LSU AgCenter Research · Extension · Teaching

Horticulture Hints

for SOUTHEAST Louisiana — Winter 2019

Upcoming Events:

School Garden Boot Camp
8 a.m. to 4 p.m.
Saturday, Dec. 7
Delgado-LSU AgCenter Horticulture Lab
Orleans and Navarre Avenues, New Orleans
Open to all Southeast Region educators. Webinar pre- and post-sessions also required!

Poinsettia Sale
8 a.m. to noon
Saturday, Dec. 7
LSU AgCenter Botanic Gardens at Burden
4560 Essen Lane,
Baton Rouge

Designing Plant Communities for Resilient Landscapes
8 a.m. to 10:30 p.m.
Saturday, Jan. 25
Pavilion of the Two Sisters, New Orleans Botanical Garden
1 Victory Ave., New Orleans

Never miss an issue of Horticulture Hints from the LSU AgCenter! Visit the Horticulture Hints website at www.lsuagcenter.com/HortHints

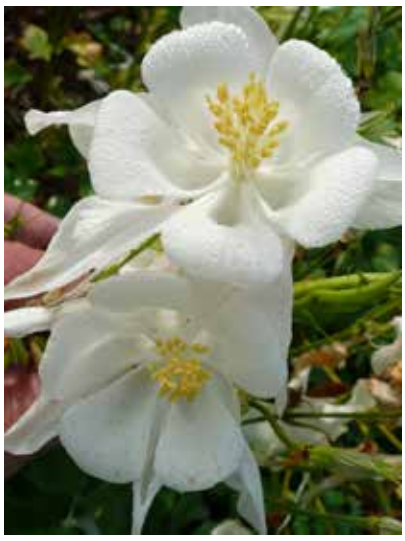
Then click on the Subscribe button!

Super Plant Spotlight: Swan Columbine

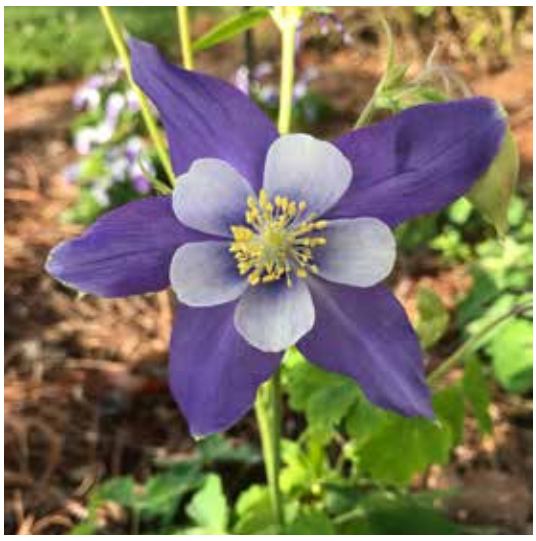
Columbines are an old-fashioned favorite and for good reason. They possess superb garden reliability and hardiness, ease of cultivation, early springtime color, and nectar for hummingbirds and butterflies. The Swan series *(Aquilegia* x *hybrida)*, displays large spurred, bicolored blossoms that arch above lacy blue-green foliage. The attractive blue-green foliage adds interest and texture to the winter flower garden, even when the plants are not in bloom. Flower color varieties in the Swan series are blue/white, burgundy/white, pink/yellow, red/white, rose/white, violet/white, white and yellow. These very beautiful, short-lived perennials grown as cool-season annuals deserve a place in every flower garden.

Columbine is a perennial that we grow as a cool-season annual. Columbine plants aren't too particular about soil as long it drains well and is not too dry. While they enjoy full sun in most areas, they don't like it very hot. Therefore, growing them in partial shade with plenty of mulch to help keep the weeds down and the soil moist is a good idea. The Swan series plants will grow 20 to 24 inches tall and 12 inches wide. While the spectacular spring blooms show up in March through May, plant them now in mid- to late fall, from October to December. Swan columbine needs to be planted in fall to give the plant a chance to get well-rooted, grow to mature size and set buds for the spring extravaganza.

Dr. Joe Willis
Greater New Orleans Horticulture Agent



White Swan columbine.



Purple Swan columbine.

Growing Your Own Sweet Potatoes

Growing sweet potatoes is different from growing Irish potatoes or vegetables produced from true seed. The production cycle begins when whole sweet potatoes ("seed" potatoes) are planted in the early spring to produce "slips" for transplanting.

Sweet potatoes can be "bedded" for slip production beginning around mid-March in southern Louisiana. The soil temperature should be approximately 65 to 70 degrees or warmer. Allow six to eight weeks for slips to grow before you plan to transplant them.

The area where seed potatoes are to be planted should not have been used for growing sweet potatoes during the past few years and should drain well. Lay the sweet potatoes next to each other and cover them with 2 inches of soil.

Slips can be transplanted between late April and the end of June in southern Louisiana. Shoots of about 12 or 16 inches in length should be cut 1 to 2 inches above the soil line. Cutting shoots from the roots helps prevent disease and insect problems.

Transplant slips within a few days of cutting. Holding slips for two to three days in a cool place out of the direct sun improves performance after transplanting.

Plant slips in raised rows 8 to 10 inches high and 3 to 4 feet apart, center to center. The traditional planting method involves spacing approximately 1-foot-long slips about 1 foot apart. Cut ends are inserted about 4 inches into the soil so that two to three nodes (where a leaf is attached) are below ground.

Recent work has shown that better production can result from planting slips horizontally. Slips of approximately 16 inches in length are used when planting in this manner. At least one-third of the "upper" end of the slip (including at least one node) remains aboveground, while the rest is buried about 3 inches deep. Slips are planted in line with the row. They are still planted on 1 foot spacing but with the end-to-end arrangement. Only about 2 inches will exist between one slip and the next.

For every 100 feet of row, 4 pounds of 8-24-24 or another complete fertilizer can be incorporated into the soil prior to planting. Make sure that plants get adequate water while they are getting established. Maintaining good soil conditions during the first 21 days is critical.

You can expect to be able to harvest sweet potatoes about 90 to 120 days after planting slips. Freshly harvested roots do not have the sugar content or texture that we associate with baked sweet potatoes. They must be "cured." To cure sweet potatoes, keep them around 85 degrees and 90% relative humidity for about a week. Afterward, store them at 55 to 60 degrees.

Sweet potatoes can accumulate genetic mutations and viral infections that negatively affect plant productivity. The LSU AgCenter Sweet Potato Research Station takes orders for virus-tested seed through the Foundation Seed Program. If you are interested in buying seed potatoes, contact your local LSU AgCenter extension office in December or early January.

Southern Louisiana is part of a quarantine zone for the sweet potato weevil, so sweet potatoes or slips grown here should not be moved outside of this area. Beds for both slip production and sweet potato production can be treated with a bifenthrin-containing insecticide or other appropriate insecticides to minimize the chance of weevil problems.

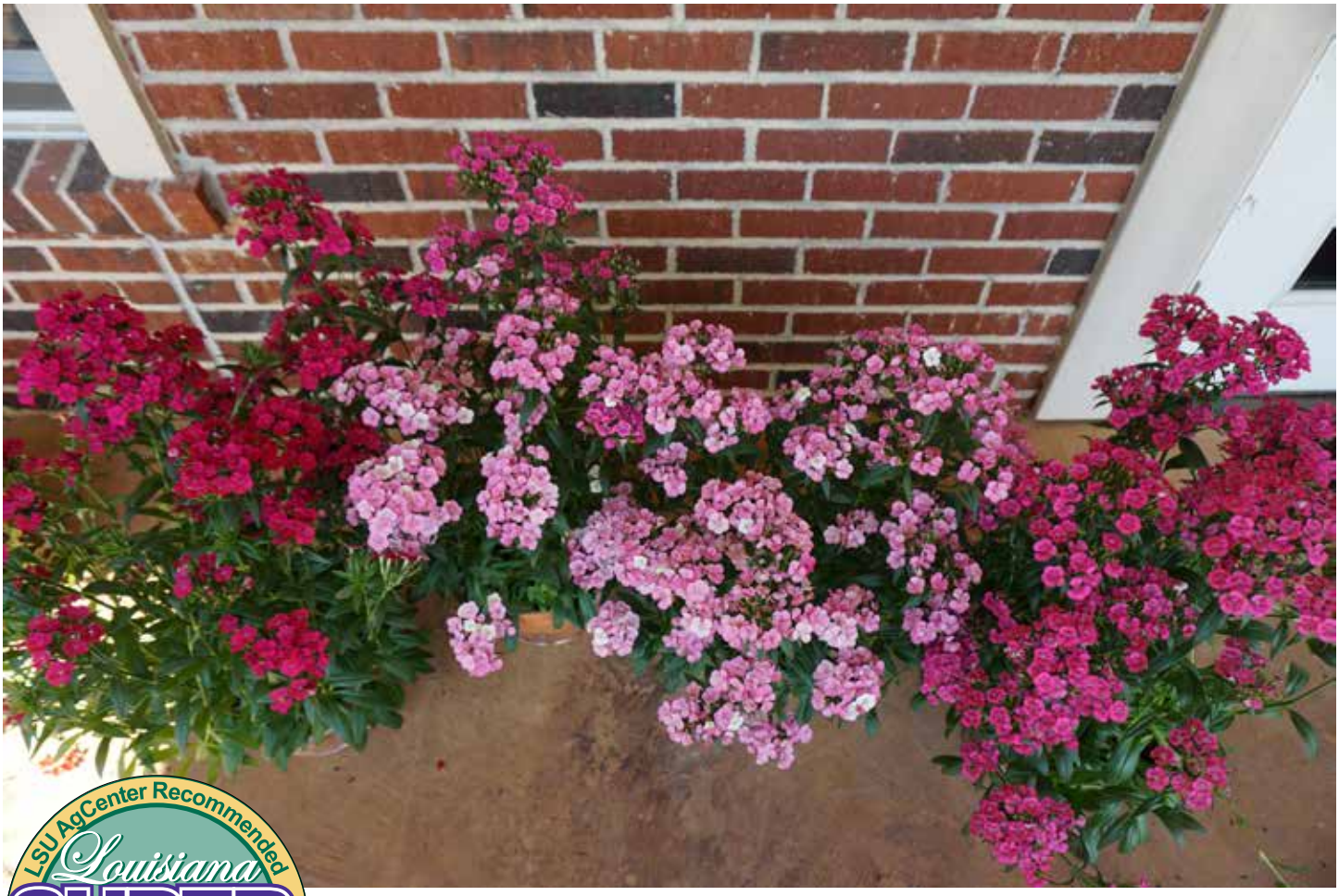
Beds for slip and sweet potato production should be destroyed within 15 days of when slip collection is complete — no later than July 15 — and sweet potato harvest — no later than December 1.

Dr. Mary Helen Ferguson
Associate Extension Agent, Tangipahoa Parish

Evangeline is a variety of Louisiana sweet potato.

Bonita is a variety of Louisiana sweet potato.

Murasaki is a variety of Louisiana sweet potato.



Jolt Cherry dianthus Pink Magic. Photo by Ashley Edwards

Introducing the Fall 2019 Louisiana Super Plants Induction: Jolt Dianthus

Are you looking to give your winter landscape a pop? Consider incorporating Jolt dianthus into the garden. Some of the best cool-season bedding plants we have available in Louisiana are interspecific dianthus, and the Jolt series dianthus are no exception. Jolt offers a more compact interspecific dianthus than Amazon dianthus (also a Louisiana Super Plant named in 2010) while keeping the abundant flowers and great color. Moreover, Jolt dianthus are some of the most heat-tolerant interspecific dianthus we have, making them a perfect addition to your Louisiana landscape. Jolt dianthus will continue to bloom into the early summer months, giving you that extra push to carry your landscape into the warm season. Jolt dianthus can be planted in early fall in Louisiana landscapes. Like most bedding plants, they are susceptible to extreme freezing temperatures in the winter, so be sure to take appropriate actions if it gets too cold. However, once established Jolt dianthus can tolerate temperatures into the low 20s Fahrenheit. Jolt can also be planted in late winter for an amazing pop of color throughout the spring and early summer. Jolt dianthus have excellent dark green foliage that provides an additional pop to the three amazing bloom colors, Pink, Cherry and Pink Magic. Jolt dianthus is also great for attracting butterflies in the later fall and early spring.

Visit your local nursery or garden center today to pick up Jolt dianthus for your cool-season landscape. Plant Jolt dianthus in raised beds and in full sun, or try in containers for a more eye-catching porch or small landscape. Space them about 8 to 12 inches apart in landscapes to provide adequate room to grow and fill. You do not need to deadhead Jolt, but it will promote additional flowering.

For more information on Jolt dianthus or any other Louisiana Super Plants, contact your local AgCenter extension office or visit www.LSUAgCenter.com/SuperPlants.

Dr. Jeb S. Fields
Ornamental Horticulture Specialist

Winter Gardening

Gardening not only provides you a form of exercise but also will also increase the amount of fruits and veggies in your refrigerator (if you water and fertilize). Instead of a New Year's resolution to make a healthy change in January, start in December by ending the year and beginning the new year on a great garden note!

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. Early evening is when these pests feed. You want the baits to smell strong, so apply baits in the early evening for best results.
- Plan on planting potatoes? Till and hip rows in the garden now. 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 form a bulb.
- Cover blooming strawberry plants when temperatures drop below 32 degrees. 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.

Strawberry plants.

Cabbage.

January

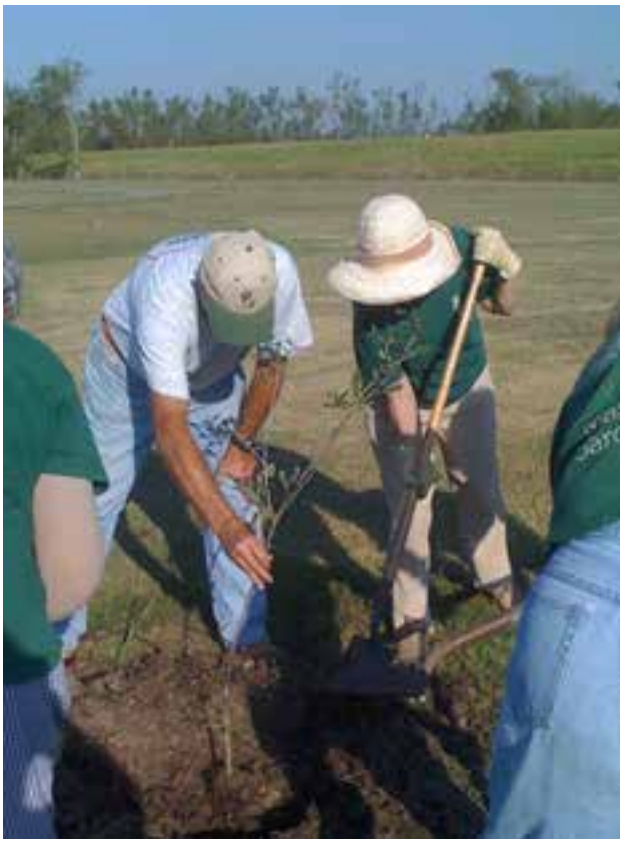
- Onions can be planted from mid-December to early January. In early January, continue to plant onions sets. Bulbing onion varieties that perform well include but are not limited to: Texas Grano, Mr. Buck, Texas 1015Y, Pinot Rouge, Red Burgundy and Miss Megan.
- Mid-January through the end of February: Transplant broccoli, cabbage, cauliflower, chard, kale and lettuce.
- Mid-January: 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.
- Vegetable growers in south Louisiana should start their tomato, eggplant and pepper transplants 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.
- Leave space for spring crops, which will go into the garden in March and April!

Dr. Kathryn Fontenot
Vegetable Crops Specialist

Checklist for December, January, February



Plant trees in the winter.

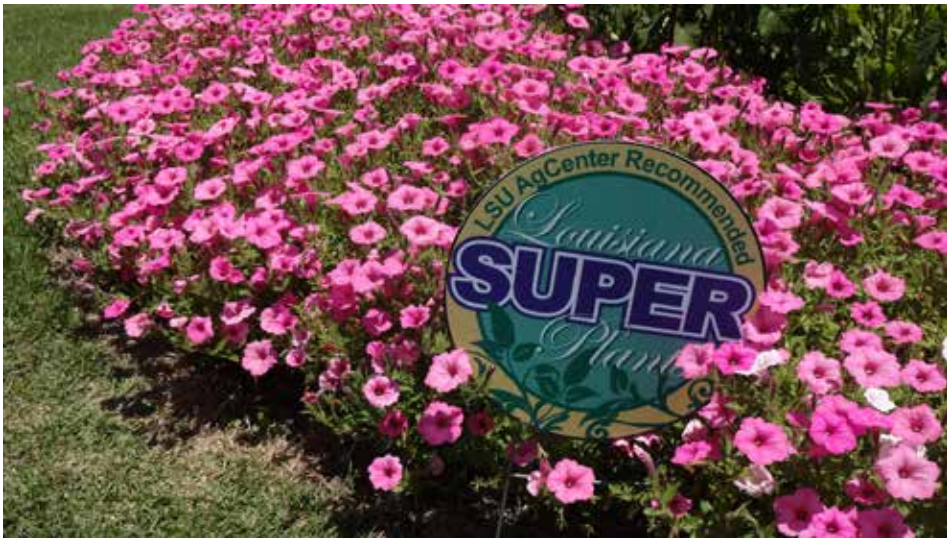
December

1. It should be time to put away the mower. This is a great time to sharpen mower blades and take care of any mower or weed trimmer maintenance before storing for the winter. Check spark plugs and change the oil. You can also sharpen tools. Oil them to prevent rusting.
2. Deadhead or remove old flowers from your cool-season bedding plants to extend blooming and improve flower performance.
3. Rake fallen leaves of deciduous plants and trees and keep the leaves to use as a mulch or to compost.
4. In landscape beds, plant your tulip and hyacinth bulbs later this month. Tulips and hyacinths must be refrigerated for six to eight weeks before planting in late December or early January.
5. Protect the roots and rhizomes of tropical plants by spreading a 4-to-6-inch layer of mulch around the base of the plant.
6. Heavily mulch citrus trees and other cold-sensitive trees and plants and cover them in extended periods of below freezing weather.
7. It's a still a good time to plant trees and shrubs this month.
8. Be sure to bring in any tropical plants in containers to protect them from freezing temperatures.

January is a great month to prune roses.

January

9. Now that you've refrigerated your bulbs for the six to eight weeks that are recommended, it's time to plant your tulip and hyacinth bulbs.
10. Some hardy perennials that can still be planted this month are delphinium, foxglove and French hollyhocks. Annuals that are blooming this time are alyssum, calendula, flowering cabbage and kales and pansies.
11. Prepare rose beds for planting later this month. Prune ever-blooming roses in late January or early February. Landscape roses, like the popular Knock Out roses, should be cut back by about one-half their height. But do not cut them back lower than 2 feet from the ground). The end of January is a great time to trim your ever-blooming roses to flush out a new blooms for the spring.
12. January and February are good months to prune landscape trees and any deciduous and evergreen plants that don't flower in the spring.
13. It is a good time to plant trees and shrubs while they are dormant. Some native trees for your consideration: honeysuckle azalea, red buckeye, Eastern red cedar, fringe tree, parsley Hawthorne, ironwood, wax myrtle, redbud, river birch, and yaupon holly.



Supertunia Vista Bubblegum Petunia. Photo by Allen Owings

February

14. Add color to your landscape with cool-season bedding plants, such as alyssum, calendula, cabbage, dianthus, gerbera daisy, hollyhock, lobelia, pansy, petunias, snapdragons and violas.
15. Plant gladiolus in late February in south Louisiana. Prolong the blooming season by planting at two- to three-week intervals for a couple of months.
16. Prune your roses on or around Valentine's Day and begin a preventative spray program alternating fungicides for blackspot and powdery mildew. Finish pruning evergreens and summer-blooming shrubs — not azaleas, hydrangeas or spireas. Fertilize shrubs with one-quarter pound of compete fertilizer per square yard and fertilize trees using 1 to 2 pounds per year of age.
17. February is the ideal time to fertilize trees.
18. Trim back dormant ornamental grasses in late February. It is important to remove the brown leaves before the new growth emerges and mixes with the dead growth.
19. Watch azaleas in February for lace bugs. They cause the foliage to have numerous small white spots, and they feed underneath lower foliage. Control them with horticultural oil sprays or Orthene.
20. Look for Louisiana Super Plants at your local nurseries. Louisiana Super Plants are selected for their outstanding performance around the state and are "university tested and industry approved." Cool-season bedding plant Super Plants that can be planted now include: Homestead Purple verbena, Swan columbines, Redbor kale, Camelot foxgloves, Amazon dianthus, Jolt series dianthus, Sorbet violas, Supertunia Vista Bubblegum petunia and Mesa gaillardia.

Hardy shrub Louisiana Super Plants selections that can be planted now include Belinda's Dream roses, Drift roses, Shishi Gashira camellias, Conversation Piece azaleas and Leslie Ann sasanquas.

Dr. Heather Kirk-Ballard
Consumer Horticulture Specialist

Fall is the Best Time to Plant Fruit and Nut Trees

Winter is rapidly approaching, and one of the things that many gardeners like to do is plant their fruit trees in the fall to get a head start for the spring. A couple of good question to ask ourselves are why is this done and how does it work? This practice has traditionally been done in our area because of our milder winter and warmer soil temperatures that enable root growth much later in the season than in colder climates. This means that the true benefit is limited to a small window in the fall before we have our first sustained temperatures below freezing. Once the soil temperatures get below 7 degrees Celsius, or 45 degrees Fahrenheit, root growth will markedly decrease for the remainder of the season.

With that in mind, the added benefit of extra root growth in the fall does not mean your efforts for spring establishment should be lax. Many gardeners mistakenly believe that because they planted something in the fall, the amount of water needed in the spring for those plantings will be greatly reduced. That is not the case! In fact, I often recommend a spring planting to break that mindset and encourage better establishment care. Since you are reading this article, I believe that you can be trusted to plant in the fall and maintain a good establishment regimen in the spring.

McMillian pecans.

***Carya illinoensis* pecan variety Candy. Photo by Tom Pope**

Now let's take some time to go over some planting basics and good spring establishment care.

More should go into planting a fruit tree than just digging a hole with hope. Ideally you should have a recent soil test and know the drainage properties of your soil. Any nutritional corrections needed should be done well in advance. You don't want to plant a fruit tree in an environment where it will have direct contact with any fertilizer as it will burn the tree's sensitive roots. This means in no situation should you add fertilizer to a hole in which you are about to plant a tree!

For drainage information you should dig a hole like the one you would dig to plant a tree. Fill it up to the brim with water. If it drains fully before three hours, your soil likely has a high sand component and you will need to provide extra water for establishment. If it is still holding water after four hours, your soil likely has a high clay component and drainage is hampered.

How you plant your tree is dependent on your local soil type. I generally prefer to dig a hole just big enough for the bareroot or container-grown tree that I am planting. It may be tempting to dig a larger hole and condition the soil around it, but in many cases, this can ultimately delay plant establishment and discourage it from sending roots into the native soil. Always remember to adequately water in any new plantings. This will remove any lingering large air pockets that could desiccate roots and set back your tree.

Finally, one of the major things to consider with new plantings is cultivar selection. You can do everything else right and then end up with lackluster results by planting the wrong thing. Because my area of expertise is pecans, I will focus on that. Pecan cultivars suited for home production must have scab resistance. In that regard, I would focus on Elliot and Syrup Mill as a great production pair. Elliot has long been recognized for its scab tolerance, and because it has a smaller nut, it is easier for the tree to fill up than larger cultivars. I would also strongly recommend some cultivars from Auburn University selected specifically for the homeowner market: Gafford, McMillan and Amling. They are noted for their disease resistance, and though they may not be as productive as other industry mainstays, they more than make up for it in ease of cultivation.

Care does not stop once you have planted your tree. I recommend watering new plantings thoroughly at least once a week during the growing season. If you receive rainfall events totaling an inch of precipitation, you can delay your watering until the next week. I would continue this regimen for at least two years after planting and, ideally, continue it indefinitely for the best quality production.

Be sure to consult your local extension agent before any major horticultural endeavor. An ounce of prevention is worth a pound of cure!

Cordiali saluti,

Dr. Michael Polozola II
Horticulture Agent and Pecan 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. Augustinegrass and centipedegrass).

Nitrogen fertilizer on dormant to semi-dormant St. Augustinegrass, centipedegrass and zoysia 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 non-target 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 a pint of soil and take it to the LSU AgCenter extension 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.

Winter is a great time to submit soil samples to the LSU AgCenter Soil Lab.

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 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.

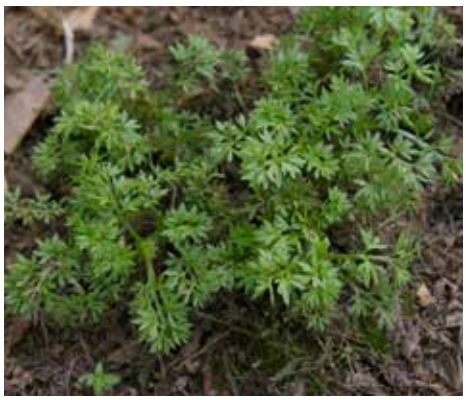
Turf establishment

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. Augustinegrass 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 (formerly brown patch)

Large patch disease 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.



Lawn burweed has seed capsules with painful sharp spines.

Winter weed management

Broadleaf weeds, such as clover and lawn burweed (sticker weed), and annual bluegrass infesting St. Augustinegrass, centipedegrass and zoysia and dormant bermudagrass can be suppressed with a late fall application followed by a winter application of atrazine herbicide. The window for these atrazine applications is from November to early March. Herbicides containing a three-way mixture of 2,4-D and 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 Specialist

Boxwood Diseases in Louisiana Landscapes and Gardens

The boxwood *(Buxus sp.)* is an important landscape shrub in Louisiana, the south and the nation. It is a top consideration for commercial landscape professionals in selecting ornamentals for new developments. Boxwoods are considered relatively sturdy, problem-free plants but are susceptible to several plant diseases, including boxwood blight, boxwood dieback, Macrophoma blight, Phytophthora root rot and Volutella blight. Although boxwood blight has been found in several neighboring states, it has yet to be detected from Louisiana. Macrophoma and Volutella blights are foliar fungal diseases and produce tan-colored foliage followed by defoliation leading to random dieback. If left unchecked, these two diseases may considerably decline affected boxwoods under favorable environmental condition. Both these diseases can be successfully managed by integrating best cultural practices with fungicides. Boxwood dieback and Phytophthora root rot have become major problems in cultivating boxwoods for the last several years. These diseases have been reported in home and public gardens, landscapes and nurseries.

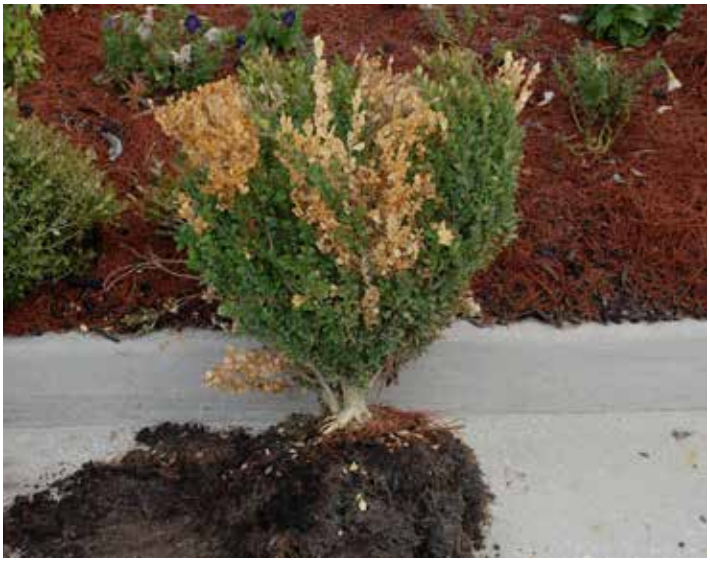


Figure 1: Diseased boxwood exhibiting light tan foliage and healthy crown and root system caused by boxwood dieback.

Boxwood dieback is a foliar fungal disease caused by *Colletotrichum theobromicola.* Currently, it is known to cause disease in English, Japanese, Korean and Baby Gem boxwoods. Symptoms appear as a random dieback of twigs with light tan-colored foliage that tends to remain attached to affected branches. Symptomatic plants have a healthy crown and root system. A bright black discoloration of the stem is visible immediately under the bark. This bright black discoloration extends all along the infected twigs and differs from dull brown discoloration of the crown region caused by Phytophthora root rot.

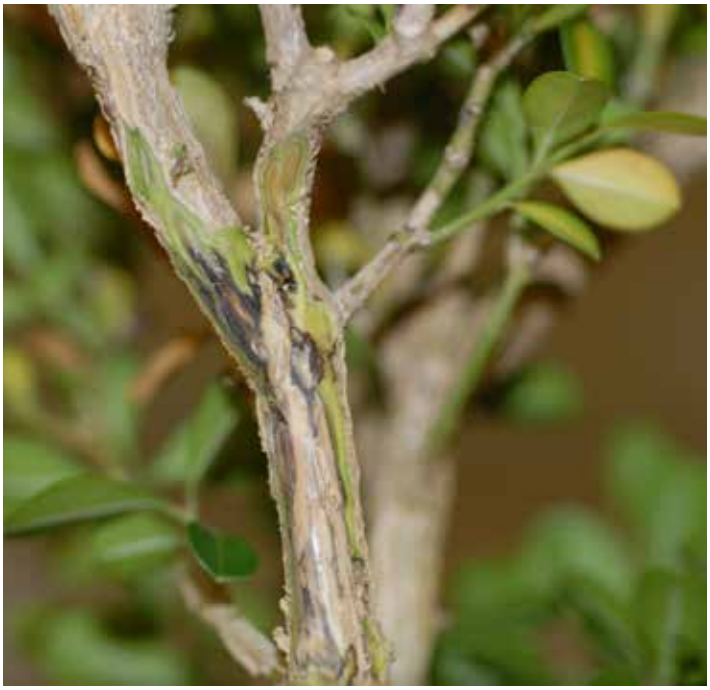


Figure 2: Bright black discoloration of upper stem caused by *Colletotrichum theobromicola.*

Boxwood dieback has been detected from boxwood liners and is thought to be introduced to new locations via infected liners. Disease spread from plant to plant is accomplished by poor pruning practices and by the dispersal of conidia (spores produced by various fungi) via rain or irrigation water. Although environmental conditions suitable for boxwood dieback are not currently known, Louisiana's hot and humid weather is extremely conducive for its development.

Because boxwood dieback is a recently discovered disease, effective diagnostic tools and control measures, such as fungicides, are currently limited. Therefore, landscapers and nurserymen should follow good cultural practices and create an environment that is most likely to decrease the spread and development of boxwood dieback. Because removing dead and dying twigs from plants infected by the pathogen is not known to control this disease, all symptomatic plants in the landscape should be removed and destroyed. Use sharp pruning or hedging tools and surface disinfect pruning and cutting tools to reduce its spread. Avoiding unnecessary plant injury during transportation, at planting and during pruning may also help avoid any potential infection by the pathogen.

Nursery owners should closely monitor liners and potted boxwoods for symptoms of boxwood dieback. Suspected plants must be immediately isolated from healthy plants. Propagate new boxwood lines from disease-free mother plants. Growers must follow good agricultural practices, including clean propagation areas free of plant and soil debris, and use of clean tools to avoid introduction of the pathogen during propagation. Remember, symptoms of boxwood dieback may take up to three months to appear after an infection occurs.

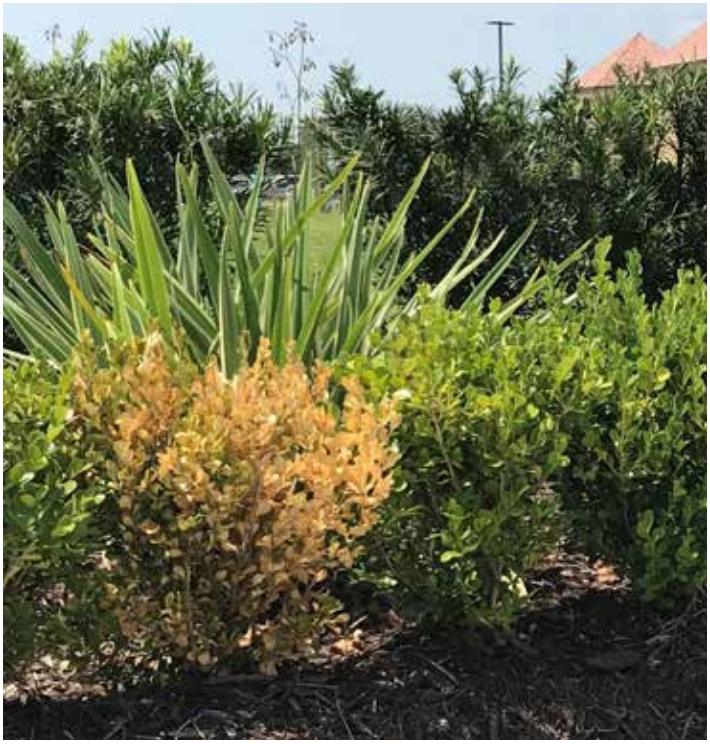


Figure 3: *Phytophthora* affected boxwoods exhibiting symptoms similar to those caused by boxwood dieback.

Figure 4: Dull brown discoloration of boxwood crown and root roots caused by *Phytophthora* species.

Phytophthora root rot affects the roots and crown of boxwoods. After infection occurs, roots start to rot and lose their ability to absorb water and nutrients. Reddish brown lesions appear on the infected roots. Rotted roots turn light to dark brown and easily slough off. Aboveground symptoms become obvious after considerable root rot has occurred. In the beginning, random sections in the canopy wilt and turn tan colored. A dull brown discoloration of affected crowns occurs at soil line. As the disease progresses, the entire plant turns a light tan color and defoliation occurs.

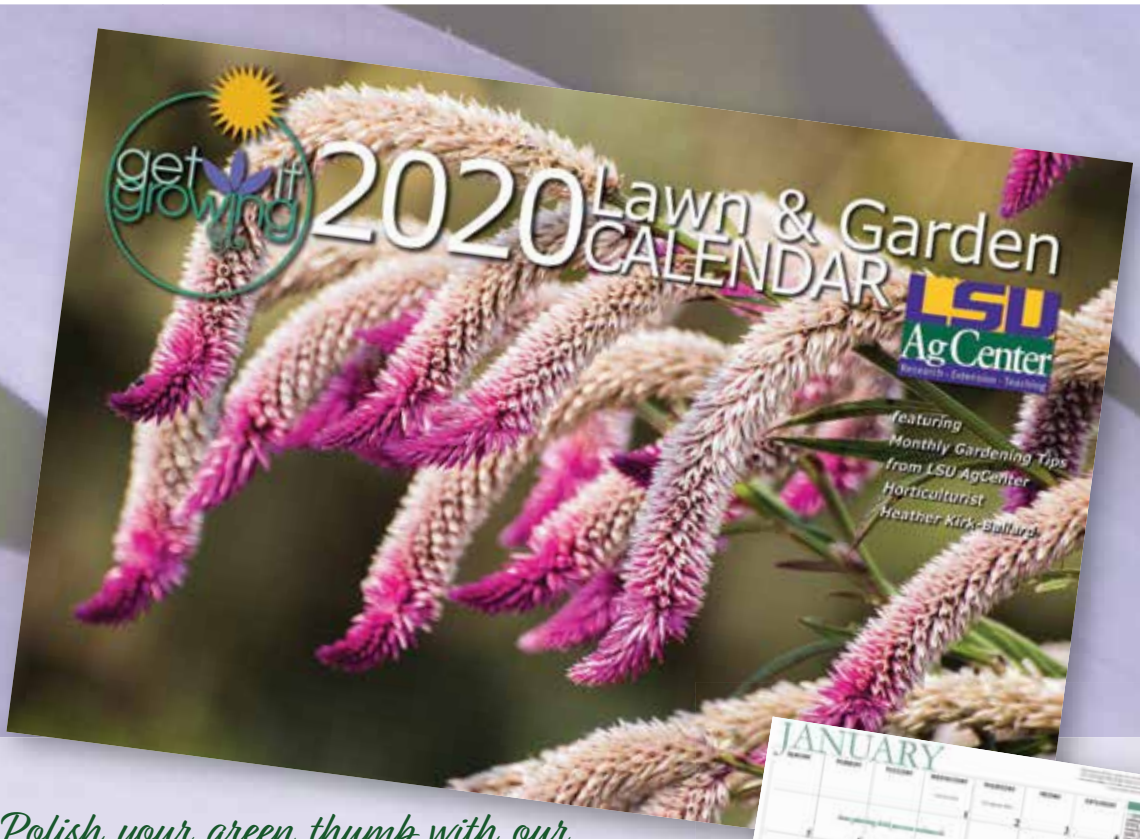
Phytophthora is a soil-borne pathogen and produces motile zoospores (infection propagules), which can swim in irrigation water. Soil compaction and poor drainage highly favors disease development. In landscapes, the disease is favored by poor landscape practices that create conditions conducive for disease development, such as deep planting, overcrowding of plants, excessive mulching, over-fertilization, over-irrigation, planting in clay rich soils, soil compaction and poor drainage.

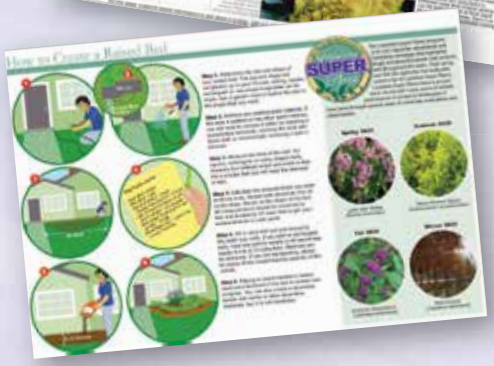
Disease management in the landscape starts with avoiding diseased plants because once *Phytophthora* is introduced, it can persist in soil for a long time. Well-drained soils with good organic matter content are recommended for new plantings. Good cultural practices, including proper planting depth, spacing, fertilization and irrigation, may help reduce infection. Roots injured during planting become highly susceptible to *Phytophthora* infection. In landscapes where disease is prevalent, prophylactic treatment with fungicides containing active ingredients such as aluminum tris, fosetyl-Al, mefenoxam or phosphite may help avoid infection. These fungicides do not eliminate the disease, and repeated applications may be required to suppress the disease. Follow fungicide labels for rates and frequency of applications.

Figure 5: Current known distribution of boxwood dieback caused by *Colletotrichum theobromicola* in Louisiana.

Laboratory testing is required to confirm boxwood dieback because it can easily be misdiagnosed as Phytophthora root rot. Disease management strategies practiced for managing Phytophthora root rot will not provide management of boxwood dieback. If you suspect boxwoods exhibiting similar symptoms described in this article, please contact Dr. Raj Singh at 225-578-4562 or rsingh@agcenter.lsu.edu.

Dr. Raj Singh
Plant Pathologist, Director of Plant Diagnostics Center





Polish your green thumb with our

2020 Get It Growing Calendar

The 2020 Get It Growing Calendar offers monthly gardening tips for Louisiana gardeners from LSU AgCenter horticulturist Heather Kirk-Ballard.

Reg. $11.95
$9.95
with special offer

- -Full color
- -13 1/4" x 9"
- -Special section on growing an edible landscape
- -Monthly tips
- -Illustrated how-to
- -Gardening terms
- -Louisiana zone map
- -Louisiana Super Plants

Special offer: $2 off each calendar with special offer code.
Limited time offer. See website for details.

Order online today at www.LSUAgCenter.com/Online Store or by phone at 225-578-2263.

LSU AgCenter
Research · Extension · Teaching

School of Plant, Environmental and Soil Sciences
Horticulture Division
155 J. C. Miller Hall - LSU
Baton Rouge, Louisiana 70803

Visit our LSU AgCenter Store
www.LSUAgCenter.com/OnlineStore

School of Plant, Environmental and Soil Sciences
155 J. C. Miller Hall - LSU, Baton Rouge, Louisiana 70803
225-578-4070; Fax: 225-578-1068

Visit our website: www.LSUAgCenter.com

William B. Richardson, LSU Vice President for Agriculture, Louisiana State University Agricultural Center, Louisiana Agricultural Experiment Station
Louisiana Cooperative Extension Service, LSU College of Agriculture
Pub. 3655-19-W-SE (online) 12/19