effort over the past 26 years. Counts are made within a 15-mile area during the summer and are open to participation from the public.

“There are only so many entomologists in the world, and having citizen scientists going out

**[\(Continued on page 5\)](#)**



## Butterfly Increase and Decline Related to Climate (continued...)

doing these counts has provided a totally unique data set that people have never done,” Snyder said.

Even so, the data still has some limitations.

The analysis reaches back only to 1993. “We can’t say anything about what happened before then,” Crossley said. “For example, extensive clearing of land for agriculture had already happened a century or more ago, and our study is blind to these historical changes.”

In addition, only sites from the contiguous 48 U.S. states, Southern Canada and Alaska were analyzed, limiting the ability to predict changes in some regions, notably Mexico and Northern Canada. “Even though it’s an amazing data set, there’s not a lot of data in Canada — so if spe-

cies are moving north, we wouldn’t be able to see it in the data set,” Snyder said.

He plans to continue tracking butterflies and looking at what direction they’re moving. But the future of butterflies will likely depend on climate conditions, he says.

The study is published along with co-authors at Hendrix College and Rice University in **Global Change Biology**. Partial funding for the research came from the U.S. Department of Agriculture’s National Institute of Food and Agriculture.

*(Josh Paine is a marketing specialist with the University of Georgia College of Agricultural and Environmental Sciences. )*







## Scale Insects On Ornamental Plants

By Shimat V. Joseph

**S**cale insects are very common pests of landscape trees and shrubs, yet are often overlooked when scouting. They can, however, be responsible for chlorosis, branch die-back or ultimately death of the plant. Scales are broadly categorized as soft and armored scales. Soft scales produce soft, cottony, powdery or waxy substance that cannot be separated from the scale body. Common soft scales in Georgia are Indian wax scale, Florida wax scale, brown soft scale, oak lecanium scale, magnolia scale, cottony maple scale, cottony camellia scale, cottony cushion scale and azalea bark scale (**Table 1**). Armored scales have a hard shield-like cover that is not attached to the body of the insect. Examples of common armored scales in Georgia are tea scale, euonymus scale, obscure scale, false oleander scale, juniper scale and gloomy scale (**Table 1**).

Soft scales (lecanium, kermes, wax and bark scales) produce honeydew when they feed directly on plant parts that transport fluid and nutrients. This sugary liquid can attract ants and supports growth of the unsightly black sooty mold fungus. Most of the soft scales have one generation per year with few exceptions. Armored scales are generally flat in appearance, cryptic

and well camouflaged. They do not produce honeydew and feed by bursting plant cells and feeding on the contents. They do not directly feed on the vascular bundles of the plant. The waste of armored scale is produced as protective hard cover. Except for adult males and crawlers, armored scales live inside their protective scale covering and previously molted skins. Soft scales secrete a wax covering, protecting them from natural enemies, pesticides and desiccation. Most of the armored scales have multiple generations per year.

### Biology and lifecycle

Scale insects spend most of their lives immobile under their protective coverings. When eggs hatch, the mobile crawlers walk or are blown by the wind to new locations where they settle and begin to feed and produce their own protective coating. The mobile crawlers do not produce protective covering on the body. When the larvae molt, they add a layer of protective covering on the previous one. For some armored scales, the added layers increase in diameter as the larvae increase within the covering. Most scales undergo 3 to 4 larval stages. Many scales spend the winter on twigs and bark before crawlers move to new foliage in the

[\(Continued on page 7\)](#)



## Scale Insects On Ornamental Plants (continued...)

spring. Some scales are strictly bark-dwellers and can be the most difficult to control.

### Scouting

Check the bark of plants and flip over bumps or lumps that could be scales. If there is a soft body underneath the scale cover, it is an armored scale. If the whole bump (scale body) comes up and can be squished, then it is probably a soft scale. If ants or wasps are attracted to foliage look for honey-dew producing scales (or aphids or mealybugs). Paper wasps can be attracted to honeydew, but also troll for caterpillars to feed their young.

The crawler stage is particularly vulnerable to control efforts and can be detected through close inspection. Consider placing double-sided sticky tape on branches with winter scale populations to detect crawlers hatching in the spring. Insects develop in direct relation to temperature, so scale hatch can be predicted. This combination of time and temperature or physiological time is referred to as Degree Day accumulation. Degree Day accumulation can be determined by checking the weather data available through the Georgia Automated Environmental Monitoring Weather Network <http://weather.uga.edu>. Common scale insects, their usual plant hosts and typical occurrence of first crawlers is given in Table 1. Use the information as a guide to schedule scouting activities for these pests.

### Management

Scale infestations primarily occur when the host shrubs or trees are under stress. The types of stress can be from inadequate water (drought), poor fertility or elevated temperature (even increased by few degrees). Presence of impervious surfaces around the host trees or shrubs can increase the ambient temperature, which can increase fecundity of the scale females and rapid population growth. Early detection is key to successful management. Damage and infestation of scales can be specific to certain tree or plant species or their cultivars; thus, host plant or tree and

their cultivar selection is important. If infestation is high on certain branches or twigs, pruning certain plant parts can help reduce infestation.

Sometimes, pruning allows the influx of sunlight, which can improve scale control. The pruned branches or twigs should be immediately removed from infested area and destroyed to prevent re-infestation from the surviving scales.

Scales are primarily managed by natural biological control activity. Natural enemies play a critical role in keeping the scale population under low profile. The natural enemy complex includes several species of lady beetles, predaceous mites and parasitic wasps. Both larvae and adults of lady beetle feed on scales. Young larvae of certain lady beetle species are smaller than others. They can access underneath the scale shield and feed on the developing scale. Several species of parasitic wasps naturally occur in the landscape and parasitize scales. Parasitic wasps lay eggs on the scales and the larvae feed on the scale. Adults of parasitic wasps are not parasitic. The parasitized scales are usually black colored and can be found flipping the scale shield or exit hole on the shield.

Insecticide use is necessary in some situations to reduce the scale population growth. There are some factors that need to be considered when using insecticides. First, identify the scale species and determine whether the infestation is from an armored or soft scale. Regardless of soft or armored scales, application of horticultural oil during winter can destroy the overwintering scales. Similarly, a delayed winter spray of oil before bud-break is effective in killing certain scales. In spring and summer, if it is feeding on the woody tissues (bark and twig) topical applications of oil or insect growth regulators (pyriproxyfen or buprofezin) at least twice during each crawler emergence period can improve control. Other insecticides such as insecticidal soap and neonicotinoids

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## Scale Insects On Ornamental Plants (continued...)

(dinotefuran, acetamiprid, thiamethoxam, clothianidin) can also be used, especially on soft scales, but care should be taken to avoid impacts on natural enemies and other non-target organisms (e.g. bees). If scales are feeding on foliage, neonicotinoid insecticides applied via indirect methods work well especially for soft scales as do others applied topically at crawler emergence. Horticulture oils, insect growth regulators and neonicotinoid insecticides are considered reduced risk insecticides, as they are relatively safe to humans, reduced non-target toxic effects, and compatible to other integrated pest management approaches. Besides horticulture oils and insect growth regulators, other contact insecticides such as organophosphates (diamethoate, disulfoton), carbamates (carbaryl) and pyrethroids (deltamethrin, bifenthrin), are effective as foliar applications but they are also harmful to beneficial arthropods. Second, soft scales usually have one or two generations per year whereas, most of armored scales have multiple generations per year (three to four generations). Later in the year, these generations can overlap especially for armored scales. It is also important to note that crawler emergence timing vary by scale species as shown in Table 1. Thus, understanding the biology of the scale species to track crawler emergence timing to determine foliar insecticide application. If the systemic insecticide are used as soil drench or trunk injection, the timing of crawler emergence is less critical and a single application should provide adequate control. Multiple applications of insecticides may be required if insecticides are applied as foliar spray especially for armored scales. Third, location of scale infestation within a tree or shrub such as on foliage, stem, twigs or branches is an important factor if systemic insecticide is used. Typically, systemic insecticides move upward (from root system to foliage) and end up in actively growing leaves. Most of the soft scales tend to infest the foliage and thus, any neonicotinoid systemic in-

secticides are usually effective on those scales. However, armored scales typically infest on the twigs, branches or bark of the host tree or shrub. These scales are usually exposed to lower dose of systemic insecticide than those scales infest the foliage because systemic insecticides usually move through the vascular bundles (phloem or xylem vessels) and do not stay there. Also, most of the armored scales do not directly feed on the vascular bundles rather than on the cells underneath where they colonize. Thus, they are most likely not exposed to applied insecticide dose that can cause mortality. Among the neonicotinoid insecticides, dinotefuran is effective in reducing armored scales partly because of its high water solubility and mobility within the tree hosts. Finally, size of the host plant is an important factor to consider when using insecticide. Again, dinotefuran has shown efficacy against scales infested on canopies of large trees within a month after soil or trunk injection mostly because of its high water solubility and movement within the tree. In contrast, other neonicotinoids such as imidacloprid, thiamethoxam or clothianidin will require more than a month to show signs of efficacy because they have relatively lower water solubility and mobility within the tree than dinotefuran.

*(Shimat V. Joseph is an Assistant Professor of Entomology for UGA's College of Agriculture and Environmental Sciences)*







## Heritage Orchard Reclaiming Georgia's Forgotten Apples

By Michael Terrazas

**T**he names tick off like racehorses or colors from some fancy catalog: Carolina Red June, Duchess of Oldenburg, Hewe's Crab and Rabun Bald, Limbertwig and Nickajack and Parks' Pip-pin, and many more. But these aren't paint chips — they're apples, hundreds of varieties that thrived in orchards across North Georgia a century ago, before an evolving apple industry swept them off shelves and tables, never to return. Until now. With the help of a dedicated group of University of Georgia researchers, **UGA Cooperative Extension** agents and volunteer enthusiasts, Georgia's lost apple varieties are making a comeback. The newly planted Heritage Apple Orchard, located at UGA's **Georgia Mountain Research and Education Center** in Blairsville, is meant to reclaim many of those bygone cultivars and demonstrate why Georgia once was at the center of the U.S. apple industry.

Arranged in neat rows over two hillside acres that overlook the Chattahoochee National Forest, the Heritage Orchard will soon provide another educational agritourism attraction for the Mountain Research and Education Center, a unit of the **College of Agricultural and Environmental Sciences**. But it will also yield satisfying produce for Georgia consumers and researchers.

"One very basic benefit is simply to reconnect Georgians with the history, and the agricultural history, of their state," said Stephen Mihm, associate professor of history in the **Franklin College of Arts and Sciences**. "But there's another, very important virtue to this work, which is that the apple cultivars that thrive

in Georgia are not typical in their tolerance for heat and humidity. There's growing interest in tapping into those traits genetically, and that's not only restricted to apples."

Mihm helped launch the Heritage Orchard project out of personal interest. He and his wife purchased an old farmhouse near Athens that came with a restrictive covenant requiring that the acreage be used, at least in part, for agricultural production. A native of Connecticut with fond childhood memories of apple orchards and cider mills, Mihm decided to plant a few lesser-known varieties and became interested in learning more about them.

Meanwhile Joshua Fuder, the UGA Extension agent for Cherokee County, had also purchased a home with several heirloom apple trees planted in the yard. Not knowing much about apples and feeling both a professional and personal obligation to learn more, he found his way to the U.S. Department of Agriculture's **Plant Genetic Resources Unit**, based in Geneva, New York.

### A chance collaboration

"They said, 'Hey, did you know there's a professor down there who's working on this, too?'" recalled Fuder, who then grown from seed often tracked down Mihm and suggested they collaborate. Armed with a modest USDA grant, the two began to search for lost Georgia apple varieties, a task that quickly proved challenging when you're talking about single, lonely trees spread across the state. The problem lay in apple trees' method of reproduction. Because trees

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## Heritage Orchard Reclaiming Georgia's Forgotten Apples (continued...)

do not produce the fruit of either parent, commercial apple trees typically are created by grafting a cutting (or scion) from the desired variety to the rootstock of another variety. So there were no forgotten drawers of old seeds waiting to be discovered—Fuder and Mihm would have to exhaust every connection they had to find clues. Mihm said he spent many hours driving backwoods roads, scanning the countryside for the occasional stand of apple trees.

Meanwhile they were having better luck turning up examples of apple varieties that were not quite lost but still uncommon—some even in danger of disappearing. They pivoted and successfully filed for a revision of the USDA grant, with the primary purpose this time being to create a repository for this small but growing catalog. And so was born the idea for the Heritage Orchard. To date, the team has preserved nearly 140 different varieties. In March 2020, they grafted scion wood from 101 of those varieties onto M7 rootstock, which will result in trees in the just-right range for height and vigor. For almost a year the young trees grew in pots at the Blairsville station, protected from hungry deer by an electrified fence. Then, on a beautiful afternoon in early February, those time-traveling trees went in the ground.

“Apples have been part of this station since it was first built back in the 1930s,” said Ray Covington, superintendent of the Mountain Research and Education Center, which already had hundreds of apple trees, but only about eight or nine common cultivars. “The whole concept of reviving these old Southern varieties fits perfectly with what we try to do up here.”

The orchard is also attracting interdisciplinary partners. Franklin College is represented through Mihm, CAES through Covington and the Extension through Fuder and other agents. Professor Brad Davis from the College of Environment and Design is also on the USDA grant, for which Mihm serves as principal investigator.



### Anticipating the fruits of their labor

“It’s just a fantastic collaboration,” Covington said. “We’ve got the trees separated into four general areas based on their blooming time and how they respond to disease, and that sets us up to address some really great research questions.” In March, another batch of varieties will be grafted onto rootstock, and those baby trees will also spend time growing in pots within their safe enclosure, waiting to join their older cousins in the ground. Within about three years, the Heritage Apple Orchard will produce its first fruit. As for apple varieties that have been truly lost, Mihm and Fuder hope that once people hear about the Heritage Orchard, the owners of those lonely trees will come to them. And Georgia aficionados once again will have a chance to sample apples their great-great-grandparents might have once enjoyed.

“At one time, Habersham County arguably produced more apples per capita than any other part of the country—it was big business,” said Mihm, who also hopes the Heritage Orchard provides a boost for the state’s cider industry, similar to what’s happened with Georgia winemakers. “The Mountain Research and Education Center gets a huge number of visitors each year. We hope to have tastings and cider pressings—we want to have public events to show people in this state that they can grow these apples again after 100 years.”

*(Michael Terrazas is the director of research communications for the University of Georgia. )*



Athens-Clarke County Extension

# Virtual Green Thumb Lectures

2021 Free Monthly Gardening Class Series



## April: Herb Gardening

Please join us online for an informative presentation by Master Gardener, Rita Mathew, on topics including:

- The culinary, medicinal, pollinator & companion crop properties of herb gardening
- Process of growing herbs
- Requirements for growing healthy herbs

Gardeners of all experience levels are welcome.

### WHEN:

Wednesday, April 21 · 6:00-7:30 pm

### WHERE:

ONLINE via Zoom.com

Specific link to join Zoom meeting will be sent to the email you register with.

### TO REGISTER:

Registration is required. Please register by April 20 by visiting

[www.accgov.com/gardening](http://www.accgov.com/gardening)

### For questions:

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

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# Stay in the loop! (local and online activities)

## UGA Trial Garden Spring Plant Sale

Saturday, April 3 from 8am-1pm

RSVP Required

Contact [trial-gardens@uga.edu](mailto:trial-gardens@uga.edu)

## The State Botanical Garden of Georgia Plant Sale with Timed Access

April 3, 2021

To sign up for a time slot, visit [their website](#).

## “Hydrangea—There’s One for Every Landscape” virtual presentation by Coweta Master Gardener Extension Volunteers

Tuesday, April 13 at 7:00pm

To register, please visit <https://bit.ly/BYA2021LisaBartlett>

## Athens-Area Master Gardener Association’s 2021 Dazzling Daffodil Bulb Sale

Order now until April 30, 2021 for pickup in October. To see bulb descriptions and to access the ordering form, visit [tiny.cc/aamga2021bulbsale](https://tiny.cc/aamga2021bulbsale)

## Athens-Area Master Gardener Association’s Annual Spring Plant Sale

When: April 24, 2021 from 8am-1pm  
(Rain or shine)

Where: ACC Extension Office  
275 Cleveland Road, Bogart, GA 30622  
Payments by only cash or check

## Hort Club at UGA Spring Plant Sale

April 3rd, 4th, 10th, and 11th from 8:00 a.m. to 5:00 p.m. Offering perennials, woody plants, veggies, houseplants, and succulents. In-person shopping by appointment only - sign up by visiting [calendly.com/hortclubuga/plantsale](https://calendly.com/hortclubuga/plantsale)  
View the plant list on Facebook - [@ugahortclub](#)

## UGarden Spring Plant Sale and Market

Saturday, May 1, 2021 from 9am-3pm  
2510 S. Milledge Ave

## UGA Dougherty County Extension Spring Gardening and Lawn Maintenance Series Webinars

Tuesday, April 6: Home Vegetables

Tuesday, April 13: Floral Container Gardens

Tuesday, April 20: South GA Lawn Care

Tuesday, May 4: Landscape Herbs

From 6:00pm-7:00pm

To register, please visit [Spring Horticulture Series Registration 2021](#)

## The UGA Honey Bee Lab upcoming 2021 Virtual UGA / Young Harris Beekeeping Institute

An educational event Thursday - Saturday, May 13 - 15, 2021 that meets the needs of everyone: experienced beekeeper or complete beginner. The two-day event will consist of lectures and workshops covering a vast range of beekeeping topics. Please [visit their website](#) for updates soon on program and registration information.

## ACC Extension and Athens-Area Master Gardener Smoked Boston Butt Sale Fundraiser

May 29, 2021

More details to come!

Email [Iney@uga.edu](mailto:Iney@uga.edu) if interested.

The State Botanical Garden of Georgia is open for the public, but make sure to check out [their website](#) for updates and hours. Contact the State Botanical Garden of Georgia by emailing [garden@uga.edu](mailto:garden@uga.edu) or calling 706-542-1244.

- [Discover education activities for home.](#)
- Check out their [event calendar](#) for more offerings.

UGA Extension offices around the state are working hard at developing quality online presentations on various topics.

Visit the UGA Extension [event calendar](#) to see events happening local to our county as well as virtual opportunities.



# 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.

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

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

MARIGOLD



MARKET

Are you interested in the new **Winterville Farmers Market**? Online ordering with pick-up options available now.

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

Find out more on Facebook:  
[@marigoldmarketwinterville](#)

Instagram: [@marigoldmarketwinterville](#)



# Join Athens-Clarke County 4-H!



Students in 5<sup>th</sup> - 12<sup>th</sup> 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](mailto:ebarber@uga.edu) today!



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

<https://tinyurl.com/acc4hvirtual>

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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





## Helpful resources online:

<a href="#"><u>Find My Local Extension Office</u></a>	<a href="#"><u>Bugwood— Pest Images</u></a>	<a href="#"><u>Landscape Alerts Online</u></a>
<a href="#"><u>Pest Management Handbook</u></a>	<a href="#"><u>Georgia Turf</u></a>	<a href="#"><u>Free Online Webinars</u></a>
<a href="#"><u>SE Ornamental Horticulture Production &amp; IPM Blog</u></a>	<a href="#"><u>Pesticide Applicator Info</u></a>	<a href="#"><u>Georgia Certified Plant Professional</u></a>
	<a href="#"><u>UGA Center for Urban Agriculture</u></a>	<a href="#"><u>Extension Publications</u></a>

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## 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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