

WINTER 2016

COASTAL PLAIN NEWS

Growing rosemary

Herbs for cool-season production

Scale insects are still active

Winter lawn care

STATE NEWS

Holiday season safety

Common garden problems

Pomegranate

How do insects survive winter?

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

Content Editor and Team Leader
Lucy Bradley, Ph.D.
NC State University
Campus Box 7609
Raleigh, NC 27695-7609

Managing Editor
Shawn Banks

Regional Editor, Coastal
Sam Marshall

Regional Editor, Piedmont
Randy Fulk

Regional Editor, Mountains
Donna Teasley

Statewide Editor
Katy Shook

The use of brand names does not imply endorsement by NC State Extension nor discrimination against similar products or services not mentioned.

© 2015 NC State Extension

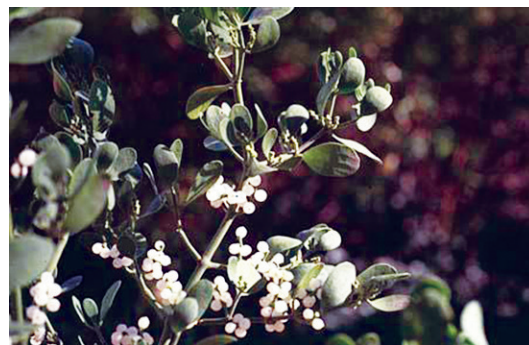
Extension Gardener may not be reproduced without written permission. News media quoting the newsletter should credit NC State Extension.

Holiday Season Safety

During the holidays, many of our homes are filled with the smells and colors of greenery and flowering plants. The traditions and pleasures these plants bring to our celebrations also bring a responsibility: to prevent hazards and potential poisonings from these invited guests.

Every winter, we hear the question, "Are poinsettias poisonous?" The general thought is that poinsettias are *not* poisonous. The NC State Horticulture Poisonous Plant website, however, indicates that all parts of the poinsettia plant exhibit very low toxicity and occasionally cause dermatitis (minor skin irritation). Symptoms when poinsettia parts are eaten may include occasional abdominal pain, accompanied by vomiting and diarrhea. Redness, swelling, and blisters can occur after frequent contact with skin. Generally, these symptoms are minor or last only for a few minutes. The Society of American Florists worked with Ohio State University (OSU) to test all parts of the poinsettia. OSU researchers established that rats exhibited no mortality, symptoms of toxicity, nor changes in dietary intake or general behavior patterns when given large amounts of different poinsettia parts. According to the American Medical Association's *Handbook of Poisonous and Injurious Plants*, other than occasional cases of vomiting, ingestion of the poinsettia plant has been found to produce no effect.

Mistletoe is often gathered from the woods and displayed in our homes. The sticky, white berries of mistletoe are poisonous. Symptoms resulting from their ingestion include stomach and intestinal irritation with diarrhea, lowered blood



Mistletoe (top) and American holly (bottom)
©NC Cooperative Extension, NC State

pressure, and slow pulse. Large quantities of berries must be eaten to produce these symptoms.

The American holly has male and female trees. It is easy to distinguish the female American holly tree because it is the one with the red berries. Branches of this evergreen often adorn holiday decorations. The berries from the holly are considered to be of low toxicity and can be poisonous only if large quantities are eaten. Symptoms resulting from eating holly berries include nausea, vomiting, and diarrhea.

Nandina domestica or "heavenly bamboo" is another evergreen used in home decorating because of its red berries. If eaten, nandina berries are of low toxicity. No cases of human poisoning by ingestion of nandina berries have been reported, but berries are possibly toxic to cats.

Amaryllis and narcissus (daffodil) are two bulb plants seen in homes during the holidays. The bulbs are the toxic part of these two plants. A large quantity of either bulb must be eaten for it to be toxic. Skin irritation can be severe following the handling of bulbs, flowers, and stems of the narcissus plant.



Nandina or heavenly bamboo
©NC Cooperative Extension, NC State

—Richard Rhodes

Extension Showcase

2015 Native Plant Festival

Members from NC State Extension Master Gardener Volunteers, the New Hanover County Extension staff, Cape Fear Audubon Society, NC Native Plant Society, New Hanover County Libraries, Cape Fear's *Going Green* Magazine, and Cape Fear Garden Club collaborated to plan and implement the October 17th Native Plant Festival. Needs were assessed via research and conversations with homeowners and plant vendors about both the lack of supply and the demand for native vegetation. The goal of festival organizers was to educate the public about the importance of native plants. It was also important to showcase local native plant vendors so that both the demand and supply of this vegetation could increase.

The festival included native plant vendors, community education booths, kids' activities, a full schedule of speakers, and a food truck. About 500 people attended the event. A survey conducted as attendees arrived and left the event concluded there was a 20 percent average increase in knowledge of native plants and their importance. The festival also highlighted the future 3,000 square foot native garden at the arboretum. Through interactive signage and maps, the garden will serve as an educational opportunity for all who visit the arboretum in the future.

—Sabrina Woolfer



Cilantro @Nicole Sanchez

Smart Gardening: Growing rosemary

Rosemary (*Rosmarinus officinalis*) is a popular herb that grows into an attractive woody ever-green plant with pungent flavor. Rosemary is used to provide fragrance in soaps and makeup, and woody sticks can be used for skewers. To harvest the herb for cooking, cut the new growth several times in a season. Allow the plant to replace growth between cuttings. The fresh cuttings are best stored in the refrigerator for up to a week. Dry the leaves for use at a later time by hanging them in bunches.



Rosemary @Shawn Banks

Many varieties of rosemary are available with various flower colors, leaf shapes, growth habits and fragrances. Most varieties thrive in well-drained, loamy, slightly acidic soil. Some varieties of rosemary are grown for the small light-colored flowers and are picked to use fresh. Locally mature plants often grow to a height of 3 feet and a spread of 5 feet when grown in a half-day of direct sun.

Propagation of rosemary from seed is difficult because of the low germination rate. Propagation is more successful from cuttings. Cut 2-to-3-inch stems from a vigorously growing plant.

Trim away the leaves on the bottom third of the stem. Stems can be inserted into a mixture of peat moss and perlite or coarse sand. Cuttings may be treated with a rooting hormone before sticking in a potting mix. Maintain high humidity around the stems by covering the container with clear plastic or misting with water. Cuttings often take six to eight weeks to produce roots and can be transplanted at that time. Spring planting is recommended. Rosemary grows slowly in the first year as the roots become established. Cuttings taken this month would give the stem time to root just in time for spring planting.

—Peg Godwin

Food Production: Herbs for cool-season production

Often novice gardeners are surprised to learn that parsley and cilantro grow best in our cooler seasons. These herbs, both members of the carrot family, are quick to bolt when days are warm and long. In fall and spring, however, they are much easier to grow for culinary use. In addition, swallowtail caterpillars are not present, so there is less competition from these insects during cooler months.

Direct-seed both parsley and cilantro, as their taproots are not conducive to easy transplanting. In fact, transplant shock may predispose both of these to bolting, another reason many gardeners have challenges with these herbs. Parsley is notorious for being slow to germinate, so be patient. Readily available moisture is critically important until germination and for the first three weeks of plant development. Both of these plants compete poorly with weeds, so keep their growing area weed-free.

Growing parsley and cilantro in pots in the fall may be practical—it makes the weeding and watering a little easier, and possibly allows you to position the herbs close to the kitchen door where you can access them quickly when you need them for cooking. If your herbs are potted, it may be easier to bring them indoors during extremely cold periods. Like most herbs, Parsley and cilantro need lots of sunlight, so you may be disappointed if you try to grow them exclusively indoors.

These two herbs provide concentrated sources of vitamin C, which our bodies need in winter. To keep the herbs fresh after picking, simply put the cut stems in a glass of water, either in the refrigerator or in a windowsill. Growing parsley and cilantro is much easier in cool months and when direct-seeded. Give it a try!

—Nicole Sanchez

Pest Alert: Scale insects are still active

Scales are insects that many people have never heard of. Scales use piercing-sucking mouthparts to feed on plant fluids. After hatching from eggs, they start as tiny crawlers that are found moving around leaves and stems but are hard to see. Scales then attach to leaves or stems and do not move again.

Winter in particular is a good time to look for and treat for armored scales. Scales look like the name they are given: small structures that are actually protecting the insect underneath. A few common scales include euonymus scale, tea scale (common on camellia and Chinese holly), and gloomy scale on red maples. These scales are common on the plants listed if the plants are stressed by damage, drought, poor site, or improper planting.



Gloomy scale ©Shawn Banks

Euonymus scale is found on leaf tops, bottoms, and on stems. Tea scale is found on the bottom of leaves and causes yellowing on the top. Gloomy scale is found on trunks and branches of maples and causes decline. Heavily infested euonymus plants are best removed and replaced. Small populations of tea scale on camellias and hollies can be solved by handpicking the leaves with damage. Gloomy scale can be managed with dormant horticultural oil applications and enlarging mulched areas to improve the tree's growing conditions.

For more information contact your county Cooperative Extension center, or search the Web for "armored scales NCState."

— Danny Lauderdale

Lawns: Winter lawn care

If you grow warm-season grass, you may believe that the arrival of winter affords the opportunity to take a break from the weed, disease, and maintenance pressures that plague turf in our coastal NC summers. Winter, however, is no time for a break, and your turf should still be a priority this winter.

Winter weeds such as annual bluegrass, Florida betony, and chickweed will be visible in your lawn during winter and can be controlled either by hand-pulling or through the selective use of herbicides. If you notice lots of weeds in your yard, you can treat with an herbicide if daytime temperatures are reaching into the 50s or 60s°F. However, long-term weed management begins with promoting thick, healthy growth by following cultural practices. Lawn maintenance calendars are available at your county Extension center or online at www.turffiles.ncsu.edu.

Don't forget to water! Believe it or not, drought conditions exist in the winter months, and lawns should be watered if we have several weeks without additional rainfall. Also take care not to walk on grass after we have a frost or any type of freezing weather. Stepping on frozen grass blades will damage turf and delay green-up next spring. Also keep an eye out for blotchy areas in your lawn next spring, which is a sign of winterkill.

If you have fallen leaves in your yard, mulch with a mower to chop them into fine pieces and redistribute them throughout your lawn. In sandy or very clay soils, leaves add much-needed organic matter and also can help conserve water. Make sure you do not have whole leaves on the turf as they form a dense mat that can suffocate and kill your lawn.

—Sam Marshall

Tips & Tasks

Recycling Christmas trees

January does not have to be the death of your live Christmas tree. A freshly cut tree can be recycled after the holidays.

Freshly cut trees are repurposed into wind and water barriers at beaches and riverbeds to help fight soil erosion.

Trees sunk in ponds provide refuge and feeding areas for fish.

Many county municipalities will collect live trees at no extra charge to the customer.

The mulch can be used in gardens or planting beds to help reduce weeds, modify soil temperature, and retain soil moisture.

Adding these trees to brush piles can also create natural wildlife habitats for many small animals and birds.

If the tree has been flocked (decorated with artificial snow) or sprayed with flame retardant, the residue on the tree may hinder its environmental use.

Remove decorations before recycling trees. For more information, contact your local county Solid Waste Department.

— Mack Johnson

Christmas compost. ©Sam Marshall



extensiongardener.ncsu.edu

Helping You Grow

Landscaping your septic field for lengthy service

The largest appliance at any modern rural household has no moving parts and may last 50 years if properly cared for, but it can be ruined in far shorter time with improper care. It is your septic system, underground in your yard. Besides having your septic tank pumped by a professional every three to five years, there are other measures that preserve the functioning of your septic system:

- Do not drive or park on your septic field.
- Conserve water in your household.
- Put little or no grease into the system down the drains.
- Do NOT flush cigarette butts, contraceptives, or other such products into the system.
- Minimize use of caustic or sterilizing bleaches, cleaners, paints, or solvents into drains and toilets.
- Do **not** install or use garbage disposals.
- Do **not** use advertised additives that claim to replace the need to pump your tank regularly.
- Landscape your septic field with uniform grass cover and little else.
- Landscape a second area with grass only to act as a reserve septic field in case you need to have a rapid repair or replacement of your existing septic system for any reason.

—Tom Campbell

NC State University promotes equal opportunity and prohibits discrimination and harassment based upon one's age, color, disability, gender identity, genetic information, national origin, race, religion, sex (including pregnancy), sexual orientation and veteran status. NC State University, North Carolina A&T State University, U.S. Department of Agriculture and local governments cooperating.

Featured Plant: Pomegranate, *Punica granatum*



©Scott Zona, CC-by-NC--2.0

Thought to be native to the eastern Mediterranean, the pomegranate is a small (12- to 16-foot) fruiting tree in the family Punicaceae that thrives in hot temperatures (USDA Zones 7B to 10 in the United States). Large, hibiscus-like flowers of red to orange to pink bloom in late spring, followed by a yellow to red fruit that ripens in fall. Although parts of the fruit are edible, the plant is prized in the landscape for its ornamental features. Because of its shrubby nature, it's often used as a screening plant. Pomegranates prefer full sun and tolerate a wide range of soil types. Few pests attack the tree, and numerous cultivars are available. History indicates the fruit was a delicacy, and its health potentials are still being cultivated today.

— Katy Shook

Incredible Edibles: Common problems of home gardens

Sometimes understanding what's gone wrong with a particular crop in your garden helps to prevent the problem next year. Cabbage head splits are caused by heavy and frequent rain. If broccoli flowers before its head matures, the plant has been stunted by poor growing conditions. When corn ears do not fill out, this is caused by poor pollination due to hot dry weather. Bitter cucumbers are caused by older plants, low fertility, drought, and high temperatures. When cantaloupes have poor flavor, it is usually caused by excessive water. Poor fruit set of squash and cucumbers is usually caused by poor pollination. Occasionally tomatoes flower without setting fruit. This is due to temperatures being too high or too low, thus keeping the fruit from setting. When tomatoes rot on the blossom end, know as blossom end rot, calcium may be lacking in the soil or nitrogen may be excessive in the soil.

—Cecil Sumner

Sustainability: How do insects survive winter?

As the days get shorter and cooler in the fall, insects enter into an inactive state of arrested development called *diapause*. During the winter an insect's metabolic rate drops to one-tenth or less, so it can use stored body fat to survive. Many insects also produce alcohols that act like anti-freeze. These insects' bodies can reach below-freezing temperatures without forming cell-damaging ice crystals. In the spring, as temperatures rise, diapause is terminated and insect growth and development return to normal.

Even with all of these adaptations, extreme cold and temperature fluctuations can indeed affect insect survival depending on how low the temperature dropped, how long the cold persisted, and if snow cover was present. Other factors to consider are microclimates and how protected insects are in their hiding places. So where do insects hide during the winter?

Insects spend winter in various life stages. Aphids overwinter as eggs laid in the bud scales of woody plants. Bagworm eggs are safely tucked away inside a bag. Tent caterpillar eggs can be found in a mass on branches. Bean leaf beetles spend winter as adults under loose bark or fallen leaves. Lady bugs congregate under firewood. Japanese beetle grubs hide deep in the soil, and some butterflies overwinter as pupae in a cocoon or chrysalis. Each insect has its own way of dealing with cold weather. As much as we would like to think that a rough winter will take care of those pesky insects, most will survive.



Two soybean aphid eggs laid next to the bud scales of buckthorn.

©Marlin E. Rice, Iowa State Extension