



Extension Gardener

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Empowering gardeners. Providing garden solutions.

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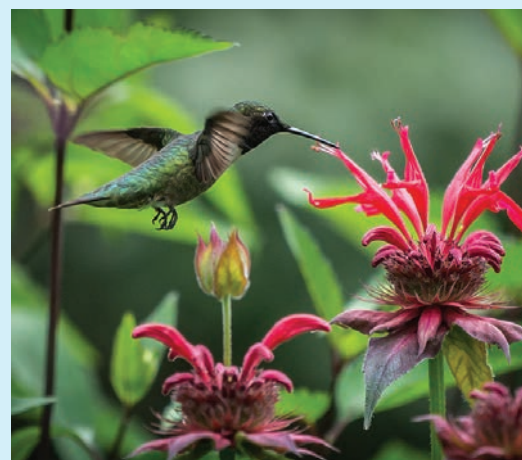
Increase plant diversity to enhance wildlife

Want to encourage more beneficial insects, songbirds, and other types of wildlife to live in your yard? The answer is simple: Increase plant diversity in your yard! North Carolina is home to 3,068 native plant species, which help to support an even greater diversity of native wildlife. Native plants are ideal for supporting wildlife and are well adapted to North Carolina's climate.

Plants sustain life and help support a complex food system. From pollinating insects to songbirds and small mammals, all wildlife depend on plants to provide food, shelter, and nesting sites. Not all wildlife feed on the same plants at the same time. Having a well-designed landscape composed of a diversity of herbaceous and woody plants will provide food and shelter to sustain wildlife throughout the year.

If you want to increase plant diversity in your yard, the best place to start is with the ground layer. Diverse mixtures of perennial ground covers—such as species of *Phlox*, *Viola*, *Oxalis*, and *Geranium*—are good choices because they have tiny flowers that only small insects like beneficial parasitic wasps can feed upon. Another choice for a ground cover is clover, which is favored by important pollinators such as honeybees and bumblebees. Clover also improves soil quality and increases nitrogen levels in the soil.

Annual and perennial border plantings in your garden beds will encourage other types of wildlife. For instance, coneflowers (*Rudbeckia* and *Echinacea* species) and *Coreopsis* species are favored by songbirds such as the American goldfinch because their seeds provide a winter food source. Other plants are critical for butterfly reproduction and survival. For example, caterpillars of the monarch butterfly can only survive on species of milkweed (*Asclepias*). Plants such as species of goldenrod (*Solidago*), ironweed (*Verno-*



nia), and joe-pye weed (*Eutrochium*) are favored nectar sources for many butterfly species and also provide beautiful flowers.

Plant a mix of evergreen and deciduous shrubs to provide food and refuge for songbirds throughout the year. Deciduous shrubs such as New Jersey tea (*Ceanothus americanus*) and buttonbush (*Cephalanthus occidentalis*) can be grown throughout North Carolina and provide nectar for insects and hummingbirds in the summer. Mountain laurel (*Kalmia latifolia*) and doghobble (*Leucothoe* species) provide shelter for small mammals and overwintering birds during the winter months.

Small trees such as flowering dogwood and redbud provide early spring color and also serve as a nectar resource for butterflies, while wax myrtle and American holly are evergreens that can serve as shelter for wildlife during the winter. Larger trees—including oak, elm, and pine—provide wildlife habitat and food throughout the year. Check with your local Extension center or visit www.ncsu.edu/goingnative/ for more plant recommendations suited to your area.

— Sam Marshall

Extension Showcase

Acidified Foods Processing & Packaging School in Clay County

Public concern arose after local media outlets broadcast news of pickled products being sold at local farmers' markets by unauthorized vendors, which posed a potential safety hazard as well as an issue of legality. The need to make local producers of value-added foods aware of available education and certification opportunities was realized by Extension. However, the tuition to attend the school was prohibitive for many producers, who sold only a few cases of canned goods each year. In addition, the nearest three-day course was two hours away, adding hotel and travel expenses to the cost of certification.

Realizing the need for certification as well as the economic perspective of the producers, Extension agents in Clay and Cherokee counties worked to secure funds from local groups and organizations to provide scholarships for local residents to attend the course. NC State's food bioprocessing specialist agreed to offer the school in Clay County, further reducing the cost for local participants.

In all, 33 individuals gained their certification through the school and are now able to legally produce pickled products for sale. Value-added foods are a large and growing part of local farmers' markets. Now consumers can be better assured of product safety in the far western counties of North Carolina.

— *Silas Brown*

Smart Gardening — *Live and learn*

Often, smart gardening is learning when to give up and when to move on. This past summer is a prime example. Record rainfalls in western North Carolina turned gardens into soggy, muddy, disease-laden messes! Sometimes, Mother Nature is persistent and there is not much gardeners can do.

Smart gardeners learn from their mistakes and prepare for the future. This past summer, many gardeners replanted crops again and again. After round three, I suggest visiting the farmers' market and moving on to a fall garden! Dispose of diseased plants, turn under the rest, and get ready for a great fall garden. You have learned a great deal about gardening in adverse weather. Take that knowledge and move forward. Re-planting continually will not only exhaust your funds, but your peace of mind, too.

Smart gardeners keep a record. You would be amazed at the consistency in disease and insect issues that happen year after year. Most people cannot remember what they were doing

the previous day, let alone the previous year. Keeping a record or journal is a great way of recording those problems and preparing for the following year. Keep track of plant varieties, locations, insects, diseases, watering schedules, spray schedules, and any other notable happenings from your landscape or garden. Photos are also a great addition to a garden journal. If you are a tech savvy person, start a personal blog to serve as your journal. You can share it if you would like or keep it private for your personal use. Any way you look at it, journaling is one of the best things you can do for your garden and landscape!

In essence, smart gardening is going with the flow. Accept imperfections. Prepare for the future by learning from the past. Mother Nature will follow her course, and we mere mortals are left to deal with the rest. Gardening is not a craft of perfection, but one of learning and growth.

— *Kerrie Roach*

Food Production — *Container gardens for fall*

For those with limited space, containers are a wonderful solution for enjoying fresh, healthy fall vegetables. Window boxes can be planted with beets, carrots, lettuce, onions, radishes, or spinach. Containers can be planted with one vegetable crop or a combination. Plant spacing is vital to vegetable growth. Refer to spacing recommendations on seed packets or transplant labels.

Some varieties are better suited to container growing: 'Little Egypt' or 'Early Red Ball' beets, 'Salad Bowl' and 'Ruby' lettuces, 'White Sweet Spanish' or 'Yellow Sweet Spanish' onions, 'Cherry Belle' and 'Icicle' radishes, and 'Dark Green Bloomsdale' spinach. Carrots need soil at least 12 inches deep, so deeper containers are needed to grow them. Shorter varieties such as 'Short & Sweet,' 'Danvers Half Long,' and 'Tiny Sweet' are recommended for containers.

Because they need more room, broccoli, cabbage, Chinese cabbage, and Brussels sprouts need large containers with more root depth. Five-gallon pots or 15-gallon tubs work well for these vegetables. Plant one plant per pot or three

plants in a 15-gallon tub. Try 'Green Comet' or 'DeCicco' broccoli; 'Jade Cross' Brussels sprouts; 'Dwarf Morden', 'Red Ace', or 'Early Jersey Wakefield' cabbage; and 'Michihili' or 'Burpee Hybrid' Chinese cabbage.

Eight to 10 hours of direct sun, proper fertilization, well-drained soil, and adequate water

are needed for a successful fall vegetable harvest. Soilless potting mixes are recommended for container plantings because they are free of soil diseases and weed seed and drain properly. Fertilize with a liquid fertilizer twice a month, or use a slow-release fertilizer to supply nutrients.

— *Jan McGuinn*



Pest Alert — *Saddleback stinging caterpillar*

In the fall we always get calls at the Extension office about stinging caterpillars. We often get jars filled with brightly patterned critters with the explanation, “these really hurt!”

There are several stinging caterpillars that can be readily found in North Carolina during the late summer. Stinging caterpillars are the immature stages of several species of moths. They have hollow quill-like hairs that are connected to poison sacs. When the hairs penetrate

the skin, poison is released, causing a painful sting. The most common of these stinging caterpillars in western North Carolina is the saddleback.

This caterpillar is called a slug caterpillar because of its broad width, making it about as wide as it is long. It is stocky and short and has no visible head or legs. The saddleback is easily identifiable because of its unusual color. It is brown in the front and back and green in the middle with a brown spot in the center of the green saddle. Large horns adorn the front and back.

Saddlebacks are most often found on deciduous trees, such as cherry, oak and plum, but can be found on shrubs and even corn. Sometimes large numbers are present. So when a saddleback is spotted, care should be taken to make sure their aren't more in the area. If stung, wash the area with soap and water and apply ice.

— Donna Teasley



G.J. Lenhard, Louisiana State University, Bugwood.org

Carolina Lawns — *Fall lawn care*

As cooler weather approaches in western North Carolina, it is time to turn our attention back to our cool-season lawns. As the grass comes out of dormancy and begins to actively grow again, mow regularly so as not to remove more than one-third of the leaf surface at any one time. By maintaining the mowing height between 2½ to 3 inches, you will improve the overall health of your lawn.

Remember to “grasscycle” by leaving the clippings on the lawn. Grass clippings are 75 to 85 percent water and a good source of nutrients. Grasscycling can supply up to 25 percent of your lawn's yearly fertilizer needs, saving you time and money.

Fall is also the time to consider fertilizing your cool-season lawn. The best way to determine your lawn's need for nutrients is by soil testing. This is a free service provided by the NC Department of Agriculture. You can pick

up test kits from your local Extension center. If you aren't able to do a soil test, use a complete, turf-grade fertilizer at a rate of 1 pound of nitrogen per 1,000 square feet. This can be done in mid-September and again in November.

Finally, pest control can easily be accomplished now if needed. Broadleaf weeds such as dandelion and clover are easily controlled during the fall through selective herbicide applications. Reducing the number of weeds during the fall will give you a “step up” in the spring when everything begins to grow again. Grassy weeds, such as crabgrass, cannot be controlled at this time. A spring, pre-emergent application is best for these annual, grassy weeds.

Fall is also the ideal time to control white grubs in your lawn, so be sure to check for these pests during September and October.

— Tim Mathews

Tips & Tasks

Lawns

- Overseed or reseed tall fescue lawns as needed.
- Fertilize established fescue lawns around Labor Day and again around Thanksgiving.
- Keep tree leaves from collecting on your lawn by raking them to the compost pile, tilling them into the garden, or chopping them up with the mower and leaving them on the lawn.

Ornamentals

- Fall is the best time to set out most landscape plants.
- Plant spring flowering bulbs, including daffodil, tulip, crocus, and hyacinth.
- Plant fall bedding plants, such as pansies, mums, snapdragons, and ornamental kale, for color.
- Transplant trees, shrubs, and perennials.
- Dig and store tender summer bulbs like gladioli, dahlias, and caladiums.
- Cut back and clean up frost-killed perennials.

Edibles

- If not growing a fall garden, plant a cover crop to build soil.
- Start salad vegetables in a cold frame. Plant lettuce, green onions, carrots, radishes, broccoli, cauliflower, and most leafy greens inside the cold frame and enjoy them all winter.
- Prune raspberries and blackberries by removing dead canes.
- Send in soil samples for analysis. Kits are free of charge and available at local Extension centers.
- Order fruit trees and grape vines for spring delivery.

— Amanda Taylor





J.C. Raulston Arboretum

Showstopper — 'Shoal Creek' chastetree

If you are looking for a plant that doesn't need any tender loving care, you won't find a better choice than *Vitex agnus-castus* 'Shoal Creek'. Native to southern Europe and western Asia, 'Shoal Creek' chastetree is hardy from zones 6 to 9 and grows into a multi-trunked large shrub or small tree ranging from 10 to 15 feet high with a broad, spreading growth habit. 'Shoal Creek' is an improved variety that possesses larger spikes of violet-blue flowers. This vigorous small tree thrives in full sun and will tolerate most soil conditions as long as the soil is well drained. Once established, it is very low-maintenance and extremely drought tolerant. In addition to its attractive violet-blue flowers, 'Shoal Creek' has interesting star-shaped, aromatic foliage that is grayish green on top with gray underneath.

'Shoal Creek' flowers attract both hummingbirds and butterflies, giving this Showstopper Plant an added bonus.

— John Vining

Helping You Grow

Going Native

Going Native is a great Extension website for those interested in learning about native plants and how to provide habitat for many different wildlife species. On the site you can learn about habitats for many interesting wildlife species, how to prevent introducing invasive plant species, and how to use natives as a low-maintenance part of your landscape. This great resource also provides guidance on how to develop a native landscape plan for your yard, native plants for your area, and where you can find the plants for your natural landscape. Visit the Going Native website to learn more about adding natives to your landscape: <http://www.ncsu.edu/goingnative/index.html>

— Della King

Edibles — Drying herbs

Drying herbs could be your first step to food preservation obsession! The drying process is simple, and herbs are easy to grow—making them a great crop for beginning gardeners. For more information, visit this website: <http://www.ces.ncsu.edu/hil/hil-8111.html>

Herbs can be dried in a dehydrator, air-dried, oven dried, or even dried in a microwave. Many of our grandmothers set herbs out in the sun on an old sheet.

Although it makes a pretty picture, sun drying is not recommended because the herbs can lose flavor and color. No matter which method you use, your herbs need to be dried until they are crispy and easily crumble between your fingers. You can leave the leaves

whole or crush them, then store in an airtight container. Place the container in a dry, cool, dark place until the leaves are ready to use!

— Kerrie Roach

Sustainability — Organic weed control

Controlling weeds without chemicals begins with knowing your weeds. Annual weeds such as chickweed and crabgrass grow from seed each year. Annuals are generally easy to control by hand-pulling and tilling. Perennial weeds such as dandelion and Johnson grass grow from roots that live year-round. Perennial weeds are harder to control than annuals and usually need to be dug out, taking care to remove the entire root system.

To keep weeds from multiplying, remove them before they bloom and spread

seeds. Cover the soil with mulch to prevent annual weeds from coming up. Bark, newspaper, pine needles, cardboard, landscape fabric, burlap, and seed-free straw are all effective. You can also plant a cover crop as a living mulch. Mow the cover crop prior to planting. The cover crop acts like a mulch, and you can plant into it without tilling the soil.

In the vegetable garden, control weeds when they are small with daily tilling, hoeing and hand-pulling. When amending the soil, use only fully finished compost.

Incomplete composting may contain weed seeds. Water only the desirable plants. Weeds will grow anywhere the soil is moist.

A few organic herbicides are available. Most contain plant oils or concentrated vinegar and are effective only when sprayed on small, young weeds. Organic herbicides are not selective, so take care when applying. Another option for controlling young weeds is a flame weeder. These devices use propane gas to burn off the tops of weeds.

— Sarah McClellan-Welch



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