

SUMMER 2019

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Content Editor and Team Leader  
**Lucy Bradley, Ph.D.**  
 NC State University  
 Campus Box 7609  
 Raleigh, NC 27695-7609

Managing Editor  
**Matt Jones**

Regional Editor, Coastal  
**Matt Stevens**

Regional Editor, Piedmont  
**Brad Thompson**

Regional Editor, Mountains  
**Hannah Bundy**

Statewide Editor  
**Hanna Smith**

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## Summer-flowering trees and shrubs

Any gardener can produce a colorful landscape of trees and shrubs in the spring. Even the fall isn't much of an effort because as leaves start to turn, the landscape can light up with brilliant yellow, red, and orange foliage. The winter landscape can also showcase seasonal berries, variegated foliage, colorful stems, and peeling barks without a gardener giving it too much thought. But it seems that the summer landscape proves to be the undoing of many gardeners. Other than relying on summer-flowering annuals and perennials, many gardeners don't know how to bring color into the landscape.

A few decades ago, the plant inventory for summer color was definitely lacking, and the most that gardeners could hope for was the occasional crape myrtle or rose of Sharon. There were plants out there, but they weren't necessarily readily available to the average home gardener. But times have changed! An explosion of summer-flowering trees and shrubs has been welcomed by those who are tired of a drab summer landscape.

Today the list of summer-flowering trees and shrubs is endless, and there is something for everyone. Let's look at hydrangeas. Forget about the giant blue-flowering shrub that towered over the landscape with massive blooms in early



Invincibelle™ Spirit II Mountain Hydrangea, a *Hydrangea arborescens* cultivar bred by Dr. Tom Raney at NC State, is a strong rebloomer, flowering midsummer to frost.  
 ©Mountain Crop Improvement Lab, NC State



*Magnolia grandiflora* 'Little Gem'  
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summer. Now there are dozens of new cultivars. Many are compact offerings such as Cityline® Rio and Jet Stream™. Many more are rebloomers that offer flowers on and off all summer, including Invincibelle™, Twist N Shout®, Tuff Stuff™, and Bloomstruck®.

The genus *Viburnum* includes shrubs that have been around forever. While they have beautiful flowers in the spring and early summer, their fall foliage is just as spectacular. There are also dwarf selections now available. The summer-blooming butterfly bush is a great butterfly attractor. But because of its size and re-seeding characteristics, it is not planted by some gardeners. New sterile and dwarf cultivars, such as the Lo & Behold® series bred by Dr. Denny Werner at NC State and the Pugster® series, make the butterfly bush a great summer show-off.

Blue-flowering *Caryopteris* cultivars such as Petit Bleu™ and 'Silver Mist' offer great summer color. Spirea, clethera, dwarf gardenia, abelia, and Knock Out® roses are all good choices for summer bloom. Even the new dwarf magnolia 'Little Gem', which is small enough for a container but blooms again and again throughout the summer, can offer summer interest.

It takes a little research to ferret out these summer-flowering offerings, but just knowing that there are choices for a great summer landscape is enough to get those creative juices flowing.

—Donna Teasley

## Extension Showcase

### Pesticide disposal day

Pesticides, even those commonly used around the house, can be hazardous to our environment if disposed of improperly.

Plants, animals, and humans can all be affected by the unsafe and careless disposal of everyday chemicals from our homes.

To reduce these dangers and provide a proper method of disposal, the Montgomery County Extension Center, in a partnership with the NC Department of Agriculture and Consumer Services' Pesticide Disposal Assistance Program (PDAP), conducted a pesticide disposal day for all residents of Montgomery County, as well as surrounding counties.

This event allowed anyone with pesticides to dispose of their products properly.

The Pesticide Disposal Day was a successful event as individuals from across Montgomery County and surrounding counties brought in and disposed of 233 containers of pesticides.

Those 233 containers of pesticides weighed 1,715 pounds. With an estimated disposal cost of \$1.10 per pound, this collection day saved the citizens of Montgomery County approximately \$1,886.50 and provided residents with peace of mind that the unwanted or out-of-date chemicals were discarded in an environmentally safe manner.

For more information on Pesticide Disposal Days in your county, contact your local Cooperative Extension center.

—Brad Thompson

## Smart Gardening: Squash bug management



Female squash bug and eggs. ©Bruce Watt, University of Maine, Bugwood.org, CC BY-NC 3.0 US

the most susceptible. Look for resistant varieties or rotate out of susceptible crops. (2) Scouting for squash bugs is the most effective way to manage the problem. As leaves begin to wilt, check for squash bugs and eggs underneath the leaves. It is easier to kill eggs and young squash bugs. (3) Individually collect and kill the squash bugs and their eggs and destroy them if you find only a small number. (4) Place a board or shingles around the plant. The squash bugs will gather under the boards at night for shelter. Using this method, a large number of squash bugs can be killed every morning until the problem is under control. (5) Use an insecticide along with the above methods to ensure a thorough result. Follow label directions carefully, especially to avoid harming pollinators during flowering. (6) Keep vines covered until blossoming begins since there is only one generation of squash bugs per year. (7) Dispose of all plant debris over the winter months. You can either burn or compost it.

—Minda Daughtry

## Food Production: Grow summer microgreens

What's the difference between sprouts and microgreens? Sprouts are grown for their cotyledons (seed leaves), seeds, and roots, and usually indoors without soil. Microgreens, on the other hand, can be grown outdoors or indoors with light, and on a thin layer of soil media or organic fabric. They are harvested when the seed leaves and sometimes the first true leaves have developed and take 7 to 14 days from seed to plate. Microgreens are an excellent diet enhancer.

They grow fast, come in a variety of textures and culinary uses (soups, salads, sandwiches, garnishes), and their nutritional content can be 4 to 40 times the amount in their full-grown counterparts! To grow microgreens, you need a clean black plastic tray, soil-less potting mix (labeled for vegetables, without water-holding crystals), and seeds for planting. The tray must have drainage holes. Put a screen of some kind over the growing microgreens to protect them from squirrels and birds. Make sure you purchase seeds that are labeled free of pesticides and for human consumption. Sunflower greens are excellent in hot weather, while pea shoots or cole crops grow best when it's cool. Put 1 inch to 1½ inches of potting soil in the tray and scatter the seeds thickly over the soil. Large seeds will almost touch, while smaller seeds might be at 10 to 12 seeds per square inch. Cover lightly if at all with a fine layer of potting mix and water gently. Keep the growing mix moist but not soggy. Once sprouted, the tiny plants need at least 4 hours of sun a day or a grow light to get their full green color. During summer months, limit sun exposure to the morning hours. After 7 to 14 days, use scissors or a sharp knife to cut the microgreen seedlings off just above the soil line, rinse, and enjoy in all your recipes! Dump the soil in the garden, wash and sanitize the tray, fill with new soil, and prepare for your next batch.

—Jeanna Myers



Microgreens are diet enhancers that grow fast. ©Elvert Barnes, CC BY-SA 2.0

## Pest Alert: Fleas

With warm weather comes active pests, especially fleas. Fleas are 1/16-inch to 1/8-inch long and are brownish-black in color. They have a flattened body shape that allows them to move easily between the hairs of their host animal. Fleas are wingless but are able to jump significant distances given their tiny size. Most homeowners first recognize an overabundance of these bloodsucking pests around their ankles when standing in their yards, or they see them on their house pets that are allowed access to the same yard. Flea infestations in yards are often caused when wild animals such as opossums and raccoons or affected neighborhood or stray pets frequent the property.

To control fleas in the yard, there are several things that can be done. The first is to treat the home-owner's animals with a veterinarian-approved flea control. If pets are being fed outdoors, the food should always be taken into the house at night to deter wild animals from visiting the property for a free meal. The next step is to limit access to the property that has been frequented by wild or stray animals by fencing in the problem area. If fencing is not an option, one should finally consider a chemical control alternative. Bifenthrin, carbaryl, and permethrin are all pesticides for fleas in the lawn and home garden; however, they are detrimental to beneficial insects, so options should be heavily weighed before taking chemical action. With heavily infested properties, multiple treatments may be warranted. A second treatment may be needed 10 days after the initial treatment. When treating, pay close attention to areas under shrubs and trees, not just the open sunny areas of the lawn. Check with your local Cooperative Extension agent for more help and make sure to follow all pesticide label instructions fully.

—Jamie D. Warner

## Lawns: Practice observation in the lawn this summer

Summertime is a great time to enjoy the sunshine, but hot and humid weather is stressful for many plants, including your lawn. Observe your lawn this summer, and take steps to improve the health of your grass.

In any lawn, avoid mowing when the grass is wet. Cutting the lawn while it is wet and humid can encourage disease in your lawn. Wait to mow until your grass has dried. When you are mowing your lawn, change the direction in which you mow each time to keep the grass growing upright.

If the weather has been dry for a long period, watch the lawn as you walk through it. When your footprints remain in the grass for an extended period after you walk across it, this means your lawn is under water stress. Water your lawn early in the morning to allow the grass time to absorb water before the heat of the day.

If you are seeing a heavy infestation of summer weeds, consider renovating your lawn at the appropriate time of year. Encouraging healthy turf is the best way to fight weeds. Cool-season lawns should be renovated in the fall, but wait until late spring to renovate a warm-season lawn. Take a soil test to determine the appropriate fertilizer for your yard and whether you need to adjust the pH of your soil.

If you grow a cool-season lawn, such as tall fescue, the grass will slow its growth and may go dormant during the heat of summer. Do not fertilize during this time of year. Instead, start planning your fall maintenance or renovations. Consult the **NC State TurfFiles website** for a list of top-performing tall fescue cultivars in North Carolina and try to find a seed mix that contains those varieties. And of course, be sure to take some time to enjoy your lawn while the sun is shining.

—Leslie Peck



Dog flea (*Ctenocephalides canis*).  
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## Tips & Tasks

With temperatures still reasonable, now is a great time to get your hands dirty in the garden. Here are a few things to be mindful of as we move into summer.

- Spring-flowering shrubs (such as azaleas and camellias) can be pruned as needed after they finish flowering. Prune now to avoid removing next year's buds.
- House plants can be moved outside when nighttime temperatures stay above 60°F.
- Be sure to move plants outside in stages to allow them to acclimatize and prevent damage.
- Continue mowing cool-season grasses to a height of at least 3 inches, but don't fertilize during summer.
- For warm-season lawns, begin applying fertilizer based on soil test recommendations.
- Speaking of soil tests, it's always a good idea to test before applying fertilizer to fruits and veggies. Testing supplies and advice can be obtained at your county Extension center.
- Ensure plantings receive roughly 1 inch of water per week, either via rainfall or watering.
- Mulch can also help protect new plantings from heat and water stress.
- If you start to see pests, remember that pesticides are a last line of defense. Try cultural practices such as cultivar selection, barriers, and physical removal first. Aim to select low-toxicity alternatives, and apply pesticides when pollinators are least active, such as at dusk.

—Ashley Troth

## Helping You Grow

### Gardening portal

The NC State Extension Gardening Portal ([gardening.ces.ncsu.edu/](http://gardening.ces.ncsu.edu/)) is a great resource for any home gardener looking for information on topics ranging from soils, landscape design, propagation and pruning, to plant selection and integrated pest management. The portal houses links to various publications and resources that any gardener can find valuable.

Tabs on the right-hand side of the page drop down to reveal links to subpages that either go directly to another website or to another webpage where there are several links to resources about the topic.

While it's a great website where information on several topics can be found, it can get a little overwhelming to sort through because of the sheer amount of good information housed on the site. Lucy Bradley, Extension Urban Horticulture Specialist, has created a short video with some quick tips for navigating the gardening portal ([gardening.ces.ncsu.edu/2019/03/quick-tips-for-navigating-the-gardening-portal/](http://gardening.ces.ncsu.edu/2019/03/quick-tips-for-navigating-the-gardening-portal/)).

NC State Extension is always looking for the best ways to get research-based information to the citizens of North Carolina, and this portal is just one of the many ways we are trying to make information accessible so that you can be successful in your gardening endeavors.

—Hanna Smith

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## Plant Watch: Dwarf crested iris

A surprising native plant has proven to be a raging success in my garden—*Iris cristata*, otherwise known as dwarf crested iris. This lovely herbaceous perennial is a fast-growing groundcover that can handle full sun to part shade. Cheerful violet to blue flowers appear in midspring in the mountains. The plant rarely grows above 6 inches tall, but can spread quickly to provide a thick mass of attractive light-green leaves that persist for three seasons. At home in my small woodland garden bed, *Iris cristata* truly shines as it does in the large colonies found in natural areas in our nearby forests and protected areas. A favorite spring spot is the Baxter Creek area in the Great Smokies National Park, where the trail is flanked on both sides by foot-wide patches of blooming dwarf crested iris. Consider adding this easy-to-grow native to your backyard! —Meghan Baker



Dwarf crested iris (*Iris cristata*).  
©Meghan Baker

## Incredible Edibles: Tomatillos



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The tomatillo or husk tomato (*Physalis ixocarpa*) looks very similar to a tomato plant except each fruit is enclosed in a papery wrapping that is removed before eating. Tomatillos are used primarily in fresh Mexican and Guatemalan dishes such as green sauces and salsas. Because tomatillos are a warm-season crop, the best growing conditions are day temperatures of 80 to 90°F and night temperatures of around 60 to 70°F. The plants prefer well-drained soil, and their bushy habit requires as much as 3 feet between plants. They do not like to be supported by a trellis or a cage. For best flavor, harvest when the fruit fills the husk but is still green and firm. Stored in a cool, well-ventilated place in a single layer, they can last for months if the husk is left attached.

—Hanna Smith

## Sustainability: Straw bale gardening

If you like to grow vegetables or flowers and have limited space or poor soils, you may want to try straw bale gardening. Begin by selecting bales derived from wheat, oat, or rye straw. Do not use hay or pine straw. Select bales that are free of weeds and fire ants—you don't want to introduce any new pests to your landscape. Select a site that receives full sun and is close to a water source. Leave the strings on and place the bales on their sides with the cut side of the straw facing upwards. Condition the bale by using the following method: **Days 1, 2, and 3:** Water bales thoroughly. **Day 4:** Add 1 cup of dolomitic lime and ½ cup of 46-0-0 or 34-0-0 and water in. **Days 5 and 6:** Add a half cup of 46-0-0 or 34-0-0 and water in. **Days 7, 8, and 9:** Add a fourth cup of 46-0-0 or 34-0-0 and water in. **Day 10:** Add 1 cup of 10-10-10 or 8-8-8 and water in. **Day 11:** Plant bales. To plant the bales, use a pruning saw or serrated knife to create a 6-inch by 6-inch hole in the bale. Place a transplant in the hole and fill the hole with potting soil or compost. One bale will grow two determinate tomatoes, four pepper plants, two squash, two melons, two cucumbers, six to eight lettuce plants, six to eight broccoli plants, or six to eight strawberry plants. Straw bales will need water more frequently than soil. Check the moisture daily and water plants as needed. Fertilize every two weeks with a complete fertilizer by adding 1 tablespoon of complete fertilizer around each plant. At the end of the season, recycle your straw bales by removing the strings and composting.

—Brad Hardison



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