



Extension Gardener

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Empowering
gardeners.
Providing
garden
solutions.

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in this issue

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We are approaching the time when icy streets and sidewalks can make walking and driving hazardous. Ice melting products can help keep us safe. These products vary, however, in their ice melting abilities and in their safety to nearby plants. Five main materials are used as chemical de-icers: calcium chloride, sodium chloride (salt), potassium chloride, urea and calcium magnesium acetate.

Calcium chloride is the traditional ice melting product. Though it will melt ice to about 25°F, it will form slippery, slimy surfaces on concrete and other hard surfaces. Plants are not likely to be harmed unless excessive amounts are used.

Rock salt is sodium chloride and is the least expensive material available. It is effective to approximately 12°F but can damage soils, plants and metals. Potassium chloride can also cause serious plant injury when washed or splashed on foliage. Both calcium chloride and potassium chloride can damage plant roots.

Urea is a fertilizer that is sometimes used to melt ice. Though it is only about 10 percent as corrosive as sodium chloride, it can contaminate ground and surface water with nitrates. Urea is effective to about 21°F.

Calcium magnesium acetate (CMA), a newer product, is made from dolomitic limestone and acetic acid (the principal compound of vinegar).

CMA works differently than the other materials in that it does not form brine like salt but helps prevent snow particles from sticking to each other or the road surface. It has little effect on plant growth or concrete surfaces. Performance decreases below 20°F.

Limited use of any of these products should cause little injury to plants. Because limited use is recommended, it is best to remove the ice and snow by hand when possible. When the products are applied, practice moderation. Over-application can damage concrete surfaces as well as the plants and grass growing along walks and driveways. Plant and concrete problems usually do not show up until spring or summer.

When salt from puddles sprays onto plants as cars drive by, it may scorch leaves or kill buds and twig tips on deciduous plants, especially during spring. Pines are especially sensitive to roadside deicing salts. When affected, pine needles may turn pale green, yellow or brown in late winter.

The level of damage varies, depending on the concentration of salts in the water running onto plants, the amount of snowfall, the timing of rains that help wash off the foliage, the soil type and the plants' condition. Healthy, mature plants that are not drought-stressed will withstand salts better than newly established, young plants.

—Carl Cantaluppi



JC Raulston Arboretum



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Upcoming Events

January 22 - 23

TreeFest

Tree seedling giveaway

Independence Mall, Wilmington

• Call 910.798.7660 to learn more.

January 30 (10 AM – 12 PM)

Fruit tree training and pruning demonstration

Central Crops Research Station, Clayton

• Contact Shawn Banks, Johnston County Cooperative Extension, for more information: snbanks@ncsu.edu or 919.989.5380.

February 2 (8 AM – 4 PM)

Eastern N.C. Landscape Conference and Trade Show

Wilson Agricultural Center, Wilson

GreenScaping

• Call 252.237.0113 for more information, or visit <http://wilson.ces.ncsu.edu>.

February 5 - 6

Carolina Garden Expo

Greenville Convention Center

• Visit www.carolinagardenexpo.com/ for complete details.

February 13 - 14

Wilmington Garden Show

Schwartz Center, downtown Wilmington

Speakers, exhibits, retail sales and more! Tickets: \$7.

• Call 910.798.7660, or visit www.gardeningnhc.org/ to find out more.

February 13 (10 AM – 12 PM)

Grapevine workshop

Hinnant Family Vineyards, Pine Level

• Contact Shawn Banks for more information, snbanks@ncsu.edu or 919.989.5380.

February 23

Wilson County Master Gardener Training

Training begins

• Call 252.237.0113 for an application.

Sustainable Gardening — *What are your weeds trying to tell you?*

Weeds won't go away? Herbicides not working? A new approach to weed management may be necessary. Believe it or not, many of the common weeds in lawns are associated with lawn management problems. In other words, the problem may not be the weed, but the environment surrounding it.

The best defense against weeds is a healthy, dense lawn. A lawn mowed at the proper height, fertilized at the correct rates and times, and irrigated efficiently will naturally minimize weed infestations. Weeds in a lawn usually indicate a lack of ideal growing conditions for turf. The weeds take advantage when the lawn suffers.

The weeds growing in your yard can often indicate your lawn's problem. Black medic and goosegrass are common weeds in dry soils, while pennywort, alligatorweed, moss and sedges can indicate too much moisture. Compacted soils are often invaded by plantain, goosegrass, knotweed and spurge. Low-nitrogen soils can lead to weeds



like sedge, goose-grass and speedwell, while excess nitrogen is a contributing factor to chickweed and ryegrass infestations. Bull thistle, sweet clover and wild carrot are often associated with infrequent mowing; close or frequent mowing can encourage chickweed and crabgrass.

Reducing weeds involves fixing the underlying problem. Sometimes, avoiding the situations that encourage weeds can be difficult, especially when the turfgrass requires a similar environment. For example, centipede-grass prefers low nitrogen; and, as a result, black medic is often a problem in centipede lawns. Discourage weeds in your lawn by adjusting soil pH and applying nutrients based on soil test results, and by following care recommendations from a lawn maintenance calendar for your turf type. Lawn maintenance calendars and soil sample supplies are available from your county Cooperative Extension center, where you can also get help with weed identification.

—Katy Shook

Food Production — *Garden preparation*

Though not a lot is growing in the winter vegetable garden, that doesn't mean there is nothing to be done. Any successful project requires preparation and planning, and now is the time to prepare and plan for this summer's bountiful harvest.

When the weather is not wet or too cold, spend time cleaning up the vegetable garden. Remove any dead plants and weeds that are still around. Turn the soil over to expose root damaging nematodes to cold, dry winds that will hopefully kill many of them before spring planting time. While the soil is loose, take a soil sample to your local Extension office to be sent in for testing so you will know what nutrients will need to be added in spring.

When the weather won't permit outdoor activities, try curling up with a few seed catalogs to search for newer and better varieties. Or draw

out a map of the garden and plan what will go where, and when to plant and harvest.

By late winter (February to early March), soil test results should be ready. Any lime recommended by the soil test should be applied and tilled into the garden as soon as possible so it will have time to take effect before summer. Cool-season vegetables such as carrots, garden peas, radishes, Irish potatoes, turnips, lettuce and spinach can be directly seeded into the garden in late winter for harvest in spring. Cabbage, broccoli and cauliflower transplants can also be planted at this time.

Late winter is also the time to prune grapevines, fruit and nut trees, and berry bushes in preparation for spring bud break. To find out more, request a copy of *Home Vegetable Gardening* and *Training and Pruning Fruit Trees* from your county Cooperative Extension center.

—Shawn Banks

Garden Spot — Wilson Botanical Gardens

Created in 1995 on 6 acres surrounding the Wilson Agricultural Center, the WBG is cared for by Wilson County Master Gardener volunteers. A walk through the garden will delight the senses. The collections include an arboretum with many native trees. An award-winning Culinary and Medicinal Herb Garden features plants with healing properties and a 9-foot-tall fountain. The mixed planting garden has more than 125 different species. A 4-H and Youth Garden grows heritage and heirloom plants. The Pondsides Garden is home not



only to plants, but also to goldfish and coy. The Sadie Minsheu Greenhouse Complex and Educational area is used to grow plants for sales and outdoor teaching.

Other collections include turfgrass demonstration plots, JC Raulston Arboretum plant evaluations, Showstopper plants, native plants, daylilies and ornamental grasses. Currently a ¼-acre Children's Secret Garden with a banana-split sundae theme is being established (plants will look or smell like chocolate). Plans are underway to expand on another 6 acres. Come out and enjoy the plants and works by local artists – Vollis Simpson's whirligig and Clifton May's "Dancing Cranes" grace the WBG. Picnic tables are available. Entry is free, and group tours are available. Call 252.237.0113 for more information, or visit <http://www.wilson-co.com/arboretum.html>.



—Cindy Lauderdale

Environmental Stewardship — Mulches

Mulch can do marvelous things for any landscape or garden. It can conserve moisture, keep soil temperatures cooler, prevent weed seeds from coming up, and slowly add organic matter to the soil over time. Mulch protects trees and shrubs from damage by lawn equipment and reduces root competition from grass, helping trees and shrubs to grow faster. In addition, a nice layer of mulch makes any planting look better. Mulching is a relatively easy task, but there are a few tips to be aware of to get the most benefit from mulching your landscape.

There are many types of mulches available. The type that is best for your landscape often depends on your personal taste. Mulches can be divided into two categories: organic and inorganic. Organic mulches are made from living things, such as bark and pine straw from trees, whereas inorganic mulches were never alive and include natural and synthetic materi-

als such as stone and rubber. A major benefit of using organic mulches is they break down over time, adding organic matter to the soil beneath them and improving growing conditions. Some organic mulches are looser, such as pine straw and pine bark. These types hold less water in the soil and may be best to use on clay or poorly drained beds. Shredded mulches, such as shredded hardwood, fit together tightly. They hold more water in the soil and stay in place better. Shredded mulches are often used on slopes.

The most important things to remember when mulching is not what to use but how to use it. Mulches should be applied 2 to 3 inches deep to be effective at controlling weeds and conserving moisture and should never be piled against the trunks of trees and shrubs where they can encourage diseases and insects.

—Charlotte Glenn

Tips & Tasks

Winter Chores

Winter in the coastal plain gives gardeners a moment to take a breath and catch up. These winter chores will put you ahead of the game come spring:

- Clean up your garden and landscape. Good sanitation is the first defense against garden diseases.
- Clean your tools and wipe with an oily rag to help preserve them.
- Sharpen your lawn mower blade and any other tools with blades, such as pruners.
- Turn off the irrigation on your turf.
- Test your soil; supplies are available from your county Extension center.
- Properly store left-over horticultural chemicals in a location that will not freeze. Make sure nothing is left out for pets or children to get into.
- Just because it's cool, don't forget to properly establish new plantings by keeping them watered if rainfall is scarce.
- Service all small engines so they start next spring.
- Don't fertilize your plants now — wait until spring.
- Start a garden log to keep track of pest and plants of interest in your landscape.

—Ken Wells



JC Raulston, A. Boreum

Showstopper — 'Kay Parris' magnolia

Considered to be one of the best evergreen magnolias, 'Kay Parris' (*Magnolia grandiflora*) is a relative newcomer. The leaves are a glossy medium-green with wavy leaf margins. Unlike its 'Little Gem' parent, this selection has a deep orange-brown, almost velvet-like underside to its leaves. The extremely fragrant flowers are a bit smaller than those of the standard southern magnolia and appear from late May all the way through late September.

'Kay Parris' should have a spot in any sunny Carolina landscape. Use it as a living screen or specimen plant, or manage it as a tall hedge. In areas where winter ice storms are common, this cultivar has great limb structure and appears to hold up better than 'Little Gem'. Don't let this special selection of a southern native slip by. Plant one today! 'Kay Parris' magnolia was introduced by Gilbert's Nursery, right here in the Carolinas.

—John Vining

Sustainability

Build and Maintain Healthy Soil

The secret to gardening success is in the soil. Many areas where we garden are deficient in nutrients, stripped of topsoil and compacted. Simply digging a hole large enough for your plants results in failure. Gardens that thrive start with good soil preparation. Learn what your soil needs through soil testing. Find out how at your county Cooperative Extension center. The results will tell you if lime or nutrients are needed and in what quantities. No matter what you are growing (flowers, fruit, lawn, shrubs or vegetables), plants will do better grouped in planting beds of well-prepared soil. Dig or till the soil 6 inches deep, add 2 to 3 inches of compost, and work the compost in. Add a couple of inches of organic mulch after planting. When it thins, add more mulch to stabilize soil, prevent weeds, feed the soil and conserve water.

—Danny Lauderdale

Incredible Edibles

Want to eat vegetables all winter? Choose frost-hardy vegetables, and grow them under season extenders. Season extenders also provide longer seasons for tender vegetables. The most common extenders are row covers, hot caps, water containers, tunnels, cold frames and greenhouses. Hot caps modify the climate around small plants. Containers of water will do the same. Gardeners can choose commercial products, such as Wall O' Water, or use a circle of water-filled 2-liter drink bottles. Row covers of spunbond polyester provide 2 to 8 degrees of protection on tender vegetables. Frost-hardy vegetables love row covers. Lettuce that survives 24°F outside can survive 5° or 10°F under a cover. Tunnels and cold frames are unheated structures supporting plastic or glass. Gardening in them is like adding one USDA zone.

—David Goforth

Pest Alert — Asian lady beetle

The multicolored Asian lady beetle (*Harmonia axyridis*) has become an unwanted houseguest, especially in the winter. During the growing season, the Asian lady beetle is very beneficial because both the larval and adult stages feed on aphids, mealybugs, scale and other soft-bodied insects infesting many crops and plants.

The beetles become a nuisance when they enter homes in search of overwintering sites. They do not sting, carry human diseases or bite. Where there are large numbers of beetles inside the home, some people have reported an increase in respiratory or allergy-like reactions. Asian lady beetles are not known to feed on wood, clothing or human food, and they do not reproduce indoors during the winter.

To reduce home invasion by Asian lady beetles in the winter, seal all outside cracks and crevices around doors, windows, siding, pipes and other openings with a good silicone or silicone-latex caulk. Window screens should not have any tears and should fit snugly inside the window frame. Install insect screening over attic and exhaust vents.

Inside, the beetles can be vacuumed or swept up in a dustpan and released outside, preferably in a spot well away from the house. If vacuuming is not practical, then a household aerosol spray containing pyrethrins or pyrethroids may be used. If you are in doubt about the product to use, contact your county Extension center.

—Will Strader

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Asian lady beetles are fine outside, but they can be a nuisance indoors. (Photo courtesy USDA-ARS)