

Horticulture Hints



**Summer
2018**

Landscape Gardening and Ornamentals

Roses in Summer

Although they grow well in our climate, roses are not particularly happy during the intense heat of a Louisiana summer. Proper care is important as roses enter this most stressful time of the year.

Pruning

Repeat-blooming roses should not be pruned hard during the summer. The next major pruning of everblooming roses will be in late August. Pruning then will stimulate abundant new growth for the outstanding fall blooming season.

You can manage the size of a rose bush to some degree during the summer by pruning off faded flowers (deadheading) with longer stems. Cut back to the second or third five-leaflet leaf below the flower or flower cluster.

Watering

The intense heat this time of year can dry out beds surprisingly quickly. Roses planted this year need a regular deep watering whenever we go about a week without a good rain. A "good rain" means receiving one-half inch to 1 inch of rain. Do not count brief rain showers.

Established roses are remarkably drought tolerant and generally do not require a great deal of supplemental irrigation. However, during exceptionally dry periods, when rain has not fallen for two weeks or more, you may deeply water roses in the landscape once a week as needed. The major problems we've seen with Knock Out roses are often associated with excessive irrigation.

Use an irrigation method that avoids wetting the foliage. If you must wet the foliage, irrigate during

the morning or when the foliage will dry rapidly. This will reduce disease problems.

Fertilizing

Roses generally do not grow as well, bloom as grandly or look as attractive during the intense heat of mid- to late summer. Many gardeners interpret the lower vigor and poor-quality flowers to mean that the roses need more fertilizer. Heat is the issue, however, and roses actually need less fertilizer in late June, July and early August. Be moderate in fertilization if you do any at all. The next-best time to fertilize roses will be in late August when they are pruned.

Pest Control

For roses highly susceptible to black spot, a weekly spray program is important through the summer months. Fungicides labeled to control black spot must be used regularly. This is not a disease you can spray for on an as-needed basis. Be sure to follow the label recommendations carefully.

Weeds

Keep beds well mulched to minimize weeds. For growing weeds, hand weed or spray them with glyphosate (KillzAll, Eraser Weed and Grass Killer, Roundup and other brands). It is critical that none of the spray or drift contacts the foliage or stems of the roses. Spray on a calm day. It's a good idea to place a barrier between a rose bush and the weeds you are spraying.



*Rosa hybrida Dorothy Perkins,
a Rambler*



A Matter of Control

When you think about it, gardening in the summer landscape is largely about control. We have to control the lawn by mowing regularly. We have to control weeds by hand pulling, hoeing or herbicides. We have to control outbreaks of insects and diseases as needed. And we have to control the size and shape of enthusiastically growing plants in our landscape by pruning. Doesn't this pretty much sum up where most of your gardening time goes during the summer?

Weeds

You should not allow weed problems to get out of hand before dealing with them this time of year. Beds that are well maintained, where weeds are promptly and properly dealt with, become easier to maintain and keep weed-free over time. By never allowing the weeds the upper hand, you limit production of weed seeds, rhizomes and bulbs, and, in doing so, you also reduce future problems. Beds where weeds are allowed to run wild before a gardener decides it is time to step in will continue to have major weed problems, and they may actually get worse despite the gardener's occasional efforts.

Stay on top of weed control but minimize the amount of hand weeding needed by keeping all of your beds well mulched. Make sure you mulch beds of flowers and vegetables 2 inches thick. Around larger shrubs, you should mulch 2 or 3 inches thick. If you use mulches around trees, they should be about 4 to 6 inches thick.

Pruning

To reduce summer pruning chores, always make sure you know the mature size of every tree and shrub you plant in your landscape before you plant it. Fighting with shrubs that grow too large for their location summer after summer for the rest of your life is not necessary.

If you plant a shrub that will grow larger than desired, prune it promptly when it reaches the preferred size. Don't allow a shrub to become really overgrown and then cut it back hard. If you let a shrub get overgrown, the root system enlarges to accommodate the large shrub. When you cut it back, the large root system will

cause the shrub to produce rampant new growth and rapidly get too big again. Keeping a shrub the right size limits the size of the root system and makes it much easier to maintain the desired height and width.

You also need to control yourself. Control the time you spend outside. Don't get out and try to do too much or work for too long in this debilitating heat. Try to do a little every day when it is cooler and stay on top of things. But you should do what you need to do and be timely about it. Self-control also means making yourself get out of that nice air-conditioned house and into the yard.

Shroom Boom

Saprophytic fungi are beneficial organisms that decay dead organic matter. They contribute to a healthy soil and garden. Saprophytic fungi are always present in our lawns and gardens, quietly decaying organic matter. We just don't usually see them — although you may occasionally see the white threads of saprophytes when you move decaying mulch or compost. But after a generous period of rainfall in summer, many of these fungi make their presence known by sending up mushrooms — lots and lots of mushrooms.



It's important to understand that the mushroom is not the fungus. It is simply a growth from an organism living in the soil and the layer of organic matter on the surface. Mushrooms are the reproductive structures (called "fruiting bodies") of certain fungal organisms. Their role is to produce spores and release them. You can kind of think of them like flowers.

A rose flower is produced by the rose bush. You can pick a flower from a rose bush, but the bush is still there and will produce more flowers. Just like this, you can remove the mushrooms you see, but the organisms producing them are still there. Simply removing the mushrooms does not keep them from coming back.

These fungi and the mushrooms they produce are not harmful to your lawn or other plants in your yard, and there is no need for concern in that regard. It is remotely possible some of the mushrooms may be poisonous. So, in cases where pets or small children may have a chance to consume them, they should be promptly removed when they appear. For everyone else, ignore them or mow them down.

There are no practical treatments to kill off the fungi that produce the mushrooms. The fungicides available for controlling pathogenic fungi that attack our plants will not be effective, so you simply waste money and time if you use them.

Where you see mushrooms growing relates to the amount of organic matter available to the fungi and where, by chance, spores land and grow. So, you do see variation from yard to yard and area to area in the same yard.

As you encounter mushrooms in your lawn and gardens over time, remember they are generally harmless and can be ignored for the most part as long as you watch young children and pets. They are a nuisance, not a catastrophe.

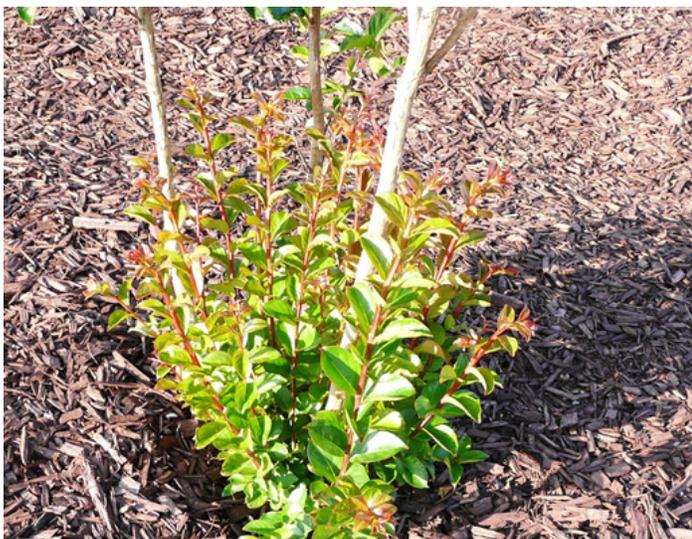
Hey, Sucker

One of P. T. Barnum's most well-known quotes is, "There's a sucker born every minute." Of course, he wasn't talking about plants, but that famous saying certainly applies to some very popular trees in our landscapes.

Suckers are shoots that grow up from the base of the trunk or roots near the base of a tree. They are a problem because trees that produce suckers look messy and less attractive if the suckers are allowed to grow. Eventually, the tree may look more like a big shrub. Commonly grown landscape trees that tend to produce suckers include crape myrtle, wax myrtle, river birch, vitex, yaupon holly, deciduous holly and others.

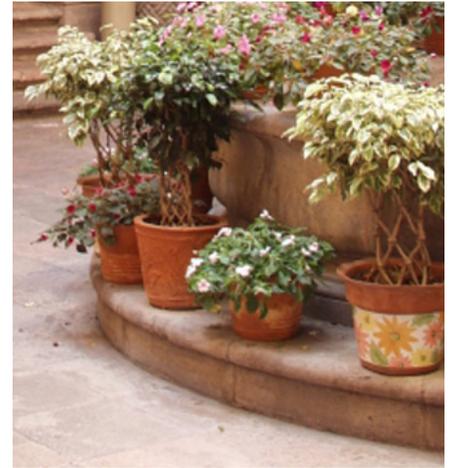
The best way to deal with suckers is to remove them promptly and properly. Do not allow suckers to grow more than 6 to 12 inches tall before you remove them. It is critical for you to cut them off at their point of origin at the trunk or even below ground. Do not leave a stub. Every stub will sprout multiple suckers.

If you find a tree grows suckers constantly and keeping the suckers under control by pruning is a problem, you might try a sprout inhibitor. These products are applied to the base of the trunk after the suckers have all been removed, and they inhibit the growth of new suckers for a year or more. Monterey Sucker Stopper is a ready-to-use product available at nurseries and garden centers and online.



Give Pots a Lift

Most gardeners use containers full of plants on porches, patios and decks. When these pots are allowed to sit directly on the porch or other surface, they can cause the surface to become discolored or stained. In the case of a wooden deck, the moisture trapped under the pot can also lead to decay.



When pots sit directly on gravel or soil — or even brick laid in sand — plants can send roots through the drainage holes and down into the soil. If you don't realize this has happened, you may find a large root system has grown down into the ground when you try to move the plant. This is a bad situation. The roots in the ground have to be cut off to pick up the pot, and the plant will not like it one bit.

To eliminate both of these problems, lift your pots up off the surface they are sitting on. This can be accomplished with pieces of brick or stone. You can also purchase "pot feet" at your local nursery. These can be utilitarian, elegant or even fanciful, and you can pick out what suits your taste and situation.

Summer Solstice

The summer solstice this year is June 21. This day has the longest period of light and the shortest period of dark. Since the spring equinox on March 20, when we had about 12 hours of light and 12 hours of dark, the days have been getting longer and longer. Now, as we pass the summer solstice, the days will begin to get shorter and the nights longer.

The different lengths of night through the year — shorter in the summer and longer in the winter — are important to gardeners. Many plants measure the hours of uninterrupted darkness in a day and respond to it. These plants are called photoperiodic. Some plants, called long-day plants, bloom only when the nights are short. These include summer and late-spring flowering plants like black-eyed Susans, coneflowers, lettuce and spinach. Other plants known as short-day plants bloom when the nights are long. These include fall- and winter-blooming plants like chrysanthemums, poinsettias and Christmas cactuses. The lengthening nights of fall tell deciduous trees it's time to prepare for winter and drop their leaves.

By manipulating the number of hours of darkness they are exposed to in greenhouses, growers can induce plants like chrysanthemums to bloom year-round as potted plants or cut flowers. And poinsettias and Easter lilies can be perfectly timed to bloom for the holidays.

Checklist for Summer



- Control thrips, aphids, cucumber beetles and spider mites on roses by using a recommended insecticide or miticide. Also continue blackspot control for highly susceptible varieties by using a recommended fungicide at seven- to 10-day intervals.

- When irrigating, water the soil area thoroughly. Try to irrigate less often but irrigate well each time. Light, overhead sprinkling is not the best way to water.

- Continue to plant warm-season bedding plants, such as Mexican heather, ornamental peppers, ornamental sweet potatoes, angelonia, coleus, impatiens, periwinkle, cosmos, begonias, pentas, globe amaranth, ageratum, salvia Victoria, marigolds, portulaca, blue daze, perennial verbena, purslane, dusty millers, rudbeckia, abelmoschus, narrow-leaf zinnias, Profusion zinnias, wishbone flowers, caladiums, balsams, gerbera daisies, gaillardia, celosia, lantana, scaevola, melampodium, butterfly weed, shrimp plants, cleome, four o'clocks, perilla, hardy hibiscus (mallow), sunflowers, salvia and cigar flowers.

- Plant sunflowers in late summer for fall flower arrangements. Flower colors include yellow, orange, red, bronze, white and combinations of these. It usually requires about 60 to 80 days from sowing seed until first flower color.

- Prune azaleas no later than mid-July. Pruning azaleas after midsummer may remove next season's developing flower buds. This applies to most spring-flowering shrubs as well as hydrangeas and gardenias. Encore azaleas are an exception. They should be pruned immediately after they finish the spring bloom period.

- In early summer, gardenias may have aphids, whiteflies and the associated black sooty mold. For optimum plant performance, control the insects with acephate, imidacloprid or a summer horticultural oil spray.



- Camellias and azaleas need care to set a good crop of flower buds for next year. Healthy, vigorous plants will set buds, but weak plants may not. If plants lack vigor, fertilize, provide moisture during stressful periods and control pests. Remember that these acid-loving plants need a pH of 5.5. Submit a soil sample to your parish LSU AgCenter extension agent if you are unsure of your soil situation.

- Louisiana irises are semi-dormant in the late summer. Prune off seedpods and yellow or brown foliage to help keep the plants more attractive. You may transplant or divide Louisiana irises beginning in August.

- Cut faded flowers from flowering annuals and perennials to encourage new growth and flowers. Old blooms and seed heads left on the plants can retard continued flower production.

- High temperatures and high humidity create a high heat index here in the summer. Adjust your gardening schedule to take advantage of cooler times of the day. With today's concern for sun-related skin cancer, wear a wide-brim hat and sunscreen when gardening in the sun. Remember to drink plenty of water.

- Remember to harvest herbs such as mint, basil, rosemary, lemon balm and Mexican tarragon regularly to keep the plants shapely and under control. Some herbs, such as thyme, sage and lavender, tolerate heat and rain poorly and may not be doing well now as a result.

- Fine, silvery webbing appearing on the bark of trees during summer and fall is completely harmless. The webbing is produced by tiny scavenging insects called bark lice. There is no need to spray with insecticides.

- Prune everblooming roses back about one-third their height in late August or early September. Also remove any dead canes and weak, spindly growth. This pruning prepares the roses for the outstanding blooming season in October and November. Do not cut back once-blooming roses that only bloom in spring and early summer and stop, as you will reduce flowering next year.

- Small, yellow aphids on your butterfly weed or milkweed (*Asclepias curassavica*) will not damage the plants or affect the feeding of adult and larval monarch butterflies. Do not attempt to control them as this may adversely affect the caterpillars.

- Summer rains will encourage the growth of weeds right along with the ornamentals in your garden beds. Do not let weeds get out of hand before dealing with the situation.

- Keep caladiums well-watered during hot, dry weather to keep the foliage in good shape through the summer. You may apply a fertilizer now to encourage vigorous growth. Break off any flowers that form.

Dan Gill
Consumer Horticulture Specialist

Plant Pumpkins in Summer for a Fall Harvest

Pumpkins come in several sizes and colors and are a popular fall decoration. Try planting some this summer! The ideal time to plant pumpkin seeds is from mid-June to July 4. This should give you pumpkins by Halloween. The best varieties for Louisiana are the ones that get no bigger than 40 pounds. Recommended varieties for mid-size pumpkins are Cargo, Darling, Charisma and Magic Lantern. For a small pumpkin, look for the varieties Early Abundance, Sunlight (yellow) and Orange Smoothie.

Pumpkins are a great choice for kids to plant because the seeds are so large and easy for them to handle. Choose a sunny spot that gets at least six hours of direct sunlight to grow your pumpkins. Plant seeds in a hole about 1 inch deep. Remember to dig a hole two to three times as deep as the seed is wide. Water after planting seeds and water regularly from planting until harvest. Watering will be crucial in the summer months when the soil dries out quickly. Pumpkins grow into huge, sprawling vines, so space seeds at least 4 feet apart.

Watch out for worms! They are the pumpkin's worst enemy. If you see worms, pick them off by hand or spray with a *Bt* insecticide.



Vegetable Gardening

Welcome, warm weather! This is not usually a phrase many people in Louisiana would utter. However, spring 2018 proved even cooler than spring 2017. Into late April we were still experiencing cool night temperatures and even some cool day temperatures. All across the state early planted cucurbits, tomatoes, peas and more were showing symptoms of cold damage. Many crops had to be replanted, while others thrived, such as early spring cole crops, including broccoli, cabbage and mustards. Mother Nature keeps gardeners on our toes! Now, let's look forward to an excellent summer season.

June

- Mid-June, plant heat-set tomatoes. Planting heat-set tomatoes is VERY important. These cultivars have been bred to set fruit during high nighttime temperatures when other cultivars will not. If managed correctly, heat-set tomatoes will produce fruit until a frost or freeze. Preferred heat-set varieties include Bella Rosa, Floralina, Heatwave II, Phoenix, Florida 91, Solar Fire, Sun Master, Sunbeam, Sunchaser, Sunleaper and Talladega. Heat-set tomatoes can be planted again in late July for fall tomato production.
- Collard greens, cucumbers, edamame, watermelon, cantaloupe, okra, Southern peas, pumpkins and summer squash can all be direct-seeded into the garden.
- Start transplants of eggplants, peppers and sweet potato slips during June as well.

July

- Transplant fall heat-set tomatoes and bell peppers. Direct-seed okra, Southern peas, cucumbers, squash, cantaloupe, pumpkins and watermelons throughout July. Late June through mid-July is the optimum time to plant pumpkins for a Halloween harvest.
- LATE July through early August is a good time to start thinking about your fall garden. Order broccoli, Brussels sprouts, cauliflower, Chinese cabbage, cabbage, collard green, mustard green, kale, turnip, radish and other fall crop seeds. If you want an early September planting of these crops, start seed in seedling trays in early August. Start your seed outdoors in a sunny area that is protected from getting trampled on. Greenhouses or cold frames are not necessary for growing fall transplants. But you need to water transplants daily. Start seed five to six weeks prior to the desired transplant date for broccoli, Brussels sprouts, cauliflower, Chinese cabbage and cabbage. Greens such as kale, Swiss chard, mustard and collards can be started as transplants or directly sown into the garden.

August

- Plant bush snap beans and bush lima beans throughout August.
- Transplant broccoli and Brussels sprouts as early as mid-August in the garden. In North Louisiana start your lettuce seed and plant beet and Irish potato seed in the garden.
- In late August, south Louisiana gardeners can start their lettuce seed and plant beet and Irish potato seed into the garden. All gardeners, regardless of location, can plant transplants of broccoli, Brussels sprouts, cauliflower, Chinese cabbage, cabbage, cucumbers, squash, mustard greens and shallot sets in late August. Be cautious when doing this because insect pressure and heat are very high. Planting an early fall garden in late August requires time, care and scouting. Don't go on a vacation!

Crop Highlights

Broccoli and cauliflower. Both can be direct-seeded from mid-July through September or transplanted from early August through early September. It takes four to six weeks to produce transplants from seed. In general, broccoli and cauliflower require 5 to 6 pounds (or pints) of a complete fertilizer, such as 8-24-24 or 13-13-13, per 100 feet of row (about one-half pound for 10 feet of row). These crops, especially cauliflower, require fast, continuous growth for proper head development. Keep them sufficiently watered and fertilized. Side-dress plants with 1.5 pounds (3 cups) of calcium nitrate per 100 feet of row three weeks after transplanting and again two weeks after that. Most varieties will produce approximately 60 days from transplanting.



Recommended varieties:

Broccoli

- Gypsy, Diplomat, Packman, Everest, Castle Dome, Green Magic

Cauliflower

- Majestic, Candid Charm, Cumberland, Snow Crown, Freedom

Cabbage. Plant seed in mid-July and continue to seed through September. You may also transplant beginning in early August through mid-October. Fertilize the same as broccoli and cauliflower. Space cabbage, cauliflower and Chinese cabbage about 12 to 16 inches apart and broccoli 12 inches apart. Double drilling (two drills of plants spaced 10-12 inches apart on a single row) will help maximize yield.

Snap beans. Late August through early September is the best time to plant snap beans. Normally

50 to 55 days are required from planting until harvest. Water beans often. Good varieties are Provider, Roma II, Bronco, Royal Burgundy, Green Crop, Strike and Caprice. For a yellow wax bean, choose Golden Rod Wax. Bush beans usually will produce more successfully than pole beans during the fall because of their earlier maturity. Plus, you don't have to trellis them — an added bonus in the heat ... in my humble opinion.

Lima beans. This crop is harder to produce than snap beans during the fall. Plant early enough to produce before frost and late enough so they're not blooming while temperatures are too high for fruit set. Plant from early-August through about mid-August. Plant bush beans for fall production.

Recommended varieties:

- Henderson, Thorogreen, Jackson Wonder or Dixie Butterpea



Irish potatoes. Plant small whole potatoes saved from the spring crop from mid-August to early September. Good soil moisture is essential. The seed potatoes may not sprout readily after planting because of a 90-day physiological rest period after harvesting during the spring. After this rest period is satisfied, the tubers should sprout. Fall yields are lower than spring yields. Use the smaller potatoes you harvested for seed pieces.

Squash and cucumbers. These two crops can be planted in June, July and August. Summer plantings are harvested in roughly six weeks. Yields usually are lower than spring plantings. A fall crop of yellow summer squash, zucchini and cucumbers can be grown by planting seed during August. Squash vine borers may be a more severe

problem during fall than spring, so be prepared to control them with an insecticide or use floating row covers until the plants start to bloom. After they bloom, remove covers to allow pollinators to visit crops. Viruses are a problem during the fall.

Pumpkins. Pumpkins for Halloween should be planted from late June to early July. Apply 3 to 5 pounds of a complete fertilizer (13-13-13) for every 100 feet of row before planting (0.3-0.5 pounds per 10 feet of row). Plant five to six seeds in hills about 4 to 5 feet apart on rows 6 to 8 feet apart. Thin to one or two plants per hill. Apply a side-dressing of 2 pounds of calcium or potassium nitrate per 100 feet of row when vines begin to run. If you planted just a few hills, simply apply a tablespoon of calcium nitrate per hill as a side-dress fertilizer. Keep soil moist for best production. Sunlight, Darling, Orange Smoothie, Cinderella, Silver Moon and Conestoga are excellent varieties to grow for Halloween. Recommended varieties of giant pumpkins are Atlantic Giant and Prize Winner. However, growing giant pumpkins is difficult because of disease pressure and our hot and humid climate. WATCH for worms, slugs and snails. Spray insecticides when you start to see these insects.



Greens. Begin planting greens (mustards, turnips and collards) during August. Keep the soil moist to ensure a good stand. If the greens aren't sprouting, you might have a lot of clay in the soil. This can form a hard crust. If this happens, reseed and lightly cover seed with a fresh potting mix. Doing so will allow tender seedlings to break through the soil. Try Tender Green, a heat-tolerant mustard green.

Shallots. Dry sets of shallots can be planted from August to April. About 50 to 60 days after planting,

tops will be ready to harvest. As bunches widen greater than 8 or so inches, dig them up, thin and replant.



Fall bell peppers. If plants from the spring are still in good condition, they can be nursed (sprayed or dusted and watered) throughout summer. They will set fruit again as the temperatures become more favorable. If seeds of bell peppers haven't been planted by early June, use transplants.



Fall tomatoes. Transplant fall tomatoes in late-June and July. Be prepared to spray with insecticides and fungicides. Insect and disease pressure usually is worse during the fall than the spring. Row covers protect the plants from the first frost, may prolong harvest and may enhance fruit maturity. Fall tomatoes aren't a reliable crop, so try some early varieties. Certain varieties may produce better in some parts of the state than others because of the variation in climate and soils. Start early and get a strong bush.



Lettuce. Lettuce is really hard to grow in the summer. Waiting until fall is ideal. But if you must plant lettuce in August, plant it thick and harvest early. Allowing lettuce to grow until mature size often leads to a bitter, bolted lettuce.

Recommended varieties:

Head lettuce

- Ithaca

Leaf lettuce

- Slobolt, Red Salad Bowl, Grand Rapids, Red Fire, Tango, Red Sails, Salad Bowl, Sunset, Simpson or Elite

Romaine lettuce

- Parris Island, Green Forest and Green Towers

Butterhead or bibb lettuce

- Buttercrunch, Esmerelda or Oak Leaf

Batavia types (leaf lettuce with a unique flavor)

- Nevada or Sierra

Importance of Garden Preparation

Soil preparation is extremely important. Many crops listed in our vegetable hints are direct-seeded into the garden, such as peas, beans, melons and cucumbers. Seed germination happens when a seed has proper moisture and contact with the soil to physically break the seed coat and send out roots and a shoot. Germination almost always occurs unless the seed is old or bad from improper storage. But seed emergence — when the seedling physically pushes above the soil line — does not always occur.

Emergence is highly dependent on how well you have prepared your soil. Disregard fertilizer for a moment. Cotyledons are located inside all seed. Dicots have two cotyledons, and monocots have one cotyledon. The cotyledon is usually the first leaf or set of leaves to emerge from the seed. They are not actually true leaves. The cotyledons' purpose is to store energy or food for the seed before it emerges and can begin the process of photosynthesis. When a garden is not well prepared, emergence takes too long, and the energy in the cotyledon is used up before the plant can begin photosynthesis, giving the appearance that the seeds did not germinate. Large clumps of clay, big cracks in the ground and crop residue from the last garden all inhibit seed emergence.

A seed should be planted in loose soil so it can easily penetrate and reach the surface. However, rows or the surface of the soil should be shaped or gently smoothed tops so that large cracks do not allow the seed to slip too deep into the soil or allow too much air around the seed. You need the soil to physically touch the germinating seed. Large crop residue or weeds emerging prior to the crop emerging all impede seedling emergence. So take your time and really work the soil before planting. Even soil in raised beds and containers should be flipped, chopped and smoothed prior to seeding a crop.

Tips for Preparing to Plant a Garden

- Run a soil test to make sure pH is ideal.
- Chop the ground, till it into form rows and then shape or smooth row tops.
- Apply fertilizer and water a week before planting.
- Seeds should only be planted twice as deep as they are wide.
- Use fresh seed or seed that has been stored in a refrigerator or freezer.
- Keep the ground moist until emergence occurs.

*Dr. Kathryn Fontenot
Vegetable Crop Specialist*

Turgrasses and Lawns

Tips for Summer Care of Turfgrass

Summer is the peak growing season for lawns in Louisiana. If you did not fertilize your lawn during the spring, you still have time to fertilize and get your lawn in good shape prior to fall. Keep up a good fertility program through early to late August. Remember to apply all granular materials on a dry lawn and water very soon after application. Make sure lawns are getting adequate amounts of moisture during the summer months, but don't overwater. Water deeply only once or twice per week or as needed based on the amount of rainfall.



Fertilizing the Lawn

St. Augustine grass and zoysia both respond well to fertilizer applications. St. Augustine grass may be fertilized up to three times during the growing season — April, June and mid-August. Fertilize zoysia twice per growing season, in April and again in July.

Bermudagrass is an even bigger fertilizer user and can be fertilized three to five times during the growing season, especially if you like to mow grass. Carpetgrass and centipedegrass are not big fertilizer users. Usually two applications (April and July) will take care of centipedegrass, and one application (April) will be sufficient for carpetgrass.

Centipedegrass should receive its second and final fertilizer application in July. For centipedegrass, apply only one-half pound of actual nitrogen per 1,000 square feet. For example, apply 3 pounds of 17-0-17 per 1,000 square feet or 5 pounds of 10-0-10 per 1,000 square feet. St. Augustine grass would need 6 and 10 pounds of the aforementioned fertilizers.

If your lawn is not performing well, there could be a nutrient deficiency in the soil. The only surefire way to know what your soil needs is to collect a soil sample and submit it for testing at the LSU AgCenter Soil Testing and Plant Analysis Lab. In order to simplify the soil sampling and submission process, there are pre-addressed submission boxes with sampling instructions at several garden centers throughout the state and at your local parish extension office. Once submitted, the results will usually be sent to your home mailbox and email in less than two

weeks. Your parish LSU AgCenter extension agent can help you interpret the results from the soil sample and tell you exactly what's needed nutrient-wise to make your lawn beautiful.

Correct Mowing Heights Are Highly Important

You may not know this, but there is a correct mowing height for your lawn. St. Augustine grass is very finicky when it comes to mowing height. Don't cut it too short, and don't allow it to get too tall. It likes to be maintained around 3 inches, the tallest mowing height of all the lawns grown in Louisiana. If you cut St. Augustine grass too short, it becomes stressed and more prone to disease and weed infestations.

Centipedegrass is often maintained too tall. Centipedegrass should be mowed to 1 to 1 ½ inches. This helps prevent thatch buildup. Zoysia also likes to be mowed in the 1 to 1 ½-inch range. Bermudagrass should be mowed from 1 to 2 inches. Shorter mowing heights are better when more frequent mowing is possible. Keep mower blades sharp to ensure a clean cut and good lawn health.

Insect Pests

Watch for chinch bugs in St. Augustine grass and bermudagrass lawns and treat with an AgCenter-recommended insecticide, such as bifenthrin. Chinch bug problems show up as yellowish-brown to straw-colored areas of the lawn during hot, dry weather. These insects extract plant juices from turfgrass stems and crowns while pumping toxic salivary fluids into the plants. The fluids disrupt the plant's vascular system. The damage actually resembles herbicide damage.

Check for chinch bugs in the lawn by saturating suspected areas with a gallon of water mixed with a few squirts of lemon dishwashing soap. This soapy solution irritates chinch bugs and brings them up near the grass surface so you can see them and determine if the bugs are causing the lawn damage.



Armyworm

Additional insect problems that appear during the summer include armyworms and tropical sod webworms. These moth larvae, or “worms,” can cause severe lawn damage very quickly and will need to be killed with insecticides to prevent further damage. Last year tropical sod webworms devastated St. Augustine grass and carpetgrass lawns. Bifenthrin would be a good insecticide option for tropical sod webworms and armyworms infesting the lawn.

Be mindful of these pests as you walk through your lawns. Investigate damaged areas and treat accordingly.



Virginia Buttonweed

In late spring to early summer, Virginia buttonweed starts forming mats that can eventually smother out the lawn. Pull up small populations of Virginia buttonweed or carefully treat with herbicides like metsulfuron (TopShot, Mansion, MSM Turf) or Celsius. These herbicides work well with repeated applications spaced four to six weeks apart. Metsulfuron and Celsius can be safely applied on St. Augustine grass, centipedegrass, bermudagrass and zoysia during warm weather. Carpetgrass will be damaged by Celsius herbicide.

*Dr. Ron Strahan
Turfgrass and Weed Specialist*

Become a Louisiana Master Gardener

Whether you are a seasoned gardener or just beginning to sprout your gardening skills, you can become a Master Gardener. Contact your parish LSU AgCenter extension agent for more information or visit our website.



LSUAgCenter.com/MasterGardener
LMGCoordinator@agcenter.lsu.edu

Louisiana Master Gardener is an educational program of the LSU AgCenter

Plants get sick too!

If your plants get sick, accurate and rapid diagnosis of the problem is important for selecting the best management practices at the most effective time.

The LSU AgCenter Plant Diagnostic Center can help.



LSU AgCenter
Plant Diagnostic Center

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Plant Diseases

Exobasidium Leaf Galls of Camellias and Azaleas Appearing in Louisiana

Spring is in full swing, and so are the plant diseases. One of these diseases is called *Exobasidium* leaf galls of camellias and azaleas. This is primarily a leaf disease, but it occasionally may occur on stems, flowers and seed pods. There are mainly two species of *Exobasidium* fungus that cause this disease, *Exobasidium vaccinii* on azaleas and *E. camelliae* on camellias.

Symptoms of leaf galls start appearing soon after the plants finish flowering. Leaves are distorted and become thickened with a fleshy or leather-like texture (Figures 1 and 2).



Figure 1: Leaf gall on camellias. (Dr. Raj Singh/ LSU AgCenter)



Figure 2: Leaf gall on azaleas. (Dr. Raj Singh/ LSU AgCenter)

Galls tend to be pale green, pink or white (Figure 3) in the beginning, but as they develop they become white and powdery. The white powder material are spores of the fungus, which readily disperse via air currents and by splashing water. As the galls get older, they shrivel up, dry out and turn brown and hard (Figure 4). Older galls fall to the ground, where they survive and may serve as a source of inoculum for the next spring's susceptible growth.

Management of leaf galls is achieved primarily by adopting good cultural practices in landscapes. Proper



Figure 3: Camellia galls showing color variations. (Dr. Raj Singh/ LSU AgCenter)



Figure 4: Older mature gall turning brown on an azalea. (Dr. Raj Singh/ LSU AgCenter)

pruning and discarding of galled leaves is very important in reducing the spread of the disease. Prune galled leaves a couple of inches below the symptoms. Put affected leaves in a zip-lock bag before discarding them. Remove and destroy affected leaves with galls that have fallen on the ground. Improve air circulation by selectively thinning the canopy of established plantings to promote rapid drying of foliage and to maintain adequate spacing when establishing new plantings to avoid creating favorable conditions for disease development. Fungicides may help prevent infection when applied beginning at bud break. Repeated applications may be required every 10 days as long as the conducive weather conditions persist for disease development. For fungicide selection, please consult your local extension agent.

For more information on leaf galls of azalea and camellia, please contact Dr. Raj Singh at 225-578-4562 or email rsingh@agcenter.lsu.edu.

Dr. Raj Singh
Director of Plant Diagnostic Center

Fruits

Figs Are Popular Southern Fruits

The fig was one of the first fruits cultivated by ancient peoples. Archaeological evidence has shown the fig has been in cultivation since 4000 B.C., almost 6,000 years.

The fig is a native of Asia Minor, and when taken to Greece and other Mediterranean countries, it became so widely used fresh and dried that it was known as the “poor man’s food.” The fig tree was imported to the United States sometime during the 16th century, and it grows well in the South Atlantic and Gulf Coast areas and in parts of California. Figs are one of the most popular fruits grown in Southern backyards.



Botanically, figs are one of the most interesting fruits you can grow. The fig is actually a fleshy, hollow branch modified to bear numerous small flowers and fruit on the inside. At the tip of the fig is an opening called the eye, or ostiole. This small opening located at the end of the fig enables its pollinator, the fig wasp, to enter the fig fruit for pollination. The fig wasp does not exist in Louisiana; therefore, fruit is only produced by varieties that do not require pollination.

It has been possible to select for figs that have a closed or plugged eye. A closed eye on the fruit is an important characteristic for the humid South. Having an opening in a fruit with our rains and humidity could cause major insect and disease problems. Figs with open eyes often sour during rainy weather. Some varieties with open eyes, however, are grown in the South and harvested before full maturity for use in making preserves. Cold hardiness of trees is also a valuable trait, especially in north Louisiana.

LSU has played a critical role in the breeding and development of many cultivars that you can find at nurseries and garden centers or plant sales throughout the state.

O’Rourke — A new LSU fig sometimes known as Improved Celeste. It is medium-sized and tan to brown, has a tan pulp and tapers slightly toward the stem end with a long neck. The eye is partially closed. The fruit ripens five to seven days before Celeste and continues over a 15-day period.

Champagne — This new LSU fig is sometimes known as Golden Celeste. The medium-sized fruit has a yellow skin, a tan to caramel-colored pulp and a partially closed eye. The fruit ripens about the same time as Celeste.

Tiger — A new LSU fig sometimes known as Giant Celeste. It has a large brown fruit, yellow to gold pulp and a partially closed eye. Fruit ripens five to seven days after Celeste and continues over a 15-day period.

After selecting a fig to put in the yard, be sure to plant the tree 1 to 2 inches above the soil line with a gentle slope down from the tree’s soil line to the native soil.

Another way we describe this type of raised planting is “plant the tree on a pitcher’s mound.” This will help to repel a large amount of water away from the tree, keeping the roots slightly drier. Remember, these fruit trees were cultivated in the Mediterranean, which a fairly dry, arid region.

A general fertilizer recommendation is 1 pound of 8-8-8 per year of age of the tree up to 10 years old. This maximum of 10 pounds should be continued for trees 10 or more years old. Apply fertilizer in late winter or early spring. A good indication of the need for fertilizer is the amount of shoot growth. A satisfactory amount of shoot growth is 1 to 1 1/2 feet per year. One common cause of fruit not maturing on fig trees is overfertilization using nitrogen fertilizer. Four to 6 inches of mulch and regular watering will often produce adequate growth of trees without sacrificing yield and quality. Do not fertilize trees in late summer because succulent growth is more susceptible to cold injury.

*Lee Rouse
Horticulture Extension Agent*



Growing Goji Berries, the Latest “Superfruit”

Exotic “superfruit” products are the latest addition to the booming popularity of “superfoods,” a marketing category (as opposed to a scientific one) that includes antioxidant-rich foods and beverages, such as red wine, dark chocolate, tea and blueberries. “Superfruits” is an expression that is frequently used to refer to fruits that have extraordinary antioxidant and nutrient qualities and provide benefits over and above the basic nutrition. Antioxidants are man-made or natural substances that may prevent or delay some types of cell damage. Exotic fruits like acai berries, goji berries, mangosteen, noni and pomegranate have earned this distinguished status. These fruits have exceptional amounts of vitamins, antioxidants and phytochemicals (various biologically active compounds found in plants) that play a significant role in preventing various diseases. There is no clear, well-established relationship between antioxidant values and any health outcome. Despite that, scientists all seem to agree that eating lots of fruits and vegetables is good for you. Additionally, scientific studies consistently show the benefits of daily exercise. So, I want to encourage you to get outside and combine the two with a healthy gardening activity like growing goji berries.

Goji is also known by a number of other names, including goji berry, wolfberry, boxthorn and matrimony vine. In China, where most of the world’s commercial goji berry production is found, most plants with high-quality fruit are from plants of *Lycium barbarum*. Wondering how goji berries taste compared to other fruits and how you can use them? Good news. Most people find their taste totally pleasant. They add a chewy texture to recipes, and, in terms of their flavor, you can think of goji berries like a cross between cranberries and cherries. They look similar to raisins because they’re normally dried, but they have a brighter pink color and a special sweet, tart “bite” to them.

The goji plant is a slightly thorny deciduous woody shrub that is typically 3 to 6 feet tall when cultivated and

pruned, though plants can reach 12 feet tall in their natural state. Goji is a member of the solanaceous (tomato or nightshade) plant family, so its cultural and nutritional needs are similar.

Soil Type and Site Selection

Goji plants are adaptable and grow in a range of soil types with a preferred pH of 6.5 to 7.0. Goji won’t tolerate salinity well and prefers high-fertility soils. The best growth is made in relatively light soils that are well-drained, such as sandy loams or loams in areas with plenty of sunshine.

Varieties

Breeding efforts in North America have been undertaken only within the last decade. Currently, only two named varieties, Crimson Star and Phoenix Tears, are widely available. Some nurseries sell Big Lifeberry and Sweet Lifeberry.

Otherwise, plants may be grown from open-pollinated seed, but plant growth habit and productivity may be variable. Growers who intend to buy plants may wish to ask whether the plants were vegetatively propagated from superior clones or were grown from seed.

Planting

Plants grown from seed are similar in appearance to tomato seedlings at first. Seedlings and young plants are likely to be variable in appearance. Dormant nursery stock should be planted in spring once danger of frost is past.

Mulching after planting with an organic mulch can keep down weeds, moderate root temperatures and promote establishment. Irrigation is highly recommended, especially during the establishment year because the root system is fine and can easily dry out, and the fruit are prone to blossom-end rot under conditions of low or uneven moisture. However, overwatering should be avoided. Plants should be spaced 3 to 5 feet apart within the row and at least 6 to 8 feet between rows, though wider between-row spacing may be needed to accommodate equipment.

Time to Maturity and Yield

Plants will begin fruiting two years after seeding or the year after planting if 1-year-old transplants are used. Full yields will be reached four to five years from seeding. Maximum yields in China are reported to be about 7,000 pounds per acre.

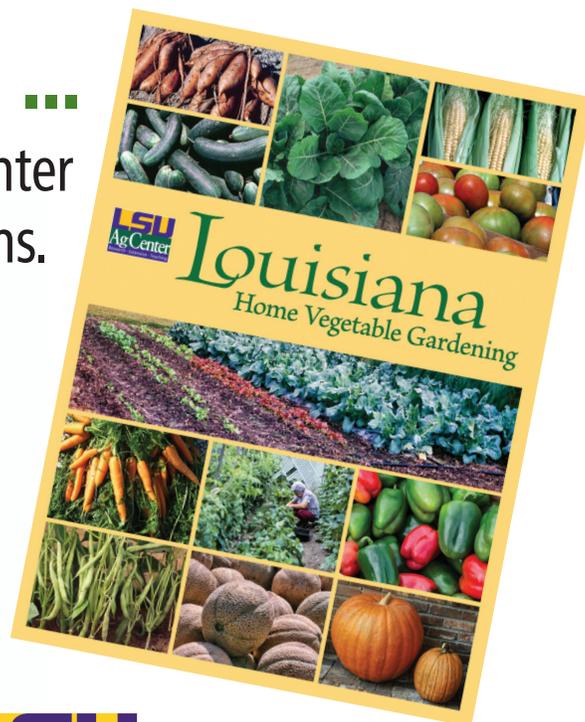
Fertilization

A good starting point would be to amend the field as you would for tomatoes. Nitrogen at 3 ounces per 100 square feet per year is recommended for a mature planting and is split into three applications applied at bud break, at flowering and then as fruit begin to ripen. Plants are sensitive to high salt levels; compost can be used to provide nutrients as long as salt levels are not excessive.



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Pruning

Fruit are borne on the current year's wood, mainly from the wood grown in the spring and fall. The goals of pruning are to limit plant height, improve ease of harvest, encourage light penetration into the plant, improve foliage drying and encourage formation of lateral branches to maximize fruit production. Canes that are untipped will continue to grow and produce few lateral branches, while canes that are headed back will produce more laterals and higher yields.

Little research has been conducted to determine the best pruning methods for our region. However, in other production areas, plants are usually limited to one single main stem. Pruning is done during the dormant season to remove spindly canes, remove dead and damaged wood, improve plant shape and shorten laterals. During the summer, pruning is done to head back growth, encourage lateral formation and remove new shoots. One of the most important goals of pruning is to produce an open-canopy structure that allows plenty of sunlight infiltration.

Harvest

Plants first bloom in late spring to early summer, and fruit will begin to ripen in mid-summer. Harvesting is completed by hand, as the berries leak juice and turn black if they are bruised or squashed. Berries are currently sold mainly as a dried product, but they can also be sold and eaten fresh or turned into juice. Labor requirements are substantial.

Pests and Pest Control

In other areas pests have included leafhoppers, Japanese beetles, thrips, aphids and spider mites. Diseases included anthracnose, early blight and powdery mildew. Blossom-end rot can be an issue as well if moisture levels are uneven. Aphids and gall mites have been problematic in other countries, and birds are reported to have an affinity for the fruit.

Why Should You Grow Goji Berries?

This shrub is easy to grow and will reward you with loads of nutritious berries over a long harvest season. Goji berries are rarely grown commercially in the United States, and their shelf life is short, so fresh berries can seldom be found at local supermarkets or farmers markets. Therefore, home growing is the way to go for fresh gojis. Also, dried gojis aren't cheap, and the overwhelming majority of commercial goji berries comes from China, where information about how they're grown isn't usually available. If you like knowing where your food comes from and how it's grown, you definitely should try tending these plants yourself.

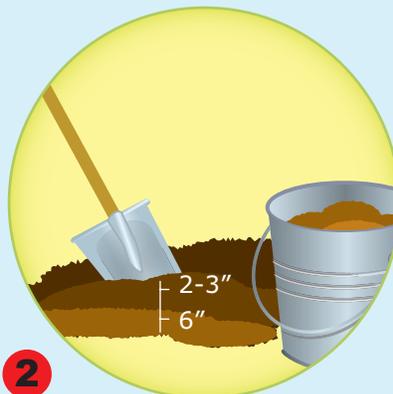
*Dr. David Himelrick
Fruit Crops Specialist*

How to Take a Soil Sample

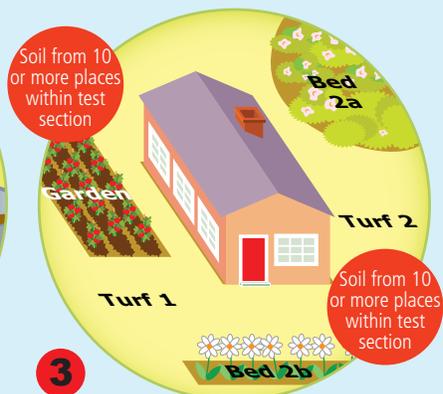
The LSU AgCenter Soil Testing and Plant Analysis Laboratory is the only laboratory that incorporates the latest Louisiana-specific soil fertility research in its recommendations system. The lab offers testing for nutritional status of plants, irrigation and pond water. Soil test kits are available at 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.



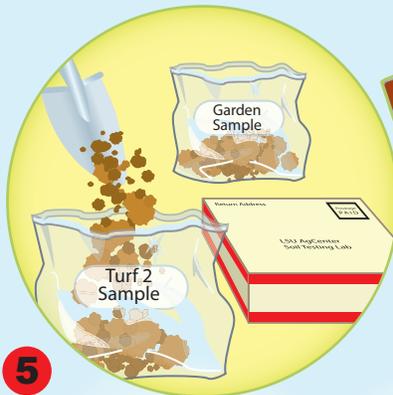
2 Sample to depth of 2-3 inches for turf and 6 inches for cultivated beds.



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.



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Don't Guess. Soil Test!

Soil testing can eliminate the guesswork and reveal exactly how much fertilizer, lime or sulfur is needed for specific plants to be grown in a particular type of soil. The LSU AgCenter Soil Testing and Plant Analysis Laboratory is the only lab that makes fertilizer recommendations based on Louisiana-specific research. Get your mail-in soil testing kit by contacting the lab, your parish LSU AgCenter extension office or a local garden center.




LSU AgCenter Soil Testing and Plant Analysis Lab

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Horticulture Hints



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