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Extension Gardener provides timely, research-based horticultural information. We publish four issues per year. Send comments about *Extension Gardener* to:

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Get Real: Choose and Cut a Christmas Tree

We spend much of our lives surrounded by things made of plastic and imported from other countries. Often family time is spent as everyone gathers around his or her own electronic device. Invite nature to Christmas this year and enjoy time together creating memories that will last a lifetime. Make the centerpiece of your holiday traditions a freshly cut Christmas tree grown right here in North Carolina on a family-owned farm. Unlike its artificial counterpart, a freshly cut tree engages the senses with fragrance and soft green limbs. And traveling to a Christmas tree farm is all about the time your family spends together.

There are more than 300 family-owned choose-and-cut farms in North Carolina, in both the eastern and western parts of the state. These farms offer a variety of experiences for the family to enjoy. For younger children or grandchildren, you can choose a farm that has activities such as photos with Santa Claus, hayrides, and opportunities to interact with farm animals. If you're after a taste of winter to get you into the spirit, visit a mountain farm where snow often falls, offering opportunities for snowball fights and sledding down the mountain. Dress warmly, but don't worry about the cold. Most farms have a warm fire with complimentary hot chocolate and cider.

Farms offer other Christmas-related items, such as wreaths, garland, bows, and handmade crafts. Making wreaths and garland are family traditions for the owners of the farms and their families. Often several generations will gather together in barns and garages to cut the greenery and



North Carolina's choose-and-cut Christmas tree farms offer families a variety of festive experiences.
©Cornett-Deal Tree Farm

assemble the wreaths and garland in the weeks leading up to and during the Christmas season.

Some people are concerned about cutting down a tree that took years to grow. Not to worry. For every tree cut, another is planted in its place. Replanting provides a sustainable crop that can be produced on land that is unsuited to other crops. At the end of the season, most cities have programs to recycle cut trees into mulch and other landscaping products—unlike the artificial counterparts that eventually end up in a landfill. To find a farm, visit these websites:

NC Christmas Tree Association:

www.ncchristmastrees.com

Eastern NC Christmas Tree Growers

Association: **www.nc-chooseandcut.com**

Watauga Christmas Tree Association, Boone:

www.wataugachristmastrees.org

Jackson County Christmas Tree Association:

jacksoncountytrees.com/retail/

Ashe County Christmas Tree Association:

www.ashecounychristmastrees.com

Alleghany Christmas Tree Association:

www.alleghanycta.com

Avery County Christmas Tree Association:

www.averycountychristmastrees.org

Yancey County Grown:

www.yanceygrown.com

Mitchell Grown: **www.mitchellgrown.com**



Freshly cut trees offer seasonal scents and soft branches. ©Paige Patterson.

—Paige Patterson

Extension Showcase

Raised bed gurus

Burke County Extension Master Gardener Volunteers have become the “gurus” of **raised bed garden construction** in Burke County.

After building and maintaining a 29-bed community raised bed garden for nine years, they’ve had a lot of practice.

They have shared their expertise with other area organizations, such as Exploring Joara Foundation, Early Head Start, Habitat for Humanity, and many schools and churches.

Their latest and most detailed effort has been their second project with Habitat for Humanity this past summer.

Habitat received a Kate B. Reynolds Healthy Places NC grant to build a 12-bed **community garden** in one of its newer communities.

Extension Master Gardener Volunteers planned and built this raised bed complex—complete with drip irrigation, fencing, and a potting shed, along with ongoing gardening education for the gardeners.

The Burke County Beekeepers Association also donated a beehive to insure super pollination for the gardeners.

This project was a labor of love for the Extension Master Gardener Volunteers because they feel that everyone should have the opportunity to garden and because it is the kind of community service that feeds the volunteers’ own passion for gardening.

—Donna Teasley

Smart Gardening: Pruning trees

Pruning trees is a complex task, and each tree’s long-term health depends on getting a knowledgeable, experienced person to do the work. Pruning is done for several reasons: removing dead or damaged limbs, enhancing the tree’s shape, better flowering or fruiting, and keeping the tree to a manageable size. Pruning and shaping should start when a tree is young. Most pruning should be completed when trees are dormant. There is less weight on the limbs then, and the framework of the branches is easier to see. Some trees, however, such as maple, birch, honey locust, dogwood, elm, and walnut, are bleeder trees. This means that they bleed excessive amounts of sap in the early spring. These trees are better pruned in the summer. Trees in the genus *Prunus*, such as cherry and peach, are susceptible to bacterial canker if pruned in the fall or early winter and should be pruned in the spring and summer. Timing is also very important when pruning dogwoods. Dogwood borers are very active during May, June, and July. Cuts should never be made on dogwood trees during these months.

One of the most harmful tree practices is known as topping, which means removing 50% to 100% of the tree’s leaf-bearing crown. This removal triggers the rapid growth of new leaf-bearing shoots that can severely weaken or even kill the tree. A tree that has been topped will never fully regain its natural form. When large trees need to be pruned, **hire a professional** certified arborist. When selecting an arborist consider membership in professional organizations, certification through the Certified Arborist program, proof of insurance, and a list of references. Pruning trees has expensive consequences. Invest up front in having it done right.

—Donna Teasley



©Donna Teasley, Burke County Extension Center

Food Production: Extend the harvest

Many of us grow fall greens—such as collards, turnip greens, and lettuces—to harvest as the season cools and transitions into winter. By selecting winter-hardy species and varieties, using covers or cold frames, and selecting the appropriate site, you can extend your harvest, help crops survive the winter, and harvest earlier in the spring. Spinach, cold-hardy lettuces, and many Brassicaceae family greens, including kale, arugula, and mild mustards, will produce through winter with frost protection. Varieties suited to cut-and-come-again harvesting will grow back during warm periods, reducing the need to replant throughout winter. Root crops such as turnips, beets, parsnips, and carrots can be protected with straw mulch and harvested as needed into the winter. Many fall crops will get sweeter with cooler temperatures.



©Elina Snyder, Caldwell Extension Center

Low tunnels are made from polyethylene or fabric sheets covering a series of hoops. Cover materials vary in weight. Lighter covers provide little frost protection and have good light transmittance, whereas heavier covers provide more protection but interrupt light transmittance and should not be kept on all the time. Secure edges and minimize holes to keep wind from lifting and ripping the cover. Cold frames consist of a glass or polyethylene “window sash” set on an angled frame. These materials offer good light transmittance and frost protection but must be removed or opened for watering and on warm, sunny days. Choose a well-drained, south-facing, sunny site as light conditions are limited in winter. Where possible, plant in a warm microclimate—such as next to a brick wall with a windbreak to the north. Keep plants watered, but avoid overwatering during periods of cloudy weather. If you plant a winter garden each year, rotate crops or sites to break disease cycles. For more information on winter crop, site, and cover selection, see **Appendix E** in the *Extension Gardener Handbook*.

—Elina Snyder

Pest Alert: Pine voles stay active in winter

Pine voles can be a serious problem in the landscape. The small mouse-like rodents burrow under the soil and feed on a variety of plants. Even though it is winter, voles do not take a break from their feeding and can seriously damage trees and shrubs.

Voles prefer areas of thick vegetation and heavily mulched areas. During the fall and winter, they will chew on the roots and trunks below the soil line. To determine if voles are a problem, pull the dirt or mulch away from the trunk and look for areas where the bark has been stripped away. Heavily damaged plants will look very weak and may eventually die.

If you have a vole problem, keep the ground bare around plants the voles like to feed on. Maintaining bare ground can be achieved by mowing very closely, removing mulch, or applying an herbicide to kill off undesirable plants.

Voles will feed above the soil line if snow accumulates on the ground. If it does snow and you have a vole problem, pull the snow away from young trees and shrubs.

Voles may be legally poisoned in North Carolina. Contact your local Extension center about what poisons to use and how to properly apply them. Information is also available online in the **Wildlife** chapter of the *Extension Gardener Handbook*.



Pine vole (*Microtus pinetorum*).
©Peter Trimming, Flickr, CC By-2.0.

— Bill Hanlin

Lawns: Think outside the box

My wife and I have slowly converted our 2 acres of lawn into a food production system with over half an acre of permanent beds for annual crop rotations and several perennial crop plots. We also **manage a flock of chickens** for eggs and slaughter. The other 1.5 acres is in cover crop. Most people would call that cover crop my lawn, but I don't think of it that way.

I always advise lawn-managing homeowners to allow their grass clippings to return to the lawn. The clippings are about 4% nitrogen, 2% potassium, and 1% phosphorus, and they provide a valuable food source for beneficial soil microbes. On our homestead, however, we bag all the clippings because they are a crucial component of our home production system.

We use lawn clippings to mulch all of our crops to provide the fore-mentioned fertility benefits while helping us to minimize weeds, retain soil moisture, and minimize splash-dispersed fungal diseases. The clippings decompose quickly. But don't put more than a 2-inch layer of fresh clippings on at a time or the clippings will ferment and smell. Too much mulch can also cause slug problems and prevent rain infiltration. I avoid touching the plants with the mulch so as not to retain moisture on plant stems and leaves.

Lawn clippings also play an important part in managing our chickens. Instead of using chicken tractors that take the chickens to the lawn, I prefer to bring the cut grass to the chickens. This allows us to harvest dozens of wheelbarrows of chicken litter compost that we add to garden beds before seeding cover crops. The chickens love to eat the clippings, and it keeps the coop clean and clean-smelling.

Think outside the box with your lawn. Avoid the use of **persistent herbicides** on your lawn, and you can integrate grass clippings into your home food production system.

— George Place

Tips & Tasks**Lawns**

- Fertilize cool-season lawns in mid February and no later than March 15th.
- Sharpen mower blades.
- Continue to control winter annual **weeds**.
- Apply crabgrass preventer to cool-season turf in late winter before germination starts.

Ornamentals

- Water recently planted evergreens, especially on sunny days and during dry weather.
- Prune branches damaged by winter weather. Use sharp pruners, and make clean cuts.
- Cut back dead foliage, stems, and seed heads of ornamental grasses and perennials before spring growth.
- Prune summer-flowering plants such as crape myrtle, beauty berry, and smooth and panicle hydrangeas.
- Prune roses before bud break.
- Look for plants with winter interest, including dogwoods with colorful stems and early flowering witch hazels.

Edibles

- Plant asparagus crowns when the soil can be worked.
- Start early season vegetables, such as English peas, onions, Irish potatoes, and spinach.
- Order summer garden seeds.
- Manage cover crops to prevent seeding. Turn over at least two weeks before spring planting.
- Prune fruit trees and grape vines for best production.
- Prune established blueberries. Remove one-third of the oldest canes at ground level.

Miscellaneous

- Don't fertilize houseplants, and reduce watering to avoid root rot.
- Organize the **tool shed**; sharpen tools, sort hoses, and replace necessary supplies.

—Alison Arnold

Helping You Grow



Do you want to explore the state? Help your community? Grow as a professional? Meet amazing people? Get outdoors and close

to nature? Achieve all of these things and more by completing the **NC Environmental Educator Certification Program**.

The program's goals are to increase environmental literacy, provide practice in environmental education teaching methods, and foster community leadership. The program enhances the ability of educators and organizations to provide quality programs and resources that benefit local communities while investing in the future of our environment. The self-paced, experiential program includes six different components: workshops, outdoor environmental education experiences, knowledge of resources and facilities, teaching components, community partnerships, and continuing education.

Those who are certified will receive a certificate of program completion signed by the Governor, Chairman of the N.C. State Board of Education, and Secretary of the Department of Environment and Natural Resources. A statewide ceremony occurs for professional recognition, and networking opportunities are arranged with other environmental educators across the state. For more information visit www.eenorthcarolina.org.

—Katy Shook

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Plant Watch: Harry Lauder's walking stick



Corylus avellana 'Contorta'. @Shawn Banks

serious disease or insect pest problems. Most plants sold in commerce are grafted. It even does well in large containers.

Corylus avellana 'Contorta', commonly referred to as the contorted filbert or Harry Lauder's walking stick, is a wonderful plant with its array of twisted, gnarled, and contorted branches. It was first discovered growing as a sport in an English hedgerow in the mid 1800s. It was given the common name of Harry Lauder's walking stick in the early 1900s in honor of Scottish entertainer Harry Lauder (1870 – 1950). This deciduous, rounded, multi-trunked shrub typically grows to 8-to-10-feet tall. It is noted for its beautiful, contorted branches, which are best observed in winter when the foliage is absent. Late winter flowers known as catkins brighten the winter scene, but don't expect any nuts. This filbert will thrive in USDA zones 4 through 8 and has no

serious disease or insect pest problems. Most plants sold in commerce are grafted. It even does well in large containers.

—Karen Neil

Incredible Edibles: Winter windowsill gardening

Gardening right through winter will help chase those blues away. Microgreens offer the opportunity for a fresh winter harvest. A southern facing window providing six or more hours of direct sunlight works best. Artificial lighting may be provided to supplement natural light if needed. Leggy, pale greens are a sign of not enough sunlight. Options to grow include many cool-season greens, such as beets, arugula, lettuce, chard, turnips, mustards, spinach, kale, radish, peas, and even sunflowers, and some herbs like dill or fennel. Seeds are sown very close together in a shallow potting soil mix because the plants will be harvested when tiny. Harvest can be as soon as two weeks from seeding. Keep the soil moist but not wet. A small fan for air circulation reduces disease pressure. These nutrition packed greens are harvested after the first true leaves develop. Enjoy your fresh garnish on a sandwich or salad.

—Mack Johnson

Sustainability: Winter pruning

When people are asked why they prune in the winter rather than in the summer when it's warm outside, they often answer with, "This is when I was told to prune." A good answer to be sure. A better answer might be that winter pruning makes it easier to see what needs to be removed, and there is less chance of a fungal spore landing on the cut and infecting the tree. The real question should be this: **Why prune?** When we think about it, pruning is often about aesthetics. Pruning, however, can also be about keeping the plant healthy. When pruning, look for dead, damaged, or diseased wood. These are the first parts to be removed. Also look for water sprouts—limbs that grow straight up in the middle of the plant—and remove those as well. Crossing limbs and those growing back into the middle of the plant get removed because they are potential problems for the tree or shrub, blocking air flow and preventing sunlight from penetrating deep into the plant. Limbs that are rubbing create open wounds where diseases can enter and infect the plant, so these limbs also are removed. If about a third of the plant hasn't been removed by that point, then remove limbs that are growing down toward the ground. Those do little good for the plant. Pruning is as much about creating a healthy plant as about aesthetics, although it's important to keep each plant's beauty in mind as well.



Winter pruning makes it easy to see what needs to be removed and reduces the chance of a fungal invasion. @Shawn Banks

—Shawn Banks