Horticulture Hints

LSU AgCenter
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Summer 2017

Landscape Gardening and Ornamentals

Evaluate Trees for High Winds

Hurricanes and violent summer storms occur throughout the state of Louisiana during summer. Trees may be vulnerable to blowing over or dropping large branches during high wind events. Now is a good time to evaluate shade trees to make sure they are in good shape.

Look at the overall condition of your trees. Trees that have large dead branches or are totally dead should be dealt with as soon as possible. Dead branches should be pruned off and dead trees removed entirely.

A tree that is sickly, low in vigor and shows significant signs of rotten or decayed areas in the trunk may need to be removed if it poses a threat to buildings. Trees whose trunks have large cavities with extensive decay should be considered for removal because rot weakens the trunk.

Trees that are one-sided or lean significantly may need attention. Selective pruning can relieve the weight on the heavier side, balancing out the weight distribution of the canopy. After the prolonged rains associated with hurricanes, the soil may be so soft that trees topple over if the weight is not proportioned properly.

Selective thinning of the canopy can reduce the wind resistance of the tree. This can lessen the chances of its being blown over or of branches breaking. The idea is to preserve the natural shape of the tree, by thinning out branches to reduce the weight and allow for better wind movement through the tree. This should be done by a licensed arborist.

Also, look for branches that hang over the house near the roof. Although the branches may not touch the roof under normal conditions, the high winds of hurricanes and summer storms can cause trees to bend and branches to flail around considerably. These branches can cause extensive damage to the roof and generally should be removed.

It's Still Not Too Late to Plant Colorful Summer Flowers

Despite the heat, you can continue to add bedding plants to provide color in your landscape. There is a great selection of heat-tolerant plants that come in a wide variety of colors and growth habits. Here are some of the best:

Low Growing (less than 2 feet): Mexican heather, ornamental peppers, ornamental sweet potatoes, dwarf angelonia, coleus, impatiens, periwinkle, dwarf cosmos, begonia, dwarf pentas, dwarf globe amaranth, ageratum, salvia 'Victoria,' marigold, portulaca, blue daze, perennial verbena, purslane, dusty miller, rudbeckia, abelmoschus, narrow-leaf zinnia, wishbone flower, Dahlberg daisy, caladium, balsam, gerbera daisy, gaillardia, celosia, dwarf lantana, scaevola, dwarf melampodium.

Taller Growing (over 2 feet): butterfly weed, angelonia, shrimp plant, cleome, pentas, melampodium, four o'clock, perilla, cosmos, hardy hibiscus (mallow), sunflower, salvias, lantana, cigar flower, Mexican sunflower (tithonia).

Guidelines on Using Color

Creating an attractive, colorful look with bedding plants is easier than ever, but it's a good idea to do a little thinking and planning before you go to the nursery, and you will generally be more pleased with the results. Lots of warm-season bedding plants are added to landscapes in April and May to provide color through the summer months. Now, and through the summer, you can evaluate the colors you chose and where you use them. If the color scheme isn't as great as you thought it would be, it's only there for a season. You can always try something different next time. Here are some basic guidelines for using color in the landscape.

Combine cool colors together (reds with a blue tint, burgundy, rose, pink, magenta, purple, violet, lavender, blue, navy and any variations of those colors) or warm colors together (reds with an orange tint, orange, gold, yellow, rust, peach and any variations on these colors) for reliably harmonious results.

Use color where you want to focus attention, such as at your front door. Never use color to "beautify" an unattractive feature in your landscape such as a trash can area. You will simply make sure everyone notices it.

Generally, reduce the number of colors you use for best results. In other words, use the colors you like in combinations that you like, but, don't use every color you like at the same time in the same bed.

It is also important to plant individual colors in masses or groups, especially if the bed will be viewed from a distance (as in a front bed being viewed from the street).

Use pastel colors in areas that will be viewed primarily in the evening as they show up better in low light. Also, pastel colors make a space look larger and more open and tend to create a serene, restful mood.

Vibrant, rich colors energize the landscape and can help make a larger area seem smaller and more intimate.

The large amount of green foliage that occurs in the landscape makes it more forgiving of wild color combinations, but it's best not to push it too far.

Dealing with Snails and Slugs

Snails and slugs can be a major problem in summer gardens. They damage plants by chewing holes in the leaves and flowers of ornamentals, particularly of low growing plants with tender leaves, like impatiens and hostas. Using commercial baits per label directions is helpful in reducing their population. Baits containing metaldehyde have been a standard and effective treatment for years. Metaldehyde, however, is toxic to dogs and cats and care must be taken when using it. A newer, much less toxic and safer active ingredient is iron phosphate, commonly sold under the brand name Sluggo. This type of bait is safe and no special precautions need to be taken when using it.

Trapping also works if you are persistent, and is a good way to monitor population levels. A trap is easily constructed using a small, disposable bowl and some beer.

How to Trap Snails and Slugs

- In the early evening place several bowls around the garden where snails and slugs have been a problem.
- Sink the bowls in the soil or mulch up to their rim, and fill half full with fresh beer. Snails and slugs are powerfully attracted by the yeasty smell of the beer. They crawl into the bowl and once the beer washes off the slime from their undersides theycannot crawl out again.
- Each morning empty the traps noting how many you caught.
- Continue to put out traps each evening until very few of the pesky critters show up in the beer.
- Toads are an excellent ally in this fight, and should be welcome in the garden (even if you are squeamish about them).

A Gardener's Most Valuable Tool

Since it's too hot now to do much work, take some time now to wander around the yard. It looks aimless, but in fact the more you can do it the better. During these walks you can mark gaps and note which plants are doing poorly. You can then make plans and decide which plants might need to be transplanted or replaced this fall. You can see the beginnings of pest and disease attacks, the onset of weed problems, the need for water, the overgrown plants that might need to be pruned back or supported and the faded flowers that need to be removed. If you catch these problems early, you will have a much easier time correcting them, and the plants will be better off as a result.

Most importantly, I think it gives you a chance to savor and appreciate what your efforts have accomplished. Don't let life's hectic pace keep you from enjoying what you have worked so hard to create. Take the time.

The gardener's most valuable tool are these moments of undivided attention you give to your garden. And I think you will find they benefit you as much as they do the garden.

Beware the Heat

Working outside in hot weather places extra stresses on the body. To prevent dehydration, drink before, during and after working outside. Drink before you're thirsty and drink cold liquids because they are absorbed by the body faster. Drink water. If you choose other liquids, make sure they contain only a small amount of sugar, as it slows down liquid absorption by the body. Avoid beverages containing alcohol and caffeine.

Work in your garden in the early morning or late afternoon when it is cooler and stay in shady areas as much as possible. Follow the shade in your landscape as the sun moves across the sky; leave areas as they become sunny and move into areas as they become more shaded. Since we tend to work in the cooler early morning and evening hours, don't forget to apply a mosquito repellent. West Nile virus is still a concern.

Wear a hat, loose, comfortable clothing and use sun screen. Also, take frequent breaks and try not to stay outside in the heat for extended periods.

Vacation Plant Care

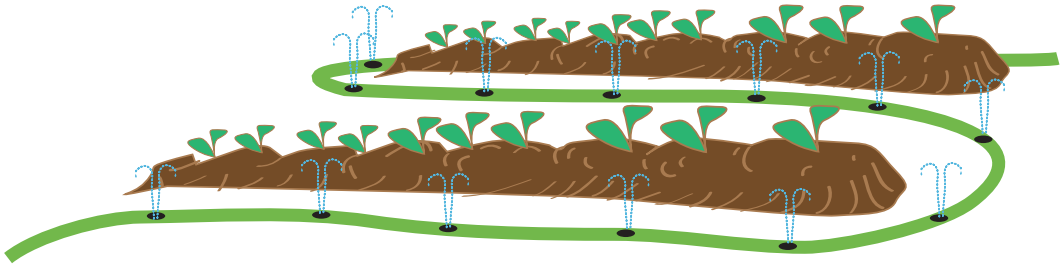
Summer is the time when people commonly take their longest vacations. If you are going to be away from home for more than a few days, you may return to find substantial damage has occurred to plants left unattended. This is especially true for plants growing in containers – both indoors and outside. The ideal solution is to ask a friend who is knowledgeable about plants to check on your plants regularly and water them when necessary. Be sure to give written instructions on the needs of each plant since your friend is not as familiar with them as you are.

If indoor plants are going to be on their own, move them away from sunny, bright windows so they use water less rapidly. Right before leaving on your trip, thoroughly water all of your indoor plants. Plants in small pots tend to dry out fastest. If you will be gone for more than a few days, enclose these plants (pot and all) in clear plastic bags to retain moisture and prevent drying out. Plants in plastic bags should receive bright light but no direct sun that could cause excessive heat build-up inside the plastic.

Group all of your outdoor container plants together in a shady location near the northern side of a building or under the protective cover of a large shade tree or covered patio and water them thoroughly. If you'll be gone for more than a few days, inexpensive irrigation timers – available at local nurseries and hardware stores – can work very well hooked up to an irrigation system. It's probably easier to use a sprinkler to water a grouping of your container plants. But, if you wanted to be more sophisticated, drip systems are also available.

Water your home grounds very well prior to leaving, especially if there has been little rainfall. A thorough, slow soaking will provide a lasting supply of moisture. Make sure that you mulch all flowerbeds, vegetable gardens, shrub plantings and newly planted trees.

Flowerbeds and vegetable gardens are particularly vulnerable to drought while you are away. To water automatically, place either soaker hoses or sprinklers to cover various beds and areas of your landscape. Connect them to hoses attached to a timer at each faucet you use for irrigation. Set the irrigation timers to come on twice a week and stay on long enough to thoroughly soak an area.



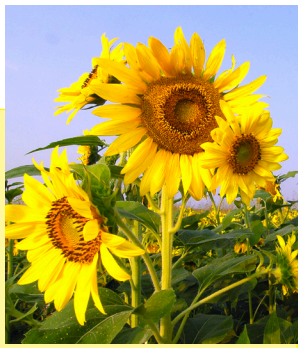
Deadheading Flowers

Deadheading is an important but often neglected gardening technique. It refers to pruning off old, faded flowers from a plant as it blooms. It is most often done to annuals and herbaceous perennials, but it is also useful with some summer flowering trees and shrubs.

There are a number of advantages to deadheading that make it worth the time and effort it involves. For one thing, it improves the appearance of a plant by removing unattractive dead flowers and seed pods mixed in with the newly opened blooms. Deadheading will also encourage annuals to bloom more and for a longer period. Many perennials will be encouraged to send up another flush of flowers if they are promptly deadheaded. For annuals and perennials that self-seed, deadheading prevents unwanted seedlings from popping up all over the garden.

While you are deadheading take the opportunity to groom your plants by removing damaged, unattractive foliage and dead stems or branches. Not only is this healthier for the plants, but also keeps them looking their best.

The plants that respond best to deadheading by extended flowering are annuals and perennials that bloom over a relatively long season, and some summer flowering trees and shrubs such as crape myrtle, vitex, roses, oleander and althea.



Checklist for Summer

- Control thrips, aphids, cucumber beetles and spider mites on roses by using a recommended insecticide or miticide. Also continue blackspot control by using a recommended fungicide at seven to 10day 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,' marigold, portulaca, blue daze, perennial verbena, purslane, dusty miller, rudbeckia, abelmoschus, narrow-leaf zinnia, Profusion zinnia, wishbone flower, caladium, balsam, gerbera daisy, gaillardia, celosia, lantana, scaevola, melampodium, butterfly weed, shrimp plant, cleome, four o'clock, perilla, hardy hibiscus (mallow), sunflower, salvias and cigar flower.
- 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 60-80 days from sowing seed until first flower color.
- Prune azaleas no later than mid-July. Pruning azaleas after early to midsummer may remove next season's developing flower buds. This applies to most spring-flowering shrubs as well as hydrangeas and gardenias.
- In early summer, gardenias may have aphids, whiteflies and the associated black sooty mold. For optimum plant performance, control the insects with Orthene or a light horticultural oil spray.
- 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.
- Prune repeat flowering roses in late August or early September. This stimulates vigorous growth for the fall blooming season. Cut the bushes back about one-third their height, and remove any dead growth. Fertilize with a general purpose fertilizer or rose fertilizer following package directions after pruning.
- 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.
- Finish any pruning you may need to do to shrubs in the landscape, particularly those that bloom in winter or spring. Pruning later (after mid-July) may interfere with flowering.
- Keep up with weeding. This time of year weeds can get out of hand very fast. Use mulches wherever possible. If you need help with herbicide recommendations, contact your local LSU AgCenter extension office. Avoid applying most lawn weed killers during summer as high temperatures increase the chance that they will damage your lawn grass.

Dan Gill
Consumer Horticultural Specialist

Vegetable Gardening

March, April and May were extremely mild this year. Day time temperatures were in the mid- -80's, and not all, but many night temperatures were in the 60's and even some mid-to low 50's. The mild spring weather made working in the garden pleasant. Because there were no late frosts or freezes many crops have matured early. But the cooler nights have delayed production of other crops such as cucumbers. Eventually, summer will show her face and day and night temperatures will rise, meanwhile let's stretch this spring as far into summer as possible.

Lots of garden work will be done this summer season. See the notes below on gardening in June, July and August.

JUNE!

Mid-June, plant a summer crop of heat set tomatoes. Planting heat set tomatoes is VERY important. These cultivars have been bred to set fruit during high nighttime temperatures, whereas, other cultivars will not. If managed correctly, heat set tomatoes will produce fruit until a frost or freeze. Preferred heat set varieties include: Tribeca, Tribute, Floralina, Heatwave II, Phoenix, Florida 91, Solar Fire, Sun Master, Sunbeam, Sunchaser, Sunleaper, Talladega and Bella Rosa, among others. Heat set tomatoes can be planted again in late July for fall tomato production.

Collard greens, cucumbers, watermelon, cantaloupe, okra, southern peas, pumpkins and summer squash can all be direct seeded into the garden during June.

Start transplants of eggplants, peppers and sweet potato slips during June as well.

JULY!

Transplant a fall crop of 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 greens, kale, turnips, radish, and other fall crop seeds. If you want an early September planting of these crops, start your seeds in seedling trays in early August. Start your seed outdoors in a sunny area that is protected from getting trampled on. Greenhouse or cold frames are not needed to start a fall crop, as the weather is so warm. But you need to water transplants daily, so make sure they are in a very visible location. Start seed 5-6 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 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 beets 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 will be very high. Planting an early fall garden in late August requires time, care and scouting. Don't go on a vacation!

LouEASYana GARDENING

Have you noticed the flowers on your tomato plant falling off during the summer? The flowers fall because the night temperatures are too high (above 75°F) and they fail to pollinate. To solve this problem, plant heat set tomatoes because they can tolerate higher night temperatures and the flowers shouldn't fall off. Here are some determinate heat tolerant varieties that perform well in Louisiana:

Bella Rosa, Tribeca, Tribute, Heatwave II, Floralina, Florida 91, Phoenix, Solar Fire, Sunbeam, Sunchaser, Sunleaper, Sunmaster and Talladega.

You should see a common theme in the tomato names, they all have heat-related names or describe a hot place. Not all the varieties listed will be available at your local garden center, so you may have to order from online seed companies.

Be sure to mulch heavily around your tomato plants because the mulch keeps the moisture in the soil. Pine straw and leaf litter are two affordable mulch options.

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Extension Associate

Crop Highlights

Broccoli and cauliflower. Both can be direct-seeded beginning 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. These crops, especially cauliflower, require fast, continuous growth for proper head development. Keep them well 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. Varieties that will produce in about 60 days from transplanting reduce the chance of cold-weather damage. Recommended varieties are:

- Broccoli
- Gypsy
- Diplomat
- Packman
- Everest
- Castle Dome
- Green Magic
- Cauliflower
- Majestic
- Candid Charm
- Cumberland
- Snow Crown

Freedom

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.

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 (Henderson, Thorogreen, Jackson Wonder or Dixie Butterpea are excellent varieties).

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 physiological rest period of about 90 days they have to go through 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 (that you harvested) for seed pieces.

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 drill (two drills of plants spaced 10-12 inches apart on a single row) will help maximize yield.

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. The best cucumber to plant is Dasher II.

Pumpkins. Pumpkins for Halloween should be planted early to mid-July. Apply 3-5 pounds of a complete fertilizer (13-13-13) for every 100 feet of row before planting. Plant five to six seed 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. 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. Don't fret if you do not reach award winning sizes. WATCH for worms, slugs and snails, and 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 seedling 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 to 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 purchased transplants.

Fall tomatoes. Transplant fall tomatoes 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. The heat-set varieties that have produced well in trials are Heatwave II, Solar Fire, Sun Master, Solar Set, Bella Rosa, Florida 91 and Phoenix. These varieties have the ability to set some fruit during times of high temperatures, allowing the fruit to mature before cool weather. Row covers, which protect the plants from the first frost, have prolonged the harvest period, and they enhance fruit maturity. Also worth trying during fall is the BHN 216 variety. Since fall tomatoes are a crop you can't really be sure of, it's interesting to try several 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 oftentimes end up in bitter, bolted lettuce. A recommended variety of head lettuce is Ithaca. For leaf lettuce, try Slobolt, Red Salad Bowl, Grand Rapids, Red Fire, Tango, Red Sails, Salad Bowl, Sunset, Simpson or Elite. The recommended romaine lettuce varieties are Parris Island, Green Forest and Green Towers. For butterhead or bibb lettuce, try Buttercrunch, Esmerelda or Oak Leaf. And for Batavia types (leaf lettuce with a unique flavor), try Nevada or Sierra.

Kathryn Fontenot
Vegetable Specialist

Turfgrasses 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. Augustinegrass and zoysiagrass both respond well to fertilizer applications. St. Augustinegrass may be fertilized three times during the growing season – April, June and mid-August. Fertilize zoysiagrass twice per growing season – in April and again around June or July.

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

Centipedegrass should receive its second and final fertilizer application in July. For centipede grass, apply only 1/2 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. Augustinegrass 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 Soil Test 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 LSU AgCenter extension office. Once submitted, the results will be sent to your home mailbox or emailed usually 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. Augustinegrass 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. Augustinegrass 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 1.5 inches. This helps prevent thatch buildup. Zoysiagrass also likes to be mowed in the 1 to 1.5 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. Augustinegrass and bermudagrass lawns and treat with an LSU AgCenter recommended insecticide such as bifenthrin. Chinch bug problems show up as yellowish-brown 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.

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.

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. Augustinegrass lawns.

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 application spaced four to six weeks apart. Metsulfuron and Celsius can be safely applied on St. Augustinegrass, centipedegrass, bermudagrass and zoysiagrass during warm weather. Carpetgrass will be damaged by Celsius herbicide.

Ron Strahan
Weed Scientist/Turfgrass Specialist

Fruits

Guidelines for Choosing a Home Fruit Crop

There are two fundamental concerns that should be given careful consideration when choosing any fruit crop for planting in the home landscape:

1. Is the crop well adapted? Climatic considerations such as heat and drought tolerance, cold hardiness and chilling requirements are important.
2. Is the crop insect and disease resistant? If you do not want to follow a regular spray schedule throughout the growing season, you must carefully select the type of crop you want to grow.

Controlling Insects and Diseases

In many cases, if you don't plan to follow a good pest control program, you will be disappointed with the quality and quantity of fruits produced.

In particular, apples, peaches, plums, strawberries and bunch grapes will require spraying to prevent injury from insects and diseases. The number of applications will vary with the kind of fruit, variety and weather conditions.

Successful control depends largely on: (1) use of the right crop protectant materials at the correct concentrations, (2) timeliness of applications, (3) thorough coverage, and, (4) correct water pH.

Chemicals that are used to improve the growing environment and to protect the fruit plant can be broken down into six major categories: (1) insecticides, (2) fungicides, (3) bactericides, (4) herbicides, (5) miticides, and, (6) nematicides.

Insecticides are used to control harmful insects. Specific insecticides are labeled for the control of particular insects. Beneficial insects may also be killed if they are on the plant when pesticides are applied. Therefore, you must first identify the pest and then use the proper insecticide.

A home orchard spray containing one or two insecticides for insect control is recommended for the general spray program on most fruits. Home gardeners may purchase chemically prepared mixes or prepare their own spray using individual chemicals. From six to 12 applications will be necessary to obtain good control for peaches and plums. Some 12 to 18 or more sprays may be needed for apples. Homeowners can get by with fewer sprays on apples if they are willing to accept less attractive fruit.

Homeowners are always interested in growing fruits that may require few or no sprays for pest control. In general all fruit types usually benefit from at least one or more annual sprays to control problem pests.

Hard pears and pomegranates are commonly grown without insecticides, while rabbiteye blueberries and figs may require from none to two or three sprays per season. Dark-colored muscadine varieties can get by with none to only two or three sprays per season. Satsumas will probably be satisfactory with none to only two to four sprays per year. Other fruit types not noted above such as peaches and apples require more demanding spray programs to keep plants healthy and to produce quality fruits.

Caution: Insect pollination is required by many plants before fruit development can occur. If insecticides toxic to these beneficial pollinating insects are applied during the bloom period, the insects will be killed, pollination cannot occur and cropping will be poor. Never use insecticides during bloom.

Potential Cultural Problems

- **Late Spring Frosts -** Early blooming crops such as peaches, blueberries, plums and strawberries can suffer significant crop losses.
- **Drought -** Young plants and shallow-rooted crops are the most susceptible. Supplemental irrigation is essential for good fruit production.
- **Weeds -** Can compete and limit the growth and productivity of many crops.
- **Nematodes -** These microscopic roundworms can attack the roots of susceptible crops such as figs.
- **Wildlife -** Deer, rabbits, squirrels, birds, etc.
- **Diseases -** Can be a major limiting factor in our hot, humid, high-rainfall climate.
- **Insects -** Can disfigure and infest fruits. The degree of the problem varies with crop and year.

Planning the Home Fruit Planting

Locating the fruit planting close to your home will make observation and care both practical and convenient. Sunlight is the key to fruit production. Generally, anything less than full sunlight results in reduced production.

Where space is limited, fruit plants may be set in almost any location suitable for ornamental plants. However, fallen fruit on a lawn can present problems, so harvests must be timely. It is important to consider the mature size of the tree, bush or vine when designing your planting. Louisiana's diverse climate allows for an assortment of fruits to be harvested throughout the year.

Plant Selection

Always buy healthy plants from a reputable nursery. Specialty nurseries usually offer a wider choice of varieties, better price, good quality and expert advice. Small to medium size plants have the best survival rate; transplant shock is more severe on larger plants.

Dwarf fruit trees lend themselves nicely to ornamental plantings as well as orchards. They bear earlier than standard size trees, occupy less space and can be more easily pruned and sprayed with equipment normally available to the average homeowner. Most nurseries now carry dwarf and semi-dwarf apple trees of several varieties.

A few varieties of dwarf pear and peach trees are offered by some nurseries. In any planting where space is at a premium, consider dwarf trees.

Best Homeowner Fruit Crop Choices

Based on the criteria of good climatic adaption as well as having acceptable insect and disease tolerance, we recommend the following fruit crops as being the best low maintenance choices for homeowners.

Other fruit crops are either not as well adapted to our prevailing environmental conditions or will require a regular spray schedule for successful production. The homeowner's hit picks include: Rabbiteye Blueberries, Muscadine Grapes, Blackberries, Figs, Cold Hardy Citrus, Persimmons and Pears.

David Himelrick
Fruit Specialist

Southern bacterial wilt and southern blight of tomatoes, bell peppers and eggplants

Southern bacterial wilt is caused by the soil-borne bacterium, Ralstonia solanacearum. In addition to solanaceous vegetables, the bacterium can cause disease in a wide range of ornamentals. The pathogen is spread within fields by the movement of infested soil in surface water and though the handling of infected plants.

Infected plants rapidly wilt due to loss of turgidity of leaves and stems, giving the plants a limp appearance (Figs. 1 and 2). Initially, these plants may recover overnight, but as the disease develops, rapid drying of the foliage occurs leading to permanent wilting and death of the plant. Brown, sunken cankers are often visible at the base of the plant near the soil line. Symptomatic plants exhibit discoloration of the vascular system and the pith (Fig. 3).

Managing southern bacterial wilt in soils previously infected with the bacterium presents a real challenge. There are no effective chemicals registered for commercial, as well as home growers. Disease prevention is the key in reducing the spread to new un-infected sites. Soil fumigation may reduce the incidence of disease early in the season, but it has not provided long-term control. Soil solarization of contaminated fields during summer may also help in reducing the initial population of bacterium in the soil. Cultural management of southern bacterial wilt include avoid planting susceptible crops in infested fields, planting on raised beds, avoid late plantings of tomatoes in areas known to be infested and the use of long-term rotations with non-host crops (such as corn, beans and cabbage). Commercial, as well as home growers must follow good sanitation practices to reduce the spread of the disease, which includes avoiding movement of infested soils, avoiding movement of stakes from known infested sites to new sites and proper cleaning of tools. There are no commercially available resistant/tolerant varieties that we can recommend.

Southern blight (Fig. 4), is caused by the soil-borne fungus, Sclerotium rolfsii. The fungus attacks the lower stem of a variety of vegetables (especially tomatoes, peppers and eggplants), at or near the soil line during warm and wet conditions. Infected plants rapidly wilt and collapse. Closer examination of the base of a diseased plant reveals a lesion that girdles the stem. When conditions are very humid and moist, white fungal strands (mycelium) and specialized tan-colored overwintering structures (sclerotia) are observed on the base of the plant (Fig. 5).

Management of southern blight starts with avoiding planting susceptible crops in areas known to be infested with the pathogen for two or more years. Turn the soil to bury the sclerotia as deeply as possible, (8 to 12 inches is recommended). For small plantings, aluminum foil may be wrapped around the lower part of the stem (from just below the soil line to approximately 2 inches above the soil); this provides a physical barrier that prevents the pathogen from reaching the plant. Remove infected plants and discard them properly. Do not compost the diseased plants.

Figure 1: Eggplant infected with southern bacterial wilt.

Figure 2: Tomato plant infected with southern bacterial wilt.

Figure 5: Lower stem of an infected tomato plant colonized by white mycelium and sclerotia of southern blight fungus.

Figure 3: Discoloration of lower stem of an eggplant (left) and internal vascular discoloration of a tomato stem (right).

Figure 4: Tomato plant infected with southern blight.

Author and Photo Credit: Dr. Raj Singh, Plant Doctor

Butterfly Gardening

Though gardening is one of America's number one hobbies, not everyone gardens with the same reasons or purpose in mind. There are particular objectives that gardeners possess when entering the landscape.

It is these differences that drive individuals to choose one particular pallet of plants over another. Some gardeners are looking to have an aesthetically pleasing backdrop to enjoy while lounging on the porch or patio.

However, there are others whose only intention is to grow edible produce. Nevertheless, one of the most rewarding and intriguing forms of gardening is to intentionally attract butterflies to your yard.

Creating a highly diverse butterfly garden takes plenty of knowledge regarding gardening. Also an understanding of the specific butterflies that you're attempting to attract to your yard and plenty of patience.

Dan Gill is often quoted as saying, "Remember, the butterfly garden is an invitation not a command." Though an obvious statement, there is still a level of profoundness in its simplicity.

As gardeners, we do everything within our power to provide the necessary plants and an environment in which the butterflies are willing to visit. But we cannot force them to come. Of course, if you are putting the correct plants out, you should have some customers around your plants.

The most critical piece of knowledge needed for having a fully fluttering butterfly garden is knowing the difference between nectar and host plants.

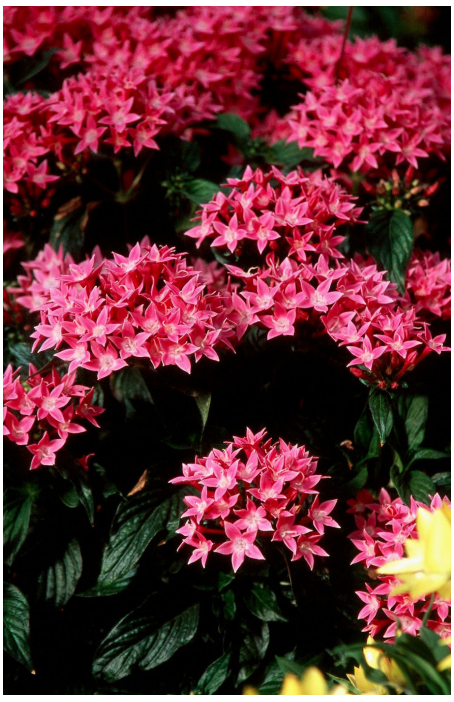
Nectar plants are those plants that we tend to associate with butterflies. These are the plants that we regularly see butterflies feeding on in the garden. But having only nectar plants in the garden will limit your ability to attract the maximum number of butterflies.

Host plants, on the other hand, are the plants that the butterflies need to lay their eggs on. To have a fully operational butterfly garden, you need to not just attract these visitors, but also to encourage breeding, egg laying, caterpillars and chrysalis.

Individual butterflies have very specific host plants that they choose to lay their eggs on. One of the best ways to determine which host plant you will need in your landscape is to choose which butterflies you are interested in attracting to your yard. Then begin making the proper plant additions to your landscape.

To attract the Black Swallowtail butterfly to your garden use the herb fennel. Female Black Swallowtails will come to the garden in late spring and lay eggs on this herb. The eggs will hatch a caterpillar whose predominant colors are black, yellow and white, and will be a half-inch to an inch and a half in length.

But understand that host plants are sacrificial plants, meant to be



eaten by the caterpillars. Planting fennel as a host plant for this caterpillar will result in a devoured plant in the garden. After the caterpillars are finished with the fennel, it will be left looking a scraggly mess. Soon after the Black Swallowtail is finished with the fennel, the caterpillar will form a chrysalis and turn into the beautiful Black Swallowtail.

The Giant Swallowtail butterfly needs to have a citrus tree present in the landscape to act as the butterfly's host plant. The female will lay eggs on the foliage. The eggs will hatch over time and the caterpillars will use the foliage of the citrus to complete that stage of its life cycle.

Typically, the Giant Swallowtails' caterpillars will not eat enough of the foliage to effect the quantity or quality of the citrus fruit. If you have seen something that looks like bird droppings on your citrus, there is a good possibility you are looking at the caterpillars of the Giant Swallowtail.

These caterpillars are meant to resemble bird droppings. This may sound strange but this is a defense mechanism for young caterpillars. If a bird spots something that looks like its own dropping, it is less likely to peck at it or eat it. This allows the caterpillars to consume enough food to then be able to turn into a Giant Swallowtail butterfly.

A less common butterfly that people tend to attract to their gardens, unless they are a butterfly gardening enthusiast, is the Pipevine Swallowtail butterfly. This beautiful black and teal butterfly makes a great addition to the other watering friends in the garden. To attract the Pipevine swallowtail, a gardener needs to add the pipe vine plant to the landscape. As the name indicates, it is a vine so be sure to plant this in an area that has a structure for this plant to climb.

The camphor tree is the host plant for the Spicebush Swallowtail. If considering using the camphor tree to attract the Spicebush Swallowtail, be sure that you have enough room for this large tree that have adequate space to grow. Camphor trees can grow upwards of 40 feet tall by 30 feet wide. The

foliage of the camphor tree is highly aromatic when the leaves are crushed and is commonly used in Vicks Vapor Rub along with mint and eucalyptus.

The tulip poplar is an incredible native flowering tree here in the south. Tulip poplar is the host plant for the Tiger Swallowtail butterfly. The tulip poplar, also known as tulip tree or yellow poplar has a similar growth habit to that of the previously mentioned camphor tree. The tree can grow to 50 feet by 25 feet on average. Be sure to give this plant plenty of room to spread and grow to its full potential.

Adding nectar plants to the garden is only one part of the equation to having butterflies in the garden though. If you have limited space in your gardening area, pick one of your favorite butterflies and add its host plant to the garden.

If you have plenty of gardening area, then consider planting a diversity of host plants to attract a variety of butterflies to the garden. Incorporating a combination of nectar and host plants will not only attract butterflies to lay their eggs on the plants, but scouting for these caterpillar on the host plants will add greater depth, activity and interest to your landscape.

Lee Rouse
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"Soil-less" Mixes Are Not Soil

Growth media and other "soil-less" organic media types have chemical and physical properties, which are distinctly different from field soils. Field soils contain mineral soil, that is, sand, silt and clay. Over the past couple of years many home gardeners have changed from growing their vegetables in the soil to using raised beds.

Many of these gardeners are filling the beds with mixes containing peat, bark-based mixes and other mixes containing primarily organic material, composts and manures. These "soil-less" growth media have good moisture holding and aeration properties, however, they have limited nutrient holding capacities. Manures should not be greater than 20 percent of the mix. Composted manures are the preferred type of manure.

Research has shown that organic materials that have been properly composted can be used in grow mixes. However, when used as a component in a grow mix, most of the time, the compost cannot supply enough nutrients and additional fertilizer must be added. As a result, fertility management in these "soil-less" mixes is very important.

An analysis of a growth medium provides basic information on which to build a fertility program. Prior to using any new growth medium, test for pH, soluble salts and available nutrient concentrations.

In the LSU AgCenter Soil Testing and Plant Analysis Lab, that would be the "Soil-less" /Potting Mix Test. This test is for organic mixes containing greater than 25 percent organic material.

Nutrients must be added to an organic mix. In general, the optimum pH range for "soil-less" media is 5.5 and 6.0. The optimum pH range for media containing 20 percent or more of field soil is 6.2 to 6.5. The pH is important because it affects the availability of plant nutrients in solution. Low pH in a growing media is not an uncommon problem.

Many factors interact to affect the pH of organic mixes, including the composition of the planting mix, the pH and alkalinity of the irrigation water, the acidity/basicity of the fertilizer used, the type crop grown and the amount and type of limestone added.

Since some of the components of growth mediums are acidic, dolomitic lime (calcium and magnesium carbonate) may need to be added to start at an acceptable pH range and provide Calcium and Magnesium for plant growth. The smaller the particle size of the ground limestone, the quicker the increase in media pH. Commercially blended-media typically have limestone already added.

The "soil-less" test uses a water extract, whereas, a soil test uses an acidic extraction solution. When a "soil-less" sample is analyzed as a soil, many nutrients are rated as High or Very High.

These ratings, for a soil would indicate that tradditional fertilizer containing those nutrients is not needed. Many times, this is not the case for organics. The reason is that many organic mixes are only slightly decomposed, if at all. Soil microbes must break down the organic matrix (plant material), before nutrients are released and become plant-available. When plants are placed into a mostly undecomposed organic mix, usually there are few plant-available nutrients. Many times, homeowners see a "first event" as a nitrogen deficiency. Where large amounts of manure has been added, the fertilizer salts from the manure may be the "first event", damaging or killing the plants!

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Horticulture Hints

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Parish agents, please adapt these suggestions to your area before disseminating.

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