

FALL 2019

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## Plant spring-flowering bulbs now

While you're in the garden this fall, consider planting some spring-blooming bulbs. A true bulb is a modified stem that is surrounded by scale-like modified leaves that store food for the shoots. But when you're shopping for bulbs at a garden center, you may also be purchasing corms, tubers, tuberous roots, or rhizomes. It's easiest not to get too caught up in the botany; these "bulbs" are all grouped together because their care in the garden is generally the same.

You can usually find bulbs at the garden center, but you may choose to order from a catalog or online retailer for a wider selection. Ordering well in advance can often open up more options, as rare varieties may sell out quickly. However, even if you wait until the fall, you're bound to find some beautiful options for planting in your garden. Select large, firm bulbs, and avoid any bulb that is soft or mushy.

Most people think of tulips, daffodils, and hyacinths when they are planting spring-flowering bulbs. Gardeners in North Carolina often grow tulips as annuals because they don't reliably come back in all areas. Daffodils are a good choice if deer are a pest in your yard, and daffodils tend to return to the garden year after year.

You may wish to branch out to other options. Crocuses offer color very early in the spring. Try an allium for extra interest in the garden. Their



Early crocuses usher in spring with fresh color.  
 ©Leslie Peck, Forsyth County Extension Center



Daffodils come in a variety of sizes and colors.  
 ©Leslie Peck, Forsyth County Extension Center

globe-shaped flowers are exciting, especially if you're gardening with kids. For gardeners battling deer, consider growing summer snowflake (*Leucojum aestivum*) or a variety of the genus *Scilla*.

After selecting bulbs, it's time to plant. Wait until soil temperatures have cooled to below 60°F. Depending on where you live in North Carolina, this soil temperature could occur in October or as late as December or January.

Bulbs grow best in well-drained soil; incorporate compost or peat moss into the top 12 to 18 inches of soil to improve drainage, especially if you have heavy clay soil. Dig with a trowel or bulb planter, or attach an auger bit to your drill. Generally, you want to plant the bulbs at a depth that is two to three times the width of the bulb.

For optimal color and impact in the spring, plant bulbs close together. You can even layer smaller bulbs on top of larger ones, then finish with some cool-season annuals on top. Planting the bulbs in a drifting pattern will be visually pleasing when they emerge in the spring.

After planting bulbs, it's a good idea to put some slow-release fertilizer and mulch down. Follow your soil test report for the best fertilizer option. Then sit back, let the bulbs chill in the winter, and wait for the springtime show your bulbs are sure to bring.

—Leslie Peck

## Extension Showcase

### Garden Corps brings youth and seniors together

Youth in urban settings may not have opportunities to learn about gardening and healthy foods or to benefit from adult mentors.

Through a partnership with NC State Extension Master Gardener<sup>SM</sup> volunteers in Wake County, the Food Bank of Central and Eastern NC, and the City of Raleigh Parks and Recreation Department, a youth teen group spent 12 weeks this spring in the garden and kitchen learning how to grow food and eat healthier.

Senior volunteers with Parks and Rec served as mentors, and the Garden Corps was established. Master Gardener<sup>SM</sup> volunteers led the weekly after-school Garden Corps program at the Food Bank classroom and garden.

The class portion covered topics such as why soil test, importance of soil building, and how to seed, care for, and harvest vegetables.

Each week the youth spent time in the garden to gain hands-on experience. Harvests were brought into the kitchen for healthy snacks while the youth learned kitchen skills, food safety, and nutrition information from Food Bank staff.

Each senior volunteer paired with three to four youth for an ongoing mentoring relationship throughout the 12 weeks.

Evaluations by the participants were so positive that the program will be extended by one week in 2020, and there are plans to incorporate past participants in youth leadership roles.

—Jeana Myers

## Smart Gardening: Cover crops have it covered



A mature rye and hairy vetch cover crop in spring. ©M. Gregory, Forsyth County Extension Center

Is your clay soil difficult to work? Do you spend hours weeding in spring? Consider planting overwintering cover crops this fall. Cover crops are close-growing plants, sown to improve soil quality and prevent weed growth. And legumes can fix nitrogen to nourish future vegetable crops. To reap the benefits of overwintered cover crops, take these steps:

- 1. Select a cover crop.** Good winter cover crops for North Carolina are crimson clover, winter rye vetch, or winter rye with winter pea. Clovers, vetches, and peas are all nitrogen-fixing legumes. Winter rye is a nonlegume that will conserve nutrients left in the soil and smother weeds.
- 2. Plan the rotation.** To get the most benefit for soil quality and fertility, grow these cover crops until they flower next spring, usually in late April. This means you cannot plant early spring vegetable crops where you have a winter cover crop. In these areas, plan on transplanting warm-season veggies in May.
- 3. Obtain seed and legume inoculant from local garden centers or mail-order companies.** Mix legume seed with inoculant—a powder with the beneficial bacteria that live in legume roots and fix nitrogen.
- 4. Prepare and plant on time.** Plant crimson clover from mid- to late September, and rye plus hairy vetch or winter pea mixes from late September through October. Rake the soil to create a fine seedbed. Then broadcast the seed evenly and rake it into the soil.

Next spring, wait until 75 percent of the cover crop plants are in flower. Then use hedge shears to chop the shoots and leave them as mulch. You can push apart the mulch to dig holes for vegetable transplants. There is no need to dig in all the cover crop residue as it makes great mulch for suppressing weeds. To learn more, visit [go.ncsu.edu/FCGHealthySoil](http://go.ncsu.edu/FCGHealthySoil) and scroll to **Cover Crops**.

—Megan Gregory

## Food Production: Growing fall vegetables

As fall approaches, it's time to start planning for the last growing season of the year. Many delicious vegetables can be grown up until our first frost in late October or early November. Fall vegetables have a certain sweetness to them as the nights begin to cool, and autumn can be a more enjoyable time of year to spend weeding, planting, watering, and harvesting. Planting root vegetables that have long storage lives, like carrots and turnips, can extend your enjoyment of fresh vegetables into winter. Sow fast-maturing leafy greens, including lettuce and kale, or get a jump start on production by planting transplants from a local nursery. Broccoli, Brussels sprouts, cabbage, and collards are also great choices for your fall garden, and like the leafy greens, these crops do not require pollination. Pest pressure can continue to be an issue in the fall. A floating row cover can be used as a protective barrier to exclude insects. Row covers can also extend the growing season by protecting tender plants from low temperatures. Monitor temperatures daily beneath row covers in early fall as many cool-season crops can be damaged by excessive heat. Low tunnels can also be used to extend the season by trapping heat from the sun and soil. These practices will increase temperatures and extend the harvest season of fall veggies. For the best success, take a soil sample to assess nutrient levels and pH. Soil sample boxes can be picked up at your county Extension Center, and analysis is free if samples are mailed before December 1. The **NC Department of Agriculture & Consumer Services** charges \$4 per sample for the analysis from December 1 through March.



Broccoli is a great choice for a fall garden. ©Charlotte Glen

## Pest Alert: Pecan weevils

With their ample supply of much needed shade and a bountiful harvest in the fall, pecan trees make a great addition to many Southern landscapes—if you have the space for their 75-foot spread at maturity. If you have ever harvested pecans, you are probably familiar with the disappointment of picking up a hollow shell. Thank a little insect known as the pecan weevil for this frustration.

Technically a beetle, the weevils undergo complete metamorphosis (from egg to larva, pupa, and adult). The adults emerge from the ground in late summer (August to September) after a heavy rain event. After mating, the female chews a small hole in a nut and deposits eggs. The eggs will mature into larvae that consume much of the pecan's kernel. Then the larvae exit the nut and burrow into the ground (where they are seldom seen) to pupate for nearly 11 months.

The most effective control for pecan weevil is to apply liquid carbaryl insecticide on the ground out to the tree's drip line during mid-August and continuing every week through mid-September. With close observation and spot spraying in subsequent years, less pesticide applications may be necessary. Keep the ground free of fallen pecans and branches to reduce the population of weevils, as well as limit disease potential. For more information, visit [content.ces.ncsu.edu/growing-pecans-in-north-carolina](http://content.ces.ncsu.edu/growing-pecans-in-north-carolina).

—Dustin Adcock



Pecan weevil larvae (top) feed on nuts and then burrow into the ground to emerge months later as adults (bottom). Top: ©Bill Ree, Texas A&M University; Bottom: ©Jerry Payne, USDA-ARS; Bugwood.org, CC BY-NC

## Lawns: Weeds as indicator plants

Using indicator plants to “read” the environment is a common practice whether or not we recognize we are doing it. In lawns a common indicator plant is nutsedge because it is most often found growing in wet or poorly drained areas. Our lawns are monocultures that we cannot till or mulch to control weed development. Before using chemicals to control weeds, we should take the time to determine why the weed problem exists. Turfgrasses are very good competitors when given a proper growing environment. The conditions that make it difficult for turf to grow allow weeds to grow in the lawn. Often the weeds can indicate the problem and guide the correction. Here are a few common weeds and what they tell you:

- Moss indicates too much shade, infertile soil, low soil pH, or poor drainage.
- Chickweed, ground ivy, and violets tolerate areas that are too shady for turf.
- Violets indicate moist or poorly drained soil.
- Yarrow indicates soil is too dry for grass and has low fertility.
- Red sorrel indicates very acidic soil.
- Goosegrass indicates compacted soil.
- Crabgrass and annual bluegrass indicate high fertility soil.
- Dandelions are opportunists. They grow in a wide range of environments. All they need is a space to germinate in a weakened turf.

Some overlap occurs with many of these weeds, so you may see some or all of them in your lawn. The best weed control method for your lawn is to keep the grass stand healthy. That means maintaining an environment that helps turf compete against the weeds by maintaining proper soil pH and using proper fertilization, watering, and mowing practices. A good place to start is by testing your soil. Testing is free until December 1, so pick up a soil test kit today and get started. For recommendations on fall weed control, visit the maintenance calendar for your specific grass at **NC State TurfFiles**, and learn more about weed management in the **NC Extension Gardener Handbook**.

—Debbie Dillon

## Tips & Tasks

To have a productive lawn and garden, keep a record of any problems or successes that you have, such as pest attacks or best-growing vegetable plants. This will help you determine what to plant in the future.

### Lawns

- Take a soil sample every three years.
- Fertilize around Labor Day, Halloween, and Thanksgiving if you have a cool-season lawn.
- Renovate or upgrade your cool-season lawn in the early fall.

### Vegetable Gardens

- Plant a fall garden. If you have ever considered one, this is the perfect time to try.
- Cover crops are beneficial to prevent erosion. If no edible garden is being planted, consider planting wheat, rye, barley, hairy vetch, or crimson clover in your garden or raised beds.
- Add leaves to your compost pile. They are a great source of carbon.

### Ornamentals

- Divide spring-flowering perennials. It is a great way to add more plants to the garden.
- For fall perennials, wait until spring to divide them.
- Prepare to transplant trees you want to move or plant.
- After all plants have been planted, cover the soil with 2 to 3 inches of mulch beginning several inches from the trunk and extending beyond the drip line.

—Bryan Hartman

## Helping You Grow

### NC Extension Gardener Plant Toolbox

Updates and changes to the NC State Plant Database make the site an even more valuable reference for gardeners ([plants.ces.ncsu.edu/](https://plants.ces.ncsu.edu/)). You can still search by scientific or common name and use **Find a Plant** to select the perfect plant for a site. Now, in addition to considering what cultural conditions you can offer a plant and your preferences on color and size, you can factor in what function the plant should serve in the landscape (like attract wildlife, provide food or fragrance) and what challenges it might need to withstand (such as deer, wet soils, salt). The database automatically recommends alternatives to invasive plants and also suggests native alternatives. **Identify a Plant** is a new feature that allows you to enter known information (like leaf arrangement, flower color, leaf shape) to identify a plant. In addition to showing plants that are likely matches, the database tells you which plants are often confused with the one identified. Another new feature provides quick plant lists, such as fire-resistant plants, beneficial coastal plants, and plants for wet sites. Plant descriptions include photos, audio and phonetic pronunciations of botanical names, video profiles, and other details (such as attributes, cultural requirements, and landscape value). Such information can help you decide if a plant is the best choice for your location and if it can provide the desired function.

—Hanna Smith

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## Plant Watch: Virginia sweetspire

Fall is a spectacular time for native perennials. *Itea virginica*, Virginia sweetspire, has showy racemes of white flowers that bloom in late spring and make way for glossy green leaves that turn vibrant red and orange in the fall. The flowers are produced on last year's growth or old wood. Depending on the cultivar, the flowers may be upright or cascading. Little Henry® is a popular dwarf cultivar of this plant with an attractive arching form. It can handle a variety of soil conditions and planting sites, including low and wet sites. Not only is this plant native, it is deer-resistant, a source of nectar for pollinators, drought-tolerant, and produces an attractive display for three-fourths of the year. Little Henry® is 3 to 5 feet tall and has a spreading growth habit in an urban landscape setting. It can grow taller in a more natural, shaded setting. For more information, visit the NC Extension Gardener Plant Toolbox: [plants.ces.ncsu.edu/plants/itea-virginica/](https://plants.ces.ncsu.edu/plants/itea-virginica/).



Virginia sweetspire displays vibrant fall foliage.  
©Distant Hill Gardens, CC BY-NC-ND 2.0

—Lauren Hill

## Incredible Edibles: Make room for muscadines



'Supreme' muscadine. ©Jeana Myers, Wake County Extension Center

The muscadine grape, *Vitis rotundifolia*, originated in the Southeast, thrives in our heat, and defies diseases and insects that decimate their *Vitis vinifera* relatives. Muscadines can be dried, eaten fresh, made into desserts, or fermented into sweet wines. Most muscadines are dark-skinned, but there are bronze cultivars, some of which are called "scuppernongs" because they were first found along the Scuppernong River in North Carolina. You can choose a cultivar based on fruit color, size, sugar content, skin thickness, cold hardiness, ripening time, and whether the flowers are self-fertile or require a second vine for pollination. 'Supreme' (female) and 'Nesbitt' (self-fertile) are the two purple varieties rated in the top five fresh-eating cultivars in North Carolina, and 'Summit,' (female), 'Tara' (self-fertile), and 'Triumph' (self-fertile) are the three bronze varieties in the top five. They need full sun and good drainage but are otherwise an easy plant for every garden. For more information, visit [grapes.ces.ncsu.edu/muscadine\\_grape\\_production/](https://grapes.ces.ncsu.edu/muscadine_grape_production/).

—Jeana Myers

## Sustainability: Using mulch in the vegetable garden

Using mulch in your vegetable garden will help to conserve moisture, reduce weeds, discourage disease, and improve soil health. If your goal is organic gardening, mulch will help reduce inputs such as fertilizer and pesticides. And like landscape mulch, it may also improve the garden's appearance. Any kind of mulch can be used in the vegetable garden, but the ideal one is a weed-free hay straw. Apply in a 2-to-3-inch layer over bare soil. Avoid using landscape fabrics or plastics as they are not necessary in most home beds. Mulch can be applied before or after planting. Mulch should be applied once or twice a year and can be tilled in as a soil amendment at the end of any season. Mulch may also help overwinter temperate vegetable plants like lettuce and kale. Snuggle up the mulch around the crowns of vegetable plants when freezing temperatures are expected. Keep in mind some additional tips: look for weed-free mulch, consider an organic source to prevent any carryover of herbicides into the vegetable garden, avoid letting the mulch pile against the stems of plants, and remove established weeds prior to application.



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—Katy Shook