



Use a broadcast spreader to evenly apply fertilizer.

Winterizing Fertilizer Use on St. Augustine Grass

Horticulture Agents generally recommend fertilizing summer lawn grasses beginning in April and ending in August. The use of nitrogen fertilizers before and after these dates often leads to the development of a lawn disease called “brown patch” or “large patch” in St. Augustine lawns. In late summer of 2020, there was an explosion of tropical sod webworms in the state that nearly rivals the one we saw in 2016. Many homeowners that experienced that invasion soon found out how difficult it was to get the webworms under control. Several applications of either granular or liquid insecticides over several months were needed to help reduce the damage caused by these worms.

Sod webworms have chewing mouthparts, and damage can be seen by observing the leaf blades of your St. Augustine grass in the damaged areas of your lawn. Once the leaf blades are chewed by these worms, the soil gets exposed to more sunlight and you often get an increase in weed production in your lawn. Typically, lawns that are attacked by sod webworms do recover on their own! One way of trying to get your lawn grass to grow back and fill in in the month of September is to apply a winterizing fertilizer. When selecting a winterizer, you should only use one that contains 10% nitrogen or lower and has potassium levels of at least 10%. This lower percentage of nitrogen will allow your St. Augustine to slowly recover without causing a huge outbreak of brown patch and help reduce the possibility of cold temperature injury from an early hard freeze. Potassium is really the winterizing ingredient in a winterizing fertilizer. Some area soils already have a high level of potassium and using a winterizer may not even be needed. Perhaps the best thing homeowners can do is to take a soil sample of their lawns to see what the analysis is regarding potassium and other minerals.

Some of the winterizers in stores have 32% nitrogen and that is way too high to be applying to St. Augustine. This formulation works on northern grasses like fescues but again, it should not be used on your St. Augustine lawns. You should also be aware that some of the weed and feed fertilizers can carry around 29% nitrogen that if applied in the cooler times of the growing season it can also lead to an outbreak of brown patch in your lawns. Therefore, if you do not want to begin a regimen of applying lawn fungicides, you may want to look at the label on the bag of fertilizer and make sure it does not contain high nitrogen levels.

Every bag of fertilizer sold has an analysis written on the front or back of the container. Typically, there are three slots for the fertilizer levels in the bag and is depicted in percentages of N-P-K which stands for nitrogen-phosphorus-potassium. So, make sure you read the label on the bag of winterizer fertilizer or any other fertilizer you plan on using in September, and make sure the nitrogen level is 10% or lower to help avoid fungal development in your St. Augustine lawns.

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*Dan Devenport,
Associate Extension Agent for Lafayette Parish*

Home Gardener Winter Strawberry Production

Strawberry plants in Louisiana are generally planted in October. Many of the strawberry plants are sourced from northern California and have already received chilling at higher elevations by the time the plants are dug up and shipped to Louisiana. After planting growers will quickly see some flower development and will anxiously await harvest of the first fruit. A determined gardener with the ability to cover or protect strawberry flowers and fruits during frosts and freezes can produce winter fruit. However, for the average homeowner the extra effort required to generate at best a rather meager level of December and January strawberry production may be questionable. Strawberry flowers left unprotected during frosts and mild freezes will sustain damage, which will generally terminate fruit development. However, these damage fruits and flowers will generally not reduce the overall plant's cumulative production potential. The plant will make roughly the same number of berries, but the production will simply be transferred to later in the season. During the winter months, overcast and cool weather creates ideal conditions for the development of fruit rots and diseases. Growers also must contend with snail and slug damage. Often the best option may be to concentrate production efforts when warmer temperatures prevail in mid-to-late February. At this point in the season fungicide applications to control gray mold and phytophthora fruit rot can be initiated and a bountiful harvest can be more easily managed into March, April and May.

*Stuart Gauthier,
Extension Agent for St. Martin Parish*



Strawberry fruit rot caused by gray mold and phytophthora brown rot are extremely difficult to control during wet winter conditions. Homeowners should use organic or plastic mulches to keep fruit from meeting bare soil.



Diseased berries should be picked and removed from the garden and fungicide sprays with products like Captan can be applied to reduce incidence levels.

Winter Citrus Care

Many of the citrus trees in the southwest part of the state along Louisiana's coastline were damaged by hurricane winds this past fall. Many trees dropped fruit and sustained injury to limbs and roots. In some cases, trees were not salvageable and have already been removed. Others were left alone out of necessity with growers tending to more pressing issues. Late January and early February is a good time for gardeners to turn their attention back to the citrus orchard. The goal should be to have all old fruit along with any twisted and mangled branches removed from trees by the end of February. The skirt of the tree should be lifted by removing low-hanging limbs to a level waist high. To sufficiently address fertility needs, near the dripline apply a complete fertilizer such as 8-8-8 at 1 1/2 pounds per year of the tree's age up to 20 pounds maximum per tree. If a hard freeze damages citrus trees during the winter months, growers may want to wait until later in the season to evaluate and prune. This will give time for a more accurate assessment of viable plant tissue. Often after a freeze pruning may be delayed until April or May. At this point in the year it will be easy to tell dead wood from live shoots.

*Stuart Gauthier,
Extension Agent for St. Martin Parish*



A close evaluation of storm damaged citrus trees should be made by late February. Damaged limbs should be pruned out of the canopy.

Getting Crafty This Winter

Everyone has no doubt begun decorating for the holiday season. You've got your excited folks who started listening to Christmas music and threw up the decorations before the Thanksgiving holiday. (Hey, no judgment here.) Then you've got the folks like me who put the tree up the weekend after Thanksgiving. And some of us are busy and are just now getting around to it.

No matter what type of holiday decorating you do, there is one thing anyone can do very inexpensively by using what is just outside your door. You can create an evergreen wreath or swag with a few inexpensive floral materials and plant cuttings from the landscape.

The materials you will need to complete the project include fresh floral foam (3 inches by 4.25 inches by 3.25 inches) and a commercially made wire cage or one you create with a wire clothes hanger. You also need waterproof floral tape, 24-gauge wire (or similar) and 4-inch wire wood picks (optional). The tools you will need are pruning shears, wire cutters and a pocketknife or grafting knife.

Then you'll need to gather an assortment of evergreen materials from the landscape. They could include cedar, camellia, evergreen wisteria, gardenia, holly, juniper, laurel bay, Leyland cypress, nandina, magnolia, mahonia, pine, pittosporum, sweet olive and wax myrtle. And don't forget all the Christmas tree trimmings.

You also can go to a local nursery or box store selling fresh-cut Christmas trees and get the trimmings from such trees as blue spruce, Fraser fir, noble fir and Nordmann fir. They smell wonderful, and these plant materials offer several textures to incorporate into your wreath or swag.

Hollies such as American, Burford, English, Foster's, Savannah, Winterberry and yaupon are excellent selections to help incorporate red berries. Another common landscape plant — nandina — also displays red berries in the wintertime.

If you use a commercially prepared cage of fresh floral foam, you can get started right away. However, you can make your own by securing a wire hanger around a cube of fresh floral foam. Add a

water-impermeable material, such as contact paper, to the back of the foam to prevent water damage. Secure the backing and foam to the hanger using the waterproof tape in a tic-tac-toe pattern with two vertical lines and two horizontal lines encompassing the hanger and foam brick.

Hydrate the floral foam with water before beginning to add plant materials. This takes about 30 seconds. If you want your live cuttings to last longer, be sure to hydrate the foam several times a week. Next, begin placing greenery in the foam. You can use longer materials in the top and bottom for a swag or place the greenery equally in a circular pattern for a wreath look.

At this point make a fresh cut on the stem of the greenery itself by using a utility knife to create a sharp point. Cut down the bottom half of only one side of the stem as if to whittle away the bark. Now, stick this into the foam. Or you can wrap the wire on a 4-inch pick around the bottom half of the stem for stability and stick the stem and pick together into the foam.

Longer pieces such as fir, Leyland cypress and pine are great to use on the top and bottom of the swag. Then use more pieces to fill in both sides of the foam. This creates the skeleton, so to speak.

Then you may begin to fill in the piece with different textures, such as magnolia, camellia and holly. Finally, install the "centerpiece" — typically something with red berries, pinecones or a festive bow. You can secure the pinecones and bow using the wired picks or lengths of wire by wrapping and twisting the wire through the cones' scales or around the center of the bow.

Create a swag by elongating the design, making the top and bottom longer and the sides of the piece shorter. For a wreath look, keep all the plant materials similar in length along all sides. You may use the hanger to hang on the door or the grommets or holes already in place on the commercial foam.

Voila! You have a DIY wreath that cost next to nothing. I've seen designs that retail for \$50 to \$100. Save that money to do some Christmas shopping or share with someone in need this holiday season. Merry decorating. It's a fun activity for all!

*Heather Kirk-Ballard
Consumer Horticulture Specialist*



Start the New Year Off Right

All joking aside, 2020 has not been a grand year. There are things we can and cannot control, and we have to roll with life's punches. Nevertheless, we can control many things in our garden. So, let's make the most of December's garden and start the new year off right by following best management practices to get the most out of our fruit and vegetable crops.



Cabbage



Strawberries



Eggplant



Lettuce

Monthly Garden Tips

December is the last month I think of as actual winter. January and February to me are very early spring. So, in this last month of winter here are a few to-do items to help keep the garden active!

December

- Scout lettuce, strawberries and all cole crops for insects. Aphids, slugs, snails and worms tend to cause problems in the winter garden. Insecticides such as horticulture oil, insecticidal soap and Bifenthrin products (Ortho Bug –B-Gon Max) work great for aphid control. Insecticides that kill worms and loopers include Sevin, Bt (Dipel) and Spinosad. Snails and slugs are best controlled with baits. Iron phosphate baits are safest for pets. Early evening is when these pests feed. You want the baits to smell strong, so apply baits in the early evening for best results. If you have a lot of slug and snail problems remove mulch from around the base of plants. This gives them fewer hiding spaces.
- Till and hip rows in the garden now for January-planted crops. Early January can be very wet.
- Plant onion sets. Choose sets that are thin, the size of a pencil or thinner. Thicker plants tend to bolt in cold weather and set seed rather than forming bulbs.
- Cover blooming strawberry plants when temperatures drop below 32 degrees Fahrenheit. Plants not in bloom? No need to cover.
- Order spring vegetable seed now if you want first pick of the great varieties. Wait too long and other gardeners will order all the good varieties.

January

- Onions can be planted from mid-December to early January. In early January, continue to plant onion sets. Bulbing onion varieties that perform well include but are not limited to Texas Grano, Mr. Buck, Texas 1015Y, Pinot Rouge, Red Burgundy and Miss Megan.

- Mid-January through the end of February: Transplant broccoli, cabbage, cauliflower, chard, kale and lettuce into the garden. You can also direct-seed carrots, radishes, turnips and other rooting vegetable crops.
- Mid-January through Mid-February: Plant Irish potatoes into the garden. Cut the potatoes a few days before planting. Cut larger potatoes in quarters and smaller potatoes in half. This larger size helps reduce rot. It doesn't matter if the potato pieces face up, down or sideways. They will grow.
- Vegetable growers in south Louisiana should start their tomato, eggplant and pepper transplants in mid-January. North Louisiana vegetable growers should wait until the end of January or the beginning of February. It takes between eight and 10 weeks to germinate and grow into a decent-sized tomato, pepper and eggplant seedling for the garden. Keep seedlings in a warm and bright area. One week prior to transplanting, move the seedlings outside to harden off.

February

- Continue to transplant broccoli, cabbage, cauliflower, chard, kale and lettuce transplants into the garden. Successive planting (a portion of a row or a new row) every two weeks ensures a steady harvest.
- Direct-seed beets, turnips, mustard, parsley, radishes, lettuce, snap beans and Irish potatoes.
- Pull winter weeds. Hand pull or cultivate with a tiller or hoe. Get weeds out of the garden. Small insects like thrips like to hide here and get your spring crops later. Pre-emergent herbicides like Dual and Treflan are wonderful technologies that can make gardening especially in larger gardens easy. To control grasses in the garden use Poast or other herbicides with the active ingredient sethoxydim to kill grass, not broadleaf weeds.
- Leave space for spring crops, which will go into the garden in March and April. If you have not pulled up rows, be sure to get it done at the first chance of dry weather. Spring is here!

*Dr. Kathryn Fontenot
Vegetable Crops Specialist*

Winter Turfgrass Management

The Dormant Season for Turfgrasses Begins in December

December begins a bleak time for warm-season turfgrasses. Most lawns should be dormant or at least close to this stage by Christmas. Because lawns are not actively growing, fertilizer applications are not needed during the winter. Actually, you should have stopped nitrogen fertilization on home lawns by late summer (late August to very early September for St. Augustine grass and centipedegrass).

Nitrogen fertilizer on dormant to semidormant St. Augustine grass, centipedegrass and zoysia grass lawns can lead to increased brown patch and winter kill. Also, nitrogen applications during this time have a greater potential for leaching or movement into nontarget areas.

Soil Sampling and pH Adjustments

Winter is an excellent time to collect soil samples and submit them for analysis. Samples should be a composite of soil collected from 3 to 4 inches deep at various places around the lawn. Mix well and reduce the sample to about 1 pint of soil and take it to the LSU AgCenter Extension Service office in your parish or to a participating garden center. Make sure to specify the type of grass you are growing on the soil test form.

Soil samples submitted to the LSU AgCenter result in a wealth of information concerning the overall fertility of your soil. If results of the soil test indicate the soil pH is too acidic, lime will be prescribed in the soil test recommendations. Sulfur may be prescribed for soils that are too alkaline. Winter is the best time to apply lime or sulfur so that it can be activated by for the growing season next spring and summer. The correct soil pH is extremely important and has everything to do with nutrient availability and fertilizer performance.

Turf Establishment

Postpone any permanent warm-season turfgrass seeding until next spring. Soil and air temperatures will be too cold for germination and growth.

Sod, such as St. Augustine grass and centipedegrass, can be laid during winter and established successfully during the spring. But remember to maintain good moisture to prevent the sod from dying. Establishment of sod is easiest, however, when sodding is delayed until the middle of spring, well after spring green-up.

Large Patch Disease

Large patch disease, which was once known as brown patch, can come and go throughout the winter if the weather is mild. Treatment with fungicides containing myclobutanil, propiconazole, pyraclostrobin, and triticonazole and azoxystrobin will reduce the spread of large patch. Damage from large patch will slow spring green-up, and diseased areas will remain unsightly until warmer spring weather conditions help with turfgrass recovery. These diseased areas are more prone to weed problems.

Winter Weed Management

Broadleaf weeds, such as clover and lawn burweed (sticker weed) and annual bluegrass infesting St. Augustine grass, centipedegrass and zoysia grass, and dormant bermudagrass, can be suppressed with a late fall application of atrazine herbicide followed by a winter application. The window for these atrazine applications is from November to early March. Herbicides containing a three-way mixture of 2,4-D; dicamba; and mecoprop (trimec-type herbicides) can be used for winter broadleaf control on the same lawns that were sprayed with atrazine. MSM (metsulfuron) works well on lawn burweed and is highly effective on clovers and false garlic. Weed-and-feed products can be substituted as your first application of fertilizer during the early spring.

When Should You Resume Fertilizing Your Lawn

Lawns may show signs of green-up in southern Louisiana in late February. Do not push turfgrass growth with fertilizer at that time! Fertilizer applied too early will feed winter weeds and will result in lush turfgrass growth that is more susceptible to injury from late frosts and increased levels of large patch disease. Lawns may be fertilized in the New Orleans area by late March, but delay fertilizing central Louisiana lawns until April. Consider fertilizing lawns in north Louisiana around mid-April.

*Dr. Ron Strahan
Turfgrass Science and Weed Science
Specialist*



Mock strawberry



Lawn burweed germinates in the fall and produces painful stickers in the spring.



Wild geranium is a common winter broadleaf infesting lawns.



Catchweed bedstraw is a sticky winter weed that attaches to pants and pets.



Checklist for December, January, February

December

1. In the vegetable garden: Bunching green onions and shallots should be harvested by digging up the clumps. You may replant a smaller piece to continue producing. You can plant beets, Brussels sprouts, cabbage, carrots, celery, cabbage, leeks, lettuce, radishes, shallots, spinach, Swiss chard and turnips.
2. In the lawn: This is a great time to sharpen mower blades and take care of any mower or weed trimmer maintenance before storing for the winter. Rake and keep fallen leaves of deciduous plants and trees to use as a mulch or to compost.
3. In the landscape beds: Protect the roots and rhizomes of tropical plants by spreading a 4-6-inch layer of mulch around the base of the plant. Plant tulip and hyacinth bulbs at the end of the month.
4. Trees and shrubs: Prune off freeze damage to tropical herbaceous foliage plants, such as ginger and philodendrons. Heavily mulch cold-sensitive trees and plants and cover them in extended periods of below-freezing weather.
5. Fruits: Heavily mulch citrus trees to protect them from freezing temperatures. Cover young, tender citrus trees and utilize heat lamps during extended freezes.

January

1. In the vegetable garden: End of January through early February is a good time to start tomato, pepper and eggplant seeds in sunny windows or indoors under grow lights, in hotbeds or in greenhouses.
2. In the lawn: Give your spring lawn a leg up by treating weeds this month. If weeds are present, you can use liquid atrazine with the active ingredient 2-chloro-4 ethylamino-6-isopropylamine-s-triazine for pre-emergence and early post-emergence on annual bluegrass weeds and many winter broadleaf weeds in your turfgrasses. Use in combination with 2, 4-D; mecoprop; dicamba; and carfentrazone for the best results. Follow product label for rates and use a spreader sticker.
3. In the landscape beds: Apply mulch at a 2-inch depth to keep weeds in check. Pine straw, leaves and pine bark are all excellent choices. Trim freeze-damaged or dormant perennials back this month to keep a clean look to your landscape beds.
4. Trees and shrubs: Winter is a great time to trim deciduous trees. Tree structure will be easier to see when selecting limbs to remove, and they will be lighter for disposal without the foliage.
5. Fruit: Propagate dormant fig trees by hardwood or softwood cuttings this month. Take cuttings from the last one to two years' growth at about one-half to three-quarters of an inch in diameter and 8-12 inches long and place cuttings in potting soil that is kept moist and warm. It is a good idea to place them in warm windows with bright light. Take several cuttings to improve success rate.

February

1. In the vegetable garden: Plant cool season vegetables — beets, broccoli, cabbage, carrots, cauliflower, Swiss chard, collard greens, lettuce, mustard greens, potatoes, radishes, spinach, snow peas and turnips. Cut seed potatoes with a couple of eyes about the size of a golf ball and plant 4 inches deep and 12 inches apart.
2. In the lawn: Perform lawn equipment maintenance this month. Shops will be less busy this time of year. Calibrate your broadcast spreader. Consult the Louisiana Home Lawn Series Pub. 3624-SSS for detailed instructions. Control weeds.
3. In the landscape beds: Trim ground covers before new spring growth occurs. Prep beds for spring plantings by pulling weeds.
4. Trees and shrubs: Bare-root roses should be planted no later than this month. Prune your roses on or around Valentine's Day and begin a preventative spray program alternating fungicides for blackspot and powdery mildew. This is a good time to fertilize spring-blooming trees and shrubs.
5. Fruit: Time to fertilize fruit trees and shrubs, including apples, peaches, citrus, figs, blueberries and blackberries. This is also a great time to plant pecan trees such as Elliot. Syrup Mill is an excellent pollinator for Elliot. McMillan, Gafford and Amling are recommended for home orchards; give 50 to 70 feet between trees.

*Dr. Heather Kirk-Ballard
Consumer Horticulture Specialist*

Armillaria Root Rot of Woody Ornamentals, Fruits and Trees

Many homeowner and commercial landscapers are noticing clusters of mushrooms appearing in their landscapes. These mushrooms are fruiting bodies of *Armillaria* root rot caused by *Armillaria* spp. It is a destructive disease of a wide variety of woody ornamentals, trees, shrubs and fruit trees. Common host plants include roses, camellias, azaleas, crape myrtles, bottle brush, jasmine (confederate), Chinese elms, oaks, pines, Leyland and Italian cypress, apples, peaches, pecans and others. The disease is generally attributed to *Armillaria mellea*; however, several different species of *Armillaria* are capable of causing root rot. In the southeastern United States, *A. tabescens* is primarily responsible for causing the disease.

Symptoms caused by this disease are similar to those caused by other root rot pathogens. Infected plants wilt, rapidly decline and eventually die. Leaves turn yellow and defoliate. In some host species, the entire foliage turns brown. A white fungal mycelium is usually present underneath the bark at the base of the stem and the roots, which can be easily seen by removing the bark. In severely infected shrubs or trees, the white mycelium extends into the crown region, and even a few feet up on the trunk. Clusters of honey-colored mushrooms commonly appear at the base of infected plants or around it in the fall.

Armillaria tabescens is a soil-borne fungal pathogen normally associated with hardwood forests. It may survive in the soil on infected roots for several years. Disease can be more problematic in urban landscapes that are created on previously wooded areas. The pathogen becomes active when roots from a new tree or shrub come in contact with old infected roots. The disease spreads from one plant to another through root-to-root contact or by the growth of the fungus through the soil by means of fungal structures called rhizomorphs.

There is no cure for this disease. Once a host plant is infected and the fungus is established, little can be done to save it. No chemicals are available to control this disease. However, there are culture management practices that may help to either avoid or reduce the impact of this disease. Start with disease-free healthy plants. Do not plant them too deep. Completely remove and discard plants suspected to be infected with *A. tabescens*. Careful removal of the stumps and roots along with significant amounts of soil from previously infected sites may help reduce the fungal inoculum. Avoid planting susceptible hosts in the same locations where infected plants were previously removed. Water thoroughly and deeply and as infrequently as possible without causing drought stress. Avoid continuous wetting of the base and crown region of the plants, which favors the growth of the fungal pathogen. Use of excessive mulch (mulch mounds) around the base of the plant should be avoided to keep the crown region dry. Follow a proper fertilization program.

Suspected host plants infected with *A. tabescens* can be submitted to the LSU AgCenter Plant Diagnostic Center for confirmation. For more information, please visit our website: www.lsuagcenter.com/plantdiagnostics.

Dr. Raj Singh
Plant Pathologist and Director of Plant Diagnostic Center



Italian cypress showing browning of entire canopy as a result of root rot caused by *Armillaria* root rot (tree on the left). Photo by Raj Singh, LSU AgCenter



Bottle brush showing white fungal mycelium extended 2 feet up on the trunk. Photo by Raj Singh, LSU AgCenter



Cluster of honey-colored mushrooms produced by *Armillaria* sp. Photo by Raj Singh, LSU AgCenter



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