

Horticulture Hints



Fall
2018

Landscape Gardening and Ornamentals

2018 Master Gardener Choice Awards

Earlier this summer, the faculty and staff of the LSU AgCenter Hammond Research Station hosted the annual Louisiana Master Gardener Appreciation Day. It was a day full of fun, flowers and education. As part of the activities, local horticultural extension agents Will Afton, Jessie Hoover and Mary Helen Ferguson offered walking tours of both the Sun Garden and the Margie Jenkins Azalea Garden to give a late spring look at the gardens and highlight many of the wonderful ornamental plants. During the tours, Master Gardeners were encouraged to vote on their three favorite plants in the garden.

Based on the voting, buddleia were very popular this May, with three of the top four Master Gardener Choice Awards going to buddleia varieties. The overall winner was a recently planted buddleia CranRazz, which received the greatest number of votes by a large margin. This year's blue ribbon winner was planted in the landscape on Valentine's Day and by May was already one of the top performers in the garden. The vibrant cranberry-red flower color, true form and numerous long panicles helped propel CranRazz into the winner's circle. CranRazz, like many buddleia, is a wonderful pollinator attractor that will continue to bloom from the spring through the fall. This particular plant has tripled in size from February to July and continues to grow and flower.

Supertunia Vista Bubblegum, a Louisiana Super Plant, received second place votes, with Pugster Blue and Princess Bride buddleias coming in at third and fourth place. Each buddleia was a different color bloom (pink, blue and white), hinting that flower color did not make the biggest difference in the buddleia. Lower on the list it seemed that blue-flowering salvias were clearly the preferred color. Additionally, pollinator plants seemed to be quite popular this spring as eight of the 10 Master Gardener Choice Awards went to pollinator-friendly plants. Two plants in this year's top 10 list are past inductees into the LSU AgCenter's Plants With Potential Program — *Glandularia canadensis* Carlos and *Salvia farinacea* Rebel Child.



1st Place *Buddleia davidii* CranRazz Buddleia. Photo by Ashley Edwards



2nd Place Petunia Supertunia Vista Bubblegum. Photo by Jean Pittman.

Other Winners From the 2018 Master Gardener Choice Awards



3rd Place *Buddleia davidii* Pugster Blue Buddleia.
Photo by Yan Chen.



4th Place *Buddleia davidii* Princess Bride Buddleia.
Photo by Jean Pittman.



5th Place *Gomphocarpus physocarpus* Hairy Balls Milkweed.
Photo by Jeb S. Fields.



6th Place *Hydrangea quercifolia* Oakleaf Hydrangea.
Photo by Jean Pittman.

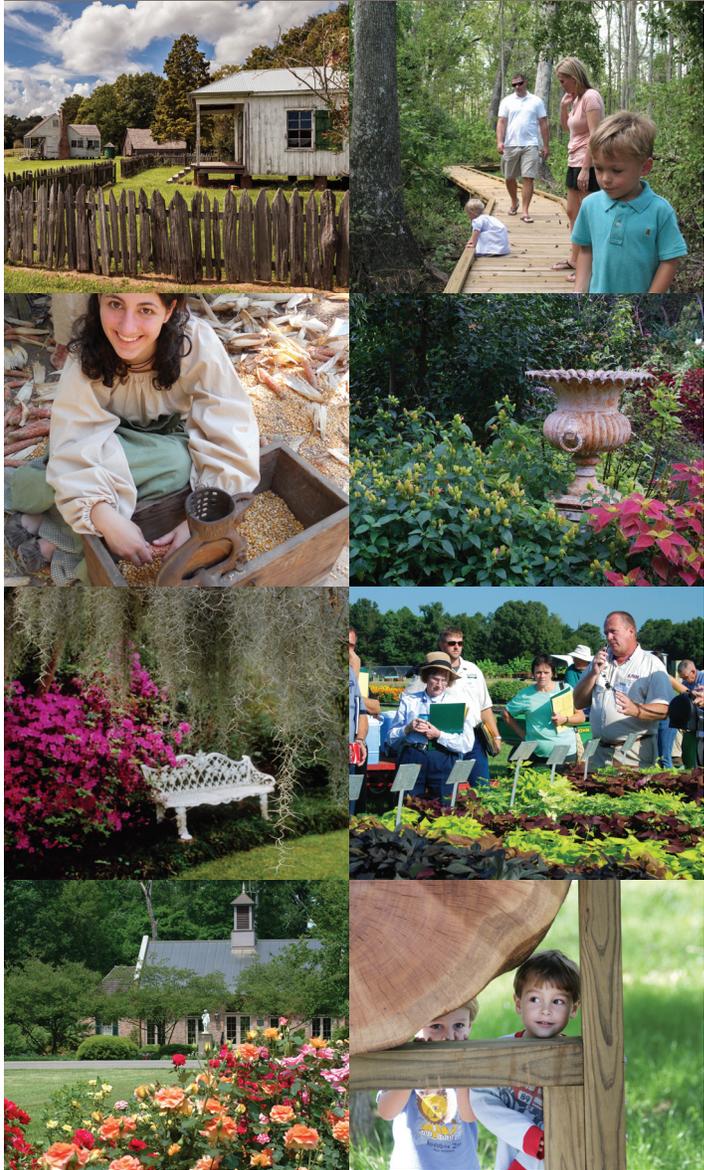


7th Place *Rudbeckia fulgida* Early Bird Gold.
Photo by Ashley Edwards.



8th Place *Salvia uliginosa* Bog Sage.
Photo by Jean Pittman.

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9th place *Glandularia canadensis* Carlos Smith, Carlos Smith
 Verbena. Photo by Jason Stagg.



10th Place - Tied *Salvia farinacea* Henry Duelberg.
 Photo by Jeb S. Fields.



10th Place - Tied *Salvia farinacea* Rebel Child.
 Photo by Jeb S. Fields.

Dr. Jeb S. Fields
Ornamental Horticulture Specialist

Bacterial Leaf Scorch of Landscape Trees and Woody Ornamentals

Many landscape trees and woody ornamentals are susceptible to a bacterial disease called leaf scorch, which is caused by *Xylella fastidiosa*. This bacterium has a wide host range and is known to infect more than 100 plant species. Different strains of this bacterium cause several economically important diseases, including Pierce's disease of grapevine, plum leaf scald, phony peach disease and leaf scorch of almond, blueberry, coffee, maple, oak, oleander, pear, pecan and several other landscape trees and woody ornamentals.

The bacterium resides in the xylem vessels (the water-conducting channels) of the plant, where it multiplies and blocks these channels and eventually obstructs the flow of water and nutrients within the plant. The bacterium is transmitted and spread by xylem-feeding insects, such as sharpshooters, leafhoppers or spittlebugs.

Symptoms of bacterial leaf scorch include chlorotic mottling of the leaves that starts from the tips and margins and progresses toward the midribs (Figure 1). As disease develops, leaf tips and margins become necrotic (Figures 2 and 3). Severely infected plants defoliate and die.

Once a tree or a woody ornamental is infected, there is no cure. No chemicals are available to manage bacterial leaf scorch. Cultural practices that improve plant vigor, such as proper watering and fertilization, may help prolong the life of infected plants. Pruning symptomatic branches will not save the plant. Detection and removal of infected plants at early stages may help reduce the subsequent spread of the pathogen.

Symptoms of marginal leaf scorch are often attributed to other causes, such as salt injury (Figure 4) or water and heat stress.

Positive diagnosis of bacterial leaf scorch requires specialized testing of infected plants. The LSU AgCenter Plant Diagnostic Center is equipped with serological tests to diagnose this disease. Visit the center's website at www.lsuagcenter.com/plantdiagnostics to find information on submitting samples.

Dr. Raj Singh
Director of Plant Diagnostic Center



Figure 1: Chlorotic mottling of leaves caused by *Xylella fastidiosa*.



Figure 2: Necrosis of leaf tips and margins caused by *Xylella fastidiosa*.



Figure 3: Affected leaves exhibiting necrosis between main veins caused by *Xylella fastidiosa*.



Figure 4: Leaf necrosis caused by high sodium content in irrigation water.

Checklist for September, October and November



1. Begin preparing beds for fall planting.
2. Take soil samples from landscape beds and submit them to the LSU AgCenter Soil Testing and Plant Analysis Laboratory for analysis. Check with your parish LSU AgCenter extension office for more information.
3. Fall is a great time to plant hardy trees, shrubs, ground covers and vines.
4. Plant spring-flowering bulbs in your gardens from late October through early December. Exceptions are tulips and hyacinths, which must be refrigerated and planted in late December or early January.
5. Garden mums make a great addition for fall color. Check at your local retail garden center for availability.
6. Watch azalea plantings for early fall infestations of lace bugs. Control with acephate, horticultural oil sprays (bifenthrin, cyfluthrin or permethrin) and other recommended insecticides.
7. Build a compost pile out of leaves, grass clippings and remains from your vegetable garden.
8. September is a good time to divide and transplant Louisiana irises. Fertilize your irises in October.
9. Many of the summer-blooming perennials are finished or finishing up their floral display for the year. Cut back the flower stalks and old, faded flowers to keep the plants looking attractive.
10. October weather can be dry. Water plantings as needed. Pay special attention to any newly planted areas. It generally is best to water direct-seeded beds of flowers or vegetables lightly every day to make sure the seeds do not dry out.
11. Prune everblooming roses by early September.
12. Fall is an excellent time to plant many herbs in the garden. A few herb plants provide a lot of harvest, so don't plant more than you can use. Herbs to plant now include parsley, sage, thyme, dill, cilantro, rosemary, oregano, borage, fennel, nasturtium, French tarragon, chives, mint and catnip.
13. Trees that provide good to excellent fall color in Louisiana include baldcypress, Nuttall oak, Shumard oak, cherry bark oak, flowering pear, Chinese pistachio, ginkgo, Japanese maple, sweetgum, sumac, red maple, Southern sugar maple and hickory.



*Dan Gill
Consumer Horticultural Specialist*

Fall Vegetable Gardening

The fall season — from late August to early November — is a wonderful time to grow a vegetable garden. Generally speaking, insect pressure on crops planted after mid-September is greatly reduced, and diseases are typically easier to control.

This fall don't forget to plant these crops into your garden.

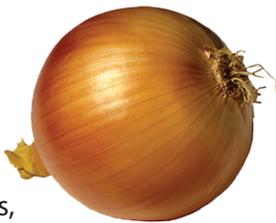
September

Beets, broccoli (T), Brussels sprouts (T), cabbage (T), Chinese cabbage (T), cauliflower (T), collards (S or T), endive, carrots, English peas, snow peas, garlic, kohlrabi (T), lettuce (S or T), mustard, onions (seeds, late September), parsley (T)*, snap beans*, radishes, rutabaga, shallots, spinach, Swiss chard (S or T), turnips and kale.



October

Cabbage (T), broccoli (T), mustard*, turnips, collards, kale, parsley, shallots, radishes, beets, spinach, leaf lettuce, Chinese cabbage (T)*, celery, onions, Swiss chard, garlic*, carrots and endive*.



November

Beets*, shallots, Swiss chard(T), spinach*, kale, radishes, mustard, carrots and turnips.



* Plant during the first part of the month.

(T) = Transplant

(S or T) = seeds or transplants.

Lettuce Get Started in the Garden

All types of lettuce (romaine, butterhead, leaf, and head) all grow well in Louisiana. Purchase fresh seed or transplants at a local nursery or online from major seed companies. Seed should be planted a one-eighth of an inch deep or less. Many varieties of lettuce germinate better if light can reach the seed. Cover lettuce seed with vermiculite or simply press the seed firmly on top of the soil and lightly water them in to achieve a good stand.

Outdoor temperatures are generally warm in early fall, so there is no need for a greenhouse to germinate lettuce seed. But if temperatures cool and you move seeds indoors for germination, remember to place the trays in full sunlight or in the sunniest window you have. All emerged seedlings need full sunlight or they will stretch. You know your seedlings are not receiving enough sunlight if the two cotyledon leaves are on top of a very leggy, thin, white stem.

The goal for all vegetable transplants, including lettuce, is to be short, stalky and darker green. Leaf lettuce can easily be directly seed into a well-prepared garden soil. But I find it best to start romaine, head and butterhead lettuces in smaller containers and then transplant them into the garden. Space head-type lettuces 12 inches apart. You can double-drill the row with 6 to 8 inches between drills. Plant lettuce transplants or seeds throughout the fall season rather than planting all lettuce on one day. This will help you lengthen the harvest period and not have too much lettuce to eat all at the same time. For example, if you have a row dedicated to lettuce, plant a third of the row in September, a third in October and a third in early November.

Leaf lettuce can be harvested by plucking individual foliage off the plant or by trimming the entire bunch back to 2 inches in height. Apply fertilizer on the harvest date and watch the lettuce re-emerge for a second harvest. Head lettuces are harvested once. Because there are so many varieties of lettuce available, it is important to know the average days until harvest. Read the seed packet carefully. It should tell you the average number of days between sowing and harvesting. Many lettuces are harvested between 45 to 80 days after sowing. Harvesting immature lettuce is fine as the taste will be acceptable. However, overmature lettuce becomes very bitter. Lettuce is overmature when it bolts and forms a flower stalk. Often, lettuce is overmature even before the flower stalk emerges. If you pinch off a leaf or two at the base of the plant and a milky substance seeps from the wound, the lettuce is overmature.

Although not scientifically proven, I have found that when harvesting whole heads of lettuce, keeping the roots attached to the head and rinsing roots free of soil will lengthen postharvest life. Insects to watch out for include snails, aphids and worms. Only spray insecticides after correctly identifying the culprit. Insecticides should never be applied preventatively. Good luck in the vegetable garden.



*Dr. Kathryn Fontenot
Vegetable Crop Specialist*



Tips for Growing Brussels Sprouts

Start Brussels sprouts from seed at the end of August. Use a germination mix and fill trays with the mix, then plant seeds. Remember to plant seeds two to three times as deep as the seeds are wide. Keep the media evenly wet and place trays in full sunlight. Once the sprouts have reached transplant size, which is about 3 inches tall, transplant them into the garden in a full-sun location. Space each plant 18 inches apart. As the sprouts grow, continue to keep them evenly moist and apply a water-soluble fertilizer once a week.

Watch out for worms on your Brussels sprouts. They love to eat the tender new foliage emerging from the top of the plant. Hand pick the worms off, or, if there is a severe infestation, dust the plants with Dipel dust or spray with an insecticide containing Bt.

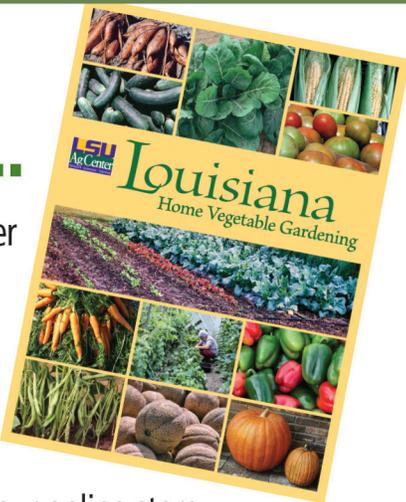
Brussels sprouts will continue to grow all fall and will be ready for harvest in January or February. Most mature Brussels sprouts will be about half the size of your thumb. Look for the Jade Cross, Hestia, Dagan, Franklin or Cobus varieties.

*Mary Sexton, M.S.
Extension Associate*



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Fall Lawns in Louisiana

Should You Fertilize in Fall?

Louisiana usually stays warm well into the fall, and lawns continue to grow until nighttime temperatures dip into the 50s. So be sure to mow and water your lawn as needed to keep it healthy.

More than likely it is time to put up your fertilizer spreader.

Fertilizing warm-season grasses during the fall with high-nitrogen summer-type fertilizers or winterizing fertilizers containing high levels of nitrogen is not recommended for Deep South lawns.

Stimulating fall growth of St. Augustine grass, centipedegrass and zoysia with nitrogen leads to increased large (brown) patch disease and winter kill. Bermudagrass may be fertilized into September, but I would not make any more applications of high-percentage-nitrogen-containing fertilizers after late August on St. Augustine grass, centipedegrass or zoysia.

If you would like to extend the green color in home lawns this fall, apply foliar iron spray or spreadable iron granules. This will give you a nice flush of green color without increased growth.



for the reasons discussed above. If a soil test calls for adding potassium, you can apply it during September while temperatures are still warm and the lawn is still growing. Very slow growth occurs as day lengths get shorter by late September and October.

An important fact to consider if you bag your lawn clippings: The removal of grass clippings from lawns can severely deplete the soil of potassium. Grass leaves and stems contain very high levels of potassium. Keep in mind that when a lawn is mowed appropriately, it is better to leave clippings to decompose on the lawn as a good source of turf nutrients, including potassium. Clippings from a lawn that is mowed regularly have only a small role in the overall buildup of thatch in turfgrass.

Speaking of Soil Tests ...

Fall is the best time of the year to get your soil tested by the LSU AgCenter Soil Testing Lab.

Soil testing really is the first step to a beautiful lawn next spring and is the best way to determine exactly what your lawn needs to become thick and healthy. If you haven't tested your soil in the past several years, do it now.

To test your soil, submit a pint of soil to the LSU AgCenter Cooperative Extension Service office in your parish. The pint should be a composite of soil samples collected from several different areas in the lawn. You only need to go about 4 inches deep. Also, to simplify the soil sampling and submission process, there are pre-addressed submission boxes with sampling instructions at several garden centers throughout the state. There is a small fee for testing.

The sample results will be sent to your home mailbox and email in about two weeks. An LSU AgCenter extension agent can help you interpret the results from the soil sample. The sample results may indicate that lime is needed to increase soil pH. If so, fall and winter are good times to apply lime because it takes several months to activate in the soil. Elemental sulfur may be recommended to reduce soil pH in alkaline soils.



Centipede brown patch

Do You Need to "Winterize?"

I'm sure that you have heard of winterizer fertilizers. Potassium, which is the last number in the analysis on fertilizer bag, is the nutrient associated with winter hardiness and increased disease resistance with turfgrass. There is definitely an advantage to having the correct amount of potassium in the soil. Get a soil test before applying high-potassium fertilizer, however, because there is no advantage to applying excessive amounts of this nutrient. If a soil test indicates that potash is lacking, choose a potassium-containing fertilizer with zero or a very low percentage of nitrogen during the late summer or early fall because we are not trying to stimulate growth

*Dr. Ron Strahan
Weed Scientist and Turfgrass Specialist*

Fruits

Pawpaw and Pomegranate: Two Unusual Fruit Crops for Louisiana

Pawpaw

Scientific name: *Asimina triloba*

OVERALL EASE OF CARE RATINGS

- Insect and disease pest control: Easy
- Weed control: Moderate
- Climatic adaptation: Good
- Pruning and training: Moderate
- Pollination requirements: Cross-pollination
- Chilling requirement: 250-850 hours
- Adaptation to hot/humid conditions: Good
- Cold hardiness: Good

Site and soil requirements: Native pawpaw trees are found growing in deep shade near rivers and creeks. Pawpaw trees grow best in bottomland soils with good drainage. Soil pH should be in the range of 5.5 to 6.0. Pawpaw trees are sensitive to soil pH greater than 7.0. Although pawpaw trees will tolerate shade, fruit production is limited with increasing shade. For best fruit production, trees should be planted in an area that receives full sun or at least six hours a day during the growing season.

Irrigation requirements: Irrigation is important in tree establishment and growing a large tree for fruiting. Also, additional water applied as the fruit begins to ripen will dramatically increase fruit size.

Plant spacing and mature canopy size: Trees are generally spaced at least eight to 12 feet apart in rows 15 or more feet apart. A mature tree will have a spread of 6 to 8 feet. Space is needed between trees to maintain the orchard and allow for air movement. Crowding trees close together reduces air movement and reduces sunlight to fruit buds.

Years to bearing: Three to four.

Potential yield: 5 to 40 pounds per tree.

Planting stock: Best stock is a dormant, 3-year-old, container-grown plant that stands about 3 to 4 feet tall. Plants less than 3 feet tall are sensitive to direct sunlight and usually struggle to survive when planted in the open field. A shade structure may be needed until plants are 3 to 4 feet in height.

Varieties: There are a limited number of pawpaw varieties offered through local nurseries. Local pawpaw seedlings are frequently offered for sale and can make a productive tree.

Establishment: Site selection and establishment should begin several months prior to planting the tree. Surface drainage can be accomplished by constructing furrows and ditches to remove the water from the area.



Fertilization: Preplant fertilization is important in establishing a strong, productive tree. In sandy soils with low native nutrient levels, 2 to 3 pounds of a fertilizer with high potassium levels are incorporated into the planting site two to three months prior to planting.

Pruning and training: Pawpaw trees are usually trained to a modified central leader system. The first year, remove all lateral growth from ground level to up to 18 to 24 inches. Arrange the lateral limbs around one central stem. Prune around the central leader in such a way as to leave a lateral limb every 6 to 8 inches. The limbs should be arranged in a spiral formation. The first growing season is important in establishing the framework of the tree. Several light prunings may be necessary the first growing season to establish the framework of the tree. In the second and subsequent years, light pruning each winter is done to allow sunlight to the interior of tree

Major insect pests: Scale

Major disease pests: Leaf spot



Pomegranate

Scientific name: *Punica granatum*

OVERALL EASE OF CARE RATINGS

- Insect and disease pest control: Moderate
- Climatic adaptation: Good
- Pruning and training: Light to moderate
- Pollination requirements: Self-fertile
- Chilling requirement: 250-450 hours
- Adaptation to hot/humid conditions: Fair to good
- Cold hardiness: Good

Site and soil requirements:

Pomegranates are large shrubs or small trees. Pomegranates grow best in sandy soils with good internal and external drainage. Soil pH should be in the range of 6.0 to 6.8. The site should receive eight hours or more sunlight each day. Soil amendments if needed should be applied to the tree site well in advance of planting.

Irrigation requirements:

Irrigation is important in tree establishment and growing a large tree for fruiting. Also, additional water applied as the fruit begins to ripen will help prevent premature dropping and increase fruit size.

Plant spacing and mature canopy size: Plants are generally spaced about 8 feet apart. A mature shrub will easily have a spread of 6 to 10 feet. Space is needed between trees to allow for air movement. Crowding plants close together reduces air movement around the canopy and increases problems with fruit diseases, such as anthracnose, and insects, such as stink bugs.

Years to bearing: Three.

Potential yield: 10 -30 pounds per tree.

Planting stock: Best stock is a 1 or 2-year-old, container-grown old shrub. Select a plant with three to five upright stems. Be sure to check the root ball and cut any coiled roots.

Varieties: There are only a few varieties of pomegranate from which to choose. The Wonderful variety is by far the most prominent variety offered through the nursery trade. The Wonderful variety is adapted to the Gulf Coast area. Many ornamental type pomegranates exist in the nursery trade and sometimes confused with fruiting types. Most fruiting-type pomegranates have a single set of petals in the flower. The ornamental types usually have two or most sets of petals in the flowers, which enhance the ornamental value.

Establishment: Site selection and establishment should begin several months prior to planting the shrub. Drainage issues and soil amendments, such as lime, are added if needed at least three months prior to planting. Actively growing roots cannot survive in saturated soils for a long period of time. Surface drainage can be accomplished by creating ditches to remove the water from the area. The site should receive at least eight hours of full sunlight for the plant to be productive.

Fertilization: Preplant fertilization is important in establishing a strong productive tree. In sandy soils with low native nutrient levels, fertilizer needs to be applied at least one month prior to transplanting. In soils high in nutrients, very small amounts or no preplant fertilizer is needed. A soil test is needed to determine the nutrient status of the planting site.

Pruning and training:

Pomegranate plants are medium-sized shrubs and are usually trained to a multi-trunk (four to six trunks) plant. Remove all lateral growth from the ground level up 24 to 30 inches on each trunk. As the plant develops, most lateral growth from the main trunks is removed, leaving evenly spaced branches that do not overlap other branches. The three to five main trunks are cut back at about 8 feet from the ground level for maintenance and harvesting. Basal shoots should be removed during the growing season to promote growth. Some pruning and tying with string for support for the first three or four years may be needed to support the developing bush. Pomegranate plants will need some pruning each winter to maintain shape and good fruit bearing surface.

Major insect pests: Stink bugs, aphids.

Major disease pests: Anthracnose.

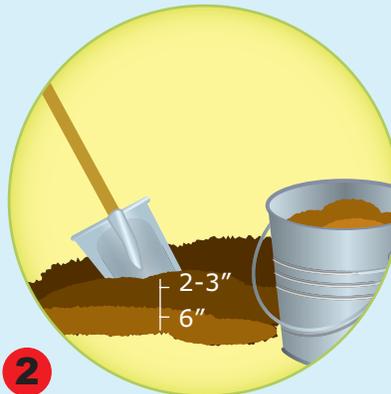
*David Himelrick, Ph.D.
Fruit Crop Specialist*

How to Take a Soil Sample

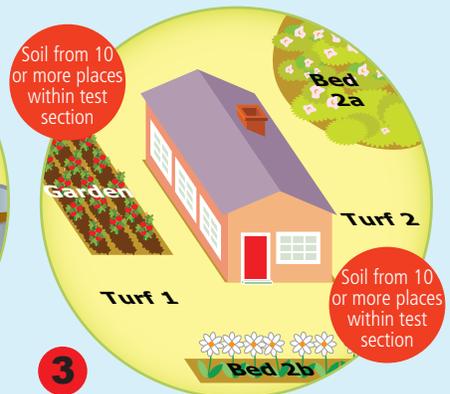
The LSU AgCenter Soil Testing and Plant Analysis Laboratory is the only laboratory that incorporates the latest Louisiana-specific soil fertility research in its recommendations system. The lab offers testing for nutritional status of plants, irrigation and pond water. Soil test kits are available at local garden centers or your parish LSU AgCenter extension office. Kits include directions for gathering soil samples, a soil test request form, a sealable plastic bag and a pre-addressed, postage-paid box.



1 Divide area into sections to be tested on basis of slope, type of plants to be grown or other variations.



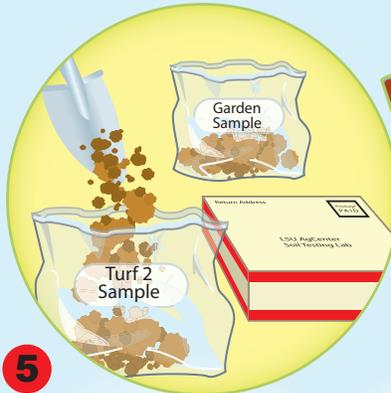
2 Sample to depth of 2-3 inches for turf and 6 inches for cultivated beds.



3 Take soil from at least 10 places in each section to be tested to obtain a representative sample.



4 Combine soil for section to be tested. Mix soil thoroughly. Soil for each test section should be kept separate.



5 Place one pint of soil in a sealable plastic bag for each section to be tested. Label each bag according to soil test request form. Sample boxes are available from your parish LSU AgCenter extension office or local garden center.



6 Fill out the soil test request form, place it in the box and put the pre-addressed, postage-paid box in the mail.



LSU AgCenter Soil Testing
and Plant Analysis Lab
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LSUAgCenter.com/SoilTest

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

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Prepared by:

Jeb Fields, Ph.D., Commercial Ornamental Horticulture

Kathryn Fontenot, Ph.D., Community/School Vegetable Gardens

Dan Gill, Consumer Horticulture

David Himelrick, Ph.D., Fruits

Ron Strahan, Ph.D., Lawns

Mary Sexton, M.S., Vegetables

Raj Singh, Ph.D., Plant Pathology and Plant Physiology

School of Plant, Environmental and Soil Sciences
155 J. C. Miller Hall - LSU, Baton Rouge, Louisiana 70803
(225)578-2110; Fax: (225)578-1403

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