

Annual Color, From Spring to Winter



A FlameThrower coleus thrives in the Northwest Regional Demo Garden. Photo by Mark A Wilson

spread a 2- to 4-inch layer of compost over the bed and evenly sprinkle a light application of an all-purpose fertilizer. Thoroughly blend the compost and fertilizer into the bed, rake smooth and you're ready to plant. If the drainage is in question, raise the beds above grade by adding a commercially available soil mix (topsoil or garden soil). In areas where the native soil is dominated clay and somewhat compacted, raised beds can be created by forming beds 10 to 12 inches high on top of the existing soil using commercially available topsoil or garden soil. For container gardening, simply use a bagged a potting soil.

Light conditions are especially important when selecting plant material. For beds that receive at least six to eight hours

Introduction

Annual flowers are commonly used in residential landscapes to provide vibrant displays of color. In addition to annual flowers, other bedding plants are grown for their colorful foliage, interesting forms and textures. With proper rotation, they can be used to provide year-round interest in the landscape. Bedding plants are classified into two groups based on what time of year they thrive. Cool-season bedding plants do best in the cold to mild temperatures of October through early May and generally tolerate typical winter freezes without protection. Warm-season bedding plants grow and flower best in the warmer months of the year. Because they are sensitive to freeze damage, they are planted after danger of frost is over.

Through careful planning, gardeners have options for all seasons throughout the year. These versatile plants can be used in flowerbeds, mixed borders, pockets among shrubs or ground covers, containers, hanging baskets and window boxes.

Preparations and Conditions

Annuals perform best in well-prepared beds with good drainage. First, remove unwanted plant material from the bed and turn the soil to a depth of about 8 inches. Then,

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of direct sun, choose full-sun bedding plants. In areas that receive about two to four hours of morning sun, choose bedding plants that prefer part shade to full shade conditions. Caladiums, planted from tubers or as growing plants, are one of the best choices for color in shade environment.



Annual color is used in a mass planting. AgCenter photo

Planting and Care

It is important to plant transplants within a week of purchasing them for best results. Plant transplants so that the top of the root ball is level with the soil of the bed. Annuals generally look best, and the beds will fill in better when the rows are staggered. Create a simple design on paper before planting to help view the bigger picture. You can refer to your “master plan” from there on out.

Once the bed is planted and mulched, thoroughly irrigate with water. You may use a hose-end fertilizer applicator and water them in with a fertilizer solution to get them off to a good start. Newly planted bedding plants do not have well established root systems and should be watered thoroughly every few days if the weather is dry the first few weeks after planting.

Warm-Season Plants

Name	Light	Spacing (in)	Height (in)	Comments
Angelonia — Serena <i>Angelonia angustifolia</i>	Sun	8-12	16-20	Flower color range is pink, purple and white; used as “thriller” in containers.
Coleus — FlameThrower <i>Solenostemon scutellarioides</i>	Sun, Part Shade	16-20	12-18	Colorful foliage; cuttings root easily.
Salvia <i>Salvia farinacea</i>	Sun	16-24	24	Flower spikes in red, white, purple, pink.
Torenia — Kauai series <i>Torenia fournieri</i>	Sun, Part Shade	8	8	Flower color range is pink, purple and white, and yellow.
Periwinkle or Vinca <i>Catharanthus rosea</i>	Sun	10-12	12-15	Bushy plants produce flowers in white, red, purple and pink. Drought tolerant.
Caladium <i>Caladium spp.</i>	Part Sun, Shade	12-20	12-24	Planted for its foliar color. Common colors are whites, reds, greens and pinks.

For more information see Bedding Plants for Louisiana Landscapes (Publication No. 2747) or contact your local LSU AgCenter extension office.

Mark Wilson
Horticulture Regional Agent
Northwest Region

Fertilizer: What Do Those Numbers on the Bag Mean?

The best way to help your yard or garden perform to its highest potential is to know the nutrient requirements needed for a particular crop or the turfgrass you are growing. Many times, as agents, we are asked, "Can I use 13-13-13?" My response is usually "Yes," but then I follow up with, "But what does your soil sample say?" Often the homeowner or gardener has never had a soil sample done on their property, and the homeowner uses whatever was taught to them by a relative or a neighbor. Many times, when asked what do the numbers on the fertilizer bag mean, the homeowner does not know.

The numbers on the bag represent the amounts of nutrients in that bag. The main nutrients fertilizers have been nitrogen (N), phosphorus (P) and potassium (K). Nitrogen helps promote plant vigor and growth. Nitrogen also helps give the plant a dark green appearance. Phosphorus helps stimulate root growth. Lastly, potassium helps promote overall plant health, including disease and drought tolerance. When a homeowner sees 13-13-13 or any combination of numbers, they are getting a percentage of those nutrients per 100 pounds. For example, 13-13-13 means you are getting 13 pounds of each of those nutrients per 100 pounds of fertilizer.

After discussing with homeowners what the numbers on the fertilizer bag mean and the importance of applying nutrients properly, they are ready to do a soil sample. Soil sample kits can be picked up at your local extension office. Once you have gotten your test kit, you will need a shovel and bucket. With the shovel dig down approximately 3 inches. Place a small amount of soil in the bucket and remove any roots that are in the sample. Repeat about 10 times throughout the area in which you are growing the desired crop. Once you have collected your soil, place in the bag that come with the soil testing kit and fill out the proper paperwork, identifying the crop you are wishing to grow. When you have completed your soil sample, place the kit in the mail. Results will be returned in about a week. If you have questions about the results, contact your local extension agent.

*John Monzingo
County Agent, Claiborne and Webster Parishes*

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. The Louisiana Master Gardener program, implemented by the LSU AgCenter, is a statewide educational and service program for gardening enthusiasts. Contact your parish LSU AgCenter extension agent for more information or visit our website.

LSUAgCenter.com/MasterGardener

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Louisiana Master Gardener is an educational program of the LSU AgCenter





Get Creative With a Colorful Container Garden

You don't need a large yard or a lot of space to create a beautiful garden. You can create beautiful planters or containers that fit any space with limitless plant combinations that bring beauty and joy to wherever you call home.

There are plenty of options to choose from when it comes to the size, shape and color of containers and planters — hanging baskets, window boxes, small and large containers for combination plantings, single plant containers and clusters of pots. Your options for the plants themselves are plentiful and diverse, too.

To create a beautiful container design, begin by choosing a container that suits your spatial needs. Most garden centers, retail nurseries and online shopping venues offer many types.

Next, choose the plants and arrange them in a design of your choosing. Keep them looking good until you want to change the design.

One of the great advantages is that you can change these out. Year after year, you can play with the plant combinations, colors, textures and themes.

A combination planter typically has what is known as a filler, a thriller and a spiller. If you haven't heard these terms yet, let me explain them to you.

The thriller is the plant that is main attraction of your container planting. It will be the focal point of your design. Choose a plant that has some height and a striking flower form or color.

The filler is just as the name suggests. Use these plants to fill in areas to create a fuller look in the arrangement. Fillers are medium-sized plants, typically in a mounded form, that make up the bulk of the plant material in the container. You can choose just one type of plant for focal impact, or you can choose several different plant types of similar sizes.

Spiller plants are the trailing, cascading plants that flow over the sides of the containers and complete the arrangement.

When choosing fillers and spillers, a good rule of thumb is to use an odd number of plants — three, five, and seven and so on.

Symmetry brings a good balance to beginning designs. Although it is not required to have an equal number of similar or identical plants on each side of the focal point, it does bring a visual balance to the arrangement.

Be sure you bring different textures into the container planting and design. Add fine-, medium- and coarse-leaved plants. Use tall pieces that bring height for the focal point; shorter, mounding species en masse; and low-growing spiller plants to soften the edges of the container planting.

Lastly, use proportional sizes to match the container. For large containers, use larger plants; use smaller plants in small containers. The rule of thumb is that the tallest plant should not be taller than 1 to 2 times the height of the container.



You can use interesting container for an artistic flair.

Now is the fun part: picking the plants. Be sure that you use season-appropriate plants. For example, if you are creating a design for the summer, make sure you are using heat-tolerant, warm-season annuals and perennials.

Most trees and shrubs will be fine throughout the seasons, but be sure to use evergreen selections unless you plan to rotate them out with the seasons as you do with your annuals and perennials.

Here are a few suggestions of Louisiana Super Plants for each category for medium-sized containers.



You can use interesting container for an artistic flair.

Thriller plants: Suncredible yellow sunflower, Flamethrower coleus series, Fireworks pennisetum, Senorita Rosalita cleome, Intenz Classic celosia, Flutterby Tutti Frutti buddleia, Camelot foxglove series, Diamonds Blue delphinium, Jolt and Amazon dianthus series.

Filler plants: Beacon impatiens series, Babywing begonia series, Serena and Serenita Raspberry angelonia, Mesa gaillardia series, Butterfly and Lucky Star pentas series, Sorbet viola series, compact varieties in the Sunpatiens impatiens series, Kauai torenia series.

Spiller plants: Mini Vista Indigo and Vista Bubblegum in the Supertunia petunia series, Homestead Purple verbena, lemon sedum.

*Heather Kirk-Ballard, Ph.D.
Consumer Horticulture Specialist*

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Checklist for March, April, May



Eggplants.

March

1. In the vegetable garden: Work compost and a preplant complete fertilizer, such as 13-13-13, at seven to 21 days before planting or laying mulch cloth. In south Louisiana plant beans, cantaloupes, collard greens, sweet corn, eggplants, herbs, mustard greens, okra, Southern peas, peppers, pumpkins, summer squash, tomatoes and watermelons. North Louisiana should wait until the beginning of April.
2. In the lawn: Make your first mowing at a low setting and remove grass clippings. Continue to treat cool-season annual weeds in the lawn. Let your lawns begin to green up before you start fertilizing lawns this month after March 15 in south Louisiana and after April 1 for north Louisiana.
3. In the landscape beds: Continue to enjoy your cool-season bedding plants that were planted in fall. They will have another outstanding display of color this early spring before it is time to replace them with warm-season bedding plants around the beginning of May.
4. Trees and shrubs: Spring is a great time to plant new trees and shrubs. Consider size, fall foliage change, flower interests and whether you want evergreen or deciduous trees or shrubs when selecting new plants. Apply dormant oils to control scales, whiteflies and other sucking insects on trees and shrubs that may be affected. Fertilize this month if you missed it in February. Begin your preventative rose spray program in early March. Alternate

fungicides to control blackspot and powdery mildew. Treat in the early morning or late evening every week. Copper is a great organic alternative to other traditional fungicides.

5. Fruit: Apply fertilizer to fruiting trees that were not fertilized in winter now at the recommended rate. Recommended 8-8-8 fertilizer rates:
 - Blackberry – Half of a pound per plant.
 - Blueberry – Fertilize with 2 ounces per year of growth up to 1 ½ pounds.
 - Fig – 1 pound per year of 8-8-8 up to 10 pounds.
 - Citrus, peaches and plums – 1 to 1 ½ pounds per year of tree age up to a maximum of 8 pounds.



Caladiums.

April

1. In the vegetable garden: Apply pine straw mulch to prevent weeds in the vegetable garden. The last week of April is a good time to side-dress vegetables planted in late March with ammonium nitrate, ammonium sulfate, calcium nitrate or potassium nitrate. Be sure to apply several inches away from the base of the plant and water in immediately to prevent burning. Stake tomatoes when the first flower clusters to prevent fruit from touching the ground and to help prevent fruit rot.
2. In the lawn: Fungal diseases are common this time of year. Keep an eye out for large patch and gray leaf spot. St. Augustinegrass is susceptible and centipedegrass is more resistant. Use fungicides containing maneb, myclobutanil, PCNB, propiconazole, thiophanatemethy or triadimefon every 10 days as the fungus persists. Control cool-

season annual weeds, such as bedstraw, chickweed and henbit, from producing seeds that will be a headache next winter if not taken care of now

3. In the landscape beds: You can begin planting warm-season annuals, perennials and caladium bulbs this month. Thin border plants and clumping ground covers, such as monkey grass, liriope and hostas, this month. Use a 2-inch mulch layer on newly planted landscape beds to conserve moisture and to control weeds.
4. Trees and shrubs: Prune spring-flowering shrubs, such as azaleas, camellias, viburnum and spireas, after they have finished flowering. Fertilize after pruning. Powdery mildew can be a problem on the foliage of ornamentals. Control with fungicides containing one of the following active ingredients: azoxystrobin, copper sulfate, myclobutanil, trifloxystrobin or triforine.
5. Fruit: Thin fruit on your fruit trees this month. Thinning fruit improves the size and quality of the remaining fruit and can help reduce the spread of diseases.



Loquats.

May

1. In the vegetable garden: Now is a critical time to scout vegetable plants for immature stink bugs and leaf-footed bugs. If you see them spray soon. When they turn into adults, they are much more difficult to control. Continue to plant warm-season vegetables.
2. In the lawn: Be on the lookout for weeds. If weeds are present, you can apply a lawn weed killer labeled for use on your lawn. Early weed control before going into hot summer months is essential for the best turfgrass vigor. If your weeds are under control, you can encourage vigorous turfgrass growth by aerifying your lawn. Plug removal is the best method to provide air to roots. If you fertilized in March, you may go ahead and fertilize again late this month. Lay sod or sprig your lawn this month and throughout the summer, if needed. Trees and shrubs: Mulch trees. Prune ever-blooming roses back by one-third of their height to encourage a vigorous fall bloom.
3. In the landscape beds: Watering can be laborious in extended droughts in summertime. Consider installing a microirrigation system. Home installation kits and timers are homeowner friendly and readily available online and in stores. Be sure to buy a timer with a rain delay for days with rain. Next month is National Pollinator Month. Plant perennials, such as coreopsis, daylily, Echinacea, gaillardia, gerbera daisy, gaura, milkweeds, Louisiana phlox, passion vine, cardinal flower, sunflowers, bee balm, Mexican sage, verbena, rudbeckia, coral honeysuckle, rose mallow and irises.
4. Trees and shrubs: This is a good time to prune spring-blooming shrubs now through no later than July to encourage new growth. Be careful not to prune summer-blooming shrubs, such as hydrangeas, butterfly bush and crape myrtles. Azalea lacebugs can be a problem in late spring and into summer. Look for white mottling or spots on the tops of leaves and dark brown insects on the undersides of leaves. Use acephate or malathion to control and be sure to cover the undersides of leaves to control the insects that are found there.
5. Fruits: Bird netting may be necessary for fruit trees and shrubs this month. It is harvesting time for mayhaws, loquat, mulberry, peach, sweet orange, blackberries and blueberries this month.

*Heather Kirk-Ballard, Ph.D.
Consumer Horticulture Specialist*

Spring Vegetable Tips

If there is ever a time to be outside in Louisiana, it's in the short-lived spring season we get. I recommend getting into the vegetable garden as early as possible. January and February are wet and cold. As soon as that garden dries in March, get going before it gets hot. The heat will come in a week, a month or, if we are lucky, in two months ... in Louisiana you never know.



Snap beans and tomatoes.

Steps to success

1. Remove weeds and insect- and disease-infested plants from the fall garden.
2. Work the soil. Loosely till or spade your garden area.
3. Apply fertilizer or aged manures. A key to achieving heavy vegetable harvests is using adequate fertilizer. For example, most mixed gardens (all warm-season crops combined into one area) require a medium rate of fertilizer. There are hundreds of fertilizers to choose from. To keep the recommendation simple, I would apply one-half pound to 1 pound of 13-13-13 for every 10 linear feet of row in your garden space. That rate is assuming your rows are no wider than 48 inches. That is about 1 to 2 cups of 13-13-13.
4. Water that fertilizer in!
5. Plant!!! In south Louisiana plant in early-to-mid-March. In central and northern Louisiana plant April 1 or in late March if we are warm.
6. Water your newly planted seeds and plants within one hour of planting. Keep the ground moist, not saturated, throughout the life of the garden.



Okra flower and pod.

Vegetables to Plant in March

Direct-plant snap beans, Swiss chard, radish, lettuce, collards, mustards, turnips, cabbage, broccoli and sweet corn seeds. Plant tomatoes, peppers and eggplant transplants. Plant cantaloupes, squash, cucumbers and watermelons well after danger of frost is over. This is usually after March 15 in south Louisiana and closer to April 1 in north Louisiana.

... and in April

Plant snap beans, butter beans, radishes, collards, cucumbers, eggplants, cantaloupes, okra, Southern peas (field peas), peanuts, pumpkins, winter squash, summer squash, sweet corn, sweet potatoes (late April), tomatoes (transplants), peppers (transplants) and watermelons.

... and in May

Most spring vegetables can be planted in May, since the soil has warmed and danger of frost has passed. Plant sweet potatoes (transplants), heat-tolerant tomatoes (Sun Master, Sun leaper, Florida 91, Phoenix, Bella Rosa, for example), okra, Southern peas, pumpkins, peanuts, sweet corn, watermelons, cucumbers, butter beans, squash, cantaloupe, collards and eggplants (transplants). Snap beans, butter beans, sweet corn, tomatoes (except heat-tolerant varieties) and peppers (transplants) should be planted in the early days of May to prevent poor fruit set because of high temperatures.

Enjoy the Garden,

*Kathryn "Kiki" Fontenot, Ph.D.
Vegetable Gardening Specialist*

Lawn Weed Control

Herbicides can be effective tools for reducing weeds in your yard, but the best way to manage weeds is to grow a thick, healthy lawn. Lawns that are managed properly are lush and healthy, with few weed problems.



Blue eyed grass is an iris that often infests lawns in the early spring.



Crabgrass emerges in early February in south Louisiana.



Indian mock strawberry infests thin lawns.



Spotted burclover is a common weed seen early in the spring.

Pre-emergence herbicides

Weed preventer or pre-emergence herbicides can be helpful in preventing the emergence of several summer annual grasses and broadleaf weeds. Pre-emergence herbicides may be applied safely in late winter to early spring to all established southern lawns.

Most pre-emergence products for home lawns are granular and should be applied with drop or broadcast spreaders and “watered in” soon after application. These types of herbicides kill weeds as they germinate, so application timing is extremely important. You must apply before the weeds, such as crabgrass, germinate. Also, these pre-emergence herbicides that you are applying to prevent summer weeds will not kill any existing winter weeds.

Residents in the New Orleans area and southernmost areas of the state should apply pre-emergence herbicides in late January or early February and then follow up with another application in mid-April. From Alexandria to Baton Rouge, residents should apply around Feb. 10, with a follow-up application in late April. If you live in north Louisiana, try to get these herbicides applied in late February, with a follow-up application by early May. Some pre-emergence herbicide trade names to look for are Scotts Halts, Barricade and Hi-Yield Crabgrass Preventer with Dimension. Consult product labels concerning rates and application techniques. When it comes to the successful use of pre-emergence herbicides, going a little early with your applications is better than applying too late. Winters over the last few years have been nearly nonexistent. Lack of cold weather has caused an earlier emergence of summer weeds. Let's get those pre-emergence herbicides out on time.

Post-emergence herbicides

Post-emergence herbicides are used to kill weeds that already have emerged in the lawn. Winter broadleaf weeds usually are prevalent in the late winter to early spring throughout the state. MSM Turf (metsulfuron) and Celsius (theincarbazone-methyl + dicamba + iodosulfuron) are two highly effective broadleaf killing herbicides that have consistently performed well in LSU AgCenter evaluations on winter broadleaves. MSM is effective on wild onion, false garlic and blue-eyed grass (an iris), as well as most winter broadleaves. These are low-use-rate herbicides, especially MSM. Follow the product labels very carefully so that lawns and trees are not injured. Do not use Celsius on carpetgrass.

More widely available broadleaf weed killers include “trimec type” herbicides formulated with the active ingredients 2,4-D; dicamba; and mecoprop. Some examples of trade names to look for with these active ingredients include Trimec Southern, Ortho Weed B Gon for Southern Lawns, and Ferti-lome Weed Free Zone. Product manufacturers will often recommend a follow-up spray two or three weeks after the first application. Broadleaf weed killers such as these are widely available and can be used on most southern grasses. Injury can occur, however, when using them on St. Augustinegrass and centipedegrass as the weather gets warmer in late spring.

Atrazine is an herbicide that is effective on winter broadleaves and also controls annual bluegrass, especially when applied before the annual bluegrass flowers. Most garden centers have a good supply of atrazine on their shelves. Weed and feed products labeled for St. Augustinegrass and centipedegrass contain atrazine as their active ingredient. However, liquid atrazine sprayed on weeds in the yard has worked better in LSU AgCenter trials than atrazine weed-and-feed products impregnated on a fertilizer granule.

What about weed-and-feed products?

Weed-and-feed herbicides can be used at the times recommended for the first fertilizer application of the year. Apply weed-and-feed in the New Orleans area from mid-to-late March. For north Louisiana, early-to-mid-April is the time. Just be aware that applying weed-and-feed too early (late February to early March) may encourage outbreaks of large patch disease.

Clean your sprayers thoroughly with an ammonia solution if the same sprayer is used for applying insecticides or fungicides on landscape plants. It is best to buy a sprayer specifically dedicated for weed killers, however, to avoid accidental injury to desirable plants. As always, be sure to read and follow product label recommendations before using any pesticide.

Fertilizing the lawn

Lawns vary in the amount of fertilizer required during the growing season. See the table below for information regarding the number and timings of fertilizer applications recommended for lawn species grown in Louisiana. Bermudagrass and St. Augustinegrass require the most fertilizer compared to other lawn grasses. Centipedegrass and zoysia only require one to two applications of fertilizer per year.

Lawn	Number of fertilizer applications/year	Recommended months
Bermudagrass	3	March/April, June, August (optional September)
Centipedegrass	1 to 1.5	April and possibly June at ½ fertilizer rate
St. Augustinegrass	2 to 3	April, June, August
Zoysia	2	April and July

Which fertilizer should I use during the growing season?

A spring application of weed and feed could serve as your first fertilizer application. For future applications during the growing season, consider using 3:1:2 or 4:1:2 ratios of nitrogen, phosphorus and potassium (N-P-K) as a guide for the analysis of fertilizers to choose for the lawn. For example, a fertilizer with an analysis of 21-7-14 is a fertilizer with a 3:1:2 ratio. You would be better off getting your soil tested. Soil tests would be most helpful to determine exactly what nutrients are needed to make your lawn beautiful. Contact your parish extension office concerning soil sampling your yard today.

Ron Strahan, Ph.D.
Weed Scientist and Turfgrass Specialist

Exobasidium Leaf Gall

Leaf gall of camellias and azaleas is a fungal disease favored by extended periods of cool, wet weather during spring. This is primarily a leaf disease, but occasionally it may occur on stems, flowers and seed pods. There are mainly two species of the *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 leatherlike texture (Figures 1 and 2). 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 is 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. Proper pruning and discarding of galled leaves is very important in reducing the spread of the disease. Cut galled leaves a couple of inches below the symptoms. Before discarding them, put them in zippered plastic bags.

Remove and destroy affected leaves with galls that have fallen on the ground. Improve air circulation by selective thinning of the canopy of established plantings to promote rapid drying of foliage and maintain adequate spacing when establishing new plantings to avoid creating favorable conditions for disease development. Fungicides may help avoid 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 LSU AgCenter extension agent. For more information on leaf galls of azalea and camellia, please contact Raj Singh at 225-578-4562 or email rsingh@agcenter.lsu.edu.

Raj Singh, Ph.D.
Associate Professor
Director, Plant Diagnostic Center



Figure 1: A leaf gall on a camellia. Photo by Raj Singh.



Figure 2: A leaf gall on an azalea. Photo by Raj Singh.



Figure 3: Camellia galls show color variations. Photo by Raj Singh.

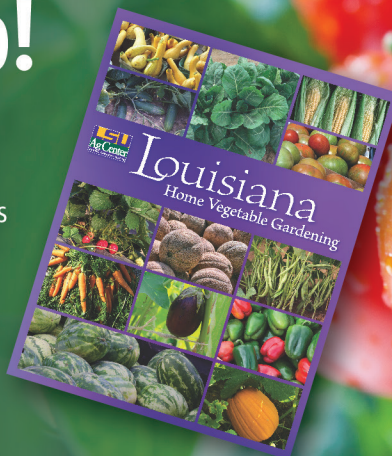


Figure 4: An older mature gall turns brown on an azalea. Photo by Raj Singh.

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