



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

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Empowering
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Providing
garden
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Nightlife: Plants That Shine after Dark

With the fall time change and winter setting in, gardeners have little time to enjoy their gardens during daylight. A night garden can enhance your gardening enjoyment with white flowers and fragrance.

A night garden incorporates white flowers, interesting foliage and fragrant plants that can be enjoyed during the daytime or after the sun sets. Although many night gardens are enjoyed in the summer, with a little planning you can get pleasure from a night garden year-round. Therefore, let's focus on plants for fall and winter interest.

Plan your night garden and place it in a location you will enjoy. Should your night garden be next to the backyard patio or in the front yard? Consider an area that will receive full moonlight away from mature trees or tall shrubs.

Choose plants for your night garden that have bright- and light-colored blooms. White, silvers and grays, as well as pastels, work well. Remember to plant for all the seasons. For the fall and winter months be sure to include 'Clear White Colossus' or 'Delta Premium Pure White' pansies or 'Sorbet White' or 'Penny White Blotch' violas, chrysanthemums, sasanqua and Japanese camellias. Lamb's ear, lavender, eucalyptus, artemisia and dusty miller will give season-long silvery-gray color to the garden, especially in eastern North Carolina. Silver-leafed succulents and sedum will also be attractive during winter. Include early

spring blooming bulbs, such as snowdrops, white daffodils and tulips, and light-colored hellebores (Lenten roses).

Ornamental grasses' flower plumes can catch the light in the fall. Great grasses to include would be stipa, pink or white muhly or noninvasive *Miscanthus* species.

Even vegetables such as white eggplant ('Alba', 'Albino', 'Casper'), white squash ('Turban', 'Sweet Dumpling', 'Delicata') and white pumpkins ('Baby Boo', 'Casper', 'Lumina') can add substantial color to the night garden.

Fragrance is also very important to the night garden. Fragrant osmanthus starts blooming and producing a sweet smell when the temperatures turn cooler. Other fragrant flowers and plants would include hyacinth, rosemary and silver thyme. Include any herb (such as silver sage) with white or cream-colored variegation for culinary use as well as fragrance.

Besides plants, night lighting or solar lights can showcase your night garden. Candles and lighted gazing balls can also add dimension to your garden. White marble or another luminescent material for your garden will add brightness and shine, so consider large stepping stones or statues. A small water feature with its soothing sound will create the perfect night garden atmosphere for you to enjoy all year long.

— Cyndi Lauderdale

in this issue

PIEDMONT NEWS

- Going Organic!
- Buy Local!
- Juniper Level Botanic Garden
- Sizing a Rain Garden

STATE NEWS

- Plants That Shine After Dark
- 'Winter Sun' Mahonia
- Evaluating Home Remedies
- Community Gardens
- Cercospora Leaf Spot



Camellia japonica



Osmanthus x burkwoodii



Tulipa sp.

Upcoming Events

Beekeeping Classes

- A great way to save honeybees is to learn how to keep bees and harvest honey. Winter classes will prepare you to have your own hive in spring. Contact your local Extension center to find one near you: www.ces.ncsu.edu/counties

Extension Master Gardener Volunteer course

- Learn in-depth horticultural information to share with others. Contact your local Extension center: www.ces.ncsu.edu/counties

Dec. 3 - 5

CFSA Sustainable Agriculture Conference

Twin City Quarter, 425 N Cherry St., Winston-Salem

- Carolina Farm Stewardship Association has great tours, speakers, sessions, panels and classes for gardeners, farmers and cooks. www.carolinafarmstewards.org

Dec. 10 (10 AM - 12 NOON)

Propagation Workshop

Davidson County Agricultural Building, 301 E. Center St., Lexington

- Learn how to make more plants with a homemade mist propagation system in this free workshop. 336.242.2085

Dec. 15 (6:30 - 8:30 PM)

Heirloom Apple Seminar

Chatham County Agriculture Building, 45 South St., Pittsboro

- Learn about old southern apples from author and heirloom apple expert Lee Calhoun at this free event. 919.542.8202

Dec. 16 (8 - 10 AM)

Diseases and Insects of Landscape Ornamentals

NC Zoo - Stedman Education Center, 4401 Zoo Parkway, Asheboro

- Find the causes of common pests and pathogens in Carolina landscapes. Some advanced material will be covered. 336.318.6000

Smart Gardening — Going organic!

The term *organic* means different things to different people. It can be confusing, but that is not surprising; there is still no universally accepted definition! Let's just sidestep that issue for now and concentrate on what an organic gardener *does*.

Organic gardeners are soil builders. They compost the leaves that fall from their trees, the vegetable scraps and egg shells from the kitchen, the spent foliage from their annual flowers – you name it! All this beautiful compost will add organic matter to the soil and promote the biological activity of the microbes that live in a healthy soil. Organic gardeners love to use mulches. Bark, pine needles and wheat straw are the most commonly used mulches. But newsprint and cardboard will also feed the microbes that live in your soil. Organic gardeners also use natural fertilizers such as blood meal, bone meal, rock phosphate and greensand.

Biodiversity is practiced by organic gardeners. Heirloom tomato varieties might be grown

for extra flavor right beside the latest disease-resistance variety. Companion planting is used to put more plants in smaller spaces and to offer some pest protection. Crops are moved to different spots in the garden each year to avoid pests.

Natural pest control is another principle followed by organic gardeners. This type of pest management emphasizes diversity and plant health as the key to protecting the garden. The healthy soil in an organic garden creates healthy plants that resist disease and insect pests. The tremendous variety in an organic garden allows plants to protect themselves. Natural predators are encouraged by creating beneficial habitat and reducing pesticide applications. If any pesticides are used, they are those that will break down quickly, and they are selected for their less-toxic characteristics.

All these things work together in an organic garden. Organic gardeners would probably say they work with their gardens rather than in them!

— Jeff Rieves

Food Production — Buy local!

Most of you probably have heard of the 10% Campaign sponsored by NC State's Center for Environmental Farming Systems: www.nc10percent.com. Why not take that idea a step further and buy your garden supplies locally as well? There are still lots of independent garden centers, nurseries, and feed-and-seed stores that can supply your gardening needs.

Because we get lots of seed catalogs in the mail or e-mail messages from the out-of-state seed companies, it's easy to place an order for the latest heirloom tomato seed or the most disease-resistant variety of cherry tomato, and it's great to diversify your seed genetics. But remember, the 10% Campaign asks you to spend *at least* 10 percent of your total purchases in your community. Local seed dealers try to have variety in their selections, too. They might have that heirloom you are seeking or the latest in disease resistance!

Transplants are a great way to get a head

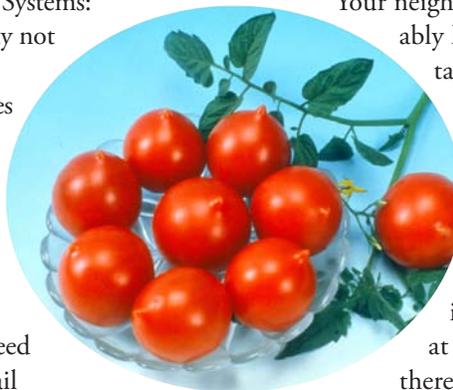
start in the garden, and many local nurseries will have a great selection of plants all season.

Your neighborhood garden center probably has all the flats, potting mixes, tags, markers and fertilizers you'll need for the upcoming growing season. And if you're looking for something unusual, just ask! Your community feed-and-seed store just might be able to get it for you. If you are a regular at your local store, you know there's always somebody who's tried

what you want to do. They can help you with that challenging variety that you want and seem to struggle with. And don't forget, your county Extension center is only a phone call (or e-mail) away.

Keeping money in your neighborhood will create an "economic stimulus" that helps the entire community! Remember ... "Keep it Local!"

— Jeff Rieves



Above: A local nursery might have that tomato variety you need.

Garden Spot — Juniper Level Botanic Garden

If you're looking for unique and exciting plants, you won't be disappointed when you visit Juniper Level Botanic Garden south of Raleigh. Six acres of intensively planted display gardens are conveniently located beside the world famous Plant Delights Nursery. The garden and nursery were both founded by renowned plantsman Tony Avent.

Feature areas of the garden include a woodland garden, a bog garden, several rock gardens, a southwest garden, a hardy tropical garden, a sunken garden, and several perennial and mixed borders. More than 17,000 plants are packed into this wonderful site. The gardens vary so dramatically in microclimate and in plant material that you may forget you're only minutes from our capital city.

The garden is a beautiful display area, but that is not its sole purpose. Juniper Level plantings serve as a conservation reserve, maintaining a wide variety of species that thrive in zone 7b. The garden is also a research and development facility. Exciting plants from global explorations, seed exchanges, breeding programs and other



Juniper Level Botanic Garden is home to some 17,000 plants that thrive in zone 7b.

gardeners are collected and cultivated here.

Juniper Level and Plant Delights are open only eight weekends each year – two during each season – so plan ahead to experience this horticultural treasure. This winter, visit on the weekends of February 25 – 26 and March 4 – 5 each day from 8 AM to 5 PM. Check the website for directions and other open-gates dates: www.juniperlevelbotanicgarden.org

— Mark Blevins

Environmental Stewardship — Sizing a rain garden

Rain gardens can be large or small – the size depends primarily on your drainage area. The volume of water to be collected will be roughly equivalent to the amount of rain falling on impervious areas (such as driveways and rooftops) draining to the garden location. In North Carolina, we typically try to capture runoff from 1 inch of rainfall.

To estimate the drainage area, first determine the roof area draining to the site because most rain gardens are placed downhill from a roof downspout. The volume of water draining to the garden from the roof will equal the square footage of the house multiplied by the percentage of roof feeding the downspouts to the garden. For example, if the back half of your house will drain to the rain garden site, the size of the house's drainage area would be

one-half the square footage of the house.

Add to this number the surface area of your paved driveway if water from this surface will end up in the rain garden. The driveway area can be estimated through actual measurement, using a tape measure. The combined roof drainage area and driveway drainage area make up the total impermeable drainage area for your garden.

By dividing the total impermeable drainage area by 20, you will get an estimate of the garden's area requirements for a water depth of 6 inches. For a shallower depth of 3 inches, divide this total area by 10. So for each 100 square feet of roof or hard surface, you need 5 square feet of 6-inch-deep rain garden or 10 square feet of 3-inch-deep rain garden.

— Kelly Collins

Tips & Tasks

Winter Chores

- Examine the limb structure of your shade trees. Remove dead, diseased and storm-damaged branches.
- Chickweed and other broadleaf weeds are continuing to grow and mature. A liquid broadleaf herbicide can be used if the daytime temperature is warm enough. Consult the pesticide label on the product before applying.
- Some plants that should be pruned in late winter or early spring are hydrangea, butterfly bush, Rose-of-Sharon, hibiscus and other summer-flowering shrubs that flower on new growth.
- Check all five growing factors if your house plants are not growing well: light, temperature, nutrients, moisture and humidity. Plant growth can be retarded if a plant lacks any of these factors or experiences an excess of the factors.
- Do not overly mulch newly planted trees and shrubs. Two to three inches of mulch is best. Use either organic mulches (shredded or chunk pine bark, pine straw, composts) or inorganic mulches (volcanic and river rocks).
- The usefulness of a garden tool can be obtained only by keeping the tool clean and sharp. Learn the techniques of sharpening each tool, and practice them frequently. Professional gardeners sharpen their tools at least daily. Clean your tools after each use, and oil the blades.

—Scott Ewers



Showstopper — ‘Winter Sun’ mahonia

Mahonia ‘Winter Sun’ is a statuesque, evergreen shrub that makes an interesting focal point for winter gardens in zones 7 to 9. In December, ‘Winter Sun’ lights up any garden with its bright yellow flower spikes perched above its coarse-textured, almost holly-looking foliage. Chosen as an improved selection in Ireland in 1966, this mahonia hybrid is a relative newcomer to the Carolinas. It has a compact growth habit with more fragrant flowers than the common leatherleaf mahonia. Even with its compact growth habit, ‘Winter Sun’ will reach a height of 10 feet if left unpruned. Keep it under control by snipping the tallest shoots at ground level. Set out this mahonia in partial shade. Additional water is essential during prolonged summer droughts. As an added benefit, the plant produces grape-like clusters of blue berries in late spring that songbirds love to eat.

— John Vining

Sustainability

Evaluating Home Remedies

A homeowner using a home remedy for fleas wound up paying to haul the top layer of soil in his entire lawn to a hazardous waste facility. Can this be avoided? Before applying a homemade remedy, ask three questions. Is it effective, economical and environmentally sound? It doesn't matter how folksy a product sounds; using a product that doesn't work makes no sense. If a product does work, you should evaluate the cost. Sometimes the folk remedy has to be applied more than once to match the effectiveness of one pesticide application. Be sure to count all the applications in your cost. Finally ask yourself if it is environmentally sound. Registered pesticides have had dozens of tests costing millions of dollars to determine their effect on the environment and other organisms. The same tests are often *not* run on home remedies.

— David Goforth

Edibles — Community gardens

Community gardening has occurred for centuries. Look at the “War Gardens” of 1917-1919, the “Relief Gardens” of the ‘30s or the “Victory Gardens” of the ‘40s. Lately there seems to be a surge in community garden popularity. Changes in the economy, marketing, distribution and a shift to urban living have contributed to a rise in food insecurity. Community gardens improve our quality of life. They stimulate interaction, encourage self-reliance, produce food, reduce food costs and create opportunities for recreation, exercise and education. A garden can be a forum where all ages and cultures can exchange knowledge and food with others. To learn more about starting a community garden contact your local Cooperative Extension center.

Also check out the North Carolina community gardens website: <http://nccommunitygarden.ncsu.edu/index.html> — Karen Neill

Pest Alert — *Cercospora* leaf spot

One of the most widespread diseases of the fall garden and landscape in North Carolina is cercospora leaf spot. Unlike many diseases that are host-specific, cercospora affects many different plants, including vegetables, lawns, shrubs and field crops in North Carolina. It is often most apparent on fall plantings of turnip, mustard, collards and other leafy greens. The primary cause is the fungus *Cercospora* sp., which is dispersed by rain, irrigation water and wind. Germination of the fungal spores occurs during wet, humid conditions, usually during late spring and summer. Growth is encouraged into the fall and winter growing seasons by frequently damp leaves. *Cercospora* begins as small, pale-green to

gray or white lesions that often have a brown or purple border. In the later stages of the disease, leaves may become a brownish-gray as they dry out and die completely. Plants can be defoliated when infections are severe. Controlling cercospora after it appears can be difficult without using expensive fungicide treatments. One way to prevent the disease is *not* to plant leafy greens for at least 3 years on the same spot. Once the growing season ends, destroy the remaining plants through tillage. Till the garden twice, at least 10 days apart, to ensure removal of plants that can be hosts for over-wintering spores. For more information, contact your county Extension center. — Will Strader



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Cercospora leaf spot
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