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Know Before You Grow

Landscaping is a major undertaking for homeowners, especially when they choose to do it themselves. It can be a great learning experience and a source of pride when the job is done and the gardener can stand back and say, "Look at what I've done." But landscaping can also turn into an overwhelming task with not-so-great results.

There is a simple phrase that I've used when speaking to gardeners who want to take on a new project: Know before you grow. If gardeners take the time to find out about the plants they want to use before installing them in the landscape, many problems could be prevented.

What type of information is important? The plant hardiness zone is one key to a plant's survival in a specific location. A plant that is labeled for the mild temperatures of USDA zone 8 or 9 simply won't make it through a winter in zone 6 or 7. Light and water requirements are also crucial.

Azalea lacebug problems would be virtually nonexistent if azaleas were planted in the shade instead of the sun. It is also important to remember that heat hardiness is just as important as cold hardiness.

Become familiar with the culture of the shrubs and trees to be planted. Look at insect and disease problems, and make a decision beforehand



A formal landscape can involve lots of pruning to keep plants symmetrical and in scale with other landscape elements. ©Roy Ostling, Flickr, CC By-NC-ND-2.0,



Simple landscape plantings with attractive spacing can be just as attractive as complex arrangements. ©JR P, Flickr, CC By-NC-4.0

about the amount of potential pesticide applications you are prepared to make. Is the landscape going to be a formal one where lots of pruning is involved? Think about this: Would you rather be pruning or fishing on Saturday? Are you financially able to pay a landscape maintenance company to do the work, or are you the designated pruner for the family? These are all things that should be planned for when considering a new landscape.

A landscape planting can be amazingly low maintenance when well-researched plans are implemented carefully. Remember that simple is good and can be even more attractive than complex plantings. Learn to read tags and to use proper spacing. This saves many hours of future pruning.

Many gardeners think that they can make a plant into something that it is not. Such a gardener may win for a couple of years, but eventually that plant is going to fulfill its growth potential, whether that is growing in front of a window or out over a walkway.

The *NC Extension Gardener Handbook* includes a chapter on landscape design that offers lots of good advice on planning a landscape: **content**. ces.ncsu.edu/extension-gardener-handbook.

A landscape is an endlessly changing thing, as it should be. It doesn't have to be perfect to be pleasing, but always remember my favorite piece of advice: Know before you grow.

—Donna Teasley

Extension Showcase

Forks on Friday

Forks on Friday is a “lunch and learn” series held at NC Cooperative Extension’s Forsyth County Center. The Forks on Friday series truly is “where garden forks meet dinner forks.”

The Forks on Friday series began as a project of the Extension Master Gardener Volunteers (EMGVs) in Forsyth County in 2016.

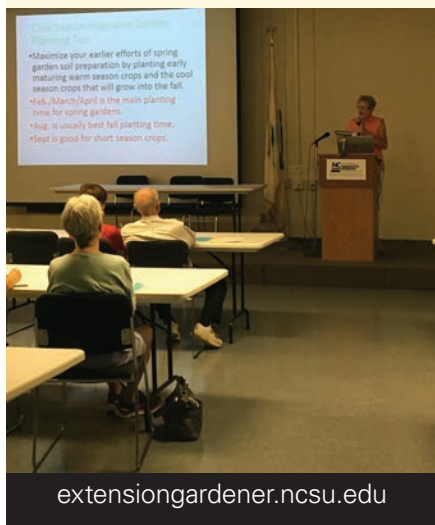
Over the past year, Extension horticulture agents in Forsyth County have collaborated with EMGVs to plan and teach 11 gardening classes. Forks on Friday is offered in the spring and fall, with seasonally appropriate topics.

More than 450 gardeners attended the lectures, learning about a variety of topics, including growing the best tomatoes, proper pruning, and lawn care. The Forks on Friday series truly offers something for everyone.

This fall, the Forsyth County Extension Center will offer another series of Forks on Friday lectures.

Visit forsyth.cc/ces, or call (336) 703-2850 for details on these lectures and other events in Forsyth County.

—Leslie Peck



Smart Gardening: Going organic

Twelve years ago, I visited the organic garden of Extension Master Gardener Volunteer Len Tufts. I saw no weeds. A thick layer of straw suppressed them and cooled the rich earth beneath. No pesticides were used either. Spinach was growing in midsummer, and tomatoes were nearly blemish-free. The secret began with Len’s soil. He collected organic matter and layered it 2-inches deep with a 3-inch layer of clean rye straw over the surface. Then he let the microbial action flourish for more than 120 days. Organic gardening honors processes at work in nature. Soil building depends upon additions of organic residue supplied by leaf mold, mulches, compost, cover crops, and organic fertilizers. These simple amendments are essential to revive worn-out soils with little organic matter. Here are a few principals and online tools for organic gardening:

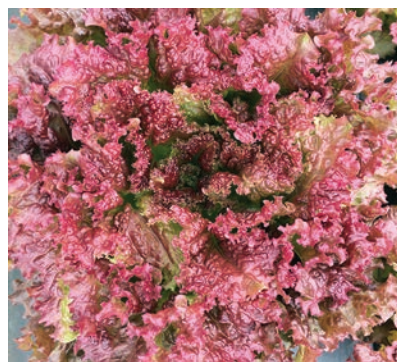
- Know soil. Look at the USDA—Natural Resources and Conservation Service soil survey on the SoilWeb App for your mobile device: websoilsurvey.nrcs.usda.gov/app/HomePage.htm.
- Know climate. Average first and last frost dates, temperatures, and precipitation amounts are essential for planting dates and crop selections: climate.ncsu.edu/
- Know cover crops. Fall-planted cover crops sown four to six weeks before the first frost build organic matter, fertility, and tilth, and reduce pests: growingsmallfarms.ces.ncsu.edu/growingsmall-farms-covcropindex/
- Know soil fertility levels. Soil test kits can be obtained from county Extension centers.
- Know soil amendments. Amendments differ in nutrient content and how fast the nutrients become available to the plants: soils.ces.ncsu.edu/
- Know compost. Turn yard waste into rich humus: composting.ces.ncsu.edu/home-composting/.

—Taylor Williams,



Len Tufts incorporates organic matter and then mulches with clean straw. ©Taylor Williams

Food Production: Head lettuce for the fall garden



Head lettuces include many colorful and productive varieties. ©Paige Burns

Consumer interest in local produce is driving farmers to push the limits of growing lettuce in the Southeast, despite the heat and humidity that make lettuce production in the summer challenging. Many home gardeners have mastered “cut and come again” mixed leaf lettuce, but gardeners can be intimidated by whole head lettuce. Heads are easy to grow, too, and can be very rewarding. When planting a fall crop, summer heat will prevent seed germination, so plan to pre-germinate the seed and transplant rather than direct-seeding. Place seeds in the refrigerator for 24 to 48 hours prior to planting. After planting, try to keep the soil as cool as possible with mulch (and, if you can manage it, a shade cloth at establishment). One key to retaining quality is harvesting early in the morning when temperatures

are cooler and the lettuce head is fully hydrated. The milky sap in lettuce contains latex, which can cause bitterness, and harvesting well-hydrated heads helps to minimize the problem. If your heads get limp in the fridge, soaking lettuce in cold water can help restore taste and texture.

There are many varieties to try. The old standbys ‘Oakleaf’, ‘Red Salad Bowl,’ and ‘Green Salad Bowl’ are still fine. But try ‘New Red Fire’, which makes a large head (can grow to over 1 pound) with brilliant burgundy-red and lime-green coloring. A wonderful bibb is the lovely ‘Rosaine’, a dark-burgundy mini head lettuce as beautiful as a flower. ‘Green Forest’ is an excellent romaine that doesn’t get too large. The beauty of growing your own head lettuce is the incredibly long shelf life—up to three weeks with proper handling. With all the wonderful lettuce from your garden, eating more salads and improving that bag lunch sandwich will be a breeze.

—Paige Burns

Pest Alert: Brown marmorated stink bugs

In September, brown marmorated stink bugs (BMSB) begin their search for a place to spend the winter. It is very common for them to try and spend the season inside your home's walls. Although these insects will not cause structural damage or reproduce in your home, they do have an unpleasant smell when crushed or vacuumed.

The best way to restrict BMSB from entering your home is to make sure there are no openings they can crawl through. View the Maryland Cooperative Extension video 'Exclusion and Execution' with tips and techniques to protect your home from the BMSB: www.youtube.com/watch?v=9jlgJ4WjryY. Chemical control is not recommended because the insects move quickly and new BMSB will come into your home.

Some simple nonchemical methods can minimize the number of stinkbugs entering your home. Place a trap outside. It will catch lots of these pesky insects. Some homeowners have reported an 80 percent reduction in stinkbugs by rubbing window screens with pungent dryer sheets. You can also hang a damp towel over a lawn chair or railing overnight. Check the next morning, and put all the stink bugs from the towel in a bucket of soapy water. Finally, you can also smash a few bugs outdoors. The odor warns other stink bugs that this is not such a great place to spend the winter. For more information, see this webpage at NC State University: entomology.ces.ncsu.edu/faqs-brown-marmorated-stink-bug/.



Brown marmorated stink bug (*Halyomorpha halys*). ©David R. Lance, USDA APHIS PPO, Bugwood.org, Creative Commons 3.0

—Shannon Newton

Lawns: Beautiful lawns begin with grass selection

Lawns are necessary and beneficial living carpets that have far more benefits than just being an attractive showpiece. Creating a beautiful lawn takes more than planting and watering-in grass seed. One must take time to properly plan out the lawn with regards to seed selection, lawn establishment, and maintenance.

Grass selection is the first issue to address. Factors to consider include region, climate, use, and appearance. The great thing about being in the NC piedmont is that warm-season or cool-season grasses can be planted. The most popular cool-season grass grown in the NC piedmont is fescue. This includes tall fescue, Kentucky bluegrass, and fine fescues. One beneficial characteristic of fescue grass is that it stays green throughout the winter. Blends of fescue grass are sold at various local stores. Blends allow for better establishment in the yard, as well as help turf withstand environmental and physical challenges. If warm-season grasses are preferred, then choose from bermudagrass, centipede, zoysia, St. Augustine, or carpetgrass as potential grasses to grow. Unlike cool-season grasses that stay green through the winter, warm-season grasses go dormant and turn brown. Warm-season grasses, however, grow better and withstand the heat better than the cool-season fescues. The decision to choose a grass ultimately belongs to the gardener.

Before planting, a soil sample should be collected from the site and sent for analysis. This analysis will help determine how much, if any, lime will need to be applied and what nutrients will need to be added to the soil. If you have any other questions regarding your lawn, contact your county Cooperative Extension center.

—Brad Thompson

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Tips & Tasks

Glad to see the dog days of summer pass? Are you ready for some cooler weather? Don't put away those gardening tools just yet! We have temperate weather in our area throughout the fall and early winter. In fact, this is my favorite time to be outside and work in the garden. Here are some tips for nurturing our inner gardener this fall:

Lawns

- Labor Day and Thanksgiving are two times of year that tall fescue needs fertilizer. September is also prime time for seeding.
- Check for white grubs, and treat as necessary.
- Aerate heavy clay soils and high traffic areas.

Vegetables

- August and September usher in time to plant cool-season crops, including beets, broccoli, cabbage, cauliflower, kale, lettuce, mustard and turnip greens, onions, and winter squash. Read up on your favorite cool-season veggies: ces.ncsu.edu/Cool+Season+Vegetables/.
- Be sure to clean up all plant debris from the summer garden and move it to the compost pile (if the debris is disease-free).

Ornamentals

- Late fall and early winter are great times for pruning summer-flowering shrubs and trees. See this site for more info on pruning: content.ces.ncsu.edu/how-to-prune-specific-plants.
- Clean up perennial plant debris, and add a fresh layer of mulch to the landscape beds. Get your free soil test samples in before Thanksgiving.

Finally, settle in and enjoy all those new seed catalogs!

—Julie Flowers

Helping You Grow

Tools for curious gardeners

Gardeners are naturally inquisitive about the flowers, trees, and berries they can grow. Curiosity helps us select plants appropriate for our landscapes. An interest in plants can eventually stretch far beyond the botanical. You may start to notice the butterflies and bees flying in the garden, perhaps even the different birds eating dried seed heads. Before you know it, you're on your way to becoming a bona fide naturalist.

A naturalist studies the natural world, including birds, insects, trees, mushrooms, and other living species. The key to being a good naturalist is to fully observe the world around you. Luckily, there are some amazing tools to assist you, including apps that can be downloaded onto your phone.

Peterson Field Guides (petersonguides.com) and the National Audubon Society guides (audubon.org/national-audubon-society-field-guides) are two excellent resources that cover a range of plants, birds, and insects.

Another excellent tool is iNaturalist, which allows people to post photos of their field observations at specific locations: inaturalist.org. On a recent trip to Maine, I was able to learn about some of the plants I saw blooming by referencing photos on iNaturalist. We have so many things to watch and learn about in this world, and these tools can assist in building your identification skills.

—Meghan Baker

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Plant Watch: You can't beat kale



'Toscano' kale is full of flavor and texture.
©Jeana Myers

Kale (*Brassica oleracea*) is a very hardy, super-nutritious, and delicious group of vegetable greens we can grow easily in our NC gardens. You can plant seeds in late summer or seedling transplants in September or October. Once the plants are established and growing, you can enjoy them through the winter in salads, soups, smoothies, or stir-fries. The stiff curly-leaved kale variety with blue-green leaves is commonly found in garden centers. A couple of other excellent varieties to try are 'Red Russian' kale, which has bright purple-red stems and leaf veins and a smoother leaf, and 'Toscano' kale, also known as dinosaur or lacinato kale. 'Toscano' kale is slightly less cold hardy than the others, but its crumply-textured and lance-shaped leaves are tender and flavorful. If you don't get them planted this fall, you can put seedlings in next spring and enjoy kale until hot weather arrives.

—Jeana Myers

Incredible Edibles: Wild world of broccoli

Broccoli has been cultivated in some form for the past 8,000 years. It originated on the chalky bluffs of England and has been bred from an ancient relative of cabbage to create the vegetable we all know and love today. Broccoli gained its popularity here in the United States in the early 1900s when scientists discovered that it was loaded with vitamins and nutrients at a much higher rate than its blanched cousin—the cauliflower. Today, broccoli is recognized as an extremely healthy vegetable that is rich in vitamins A and C as well as various anticarcinogens (anticancer compounds). Whether eaten raw or cooked, broccoli can provide benefits to human health, many of which are still being discovered. Broccoli is also easy to grow in the home garden. With a growing season of roughly 90 days, broccoli is ideal for planting in the early spring or early fall. Broccoli that matures during colder evenings will have higher sugar levels and tighter heads. Starting from transplants will allow your plants to grow quickly and provide all of the broccoli you and your family need throughout the year.

—Ben Grandon

Sustainability: Beyond lawns—grasses for your garden

While homeowners are familiar with turfgrasses for lawns, gardeners should consider adding ornamental grasses to their yards. Many native grasses are available that offer benefits to pollinators and wildlife. Not only will the grasses add height and winter interest to your garden; their seeds will provide food and their foliage offers shelter for birds and other wildlife. Once established, grasses can tolerate heat and drought. Many gardeners find that ornamental grasses are easy to care for, with little pressure from insects and diseases. Most ornamental grasses simply need to be cut back in the winter or very early spring. After cutting back grasses, gardeners can add the dried foliage to the compost pile. A variety of grasses are available to gardeners to fit various garden spaces. Taller grasses, including many cultivars of switchgrass (*Panicum virgatum*), can be used to create screens. Smaller varieties, such as 'Little Bunny' fountain grass (*Pennisetum alopecuroides*), add texture to garden beds. Grasses offer color throughout the seasons, from green spring foliage to fall color. Switchgrass 'Shenandoah' offers purple fall color, while big bluestem (*Andropogon gerardii*) and little bluestem (*Schizachyrium scoparium*) add shades of blue. As you visit gardens this fall, take note of the variety of ornamental grasses in North Carolina and consider adding a few to your garden.



Pennisetum alopecuroides adds texture to a garden. ©Leslie Peck

—Leslie Peck