



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

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Empowering gardeners. Providing garden solutions.

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Plant native flowers for pollinators

Need a reason to plant more flowers? How do supporting local agriculture, ensuring the availability of healthy fruits and vegetables, and protecting thousands of plant and animal species sound? By planting flowers that sustain pollinators, you are accomplishing all of this, as well as making your yard more attractive. Pollinators, which include bees, butterflies, moths, wasps, hummingbirds, and bats, make reproduction possible for more than three-fourths of the flowering plants on earth, including many of the fruits and vegetables we eat every day.

Of all the pollinators in the world, bees are the best. While almost everyone is familiar with European honey bees, fewer people are aware of the vast variety of native bees found in North America. These include bumble bees, sweat bees, miner bees, and mason bees, all of which are valuable pollinators of crops as well as native flowering plants. Alarming, populations of both honey bees and native bees are in decline.

Reasons for bee decline include disease and parasite infection, habitat loss, and stress caused by pesticide exposure and malnutrition. As gardeners, we have a critical role to play in reversing this alarming trend. One of the most important things we can do to preserve and support pollinators is to plant flowers. Bees gather nectar and pollen from flowers to feed themselves and their offspring. To stay strong and maintain healthy colonies, bees need a season-long supply of flowers that have not been contaminated with pesticides.

Many of our native bees specialize in feeding on native plants. Including native plants in your

landscape will support the widest range of pollinators. When planting flowers to support pollinators, aim to have at least three different types of flowers in bloom during each season, from early spring through late fall.

Flowering perennials are among the best nectar sources for bees. Recommended perennials native to the Southeast that are available from most garden centers include spring bloomers such as wild verbena (*Glandularia canadensis*), spiderwort (*Tradescantia virginiana*), *Coreopsis* species and varieties, wild indigo (*Baptisia* species), beard-tongue (*Penstemon* species), and bluestar (*Amsonia* species).

Some of the best native summer-blooming perennials for pollinators include coneflowers (*Rudbeckia* and *Echinacea* species), phlox, butterflyweed and milkweed (*Asclepias* species), Stoke's aster (*Stokesia laevis*), gaillardia, bee balm (*Monarda* species), liatris, and mountain mint (*Pycnanthemum* species).

To provide late-season nectar sources, plant a variety of native asters (*Symphyotrichum* species), goldenrods (*Solidago* species), joe pye weed (*Eutrochium* species), ironweeds (*Vernonia* species), and perennial sunflowers (*Helianthus* species). To see images of hundreds of pollinator friendly plants, visit www.protectpollinators.org and click on the Pollinator Paradise Garden link. Check with your local Extension center or visit www.ncsu.edu/goingnative/ for more plant recommendations suited to your area.



Honey bee feeding on late blooming native aster. ©Charlotte Glen

— Charlotte Glen

Extension Showcase

FoodCorps

FoodCorps is a national program whose mission is to “give all youth an enduring relationship with healthy food.” There are 15 states with FoodCorps programs nationwide, and North Carolina is lucky enough to be one of those states.

Seven FoodCorps service members work with six counties in North Carolina, providing knowledge through nutrition education programs that teach kids about healthy food. The Center for Environmental Farming Systems (CEFS) and Extension’s 4-H Program co-host FoodCorps in North Carolina, providing training and support to the seven FoodCorps service members.

FoodCorp service members engage kids and community volunteers through school gardens and are working to increase access to local foods by working closely with school cafeteria managers. Since September 2013, these seven service members working in Gaston, New Hanover, Warren, Moore, Guilford and Wayne Counties have reached 4,931 children. They have held numerous cafeteria taste tests and overseen the construction of several new school gardens while continuing to expand those with which they currently work.

— Karen Neill

Smart Gardening — Pruning fruit trees

Pruning fruit trees is necessary for optimum fruit production. In North Carolina, heavy pruning is done in mid-February. Before starting, make sure you have the right tools. You will need pruning shears, pruning loppers, pruning saw, gloves, and some disinfectant to sanitize tools after pruning. Make sure tools are clean; using dirty tools can result in tools not working properly.

Next think about what type of fruit tree you are pruning. For apple, pear, cherry, and pecan, use the central leader strategy. Central leader means there is one main trunk extending to the top of the tree, with scaffolds or branches that surround the main trunk. Select three to four scaffolds to create each layer or whorl. Ideally, there should be 18 to 24 inches of space between each whorl. The top whorl should be shorter than the bottom whorl to allow optimum sunlight.

For peaches and nectarines, use the open center method. This is different from the center

leader because the main trunk or center leader is removed. When you plant a young peach or nectarine, select the best three to four scaffold branches to keep. The lowest branch should be at least 24 inches above the soil surface. Branches lower than 24 inches above ground level should be removed. Once you have selected your scaffolding branches, remove the leader right above the highest scaffold.

Plums can be pruned in the central leader or open center method. For all fruit trees, remove water sprouts and suckers. Water sprouts are vigorous upright growth on the scaffolds, and suckers are shoots from the rootstock. As always, remove dead, diseased, or damaged limbs throughout the year.

For more information on pruning fruit trees visit this website: <http://www.ces.ncsu.edu/depts/hort/hil/ag29.html>

Or watch a video on pruning peaches: <http://peaches.ces.ncsu.edu/peaches-movies/>

— Danelle Cutting

Food Production — Piedmont Farm School

In the United States, less than 2 percent of the population are farmers. And in North Carolina, the average age of a farmer is 57. There is a great need for more farmers, and there has never been a better time to get into the local food movement. We need new farmers to meet the demand for locally grown food in North Carolina. More families are looking for ways to supplement their incomes and put their land into something productive. Quite often, people come by my office and say, “I have some land that I want to do something with... but I don’t know what. Can you tell me what I can grow and make some money?” It depends on the market and the operator as to whether an agriculture venture will be successful.

North Carolina Farm School is a six- to eight-month educational program that trains beginning and transitioning farmers who have a strong commitment to operating small-scale sustainable farms. The school offers business planning seminars, with each session focusing on a different area of writing a business plan, including financial management and marketing strategies. The school also includes field trips to working farms led by experienced farmers and agricultural professionals. Participants learn



2013 Piedmont Farm School students listen to farmer Thomas Penninger talk about his blackberry patch. ©Amy-Lynn Albertson

about sustainable farming methods—from fruits, vegetables, cows, pigs, poultry, and goats to specialty crops and agritourism. This year there are three NC Farm Schools in operation: the Foothills Farm School in Hickory, Sandhills Farm School in Aberdeen, and the Piedmont Farm School in Winston Salem. In 2015 there will be four farm schools with locations to be announced. Contact your county Extension agent to find out about a Farm School near you.

— Amy-Lynn Albertson

Pest Alert — Winter annual weeds

Winter annual weeds germinate in the fall and winter and grow actively in early spring. Often gardeners and homeowners are amazed at how quickly winter annual weeds appear to pop up overnight. Often we are unaware that these weeds have been slowly growing all winter long. Purple deadnettle, henbit, common groundsel, prickly lettuce, and common chickweed are among the most common and prolific winter annual weeds in the NC piedmont.



Henbit ©Charlotte Glen

To control winter annual weeds in lawns, practice good maintenance including annual fertilization and proper watering. Use herbicides to spot-treat problem areas, or use pre-emergent herbicides to prevent weed seeds from germinating. Try to control winter annual weeds before

they flower and produce seed. For garden areas, try sowing cover crops in late summer after garden vegetables have been harvested. Cover crops can outcompete weeds and slow or prevent weed establishment. Cover crops offer the potential added benefit of adding organic matter to soils and providing a portion of the nutrient needs of the next crop.

In flower beds, keep a thick mulch layer in place to help suppress weed seed germination.

Practice good sanitation when moving from area to area in the landscape. Weed seeds can travel on garden tools, power equipment, pets, and clothing. Remember, a weed is merely a plant out of place. Some plants widely considered to be weeds have value as medicinal plants, food, and nectar sources, or they fix nitrogen.

— Randy Fulk

Carolina Lawns — Controlling moss in lawns

Moss infestation is a common problem in NC piedmont lawns. Moss invasions can occur for a variety of reasons, including excessive shading, low soil fertility, soil compaction, high soil pH, and excessively wet soils. To diagnose moss problems, first look at the variety of turfgrass selected for the site and be sure it is a shade-tolerant variety. A mix of Kentucky bluegrass, tall fescue, and fine fescue is among the best shade-tolerant turf selections for our area. For a complete listing of shade tolerant turfgrasses for the piedmont, see *Carolina Lawns* (NC Cooperative Extension publication AG-69): http://www.turffiles.ncsu.edu/PDFFiles/004175/Carolina_Lawns.pdf

Have your soil tested to ensure it is at the optimum pH for good turf growth, and fertilize in accordance with the soil test recommendations. Proper fertilization of turfgrass can also help discourage weed growth. Judicious pruning of landscape trees can allow additional sunlight to reach the turf and can help alleviate moss

problems. Be advised that some areas may simply be too shady to cultivate turfgrasses successfully. In these areas, use mulch instead or plant shade-loving ground covers.

Avoid excessive watering, which creates favorable conditions for moss growth. Soil compaction can be addressed by the periodic use of a core-type aerator. Core aeration can also dislodge moss and make it easier to collect and remove from the site. Springtime dethatching, using a flail type dethatcher, can also dislodge up to 75 percent of moss.

Ferrous ammonium sulfate or ferric sulfate (iron sulfate) can be used to control moss. If the growing conditions are not addressed, however, the effect will be only temporary. The same goes for raking or otherwise manually removing moss and then reseeding. The key to getting a moss infestation under control is to change the conditions in ways that discourage moss and encourage healthy turf.

— Randy Fulk

Tips & Tasks

Planning for Warmer Days Ahead

- It is not too late to order seeds to start indoors in heated trays or in high tunnels.
- Sharpen your pruning tools and head out to prune fruit trees, roses, and landscape trees.
- It is also a good time to move shrubs and trees before new growth begins.
- Cut back the spent foliage of ornamental grasses. These plants can be trimmed close to the ground. Be careful not to cut any new foliage emerging from the base.
- If raised beds need additional growing media or mulch, now is a good time to apply. Remove weeds now before they flower and set seed.
- Create a plan for your garden. Remember to rotate crop families in your vegetable garden to avoid diseases.
- Draw a site map of your landscape, noting problem areas such as low spots that stay wet and areas where soil may be compacted. Address these areas now before the growing season begins.
- Clean up perennial borders, annual beds, and vegetable gardens by removing spent plant material for composting. Many disease and insect pests survive the winter in garden debris.

— Randy Fulk





New from NCSU — Double Take™ quinces

If thoughts of old-fashioned flowering quince (*Chaenomeles speciosa*) do not excite you, it is time to think again. The Double Take™ series of flowering quinces developed at NC State are thornless, fruitless, and have double flowers that resemble miniature roses. The variety ‘Scarlet Storm’ (PP20,951) has deep-red flowers borne all the way out to the tips of the branches. ‘Pink Storm’ (PP20,920) bears salmon-pink flowers that resemble sweetheart roses, while ‘Orange Storm’ (PP20,950) bears bright-orange camellia-shaped flowers. All three varieties mature to around 6 feet in height, bloom from February through April, and are hardy in USDA plant hardiness zones 5 – 8. Plant these deciduous shrubs in part to full sun and well-drained soil to add an exciting splash of early spring color to your landscape.

— Shawn Banks

Helping You Grow

plants.ces.ncsu.edu

NC Cooperative Extension has a new way for gardeners to get information about landscape plants: plants.ces.ncsu.edu. Type this URL in your browser’s address or search box, and be whisked away to a searchable database of almost 2,800 plants. On the main page you can select from 20 different categories from annuals to wildflowers, including an “all plants” option. Once the first selection has been made, browse by scientific name (for self-proclaimed plant geeks) or common name, or narrow your search based on height, light requirement, wildlife attraction, flower color, or leaf color. As you add plant features to search, the list will narrow to the exact plant or plants you seek.

— Danny Lauderdale

Edibles — An oxymoron

Webster’s Dictionary cites the definition of “oxymoron” as “contradictory words that appear side by side.” A perfect example of this is the blueberry variety ‘Pink Lemonade’ (*Vaccinium* ‘Pink Lemonade’) that is popping up in catalogs this spring. A true rabbiteye blueberry, ‘Pink Lemonade’ has bright pink berries that ripen from late July into August on plants that grow to 5 feet high. It makes an attractive shrub for the landscape with colorful fall foliage and brightly hued stems. Developed in the 1990s, ‘Pink Lemonade’ was not well received by growers because of the unorthodox berry color. But, with today’s trend towards edible landscapes, ‘Pink Lemonade’ has a chance to become a popular dual-use addition to the garden. Although ‘Pink Lemonade’ is self-pollinating, it will produce more berries if it is planted with other blueberry varieties.

— Donna Teasley

Sustainability — Vegetables for limited space

When talking about vegetable gardening, I often hear people say, “I can’t grow vegetables. I live in an apartment with nothing more than a balcony.”

Many vegetables, however, can be grown in containers. As long as the balcony receives 8 or more hours of direct sunlight during the day, almost any vegetable can be grown. Choose the correct size container for the crop, and it won’t be long until harvest. For green onions, radishes, onions, chard, lettuce, peppers, dwarf

tomatoes or cucumbers, basil, and many other herbs, all that’s needed is a 1- to 3-gallon container. For larger plants—such as eggplant, beans, peas, cabbage, broccoli, collard, or full size tomato or cucumber varieties, a 4- to 5-gallon container will be needed. Crops with a shallow root system, like lettuce, radish, and other salad greens, are well suited for pots that are 4 to 6 inches deep. Most other crops will need 8 to 12 inches of soil to accommodate their root systems.

Water will be a major concern in any container. Containers don’t have a large water reservoir to draw from and will need to be watered more frequently as the plants grow. Drip irrigation of some type, even as simple as a bottle with a few holes punched in the bottom, will be needed to maintain soil moisture. Mixing compost in with the potting mix will add weight to the container to prevent plants from tipping over. The compost is also a good source of nutrients.

— Shawn Banks

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