

HOME & GARDEN

NEWS

CLEMSON
EXTENSION

Fall, 2009

Winterizing Lawns

By August, lawn winterizing products are fairly easy to find in the lawn and garden section of retail stores. This may lead one to think that winterizing is a common practice. There are, however, misconceptions associated with this practice that the following information should help to clarify.

Cool & Warm-Season Turfgrass

First of all, both cool- and warm-season turfgrasses grow in South Carolina, and most winterizer fertilizers do not differentiate between these two categories. Fescue is a cool-season grass and grows best in cool temperatures. In the fall, you should fertilize fescue lawns with a lawn fertilizer according to soil test results. On the other hand, in South Carolina, warm-season grasses such as centipedegrass, St. Augustinegrass, bermudagrass, and zoysiagrass begin to enter dormancy during the late fall. These warm-season grasses can be injured by the effects of fertilizers containing nitrogen if applied in the fall.

Winterizer Fertilizers

Many products marketed as winterizers contain a high percentage of nitrogen fertilizer. If nitrogen is applied in the fall, it should be done at least 2 months before the first average frost date.

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This will allow time for the turfgrass to go dormant before cold weather can cause injury. These dates would be August 15 for the Upstate and September 1 for the coast of South Carolina.

When applied too late and too heavily to warm-season turfgrass, nitrogen fertilizer will promote shoot growth at the same time the plant's metabolism is slowing. This results in a depletion of carbohydrates and stress on the plant. The new, tender shoots are also less tolerant of cold temperatures. Furthermore, the additional nitrogen will be available to cool-season weeds, and may increase the incidence of large patch disease, which is very prevalent in the fall.

Potassium plays the key role in winterizing because it has been shown to enhance cold tolerance of turf grasses. If a soil test indicates that your soil is low in potassium, it can be applied at a rate of 1 pound of potash per 1000 square feet of lawn.

Materials available include fertilizers low in nitrogen such as a 5-5-25 (use 4 lbs per 1000 square feet) or muriate of potash (0-0-60; use 1.6 pounds per 1000 square feet), or potassium sulfate (0-0-50; use 2 pounds per 1000 square feet).

However, if your lawn has been fertilized throughout the summer with fertilizers containing 8 to 15% potassium, such as 16-4-8 or 15-0-15, it's unlikely a fall application would be helpful.

Be aware that an excessively high rate of potassium fertilizer can cause foliar burn, or may compete with other nutrients for uptake. Excessive potassium is especially known to affect how much magnesium is taken up by turfgrass, which will result in a lighter green turf color. Always apply granular fertilizers onto dry foliage to reduce the likelihood of salt burn.

If selecting a winterizer fertilizer containing nitrogen, be sure that the nitrogen content is low, compared to the potassium, which is represented by the third number in the analysis. This will allow you to apply appropriate amounts of potassium without applying excessive amounts of nitrogen.

Furthermore, the fertilizer application needs to be light to avoid damaging the turf. A light application means ½ pound or less of actual nitrogen per 1000 square feet of lawn.

To determine how much of any fertilizer to use to apply a set amount of nitrogen, multiply the number of pounds of nitrogen you want to apply by 100. Divide the result by the percentage of nitrogen in the product, as shown on the label. In a fertilizer analysis, the percentage of nitrogen is represented by the first number. In the above case, ½ times 100 equals 50. For a 5-5-25 fertilizer, for example, divide 5 into 50.

The result, 10, is the number of pounds of 5-5-25 that contains ½ pound of actual nitrogen.

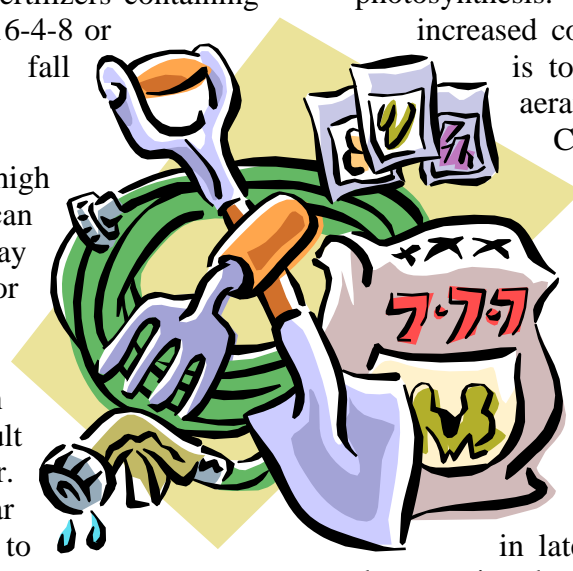
Cultural Practices to Improve Cold Hardiness. Besides applying potassium, there are cultural practices that help warm-season turfgrasses maintain optimum health through the winter. One suggestion is to increase sunlight to the turf. Turf in shaded areas stays cold longer and produces fewer carbohydrates due to reduced photosynthesis. Carbohydrates are needed for increased cold tolerance. Another suggestion is to loosen compacted soils through aeration or a gypsum application.

Compacted soils are colder than well drained areas. Core or plug aeration should be done in spring following turfgrass green up.

Keep fallen leaves off the lawn, as this will reduce the turf's ability to photosynthesize for carbohydrate production. And lastly, raising the mowing height

in late summer will not only promote deep rooting, but will leave more leaf tissue which will produce more carbohydrates. An increased height will additionally reduce weed seed germination in the fall before the turf goes dormant.

In summary, a lawn that has been well maintained through the summer is prepared for winter. If you are concerned, follow the recommendations above and submit a soil sample to your local Extension office. Among other helpful information, the report will include the potassium level of your soil.



Moving Plants Inside in Winter

Temperatures of 50°F or lower can damage many tropical plants via "chilling injury." It is a good idea to move your houseplants inside when outside and inside temperatures are about the same. Plants need to readjust to life indoors before the heat is turned on.

Before taking them inside, however, it is important to get rid of pests on the plant or in the soil.

This is especially important for those plants that have been sitting on the ground.



Inspect the plants carefully. Take them out of their pots to see if anything has crawled in through the drainage holes. Wash the leaves and stems with the hose. Allow them time to dry, and spray the entire plant (upper and lower surfaces of leaves), soil and pot with an insecticidal soap. This soap is safe for people and pets. Leave plants outside for several days. Reapply insecticidal soap and take plants indoors two to three days later.

Some plants tend to hold the soap solution on their leaf surfaces. This may cause burning. Before using an insecticidal soap, check the label to see if the plant is listed. If not, test a small area on your plant for sensitivity. It may take seven to 10 days for symptoms to appear.

Over a period of about a week, gradually reduce light levels by moving plants from sun to light shade to heavy shade, and finally indoors. When you move plants indoors, make sure the light conditions are as close as possible to those outdoors. Once indoors, the plant may develop leaf yellowing or drop as it adjusts to lower light.

Composting

Composting is controlling the natural decay of organic matter by providing the right conditions for composting critters to convert yard trimmings into a product that can be returned to your landscape and garden. Tiny organisms (mainly bacteria, fungi and protozoa) break down garden and landscape trimmings in a moist, aerobic (oxygen-demanding) environment. The final product is a dark, crumbly form of decomposed organic matter.

Compost improves your soil. When added to soil, compost breaks up heavy clay soils, helps sandy soils retain water and nutrients, and releases essential nutrients. Compost also contains beneficial microscopic organisms that build up the soil and make nutrients available to plants. Improving your soil is the first step towards growing healthy plants.

What Can I Compost?

Most plant material can be used for compost. Organic trimmings in your landscape, such as fallen leaves, pine needles, grass clippings, flowers and the remains of garden plants make excellent compost. Compost made from grass clippings treated with herbicides and pesticides is not recommended for use in vegetable gardens. Kitchen scraps, such as fruit and vegetable peels and trimmings, crushed eggshells, tea bags, and coffee grounds and filters can also be composted. Woody yard trimmings can be run through a shredder before adding to the compost pile. Sawdust may be added in moderate amounts if additional nitrogen is applied. Add a pound of actual nitrogen per 100 pounds of dry sawdust.

What Materials Should I Avoid Adding to my Compost Pile?

Organic materials that should not be added to your compost pile include meat, bones and fatty foods (such as cheese, salad dressing and leftover cooking oil). Do not add pet or human wastes to a compost pile.

Weeds that have not gone to seed can be added to the compost pile. Weeds with large storage roots like nutsedge, Florida betony or greenbriar should be left out and dried in the sun before composting to reduce their chances of survival.

The high levels of heat produced in the center of the compost pile can kill many pests, such as weeds with seeds and diseased or insect-infested plants. However, it is very difficult to mix the contents thoroughly enough to bring all the wastes to the center, so some disease organisms may be returned to the garden with the compost.

"Essentials" Of Composting

Organic materials for composting all contain nutrients that provide energy and growth for microorganisms. These organic materials each have their own ratio of carbon to nitrogen (C:N) in their tissues. These C:N ratios are important because the tiny decomposers need about 1 part of nitrogen for every 30 parts of carbon in the organic material. If the ratio is greater than 30:1, nitrogen will be lacking and materials will decompose more slowly.



Leaves, straw and sawdust are high in carbon, while grass clippings, manure and vegetable scraps are higher in nitrogen. It helps to think of these materials as greens and browns. Greens, such as grass clippings, are high in nitrogen. Browns, such as leaves or sawdust, contain high amounts of carbon.

Be aware that anything organic will decay (as long as it is organic, the critters will eat it); however, it may take a long time to make compost when the C:N ratio is too high. For example, a pile made solely of sawdust will take years to decay. Adding more greens, such as grass clippings or vegetable scraps, will speed up decay and produce compost in less time.

Fall Landscaping & Maintenance

Although there is no such thing as a maintenance-free landscape, it is possible to have an attractive landscape that is easy to care for. Planning, design, plant selection and timely maintenance will reduce the amount of care that a landscape needs to look its best.

The fall is a great time to renovate and/or establish a landscape. Plants require less water and the outdoor temperatures are moderate; therefore insects and disease are less of a problem. Nurseries tend to restock their inventories in the fall, giving their customers a much greater selection to choose from.

The fall is also an excellent time to renovate and sanitize summer gardens to prevent insects and diseases from overwintering. One can do light pruning on summer blooming plants to shape them for the winter months before mulching.

Although we live in an area where landscaping can be done year round, fall seems to be the best of all seasons.

Over Seeding with Ryegrass

Perennial ryegrass (*Lolium perenne*) and annual ryegrass (*Lolium multiflorum*) are generally used to overseed dormant warm-season lawns in South Carolina. They provide a green cover during the winter when the warm-season grasses turn brown after frost. Also, they can be used as a winter cover to help prevent erosion on new lawns where the permanent grass has not been established. However, overseeding may retard the warm-season grass unless managed correctly in the spring, because the ryegrass competes for moisture, sunlight and nutrients.

Ryegrass adapts well to either sun or shade. Although cheaper, annual ryegrass is a second choice to perennial ryegrass, since perennial ryegrass has more desirable turf characteristics. Annual ryegrass dies out in late spring after being planted in the fall. Perennial ryegrass usually lives somewhat longer than annual ryegrass, especially in the shade. It can survive for years in some areas of the lawn where it can become a nuisance. It has better disease resistance than annual ryegrass. It is not recommended as a permanent lawn, however, because of its susceptibility to diseases in hot weather. Ryegrasses should only be used in South Carolina for overseeding in the fall.

Seedbed Preparation

It is important to prepare the turfgrass for winter. As temperatures begin to drop in the fall, water demands of turfgrass decrease. Take care not to overwater, as disease problems may increase. Remove any excess thatch so the seed can make good contact with the soil. A heavily thatched lawn tends to result in irregular patches of overseeded grass. Dethatching by verticutting or aerifying will assist overseeding heavily thatched lawns. If core aeration is necessary, overseed thirty days after aeration to allow the holes time to heal and provide an even turf in the winter. Dethatching by verticutting should be performed just prior to overseeding. Mow the lawn closely, catching all clippings or raking afterwards.



Timing

Overseeding should be done when the days are warm enough for the seed to grow and the nights are cool enough to reduce the incidence of disease. Thirty days before the first frost, when daytime highs are near 70 °F and nighttime lows are usually above 50 °F, is generally a good time to overseed. This usually corresponds to mid-September in the Upstate and late September in the Midlands and Coastal regions.

Establishment

Apply 10 pounds of annual ryegrass seed per 1,000 square feet, and 5 to 15 pounds of perennial ryegrass per 1,000 square feet. Use the higher rate if thicker stands of green grass are desired. Sow half the seed in one direction and the other half in a direction perpendicular to the first. This method will help establish a uniform stand of turf. Use fungicide-treated seed to reduce the chances of disease. After seeding, rake the ground with a broom to ensure the seed makes contact with the soil.

Water the lawn lightly two or three times daily until the seeds germinate. Do not overwater, as this will wash seed away and encourage disease development. When the lawn is established, and has been mowed several times, water only as necessary to prevent ryegrass wilt.

Maintenance

An established winter lawn requires the same maintenance as a permanent lawn. Mow when the grass is tall enough to cut, about 1 to 2 inches.

Mow to 1 to 1½ inches thereafter whenever the grass reaches 2 to 2½ inches. Make sure the mower blade is sharp to prevent ripping of the ryegrass. If ryegrass is properly fertilized, weekly mowing may be necessary.

After the second mowing, apply one-half pound of nitrogen per 1000 square feet using a complete fertilizer, such as 16-4-8, 10-10-10 or others. Apply a complete, quick-release nitrogen in late winter or early spring. Pythium blight disease can be a problem on overwatered, overfertilized ryegrass, especially during warm, humid weather.

Reestablishment of the Permanent Lawn

Ryegrass normally dies out in late spring, but if cool weather prevails it can become persistent. To discourage the ryegrass, stop fertilization in March. However, do not allow the permanent grass to suffer from lack of water at this time. Mow the ryegrass as close as possible, lowering the mowing height each week. This will weaken the winter grass and allow the permanent grass to rejuvenate. When the permanent grass resumes growth, begin regular maintenance, especially resuming fertilization.

Recipe Corner

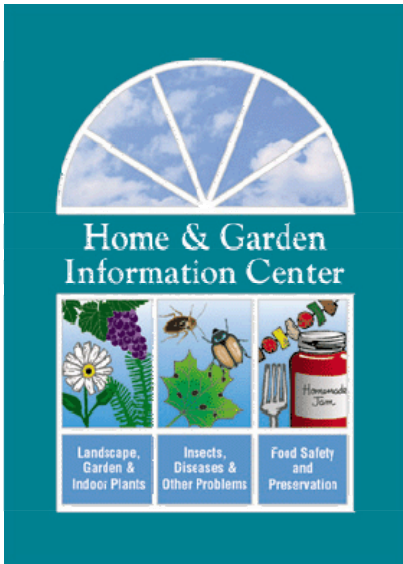
Makes a great after school snack!

Power Bars

6 cups Special K cereal
1-1/2 cups peanut butter
1 cup corn syrup
1 cup sugar
1 cup semisweet chocolate chips
1 cup butterscotch chips

Place cereal in a large ovenproof bowl; set aside. In a saucepan, combine the peanut butter, corn syrup and sugar. Cook over medium heat until sugar is dissolved, stirring occasionally. Pour over cereal and stir until well coated. Spread into a greased 13-in. x 9-in. x 2-in. pan. In a microwave, melt chocolate and butterscotch chips; stir until smooth. Spread over bars. Yield: 1-1/2 dozen

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Anderson County Extension Office
313 South Towers Street Suite #106
Anderson, SC 29624
864-226-1581
Fax 226-0538

Marshall P. Watt, Jr.
Marshall P. Watt, Jr.
County Extension Agent

Gail Anderson
EFNEP Data Manager

Chris Corzine
Associate State Director
Agricultural Education

Ernest Locke
Anderson County Storm Water

Jessica Simpson
County Extension Agent - 4-H

Chris Talley
County Extension Agent-Livestock

Kathy Wright
County Extension Agent 4-H

Secretarial Support
Pat Brown
LaDonna Peoples

ANDERSON COUNTY OFFICE
313 S. Tower Street Anderson, SC 29624 864.226.1581
FAX 864.226.0538

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