



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

Summer 2011

Empowering gardeners. Providing garden solutions.

Make Your Landscape “Water-wise”

Water is an integral part of life. Not just the water we drink and bathe in, but ponds, lakes, streams, rivers and coastal waters all contribute to our quality of life here in North Carolina. To conserve and protect these resources, there are a few steps you can take to make your landscape “water-wise.”

Submit a soil sample to the NC Department of Agriculture and Consumer Services, and the testing service will tell you how much lime and the type of fertilizer to use to correct nutrient deficiencies. Apply full rates of fertilizer to plants you want to grow larger. Mature plants need only occasional fertilization to maintain health.

Amend soils with compost. Compost holds moisture for plants and at the same time improves soil structure to allow excess water to drain. Don't just add organic amendments to the planting hole. Apply 3 or 4 inches of organic matter to the soil surface and incorporate it into the plant bed. Never work soil when it is wet.

Match your family's needs to the landscape features, and be realistic. If you use that grass for parties, soccer or chipping practice, then keep the turf. Otherwise, transform a part of that lawn into beds that are either natural areas or just low-maintenance groundcovers, perennials, shrubs or ornamental grasses. If you enjoy large turf areas, consider a drought-tolerant species such as bermudagrass, centipede or zoysiagrass.

Tired of spraying for black spot, leafminers and lacebugs? It hurts only for a short time to throw away plants that are not suited to your environment. There are lots of books and pamphlets that will help you learn about plants that are well-adapted to your local gardening climate. Visit public gardens, your county Cooperative Extension center website and garden centers. Join a garden club or volunteer as a Master Gardener. Here is one website with a complete list of tough plants: www.ncstate-plants.net

Organic mulches on landscape beds conserve moisture and help to moderate soil temperature, allowing for rapid root development. Mulches hold moisture and allow rainfall to penetrate compacted soils.

When rainfall does occur, be mindful of nitrogen and phosphorus fertilizers. If swept into a gutter or storm drain, they will go directly into our streams and rivers. There is no water treatment plant to clean this water before it reaches a stream or river. In addition, never dump oil, paint or solvents into the gutter.

Impervious surfaces such as concrete or asphalt do not allow water infiltration. This causes rapid runoff and greater stormwater management problems. Gravel or paver products allow for water infiltration and thus feed our groundwater supplies.

— Carl Matyac

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Upcoming Events

June 3 (10 AM – 12 NOON)

Hypertufa Leaf Casting

Bullington Center, Hendersonville

- Learn how to make leaf castings with Master Gardener Mary Martin. All materials will be supplied. Space is limited; registration required. (828) 698.6104

June 14 – 16 (9 AM – 11 AM)

Introduction to Botanical Drawing

Bullington Center, Hendersonville

- Artist Suzanne White will teach the fundamentals of botanical illustration in this 3-day workshop. Appropriate for the beginner who wants to produce an accurate botanical drawing. Registration required. (828) 698.6104

June 25 (9 AM – 4 PM)

Buncombe County Master Gardener Garden Tour: Look and Learn in our Gardens

Asheville

- Five private gardens will be opening their garden gates to the public. Registration required. (828) 255.5522

July 6 (3 – 4:30 PM)

Growing and Using Culinary Herbs

Bullington Center, Hendersonville

- Master Gardener Betty Lockwood will demonstrate how to grow and cook with herbs. She will share culinary creations from her kitchen and lead a tour of the Bullington herb garden. Registration required. (828) 698.6104

Smart Gardening — Vertical plantings

Going up! If garden space is limited, vertical plantings can be a wonderful addition to a raised bed or container garden. Whether you use a trellis, cage, stakes or poles to support growing plants, you are vertical gardening.

For vegetable gardens, sprawling plants such as pole beans, cucumbers, snow peas and tomatoes are great to train vertically. This allows space for other vegetables to be planted nearby. More important, trellising improves air movement to limit foliage diseases, and it eases harvesting.

Trellis systems can be constructed using materials that you already have on hand. Look for items that can be “recycled” into a trellis support. Willow branches, bamboo canes or other flexible cuttings can be used to create a twig arbor for a container, a teepee support or a simple lattice for climbers. Three to four bamboo canes can be lashed together to form a teepee or A-frame structure for plant support. A discarded window frame (without the glass panes), baby bed box springs, or a piece of used lattice can all serve as vertical plant supports. Or they can be slightly angled to create a shady area underneath

for additional plantings.

Garden twine, fishing line or nylon string can be attached to trellis systems to provide more support. Some plants without any means of attaching themselves may need to be tied to the structure. Keep the ties firm but loose enough to allow for the plant’s growth.

Wire cages are also an option and usually are constructed of strong hog-fence wire or reinforcing mesh. To add a little color to the garden, tomato cages can now be found in red, blue and yellow.

Site your support structure at the north or west side of the garden or raised bed to limit shading of the other vegetables.

Regardless of what type of vertical support you select, make sure it’s secured properly. When visiting other gardens, take time to observe their trellis systems. You may find a new version to use for your own garden. Whether it’s noodle beans, pickling cucumbers, cherry tomatoes, Malabar spinach or enjoying the flowers of black-eyed Susan vine tucked into the vegetable garden trellis system, enjoy “growing up!”

— Jan McGuinn

Food Production — All about hops

Spurred on by the demands of a burgeoning craft brewing industry and a strong public interest in locally grown ingredients, farmers are experimenting with hops (*Humulus lupulus*) as an alternative income source. Over the past three years, a small community of growers across western North Carolina have established hop yards and sold their product to local craft breweries and home brewers. While many of us recognize the end products of hops, flavorful and bitter beer or herbal remedies, we are less familiar with what the plant looks like and how it is produced.

The hop plant is a member of the plant family Cannabaceae, the same family as the well-known *Cannabis*. Hop plants are vines that produce annual stems from perennial root systems known as rhizomes. The vines grow to a length of 18 to 25 feet. Unlike vines, the vines

do not produce tendrils, but rather prickly hairs and climb by turning clockwise as they grow up a trellis. Hop plants are herbaceous perennials meaning that the vines die down each year in the winter but arise again each spring from hardy crowns. The hops rhizomes may explore the soil to a depth of 15 feet. Hops plants are propagated from cuttings from the rhizomes.

Hops producers typically buy and cultivate female vines only. The female flowers form pale-green cone-like structures that are 1 to 4 inches long. The papery scales of the cone turn yellowish when ripe. Inside the cones are the lupulin glands, small yellow organs that resemble pollen. These glands contain the essential oils and alpha and beta acids that provide the bitterness and flavoring properties important in crafting beer.

— Sue Colucci



Garden Spot — North Carolina educational forests

Did you know that trees can talk? At least the trees in North Carolina's seven state educational forests can. Managed by the NC Division of Forest Resources, seven educational forests across the state operate as outdoor learning centers for both teachers and students.

The first educational forest opened in 1977 in Johnston County. Its popularity was so great that Henderson, Chatham, Wilkes, Bladen, Caldwell and Lincoln counties have also opened similar facilities.

Each forest features self-guided trails with exhibits, tree identification signs, a forest education center and, of course, a talking tree trail. Rangers are available to teach 30-minute programs to school and youth groups. A large selection of topics is available to choose from. During the summer, environmental education workshops are held at each forest that instruct teachers and other youth leaders on methods of teaching outdoors. Some of the programs offer teacher renewal credits.



A ranger talk at the Tuttle Educational State Forest in Lenoir.

Courtesy of Division of Forest Resources, NC DENR

Reservations for ranger talks are required. A call to the appropriate forest office can help map out an agenda that will meet the needs of any group. All classes are held outdoors, so suitable clothing should be worn. Covered picnic areas and trails are open to the public although reservations are required for large groups who use the covered shelters.

For more information about the educational forest closest to you, visit www.ncesf.org.

— Donna Teasley

Environmental Stewardship — Fruit trees in the home garden

Home gardeners are now in the full swing of fruit production. We hope a late frost or a hailstorm didn't ruin your crop. Growing your own fruit can be rewarding; in a bad year, however, it can be very disappointing. Variety selection, weather and diseases are the main reasons why home fruit crops fail.

Choosing the correct variety is critical. Some tree fruits require cross-pollination. For instance, if you have an apple tree that has never had fruit, you may need to plant another apple tree that blooms at the same time so they will cross-pollinate. In addition, poorly adapted fruit trees may bloom before the last frost, which leads to a crop loss each year.

It is difficult to raise quality peach and apple trees at home. One problem with peaches is brown rot. The classic signs of brown rot are

shriveled peach mummies at the end of the year clinging to the tree or lying on the ground. Brown rot cannot be totally controlled, but sanitation will greatly reduce its spread. Each year in the fall, rake up and dispose of the peach mummies so they are not present the following year to re-infect the tree.

Fire blight is a common apple disease that can be identified in several different ways. The most obvious way is limb tips that appear to be burnt. Also the ends of limbs will curl up in the shape of a shepherd's hook. Infected fruit will appear water-soaked and have droplets of a milky-like substance. Unfortunately, control for fire blight goes beyond good sanitation practices. Contact your local Extension center for more information on these diseases.

— Daniel Shires

Tips & Tasks

Lawns

- Mow grass regularly, never cutting more than a third off the height of the grass blade at one time.
- Apply a pesticide containing imidacloprid in June and July for next year's grub prevention. Always read the label before making any pesticide application.
- Allow clippings to fall back on the lawn rather than bagging. This adds nitrogen and organic matter back to the soil.

Ornamentals

- Take semi-hardwood cuttings of azalea, holly, camellia and rhododendron in late June. Make cuts where the new-year's growth is starting to harden off.
- Prune bleeder trees such as maple, dogwood, birch and elm in July.
- If dry weather persists, don't forget to water landscape plants as needed.

Edibles

- Start watching for pests on vegetable plants. Flea beetles, whiteflies and Colorado potato beetle are out. Spray for squash vine borer in early June and again in early August.
- Fall vegetable transplants such as cabbage, broccoli, Brussels sprouts and greens should go in the ground between mid-July and mid-August.
- Mulch tomato plants early to help prevent early blight. A three-year rotation plan will also help suppress early blight.

—Donna Teasley



Sustainability

Garden Chickens

More and more homes now sport a small, often ornate, very functional outbuilding: a chicken coop! Backyard chickens can easily and beautifully fit into an integrated, sustainable home food system. Garden hens provide value as they turn kitchen and garden waste into two commodities: eggs and manure. In their first productive years, each laying hen will produce close to four eggs every five days. So just four hens will easily provide two dozen eggs a week! The last and often best benefit for gardens is the manure that hens provide. Once composted, it is a perfect supplement for all garden soils. Garden hens can be a key part of a sustainable landscape, serving as recyclers of waste and providers of a key nutritious food — with a quality and manner of production you control.

— Anne Edwards

Pest Alert — Spotted Wing Drosophila

The spotted wing drosophila (SWD, *Drosophila suzukii*) was first found here last summer and has now been found at several locations in the state. Most drosophila species (vinegar or fruit flies) lay their eggs in overripe fruit. The spotted wing drosophila is different; it lays its eggs in good fruit, too. Blueberries, cane fruits, figs, bunch grapes, peaches, plums and strawberries, among other fruits, can be affected.

Make sure to remove overripe fruit, especially if you live close to a commercial strawberry field, orchard or vineyard, so any infestation won't spread. Even though SWDs can lay eggs in non-overripe fruit, doing that takes more effort than laying eggs in overripe fruit. Bag the fruit

that you aren't going to use, and let it "cook" in the sun in the sealed bag before putting it in a compost pile.

Pesticides are not currently recommended for managing SWDs in home gardens, although they are for commercial plantings when SWDs have been detected in the area. A pesticide needs to be selected carefully. The product needs to be effective on SWDs and safe to use on ripening fruit close to harvest.

For more information, see the following blog from NC State University: <http://ncsmallfruit-sipm.blogspot.com/search/label/SWD>

— Mary Helen Ferguson

Showstopper — Climbing hydrangea

Looking for an ornamental vine with year-round interest? The climbing hydrangea (*Hydrangea anomala petiolaris*) is the plant for you. With its rich green foliage, midsummer white flowers and striking exfoliating bark in winter, this deciduous vine makes a statement in any season. According to Donald Wyman, respected American authority on woody plants, "there is no better climbing vine." Climbing hydrangea is excellent for a massive effect on brick or concrete walls, arbors, gazebos or most any freestanding garden structure. This woody vine has an almost shrub-like appearance due to its lateral branches. It is somewhat slow to establish and prefers rich, well-drained, moist soil. It will grow in sun or shade and can easily grow 60 to 80 feet in its lifespan. Introduced in 1865 from Asia, this vine should find a home in most NC landscapes.

— John Vining

Edibles — Cane fruits

Blackberries and raspberries make excellent additions to the landscape. The fresh fruit is delicious and high in antioxidants. Plus the fruit makes an excellent wildlife food. More than 100 species of birds feed on blackberries. Cultivar selection is very important. 'Navaho' and 'Triple Crown' are good blackberry choices for gardeners statewide. Both have great taste and no thorns. Raspberries prefer the cooler climates of the mountains where gardeners can choose several varieties. In the piedmont, 'Heritage' is the best choice for florican culture while 'Caroline' and 'Jocelyn' are good choices for primocane culture. 'Southland' or 'Dormanred' may satisfy gardeners in the coastal plain.

You may get by without using pesticides, but control measures must be taken for insects and disease. In particular, manage the raspberry crown borer and rednecked cane borer.

— David Goforth



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Extension Gardener provides timely, research-based horticultural information. We publish 4 issues per year. Send comments about **Extension Gardener** to Editor and Team Leader

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Photos courtesy JC Raulston Arboretum unless otherwise noted.

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11-CALS-2664—6/11

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Spotted wing drosophila *Drosophila suzukii* or SWD

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