Georgians are accustomed to evergreen azaleas, but native azaleas are currently growing in popularity. Unlike evergreen azaleas, native azaleas lose their leaves in the fall, grow tall and airy rather than low and dense, and bloom in the spring and summer.

University of Georgia plant breeder Carol Robacker has studied azaleas for the past 25 years. She and her research technicians, Allen Byous and Sherrod Baden, have learned a lot about one of the South’s most popular flowers. A scientist with the UGA College of Agricultural and Environmental Sciences (CAES), Robacker breeds new landscape plants that are genetically adapted to survive and thrive in the heat and drought stress of Georgia’s urban conditions. Robacker works with CAES entomologist Kris Braman to breed native azalea plants that can tolerate azalea lace bugs, a major pest of azaleas.

Evergreen azalea flowers come in a wide variety of forms, and the most common is single-petal. Native azaleas typically have tubular flowers with long stamens that extend beyond their petals. “There are more than 17 species of native azaleas. We collected a number of these that grow in the Piedmont (region) and are now evaluating which ones are adapted to Georgia,” said Robacker.

The Research and Education Garden on the UGA Griffin campus is filled with row after row of her research plots. In Robacker’s laboratory and greenhouse at UGA-Griffin, Byous and Baden tend the plants and record any insects and diseases that affect them.

To help Georgia gardeners successfully grow azaleas, they offer the following tips.

“First, when you buy an azalea, turn the pot upside down. Gently remove the plant from the pot and examine the roots. If the roots are light brown and the pot is fairly full of healthy-looking roots, you’re good. If they are black, don’t buy it,” Byous said.

When it comes to site selection, pick a spot that gets both sun and shade, Byous said.
Native Azaleas continued...

Azaleas need sunlight to develop flower buds and flowers, but most azalea varieties perform better in the shade, which protects them from extreme heat in summer. “A 50-50 mix of sun and shade makes for a good compromise for most varieties,” he said.

Look closely at the soil. Azaleas don’t like wet, boggy areas, and native azaleas especially like well-drained soil, Byous said. Azaleas also like an acidic soil with a pH in the 4.5 to 6.0 range.

When you are ready to plant, dig a hole 4 inches larger than the pot. “Break up the root ball, scar the inside of the hole so the roots can spread and place the plant 2 inches higher than soil level so it drains well,” he said.

Add pine bark or shredded leaves as mulch to insulate the plant and keep the weeds down.

Water the new azalea plant heavily for the first two years and fertilize in the spring with a slow-release fertilizer similar to a 19-5-8 fertilizer blend.

Native azaleas typically aren’t pruned, but if you choose to prune, do so after they bloom and before the new buds set the following spring.

“You don’t have to prune them, but you may want to if they grow outside the area where you planted them,” said Robacker. “But please don’t try to create a meatball shape. Natives aren’t meant to be shaped like that.”

Over her 37-year career at UGA-Griffin, Baden has developed a dark green thumb. Her advice to azalea lovers is simple: Don’t move them once they are established.

“If you want an azalea in another area of your yard, take cuttings from your azaleas and root new plants,” she said. To do this, select shoots that are about 6 inches long. Snap the branch to remove a cutting. Place the cutting in a plastic bag with a damp paper towel and label the bag.

“Keep the bag out of the sun. Put the bag of cuttings in the refrigerator overnight,” she said.

The next day, trim the cuttings from the bottom to create a 4- to 6-inch cutting. Remove all the leaves except the top pair, and trim these by about half to reduce plant stress.

“Wound about a half-inch of the lower stem of the cutting by scraping the surface with a sharp knife. Dip the cuttings in a rooting hormone of your choice, liquid or powder,” Baden said. “Stick cuttings in a mix of milled sphagnum moss and coarse perlite mixed 1-1.”

Place the cuttings in light shade under an automatic misting system to keep them moist for several weeks. “If you don’t have an automatic system, create a humidity dome out of a plastic shoe box or corsage box. Gradually open the box over a few weeks to decrease the humidity and allow the cuttings to adapt to the drier air,” she said.

After several weeks, the cuttings should have roots. Allow the newly rooted cuttings to grow undisturbed their first season. Cuttings must overwinter in a protected, cold environment and go dormant. Newly rooted azalea cuttings should bloom two years after being established.

Oconee Azalea, R. flammeum  Cumberland Azalea, R. cumberlandense  Florida Azalea, R. austrinum

For more in-depth information on azaleas, including a list of a variety of native species, please see the UGA Extension publication Selecting and Growing Azaleas. For more information about native plants and a native plant nursery list, visit the Mimsie Lanier Center for Native Plant Studies at the University of Georgia State Botanical Garden. To test your soil, see the UGA Extension publication, Soil Testing.
Rabbits are often welcomed additions to lawns because many homeowners find them adorable. They love to see rabbits at the edges of their lawns early in the morning or in the evening. However, if the population is left unchecked, rabbits can cost homeowners hundreds, even thousands, of dollars a year in damages.

In the Southeast, rabbits feed on backyard plants year-round. They consume flowers, soft stems, fruits and vegetables during the spring and summer months. Very few home-garden crops, like tomatoes, cucumbers, potatoes, corn and spicy peppers, are immune to rabbit damage. Rabbits can kill older, mature trees by stripping bark from the trees’ bases.

Damage caused by rabbits is often mistaken for damage by whitetail deer and squirrels. Many of their foraging habits overlap.

Rabbit damage is identifiable by gnaw marks on woody vegetation. Bark gnawing usually occurs in patches and doesn’t occur higher than 2.5 feet above ground level.

Other signs of rabbit damage are young, clean-cut stems sheared at an angle. This damage looks as if the stem was cut with scissors. The presence of round, pea-sized droppings around damaged areas may also be chalked up to rabbits.

One of the easiest ways to mitigate damage caused by rabbits is to modify their habitat. Remove brush piles and weed patches, fill holes and remove any debris that could be used as a den site. Habitat modification is extremely effective in residential areas because there are very few suitable habitats available.

When habitat modification doesn’t work, use a physical barrier to prevent rabbits’ access. Exclusion is the most effective means of control, but it can be the most expensive in terms of labor and money.

Fences to deter rabbits should be at least 2 feet tall, buried 8 to 12 inches below the ground, and constructed out of chicken wire or hardware cloth.

Tree guards may keep rabbits from tearing the bark from young trees. Construct box cages around small, raised gardens and individual plants to protect them. Be sure to use hinges on these box cages so the homeowner has an access point.

Repellents are the most common form of pest control. A variety of chemical repellents, designed to discourage rabbits from browsing, are on the market today. Remember to vary the products you use. If you use the same repellent over and over again, the rabbits will become accustomed to that product, rendering it ineffective.

Most repellents can be sprayed or brushed on like paint, and most are contact-, taste- or odor-based repellents. Taste-based repellents should be applied before damage occurs. Homeowners who experienced previous damage to their vegetable gardens should apply repellent shortly after this year’s crop begins to emerge. This teaches the offending animals that these plants are unpalatable.

The final option is lethal control. Rabbits are classified as a game species in Georgia, so game laws must be followed. When rabbits are in season, live box traps can be baited with apples, lettuce, carrots or Brussels sprouts. While shooting is a quick, easy method of control, most municipal firearm ordinances prohibit the discharge of firearms within city limits.

While rabbits may be adorable, they can also be the source of significant damage to backyard gardens and landscape plants. Fortunately, there are a variety of available control techniques that can help mitigate and even prevent rabbit damage.

For more information on controlling nuisance wildlife, see the University of Georgia Extension Publications *Repellents and Wildlife Damage* and *Garden Fencing*.
In the 1980s, when Georgia Winery and Habersham Winery opened their doors, the north Georgia mountains were known more for moonshine than for fine wine. Now, Georgia wineries draw thousands of visitors a year and contribute more than $81.6 million to the state’s economy annually. Georgia’s wine industry is thriving and pushing its way onto supermarket and wine shop shelves by sheer will and a little bit of that rogue moonshiner spirit.

Vineyard and winery owners have worked to gain a foothold for the state in the world of wine while managing the challenges that come with farming wine grapes in Georgia. In the last few seasons, with the addition of multiple north Georgia vineyards as well as the establishment of vineyards in the southern Piedmont region, Georgia’s wine industry is hitting critical mass, said Larry Lykins (BSA – Animal Science, ’96; MS – Animal Science, ’98), who also has an education specialist degree from the University of Georgia. Lykins is the owner of Cartecay Vineyards in Ellijay, Georgia, and vice president of the Georgia Wine Producers.

“It started in 1980 with Georgia Winery and Habersham Winery; that was the first wave,” Lykins said. “Then we had the second wave with about eight to 10 vineyards opening in the 1990s, and then we had a third wave between 2008 and 2012. That’s when we opened. As for what we’re seeing today, I wouldn’t even call it a wave anymore. It’s just steady growth.”

Today there are almost 60 wineries in Georgia, spread across the north Georgia mountains, the west Georgia foothills and even on the flat expanses of the Coastal Plain.

On land that used to be cattle pasture, sorghum fields or pinelands, a diverse group of planters have staked their claim in the name of grapes and winemaking, a big investment that often takes seven to 14 years to break even, said Lykins.

Georgia Wine Producers worked with UGA College of Agricultural and Environmental Sciences administrators and the Georgia General Assembly to put together funding for a UGA Cooperative Extension state viticulture specialist and hired Cain Hickey in 2017. Hickey’s expertise will help to take the industry to the next level, said Emily DeFoors, president of the Georgia Wine Producers and general manager of Habersham Winery in Helen, Georgia.

“Just having a point person who can give us good information and help us organize workshops and field days for our producers is huge,” DeFoors said. “It’s a pivotal turning point for us as we shift into truly supporting the industry. We are just absolutely delighted that Cain joined UGA, and he has been a great addition to the industry.”

In the nine years since the University of Georgia College of Agricultural and Environmental Sciences launched its “Viticulture and Enology in the Mediterranean Region” May term in Cortona, Italy, almost 200 students have learned about Italy’s wine industry while earning credit for horticulture, food science or plant pathology courses. Continued on page 5
Phillip Stice (BSA – Biological Science, ’10) used the knowledge he gained during his May 2010 trip to land an internship at north Georgia’s Tiger Mountain Vineyards and, eventually, a job as a wine sales representative with Specialty Wine Distributors. He works with chefs, bar managers and wine shop owners to curate wine lists that feature boutique vintages from France and California. Stice took part in the viticulture and enology May term, and it gave him the foundation he needed to start his career. “It was a great base of knowledge and gave me the jump-start I needed to start my career, but I’m excited that they’re putting more resources into wine growing now,” Stice said. Stice produces a small amount of wine under his own label. He worked with family friends at Caymus Vineyards in Rutherford, California, to bottle his Stice Russian River chardonnay in 2014 and his Stice Russian River zinfandel in 2015.

Taylor Lee (BSA – Food Science, ’13) learned about jobs in the wine industry during his time in the study abroad program. “If I had not taken UGA’s viticulture and enology course, I would have been pretty lost,” Lee said. He worked as a lab technician at Robert Mondavi Winery in Napa Valley, California, before starting his master’s degree in viticulture and enology at the University of California, Davis. He is currently working at E. & J. Gallo Winery in Modesto, California. “Most people have this romantic vision of what winemaking is,” Lee said. “But it’s a lot of dirty work. You get your hands messy. That’s something I really enjoy about it … Even though it has this culture of fanciness around it, it’s still agriculture at its core. We’re still working with the land to produce a great product that people enjoy.”

As a graduate student in plant pathology, Stephanie Bolton (MS – Food Science, ’12; Ph.D. – Plant Pathology, ’16) helped to lead the college’s viticulture and enology study abroad trip, performed research on fungi from Vitis vinifera vineyards in the southeastern U.S., and surveyed mycotoxins in red wine. Today, she works as the grower communications and sustainable winegrowing director for the Lodi Winegrape Commission, a California winegrowers advocacy group. “(Bolton) brings an extensive knowledge of grape growing along with a strong background in sustainability initiatives,” Lodi Winegrape Commission Board Chairperson Galen Schmiedt said. “Her valuable connections within the academic and research communities will continue to position Lodi as an innovator in the viticulture and enological world.”

Internships with Georgia wine producers are also a cornerstone of winemaking education at CAES. The program pairs students with north Georgia vineyards and provides a stipend for living expenses. For the past three decades, University of Georgia Cooperative Extension agents and specialists have also supported Georgia’s wine grape industry. Today, under Extension viticulture specialist Cain Hickey’s leadership, the Extension Viticulture Team is advancing Georgia’s wine industry. Hickey is creating new platforms that will allow members of the team to speak directly to area growers. The viticulture team is a knowledge base and network of support for growers, said Mattee. She’s been working with grapes for over a year and having a network of fellow Extension experts to rely on has been essential.

To learn more about the program, visit the viticulture team’s blog at blog.extension.uga.edu/viticulture. If you are interested in making your own wine or growing your own grapes, see the UGA Extension Publications Winemaking at Home, Home Garden Bunch Grapes, and Home Garden Muscadines.
During Georgia Agricultural Awareness Week, UGA Extension offices across the state have been celebrating farmers and highlighting all the ways agriculture influences our daily lives. Agriculture is the number one industry in Georgia, contributing approximately $75 billion to the state economy each year. Our state is the number one producer of five agricultural commodities across the nation: blueberries, broiler chickens, peanuts, pecans, and spring onions.

During Agricultural Awareness Week, from March 19-23, I was asked to highlight my Ag Hero. Because I work with so many incredible agricultural professionals every day this was a hard choice, but I would like to feature one special group here: The Athens Farmers Roundtable.

The Athens Farmers Roundtable was formed in 1925 to teach members about good agricultural practices and current developments in the field. Comprised of 11 Athens-Clarke County former and current agricultural workers and the sitting County Agriculture Agent, there are 12 Roundtable members at any given time. Members have included two former UGA College of Agriculture and Environmental Science department heads, USDA employees, farmers, and a Clarke County Commissioner.

The group has met consecutively for the past 92 years! I am the eighth Agriculture Agent to belong to the group and other members have shifted over time as well. The group meets monthly and welcomes a speaker who gives a presentation on a variety of different agricultural topics. In the past, the group met in members’ homes, but now convenes at a central location.

The dedication to the field of agriculture demonstrated by this group, and the foundation of knowledge they have built in our community, is inspiring. I am grateful for their friendship and guidance and truly consider them Ag Heroes!

Amanda Tedrow is the Athens-Clarke County Extension Coordinator and Agriculture and Natural Resources Extension Agent.
It is time again to start planning and enhancing your garden and there is no better place to get your plants than at Plantapalooza! This year’s sale will be on Saturday, April 14 from 3 am to 2 pm. This is an annual event held at three individual UGA groups: The State Botanical Garden of Georgia, The Trial Gardens at UGA, and The UGA Horticulture Club, and each location will have different options. Each group will be selling a wide selection of plants, a large selection of native plants, shrubs, trees, perennials, and edibles including a wide variety of tomatoes, peppers and herbs. They will have horticulturalists from the State Botanical Garden, Master Gardeners and knowledgeable volunteers on-hand to help answer questions and help you make the perfect plant selection for your garden, yard or planter!

The Athens Area Master Gardener Association’s Dazzling Daffodils Bulb Sale is going on now through the end of April! Find the selections and place your order at tinyurl.com/aamga-bulb-sale

The Athens Clarke County Ladies Homestead Plant Sale and Fundraiser will be on Saturday, April 14 from 9:00 to 11:00 am and is held at the Athens Clarke County Extension Office.

Part of Plantapalooza, the UGA Horticulture Club Spring Plant Sale will also be held on additional dates: April 6-8 and April 12-15 at the corner of Riverbend Road and College Station Roads from 8:00 am to 5:00 pm on Friday and Saturday, and noon to 5 pm on Sunday. For more information visit www.facebook.com/ugahortclub.

The University of Georgia Plant Biology Graduate Student Association is also hosting a Plant Sale with the Botany Greenhouse Staff with unique varieties of herbs, veggies and companion plants for vegetable the local community. Order your plants in advance and there are a variety of days for pick up, including the same day as Plantapalooza, Saturday, April 14, from 10 am to 12 pm.
Lawn Care

Please join us for an informative presentation on topics including:
- Warm season and cool season grass varieties
- Fertilizing and weed control
- Installing sod versus planting seed
- Turf Diseases
- Lawn Irrigation

Gardeners of all experience levels are welcome.

WHEN:
Wednesday, March 28 · 6:00-7:30 pm

WHERE:
Athens-Clarke County Library
Appleton Auditorium
2025 Baxter Street
Athens, GA 30606

TO REGISTER:
Registration is required. Please register by March 27 by contacting ACC Extension at 706-613-3640 or by emailing atedrow@uga.edu

For questions and to register:
Contact Amanda Tedrow, Extension Agent at 706-613-3640 or atedrow@uga.edu

The University of Georgia is committed to principles of equal opportunity and affirmative action.
Local “Green” Events

On Saturday, April 7 from 12:00 to 2:00 pm, the 2nd Annual Seed Swap and Plant Giveaway community event will be held at the Statham Public Library (1925 Railroad Street, Statham). This free event will have seeds and live plant seedling to give away such as cucumbers, lettuce, kale, cantaloupe, marigold, as well as angel trumpet and confederate rose rootings. There will also be several guest speakers who will be discussing gardening topics and answering questions.

Athens-Clarke County and the National Weather Service are offering a FREE Skywarn Storm Spotter Training Class. On Thursday, April 12, anyone from the general public with an interest in the weather can train to be a part of the SKYWARN volunteer program. The class will be held at the ACC Planning Department Auditorium (120 W. Dougherty Street) at 6:00 pm. Please register or get more information by calling Beth Burgess at 706-613-3410.

The 2nd Annual Winterville Tree Tour will be held on Saturday, April 14 from 2:00 to 4:00 pm. The walking tour will begin at Prittard Park in Winterville (125 N Church Street) and covers “Invasive Plants in Your Landscape” including plant ID and management techniques. For more information or to register, please email hollycam@uga.edu.

Join us on Thursday, April 19 at “The Greenest Show in ACC” GreenFest 2018 Sustainability Awards from 5:30 to 8:30 pm at Flinchum’s Phoenix (650 Phoenix Road). GreenFest is a community-wide sustainability celebration open to the public. The GreenFest Awards recognize sustainability leaders in Athens-Clarke County schools, businesses, and organizations, and will feature award winners from our K-12 student art, photography, and poetry contest.

The State Botanical Garden of Georgia’s Plants, Pollinators, and Landscaping class will be the first in their Plants and Pollinators Specialization series. Held on Saturday, April 21 from 9:00 am to 5:00 pm, this program will explore the relationships between plants and pollinators to guide participants in supporting these relationships in their own landscapes. Call 706-542-6156 or email cscamero@uga.edu for more information. Registration for this $105 course is required.

Hosted by UGA Bag the Bag, the Athens Earth Day Festival will be on Sunday, April 22nd, from 1 to 6 PM at Terrapin Beer Company (265 Newton Bridge Road). All ages are welcome to this family-friendly event. There will be performances, speakers, and fun activities put on by local organizations. Come learn more about efforts going on here in Athens to protect and sustain the environment!

There is no time like spring, when life’s alive in everything.

Christina Rossetti
Outdoor Water Use Schedule*

Public Utilities
water. wastewater. conservation.

**allowed daily**
**Between 4:00 pm and 10:00 am**
- Automated irrigation systems
- Hand watering (without a shut-off nozzle)
- Lawn sprinklers

**allowed anytime**
**By anyone**
- Commercial pressure washing
- Drip irrigation or soaker hose
- Food gardens
- Hand watering (with a shut-off nozzle)
- Hydroseding
- 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

**prohibited at all times**
- Failure to repair or bypass a leaking sprinkler head or emitter, valve, faucet, pipe, or toilet
- Allowing potable water to flow into public rights of way such as alleys, streets, or gutters or onto other person’s property
- Operating an irrigation system during rain events exceeding 1/4 inch
- Washing vehicles, driveways, parking lots or sidewalks without 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 2, 2010 and the Drought Management Rules, Chapter 391-3-30 Level 1 and Non-Drought Response. Water wasting prohibitions per Athens-Clarke County Code of Ordinances ARTICLE 7. Sec. 5-3-123

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:

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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.

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