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Knowledge of
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Manage Their
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Protect the
Environment

JC Raulston Arboretum Plant Focus

Add Touch of Nostalgia with Spireas

Spireas are a lovely addition to any springtime garden. They add a touch of nostalgia, yet they also look good in contemporary gardens. The classic bridal wreath spirea, with its spectacular pure white flowers that burst from tiny deciduous stems, is a favorite and a signal that spring is around the corner.

In the *Rosaceae* family, the 12 *Spiraea* species offer a number of varieties and crosses with interesting foliage, flowering habit and color. Most prefer full sun to light shade with regular to moderate watering. They grow across the U.S. with adaptable species able to survive climatic zones 3 to 8.

Spireas tolerate many soils except those that are extremely wet. They may be prone to summer heat and drought damage, especially if they receive too much sun or if they are on light, sandy soils found in coastal areas. Mulching and tending to their critical watering needs in the summer will ensure their survival. Fall is the best time to plant but they may be planted in the spring as well. They generally hold up well to insect and disease pests. There may be occasional problems with aphids and some caterpillars.

This plant grows quickly. Prune the spring-blooming types after they flower and the summer-blooming ones in winter or early spring. Thin out old and weak canes to the ground. Remove faded, mature flowers on summer-blooming spireas to rejuvenate with a second flush of flowers.

Among the many varieties to plant are the dainty 'Little Princess' with light pink flowers; the larger repeat-blooming 'Anthony Waterer'; and 'Goldflame' with tiny red leaves that turn golden yellow in the fall and bloom with tiny pink flowers in the spring.

In addition to 'Little Princess', the JC Raulston Arboretum (JCRA) in Raleigh has 14 other cultivars of *Spiraea japonica* alone. Talk about incredible variety in one place! See these and many other spireas at the JCRA, with many located in the eastern section. Visit www.ncsu.edu/jcraulstonarboretum to learn more.

David Barkley



'Goldflame' Spirea
Robert E. Lyons ©

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'Crispa' Spirea
Robert E. Lyons ©



'Little Princess' Spirea
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'Gold Mound' Spirea
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Design a Container Garden

Limited space and time need not keep you from enjoying a garden. Container gardening is an easy way to have a garden on a smaller scale, and these gardens can make a big color statement in a small place. The container you select impacts your plant selection. Anything from barrels and wooden boxes to beautiful Mexican or North Carolina pottery can be used for a container.

The most important thing to look for in your actual container is a drainage hole. If your container does not have a drainage hole, drill one or place another container with a drainage hole inside the decorative container that doesn't have one. Drainage gives excess water somewhere to go, allows for air movement in the root system and helps ensure success.

When choosing the soil, make sure the mixture allows for good drainage. For the best results choose a quality potting soil, preferably one designed for container use. A good container mix drains well and quickly, holds air and water and is light enough for roots to penetrate. Annual or perennial, the plants in container gardens have the same needs: food, water and a little light housekeeping. Because a planter is limited in space and soil, you must water and feed more frequently. By mixing a slow-release fertilizer in with your potting mix, your plants should have enough feed for the season. If growing sun-loving plants in pots, water every day. Never let the container become totally dry. Light housekeeping involves pulling out the odd weed and deadheading to remove faded blooms as they die.

As in cut flower arranging, there are design principles to follow in container gardens, but these are just guidelines not unbreakable rules.

Plant Selection

When choosing plants for a container, it's important to select plants that have the same or similar requirements when it comes to water, sun and temperature. Plant form is another important principle to keep in mind, and it's good to pair or balance one type of plant with another. A tall species like dracaena spike, phormium, agastache or any ornamental grass adds height to your container. A mounded species like geranium, begonia or helichrysum adds mass to the design. Low-growing plants like calibrachoa, wave petunia, alyssum, bacopa or bidens add depth and soften the edges of a container. Texture is another principle that has an effect on your design. Balance coarse-textured foliage like coleus with light, fine textures such as asparagus fern.

A Focal Point with Balance

Balance is another important principle in container gardening. Symmetrical balance is formal and geometric. To create a symmetrically balanced design use equal, almost identical elements on each side of a central axis with the highest point over the center of the container. Asymmetrical balance is informal, relaxing and somewhat abstract. To create an asymmetrical design the two sides of the central axis are not mirror images but have the same visual weight.

Focus is the point or area where your eye is drawn to first. Large-leaved or coarse-textured plants, or vibrantly colored flowers or foliage, serve as focal points for a container garden. Place the focal plant below the tallest point in the container garden to achieve balance. Develop focus by making it appear as though all of the plant material is radiating out from the center of the container garden like fronds on a fern.

Keeping the size and quantity of the plants in proportion to the pot is another design principle. The height of the tallest plant should not exceed one to two times the height of a tall container or the width of a low bowl. Rhythm gives a design flow and harmony. Use repetition and gradation of plant form, texture and color to develop rhythm in your design.

The Color Punch

Color is perhaps one of the most important aspects of design to the designer. Pastel tints set a mood of tranquility. They look best when viewed up close, and can look washed out in bright midday sun. Bright colors invigorate and energize a container garden. They hold up well to brilliant sunshine and attract the eye, even from a distance. Colors that are opposite one another on the wheel – yellow and violet; orange and blue; green and red – are considered complementary colors. Their high contrast brings energy and vitality to the container garden. Harmonious colors are next to each other on the wheel – blue and violet; orange and red; orange and yellow. These combinations are gentler on the eye than complementary colors. A harmonious color scheme unifies a design, while allowing enough range of color without becoming monotonous. In a monochromatic container garden, you can create interest by using plants with different sizes and shapes of flowers of the same color. You might also highlight foliage with interesting textures and colors. **Amy-Lynn Bartel**

gardentalk

"How fair is a garden amid the toils and passions of existence."

– Benjamin Disraeli



Why isn't my plant blooming?

The most common reasons for bloom failure are climate adaptation and environmental stress. Purchasing plants that are not recommended for the zone you live in is a very common mistake. Even those planted in the right zone may grow and not bloom when placed in or subjected to the wrong microclimate. That area immediately surrounding plants such as access shade, prolonged light or reflection of sunlight from buildings can cause plants to feel out of place. Even the air from a

heat and air conditioning unit can stress plants to the extent that they use excess energy just to survive.

Landscape lighting, security lights and increased shade from tree canopy can change the growing conditions over time for blooming plants. Frost and freezing temperatures during the bud swell period are another common cause of failure. Improper nutrition such as excess nitrogen from fertilizer and low phosphorus in the soil can upset the blooming cycle. Nitrogen can stimulate an overabundance of vegetative growth at the expense of blooms. **Donald Breedlove**

ENVIRO- TIP

Eliminate Standing Pools of Water to Control Mosquitoes

Mosquitoes often interfere with outdoor activity and can transmit diseases to people and domestic animals. They are most active during twilight hours and at night. They need water to complete their life cycle and they can breed in almost any water source.

The most important factor in mosquito control is to locate and eliminate their breeding sites. This involves searching the yard for areas where water collects. This can include birdbaths, saucers under plant pots, tarps that are covering items, pet water bowls if water is not changed daily, children's toys that sit outside and any other area where water can "pool." Keep your gutters free of leaves and other debris so water will drain, and eliminate standing water around such areas as air conditioners and faucets.

To keep mosquitoes out of your home, make sure all screens on doors and windows fit well and are secure. Caulk cracks and crevices to prevent mosquitoes from entering the house.

When it comes to natural control, make friends with bats and purple martins. Both consume mosquitoes as part of their diet, so creating nesting

areas for these species may help with mosquito control.

Some repellents for mosquito control include oil of citronella candles. Place them on decks and patio areas and be aware that they work best if used during times of little air movement since air disperses the chemical quickly. Personal repellents include products that contain DEET, which can be applied to exposed skin but not hands and face. Repeated use of repellents over a short period of time is not recommended, especially for children. Be sure to follow all label directions.

Homeowners wanting to treat small garden pools or birdbaths may want to try a bacterial insecticide called "Mosquito Dunks" which contains Bti or *Bacillus thuringiensis israelensis*. This product kills mosquitoes but does not harm fish, birds or wildlife. The electronic traps such as "bug zappers" are not effective in reducing mosquito populations. Studies show that less than 1 percent of insects killed in these electronic traps are biting insects. "Bug zappers" also tend to kill non-targeted, beneficial insects. **Emily Revels**

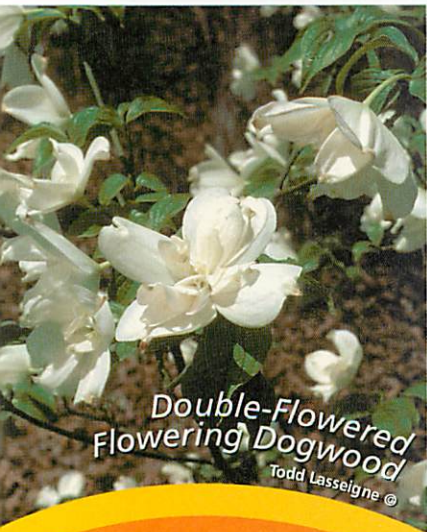
Bagworm Basics

Have you ever noticed little bags hanging off the branch tips of a leyland cypress? If you cut one open, you'll find a little caterpillar inside. Entomologists, being the creative type, have named these bagworms. The bags are made from vegetation from the host plant. The silk they use to tie their bags to the branch girdles it, so the branch tip dies. Although one or two do little damage, over time they can spread to cover nearly the entire plant. If you notice a single brown leyland cypress in a row of green ones, look closer to see if bagworms aren't the culprit. Bagworms also can be found on junipers, arborvitae and occasionally other trees and shrubs.

Since the females are wingless, they spread rather slowly. It may take several seasons for them to spread from one plant to another. This means that, if the infestation is caught early, it can easily be controlled by clipping the bags off the plant. For more severe infestations or larger plants, various insecticides can be applied. June or July is the best time to apply these, as the worms are small and very susceptible. Insecticides containing the active ingredient *Bacillus thuringiensis* are a good choice due to their low toxicity. **Paul McKenzie**



Robert E. Lyons ©



Double-Flowered Flowering Dogwood
Todd Lasseigne ©

Garden Spot

The Rose Walk

at the Lake Junaluska Conference and Retreat Center is nestled in the serenity of the Smoky Mountains in western North Carolina. This .20-mile walk was created in the early 1970s by Dr. Lee Tuttle, president of the World Methodist Council. Known for displaying over 240 stunning rose bushes, the Rose Walk contains mostly hybrid teas with some popular new varieties such as 'Country Music', 'Gypsy Carnival', 'Princess de Monaco' and 'Duet'. This showplace is loved by many and maintained by the Junaluska and the Junaluska Associates. Heavy bloom is common from early May to the first heavy frost in October. Come visit this rose lovers paradise. For more information, contact Roddy Ray at (828) 452-2881 ext. 774 or e-mail info@lakejunaluska.com.

Diane Ashburn

Gardening in May

Lawns

- Plant warm-season grasses, such as zoysia, Bermuda, centipede and St. Augustine, from mid-April to early June.
- Begin mowing cool-season grasses, such as fescue, at a height of 3 inches to help the roots survive the hot, dry periods ahead. Mow before grass gets taller than 5 inches. Practice grasscycling by leaving the clippings on the lawn.
- Treat the summer broadleaf weeds with a herbicide before it gets too hot and the weeds get too good of a hold on the turf.
- Check for white grubs and control if necessary.

Ornamentals

- Prepare plants now for dry weather. Use a thin, 2- to 3-inch layer of mulch to guard against moisture loss.
 - Pinch back mums, zinnias, salvia, celosia, petunias, marigolds and snapdragons to slow down top growth and to encourage lateral branching and more blooms.
 - Give your houseplants a vacation. Potted plants grown indoors over winter can become a part of the garden setting now.
 - Check your favorite garden shop or nursery for innovations in drip irrigation. A drip system with timer can be a great labor and water saver when dry weather arrives.
 - Azalea leaf gall begins to show up now. If you notice swollen leaves covered with a white powdery material, pick off the leaves and trash them to prevent spread of the leaf gall.

Edibles

- Plant warm-season vegetables such as tomatoes, melons, peppers, squash, beans and okra.
 - Fertilize vegetables 6 weeks after planting.
 - Thin peaches to 4 to 6 inches apart for large, high quality fruit.
- Continue spraying the orchard for diseases and insects. **Craig Mauney**



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