



Extension Gardener

NC STATE UNIVERSITY

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Empowering gardeners. Providing garden solutions.

in this issue

SANDHILLS AND COASTAL PLAIN NEWS

Perennials for Dry Shade

Growing Vegetables in Limited Space

Pecan Weevils

Proper Mowing

STATE NEWS

Deer-Resistant Plants

'Fireball' Hibiscus

Malabar Spinach

Drip Irrigation

Plant Disease and Insect Clinic

Deer-resistant plants

One of the simplest ways to minimize deer damage in your yard is to landscape with plants that deer prefer not to eat. While no plant is deer proof, there are many good landscape plants that deer find less palatable. This does not mean deer will not eat them if it comes to a choice between eating something they don't like and starving to death. But most of the time these are plants that deer will pass over in favor of others.

Like goats, deer are browsers who feed on a variety of plants, including trees and shrubs. Once mature, large trees tend to be spared simply because deer are too short to reach any but the lowest branches, leaving small trees and shrubs to bear the brunt of the damage. Small to medium-size trees that have proven deer resistant over the years and can be grown in most of the Carolinas include river birch, crape myrtle, sweetbay magnolia, and chaste tree (*Vitex*).

Because they provide a food source in winter, evergreen shrubs are particularly prone to deer attack. Evergreen shrubs for sunny areas that deer prefer not to eat include yaupon, Chinese juniper, wax myrtle, oleander, rosemary, gardenia, nandina, and Chinese holly. In shady sites try Japanese plum yew, available in both low-growing and upright varieties, or needle palm, a shrub-forming palm hardy to at least zone 7.

Although flowers are deer favorites, there are several perennials they find less tasty and are less likely to damage. These include drought-tolerant, sun-loving perennials such as the silver-leaved 'Powis Castle' artemisia, colorful and hardy 'Miss Huff' lantana, and Arkansas blue star (*Amsonia hubrichtii*), a Southeast native. Other perennials that deer avoid include false

indigo (*Baptisia*), purple coneflower, gaura, and perennial salvias such as Mexican bush sage (*Salvia leucantha*), Texas sage (*Salvia greggii*), and 'Black and Blue' anise sage (*Salvia guaranitica*).

On the whole, deer avoid eating ornamental grasses, which is great for gardeners because this group includes many tough, attractive, low-maintenance options. Some of the most dependable varieties for North Carolina include pink muhly grass, panic grass (*Panicum virgatum*), and hardy fountain grass (*Pennisetum alopecuroides*).

Another group of plants that deer dislike is ferns, which are great for moist, shady sites. Reliable perennial ferns for our state include Japanese painted fern, lady fern, and cinnamon fern, all of which go dormant in the winter. Evergreen ferns that can be grown in most areas include autumn fern, Christmas fern, holly fern, and southern shield fern. Check with your local Extension office for more recommendations of hardy, deer-resistant plants for your region.

— Charlotte Glen



Extension Showcase

HortiSCOPE Supports Farmers' Markets

A collaboration between North Carolina Cooperative Extension and the Cunningham Research Station in Kinston aims to increase product variety at farmers' markets. HortiSCOPE (Seasonal Collaborative Opportunities for Product Expansion) will help farmers grow, introduce, sample, and sell products at farmer's markets, as well as train growers in production methods.

HortiSCOPE will handle product introduction and promotion at farmers' markets on behalf of growers, offering food samples, nutrition information, and prepared foods. These facets of product introduction are difficult for most growers to accomplish on a busy market day.

The project's focus crops for 2013 are parsley and cilantro. These cool-season crops are well-suited for production in eastern North Carolina and could improve product variety at the very beginning and end of our market seasons. Consumers are aware of these products but often have few ideas for how to use them.

A recent Lenoir County farmers' market trial offered samples of cilantro pesto and a bean salad seasoned with cilantro and lime. That week, fresh cilantro bunches sold out, and cilantro plants sold well. This fall, when the second round of crops is grown at the Cunningham station, a grant will fund the activities of two product ambassadors who will promote cilantro and parsley at markets in Lenoir and Greene counties.

— Nicole Sanchez

Smart Gardening — Perennials for dry shade

Summer is when gardeners worry about how plants will do in a drought. That makes this a good time to review perennials for dry shade. There are many to pick from, but I'll share three favorites. An added bonus is that they're all evergreen.

One of the toughest perennials you can plant in your garden is cast-iron plant, *Aspidistra elatior*. If the name alone doesn't convince you that this plant is tough, consider that it's also called barroom plant because it can survive the low light, neglect, and abuse it might suffer in the corner of a bar. Although this plant can be used as a house plant, it's cold hardy enough to plant outside. The leaves of cast-iron plant emerge from the ground and are 12 to 18 inches long and 3 to 4 inches wide. The leaves are dark green with parallel veins and have a tropical look. I like the variegated cultivars of this plant; the white portions of the leaves brighten shaded areas.

One of my favorite evergreen perennials is *Helleborus orientalis*, Lenten rose. It's a tough plant that will survive dry shade. When given a little moisture, it will thrive and cheer you up in



the winter. Flowers start in February and continue through April. The leaves are divided by five to 11 deep lobes with finely serrated edges. Flowers are white, pink, green, or purple. Lenten rose provides a nice surprise in the winter garden with its nodding flowers at a time when we normally don't expect to see plants in bloom.

When we think about ferns, we often think of plants for moist, shady areas, but some ferns do well in dry shade too. A fern often used in landscaping that has not gained the popularity it deserves is holly fern, *Cyrtomium falcatum*. The fronds are bright green and glossy with triangle-shaped leaflets. The foliage looks great most of the winter. Most ferns just fill shady spots in the garden without drawing much attention, but

holly fern's brilliant leaves scream for attention. A good shearing in early spring brings a flush of new leaves that are like a breath of fresh air.

There are many more dry shade perennials available at your local nursery. With a little research, you're sure to find several that will work well in your shade garden.

— Danny Lauderdale

Food Production — Growing vegetables in limited space

If you think that only those with large backyards can grow vegetables at home, think again! There are many ways to grow vegetables in limited space.

First, consider container gardening. Nearly any kind of container can be used for growing vegetables, provided that it has drainage holes. Traditional containers such as window boxes, decorative pots made of clay or plastic, and recycled nursery pots all make suitable containers. Fill the container with potting soil, and water your plants regularly to prevent the soil from drying out.

Another option for those who have a little bit of yard space is raised-bed gardening. There are many ways to design raised beds for vegetable gardening. Your bed layout will depend on your needs and the amount of available space you have. You can create several small beds or a

single long one; your beds can be raised 6 inches off the ground, or they can be several feet deep. The only rigid rule is to limit the width of raised beds to no greater than 4 feet. If you make the beds any wider than that, it becomes difficult to weed or harvest from the middle.

You may also be interested in straw-bale gardening. To grow vegetables in straw bales, you will need bales that have started to decompose in the center. Either use year-old bales or condition the bales prior to planting by watering them and adding a high-nitrogen fertilizer. It takes about two weeks to properly condition the bales before they'll be ready to plant.

No matter which method you prefer, don't let a lack of space deter you from growing your own vegetables. Be creative, and make the most of the space you have.

— Matt Stevens

Pest Alert — Pecan weevils

Pecan weevils are one of our most troublesome pecan pests. If you have ever opened a pecan to find a small white grub inside, you have seen the larva of the pecan weevil.



H.C. Ellis, University of Georgia, Bugwood.org

The adult pecan weevil is a light brown or grayish beetle with a long beak. Adult weevils emerge from the soil from August through September, often after rains of an inch or more. Adult pecan weevils feed on green nuts, causing some to drop prematurely. Female pecan weevils cause more serious damage by laying their eggs in nuts. The resulting larvae feed inside the shells, eating the kernels. After the pecans fall to the ground, the larvae chew their way out and burrow into the soil, where they pupate for one or two years before emerging as adults.

Because the life cycle of pecan weevils can span three years, control requires consistent treatment. First, consider spraying the root zone and trunk of the tree with an insecticide, such as liquid Carbaryl, when the adult beetles are emerging from the soil and moving into the tree canopy. Start monitoring around the end of July, and spray whenever you find adult weevils. Continue to monitor and treat as needed through September. Monitor weevil populations by tying layers of burlap cloth around the trunks of the trees. Check the burlap each day for any adult weevils. When mature nuts fall, pick them up daily and remove them from the orchard.

— Lisa Rayburn



Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org

Carolina Lawns — Proper mowing

The first lawn-care question any homeowner needs to answer is: what type of grass are you trying to grow? Next you need to determine the height at which to cut your grass and how frequently to cut it.

Mowing height and frequency are important factors in maintaining a healthy, vigorous lawn. Mowing height is important because different turf species grow best at different mowing heights. Recommended mowing heights for warm-season lawns are:

- Bermudagrass, $\frac{3}{4}$ to 1 inch
- Zoysiagrass, 1½ inches
- Centipedegrass, 1 inch
- St. Augustinegrass, 2½ inches

Each turf variety will grow and outcompete weeds best when maintained at its recommended height.

Mowing frequency is a trickier question. A general rule of thumb when mowing the lawn is to remove no more than one-third of the leaf

blade each time you mow. If too much of the leaf surface is removed, the grass will go into a stress or shock period from which it must recover before it can resume growing and spreading.

To determine how often to mow your lawn, measure its height. For example, I want to mow my Bermudagrass lawn to a cut height of 1 inch. In order to only remove one-third of the blade when I mow, then I should mow when the lawn reaches a height of 1½ inches. The grass may grow faster some times of the year and may need to be mowed more often. If the grass gets taller than 1½ inches before mowing can be done, raise the mower deck so that only one-third of the blade is removed. Gradually lower the deck the next couple of times you mow to reestablish the recommended mowing height.

For more information about caring for your lawn, visit www.TurfFiles.ncsu.edu.

— Shawn Banks

Tips & Tasks

- Remember to keep your plants watered during dry periods. It is best to water deeply and infrequently. Vegetables and fast-growing annuals need more frequent watering than trees or shrubs.
- To prevent mosquitoes from breeding, take time to drain containers with standing water. Saucers and tarps will hold rainwater and need emptying. Rain barrels can be covered with a screen or treated with Mosquito Dunks.
- Trim back flowering annuals and apply fertilizer to encourage new growth. Begonias, dusty miller, impatiens, and petunias respond well to this treatment.
- If weeds are out of control, consider cutting them back. This will slow seed production and help limit the number of seedlings produced in the future.
- Add plant material removed from the garden to the compost pile. Compost is one of the most valuable assets for gardeners and can be made free in your own yard.
- Providing three inches of organic mulch around the roots of plants will help them conserve moisture and reduce weeds. A layer of organic mulch also helps to buffer soil temperatures. Take care not to pile mulch around plant stems.

— Peg Godwin



J.C. Raulston Arboretum

Showstopper — 'Fireball' hibiscus

What has showy, fire-red, 10-inch-wide flowers from June through August? The 'Fireball' hibiscus, a hardy herbaceous perennial that has dazzled gardeners since its introduction in 2001.

An attractive addition to any landscape, 'Fireball' hibiscus reaches a mature height of four feet. This plant displays a special ability to thrive in heat and humidity. Grow this tough perennial in full sun with evenly moist soil. In addition to its heat tolerance, this perennial hibiscus is cold hardy from zone 5 to zone 9. In other words, 'Fireball' can be grown anywhere in North Carolina.

This plant's impressive red flowers and attractive, deeply cut green foliage with distinctive purple veins will impart a unique charm to any sunny garden. Keep the soil from drying out, and you'll learn why this plant is a true showstopper!

— John Vining

Helping You Grow

Plant Disease and Insect Clinic

NC State University's Plant Disease and Insect Clinic (PDIC) is a great resource for home gardeners, landscapers, and commercial growers. The PDIC can identify problems such as plant diseases and injuries or unfamiliar insects. PDIC experts also give control recommendations.

Gardeners can submit digital pictures of insects or plants at no charge. Physical samples are evaluated for \$20 when submitted through an Extension office or \$30 if sent directly to the PDIC. For more information, including instructions for how to take and submit a sample, visit www.cals.ncsu.edu/plantpath/extension/clinic.

— Shawn Banks

Edibles —

Malabar spinach

If you want to create a lush, tropical look in your garden this summer, try planting Malabar spinach (*Basella alba*), a beautiful, delicious leafy climber. The leaves and purple stems are valued in many cuisines across India, Africa, and Asia. This vigorous vine can be grown outdoors across our state. Our long, hot summers also provide a growing season long enough to allow you to gather seeds for future years. Although plants may be slow to start, if planted in full sun they will cover whatever structure you build for them. Malabar spinach tolerates dry weather, but it will produce succulent green leaves most abundantly if you provide a little compost and plenty of water throughout the season.

Prepare to be amazed by this plant!

— Jeana Myers

Sustainability — Drip irrigation

Recent droughts and water restrictions have led to an increased awareness of how precious and limited our water resources are. As a result, gardeners are showing more interest in microirrigation, also known as drip irrigation. This method of watering uses a network of plastic pipes or hoses to deliver water under low pressure to garden plants. Drip irrigation applies water very slowly and is more efficient than sprinkler irrigation. Additionally, drip irrigation is usually exempt from watering restrictions.

Drip irrigation has traditionally been limited to commercial vegetable, nursery,

and greenhouse operations. As drip irrigation systems become more readily available and designs are developed specifically for home gardeners, they are popping up in home landscapes and gardens all over. Drip irrigation is much more efficient than sprinkler systems because it delivers water only to the targeted areas that need it. These flexible systems can be expanded or redirected as the gardener's needs change, and they are even suitable for watering container plants. Drip irrigation systems can also easily be automated for gardeners whose busy schedules make hand watering difficult.

Drip irrigation systems are available online and in many garden centers. Most systems can be installed by the average gardener, and kits are available to help first-time users with the initial setup. These systems can be customized for specific plants needs down to the size of the emitter, which delivers the amount of water that an individual plant needs.

As we become more conscious of the need to conserve our natural resources, drip irrigation is a great tool in water conservation efforts.

— Donna Teasley

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