



GN Gardening Magazine



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Flowering mimosa vine
(*Mimosa strigillosa*)
Photo by Will Afton

Weed of the Month

Mimosa Vine (*Mimosa strigillosa*)

Most weed scientists will tell you that a weed is nothing but a plant that is growing out of place. Using this definition, means that when growing a turfgrass species in a home lawn environment, anything that is different from the turfgrass species would be considered a “weed”. Even if that plant has an appealing look, texture, or a standout feature. That’s exactly how I classify the plant mimosa vine, *Mimosa strigillosa*. Mimosa vine itself is native to the Southeastern United States. It is a member of the legume family, Leguminosae. That should sound familiar to an informed gardener because it includes all peas and beans. Plants in this family have a strong association with soil microbes that convert atmospheric nitrogen (N_2) to ammonia nitrogen (NH_4) which is available for the plants to use. Some of the other members of this plant family that you might be

familiar with include plants like sweet peas, bush beans, edamame, and clover.

M. strigillosa goes by a few names including mimosa vine, sunshine mimosa, sensitive vine, and powder

puff. It is classified as a perennial groundcover plant because it lives for several years and grows very low to the ground. This prostrate-like growth habit is facilitated by creeping stems and bipinnately compounded leaves. The leaves of plants can either be simple or compound. The latter can be hard to identify for a layperson because a compound leaf is made up of smaller “leaflets”. A bipinnately compound leaf is even more complex but its basically a fancy way of saying a twice divided compound leaf. The common name, sensitive vine, comes from the nature of



In this photo you can see the bipinnately compound leaves, flower and developing seed pods of a mimosa vine *Mimosa strigillosa*.

the leaflets. When handled the leaflets on each leaf naturally fold along the main rachis or leaf stem, hence the common name sensitive vine. The stems of

mimosa vine grow laterally across the top of the ground as the plant creeps along, right underneath the mower blade. The stem can produce roots at each node, allowing for it to spread out from the initial starting point. The plant can also reproduce from seeds or stem fragments.

The other striking feature about *M. strigillosa* are it's lovely pink powderpuff like flowers which, obviously, gave rise to one of it's other common names.

In a home lawn situation, mimosa vine is considered a weed. If this weed is starting to make a home in the middle of your front lawn, then something must be stressing the turfgrass species that makes up that lawn. A good horticulturist will tell you that the best weed control method is keeping and maintaining a healthy lawn.

Look for environmental stress like poor surface water drainage,

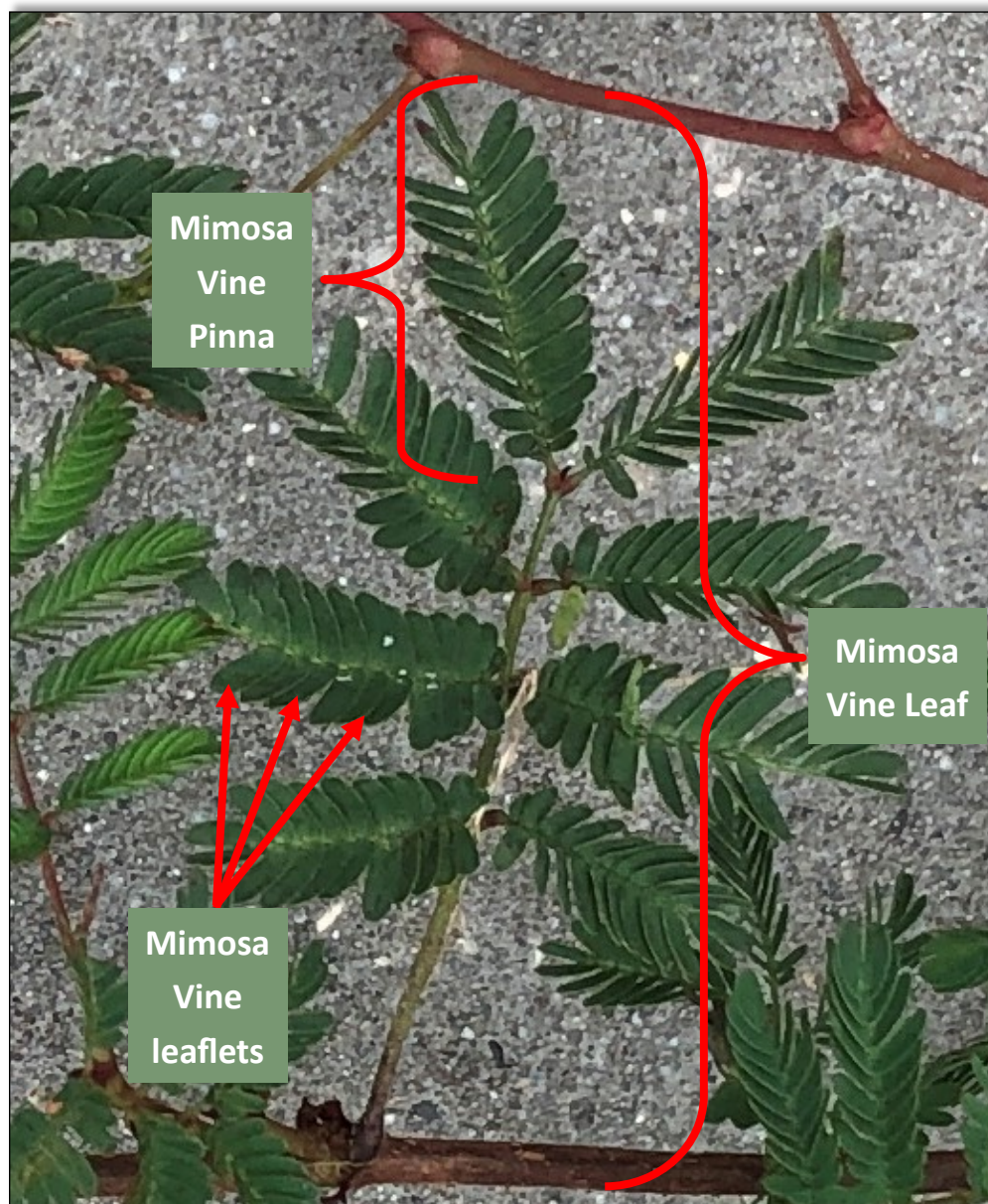
compacted soil, and poor soil fertility. Use the LSU AgCenter Soil Testing Lab to identify the current soil pH and any nutrient deficiencies. Correct those issues with soil amendments and fertilizers. Follow proper cultural practices for the specific turfgrass species like mowing height and frequency to reduce added stress. Top dress low areas of the yard to create a more even

grade so that surface water can follow gravity towards a drainage swale or drainage ditch. All these different methods can be combined to form specialized integrated pest management program (IPM) for a home lawn.

Lastly, there are herbicides that do a good job at eliminating this plant from a lawn as long as the

turfgrass species is known. Control in the spring months can be accomplished in using common 4-way herbicides like Fertilome Weed Free Zone and Ortho Weed B-Gon for Southern Lawns. Those products can be used in all warm-season turfgrasses (centipedegrass, bermudagrass, st augustinegrass, and zoysiagrass) grown in Louisiana. When daily temperatures start to average above 90 degrees metsulfuron-methylcan (MSM Turf) be used on those same warm season turfgrasses

for control. Notice how herbicide information is listed at the end of this article. The reason for that is because they should be seen as a last resort to managing weeds in the home lawn. If a herbicide is needed make sure to read and follow the label instruction before applying.



Each compound leaf of a mimosa vine is comprised of several compound pinna supporting numerous small leaflets.

July Vegetable Planting Guide

Crop	Recommended Variety
Broccoli (Seeds for transplant)	Green Magic, Everest, Castle Dome, Packman
Brussels Sprouts (Seeds for transplant)	Jade Cross E, Long Island Improved
Cabbage (Seeds for transplant)	Bravo, Rio Verde, Caraflex, Blue Vantage
Cantaloupe	Ambrosia, Aphrodite, Passport, Primo, Verona
Cauliflower (Seeds for transplant)	Snow Crown, Cumberland, Incline, Freedom
Collards	Champion, Flash, Georgia, Top Bunch, Yates
Chinese Cabbage (Seeds for transplant)	None Given
Cucumbers	Slicers = Dasher II, Diva, Fanfare HG, Indy Pickler = Calypso
Luffa Gourd	None Given
Okra	Annie Oakley, Cajun Delight, Clemson Spineless
Peppers, Bell (Seeds for transplant)	Aristotle XR3, King Arthur, Paladin, Carmen
Pumpkins	Atlantic Giant, Baby Bear, Prankster, Sorcerer
Shallots	Matador, Prisma
Southern Peas	Queen Anne, California #5, Quickpick, Colussus
Squash	Zucchini = Declaration II, Justice III, Payroll Straight Neck = Multipik, Patriot II, Liberator III Crook Neck = Destiny III, Gentry, Medallion
Tomatoes (Seeds for transplant)	Bella Rosa, Sun Chaser, Florida 91, Phoenix, Solar Fire, BHN-216, Solar Set
Watermelon	Seedless: Cooperstown, Gypsy, Matrix, Millennium Seeded: Mickey Lee, Sugar Baby, Amarillo

For more recommended varieties and supplier information click here to visit the
Recommended Varieties Database on the LSUAgCenter website.

<http://apps.lsuagcenter.com/diseaseresistance/>

On the Other Hand...

Using *Mimosa strigillosa* as a Lawn Alternative

Many property owners are figuring out that lawns are a big waste of time and resources and are deciding to replace their traditional turfgrass lawns with ground covers and other alternatives.

According to information that I found from the University of Florida, *Mimosa strigillosa* is an excellent candidate for our area. That's right, instead of fighting this beautiful native plant, we could embrace it. According to the USDA, "Powderpuff is drought tolerant and it is able to withstand moderate foot traffic. Other attributes of this plant include low growing height and attractive pink blooms during late spring and summer. Furthermore, *M. strigillosa* is the host plant for caterpillars of the little sulphur butterfly (*Pyrisitia lisa*), a source of pollen for honeybees and is a source of seeds for wild birds."

The following is from the USDA Natural Resources Conservation Service Plant Guide.

Habitat

Powderpuff is adapted to a wide range of soils and soil textures, but favors sandy loams. The optimum

soil pH range for herbaceous mimosa is 6.2 to 7.1. The plant will grow on soils with a pH of 4.7. However, acidic soils with a pH of 4.1 or less are not suitable for the plant. It grows best in full sun, but will tolerate some shade.

To prevent unwanted spread of mimosa vine, it should be planted in restricted areas with definite boundaries, such as pavement or sidewalks, where it can be more easily edged.

Establishment

A soil analysis should be conducted prior to planting to determine if soil amendments of phosphorus and potassium are needed and that soil pH is 4.2 or greater. Avoid fertilization with nitrogen as it will promote weed competition, especially from warm season, annual grasses. Powderpuff, if inoculated, will fix its

own nitrogen, and requires no additional nitrogen inputs.

Seedbed preparation should begin in advance of planting to help reduce weed competition. Planting can be completed in spring or early fall. Prepare a clean, weed free seedbed using tillage or herbicide application. Soil amendments may be added at this



Photo credit: University of Florida

A curbside display of mimosa.

time to help incorporate them in the soil. Prior to planting, the soil should be firm, not fluffy or powdery.

Plantings can be established with containerized plants, rooted sprigs (stem pieces with roots at one or more nodes) or by direct seeding. If using transplants or sprigs, irrigate the planting for 2 to 4 weeks to prevent the soil from drying out. Seeds should be scarified before planting to ensure germination. Nonscarified seeds will take 1 year or more to germinate. Sow seeds about 1/4 inch deep in late summer or early fall. Seeds planted in late spring or summer might not give rise to plants that flower that season.

Plant small mimosa plants about 2 to 4 feet apart depending upon how quickly you want the groundcover to develop. As few as four or five pots of mimosa planted in the landscape can cover 200 to 300 square feet in less than a full growing season. In bare spots, apply about 3 inches of coarse mulch to suppress weed growth.

Management

Powderpuff is not an overly aggressive plant and other plants will eventually come into the stand. Unwanted plants can be controlled by mowing or use of an herbicide wick. Glyphosate can be applied to treat cool season weeds after powderpuff goes dormant in the fall; however, care should be taken as powderpuff may not become dormant in the most southern portions of its range. According to Stephen H. Brown from the University of Florida, A grass herbicide such as Fusilate or Plateau can be used prior to full vegetative cover. Personal communication from a landscaper indicates that Roundup at half-strength can help control weeds. On the latter, several small areas should be used for testing prior to application.

If you have been considering a traditional turfgrass lawn alternative then maybe mimosa vine is right for you.

~Chris Dunaway



Photo credit: University of Florida

First day of planting mimosa groundcover. One gallon plants were used, with a 2 to 3 inch layer of coarse mulch covering the bare ground.



Photo credit: University of Florida

Mimosa groundcover 6 months later.

Look At Me – Crêpe Myrtle (*Lagerstroemia*)

Whether you use crape myrtle, crepe myrtle, crapemyrtle or crepemyrtle, we're all talking about the same plant that got its common name because the flowers look

as if they are made of crepe (light thin fabric with a wrinkled surface) and the leaves look like those of the common myrtle (*Myrtus communis*). My preferred common name is crepe myrtle.

Crepe myrtles are deciduous multi-stemmed shrubs or small single stem trees with opposite,

simple, oval leaves with entire edges (usually 1-2" long). Leaves on some of the hybrids may be up to 5" long. Flowering begins as early as May in some cultivars and continues into the fall. Each 6- to 18-inch cluster of flowers (or panicle) develops on the tips of new growth and is composed of hundreds of 1" to 2" flowers. Flowers are produced on the new season's growth. The fruit is a capsule, green and succulent at first, then ripening and drying to dark brown or black. The capsule splits along six lines releasing numerous, small, winged seeds.

The common crepe myrtle, *Lagerstroemia indica*, is native to China, Korea, Japan and India. It was first introduced to the United States in Charleston, SC in 1790 by the famous French botanist, Andre Michaux,



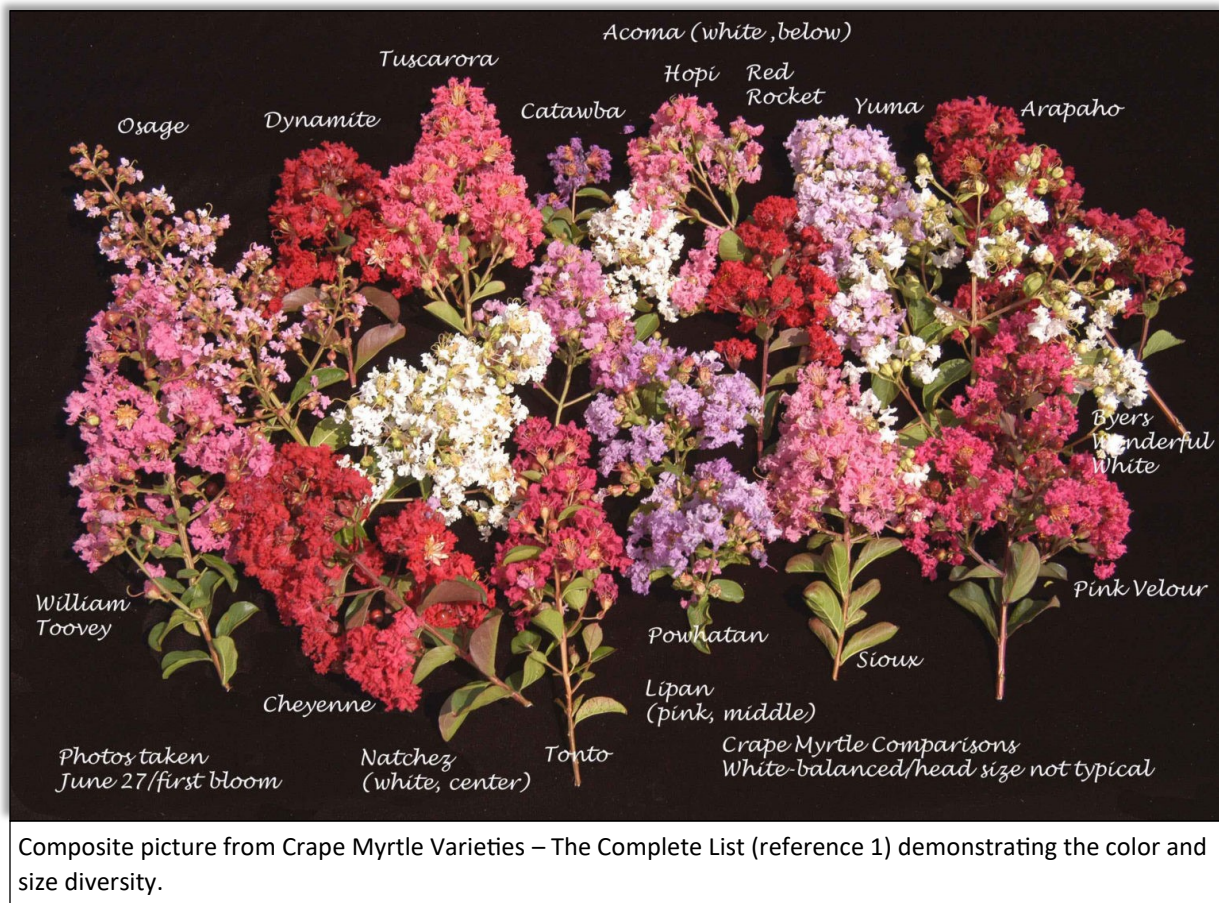
Crape myrtle trees lining the entrance to New Orleans City Park.

noted for his extensive studies of North American flora. Due to large-scale use of crepe myrtles in southern U.S. landscapes, it became as big a southern icon as our native Southern Magnolia (*Magnolia grandiflora*). Two hundred (200) years of cultivation, breeding and selection have resulted in about 150 named varieties. There are miniature/ground cover varieties less than 3' tall and large varieties over 20' tall with everything in between. They also come in multiple flower shades of red, pink, lilac, purple, and white. The Black Diamond series of varieties even have deep burgundy leaves. In addition to the long

period of beautiful floral display, crepe myrtles have a rare habit of shedding their old bark in large sheets in early summer revealing the new bark below ranging in color from pale cream to dark cinnamon to rich brown to bright orange. Depending on variety, this

production and well-drained soil. They will do well in a broad range of soil conditions regarding soil pH, soil texture and soil fertility. In fact, they are an excellent choice for poor soils. They will respond to periodic fertilization but don't generally require fertilization to

produce beautiful flowering specimens. Newly planted crepe myrtles should get regular watering until they are established. Once established, they are very drought tolerant. The older varieties thrive in zones 7-9; however, newer varieties selected for cold tolerance extended their range into zones 5 and 6. In the colder regions they may lose some branches or die down in the winter but will



bark shedding will occur every year or every other year. This shedding results in an attractive mottled appearance. The color will gradually fade over winter. Combined with the gnarled, craggy, fluted look of the defoliated winter trees, it provides year-round ornamental interest.

Most of the older, early selected varieties were all *Lagerstroemia indica* selections. Many of the newer varieties are hybrid crosses using *Lagerstroemia fauriei*, *Lagerstroemia subcostata*, and *Lagerstroemia limii* which were introduced into the breeding programs in the mid 1960's. These crosses resulted in the large range of sizes, multiple floral colors, increased cold tolerance, varied shades of bark, increased powdery mildew tolerance, and burgundy foliage that is now available.

All crepe myrtle varieties have similar growth requirements. They need full sun for best flower

quickly regrow and flower in the Spring and Summer. In the heat of our southern Louisiana summers, crepe myrtles are often the most prominent plants still flowering. Research has found that a large percentage of pollen collected by bees during this time of the year comes from crepe myrtles. So, though not native, crepe myrtles have become a valuable summer food source for bees.

Crepe myrtles need very little pruning (see GNO Gardening February 2022 for Pruning Crape Myrtles). I suggest removal of crossing branches to prevent rubbing and wounding. But crepe myrtles have an unusually high tendency for branches to fuse when they are touching. This can produce some very interesting shapes and effects. Many varieties prolifically produce suckers or water sprouts that should be removed for aesthetics and plant health. Deadheading is not necessary and the mature seed

pod can add to the winter interest.

Crepe myrtles are hardy and mostly disease and insect free. But there are two problems that are fairly common to crepe myrtles: 1) powdery mildew and 2) crepe myrtle bark scale. Powdery mildew is mostly a cosmetic problem and occurs more on crepe myrtle suckers or trees growing in partially shaded areas. Crepe myrtle bark scale is a recent insect pest that can weaken trees and cause unsightly sooty mold growth. See references 6 and 7 listed below by Joey Williamson for the most up-to-date information and control recommendations for these and other crepe myrtle problems.

With the number and variation in crepe myrtle varieties, they can be an important part of almost any landscape. The most important part of choosing a crepe myrtle variety is matching the mature size to the space you want to use it in. Since there are 15 or more varieties in varying colors in each of the following size categories (less than 3' tall, 3'-5' tall, 5'-10' tall, 10'-20' tall, more than 20' tall), there is no reason not to have the right sized variety for your space. See references 1 and 4 below for extensive lists of crepe myrtle varieties, colors, and other characteristics. Most of the smaller varieties also do well in containers.

~Dr. Joe Willis

Selected References

Crape Myrtle Varieties – The Complete List. 2022. The Crape Myrtle Trails of McKinney. <https://crapemyrtletrails.org/varieties/complete-list-crape-myrtle/>

Knox, Gary. 2016. Crape myrtle in Florida. UF-IFAS Extension ENH-52

Lau, Piere et. al., 2019. Seasonal variation of pollen collected by honeybees (*Apis mellifera*) in developed areas across four regions

in the United States. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6561680/>

Richter, S., J. Parsons. 2005. Characteristics of Selected Crape Myrtle Varieties. Texas A&M. https://aggie-horticulture.tamu.edu/databases/crapemyrtle/crape_myrtle_varieties_byheight.html

The Tree Centers. 2016. Crape Myrtle Varieties and Guide. <https://www.thetreecenter.com/crape-myrtle-varieties-and-guide/#:~:text=Although%20there%20are%20around%2050,regions%20as%20shrubs%20or%20trees.>

Williamson, Joey. 2021. Crape Myrtle Diseases & Insect Pests. Clemson Cooperative Extension. HGIC 2002. [https://hgic.clemson.edu/factsheet/crape-myrtle-diseases-insect-pests/#:~:text=Crape%20myrtles%20\(Lagerstroemia%20indica\)%20are,Japanese%20beetles%2C%20and%20sooty%20mold.](https://hgic.clemson.edu/factsheet/crape-myrtle-diseases-insect-pests/#:~:text=Crape%20myrtles%20(Lagerstroemia%20indica)%20are,Japanese%20beetles%2C%20and%20sooty%20mold.)

Williamson, Joey. 2021. Crape Myrtle Bark Scale. Clemson Cooperative Extension. HGIC 2015. <https://hgic.clemson.edu/factsheet/crapemyrtle-bark-scale/>



The dramatic effect of crepe myrtle bark exfoliation.

Super Plant of the Month: Sweetbay Magnolia - *Magnolia virginiana* var. *australis*

When asked to recommend a street tree for the New Orleans area that “plays nice” with power lines, I usually have three that come to mind.

Crape myrtles and vitex are both showy bloomers and easily grow in the “hell strip” between the curb and sidewalk. Increasingly though, folks are requesting Louisiana native species that support pollinators and other wildlife while also helping with stormwater management in small, urban yards. This month’s Super Plant is my top pick. The evergreen sweetbay magnolia (*Magnolia virginiana* var. *australis*) fits the bill. It is a hardy, medium sized native tree reaching a height of 50’ and a width of 30’ at maturity. It can be grown as a single trunk specimen or a multi-trunk tree. It has an open, spacious branching habit, making it easy to shape to avoid damaging power lines. The leaves are glossy and evergreen with a silver backing, and it produces creamy white flowers (think miniature versions of the large Southern magnolia blooms). The cone-like seed pods have bright red seeds that create further visual interest.

In addition to using it as a street tree in urban areas, use this tree in foundation plantings, on the edge of woodland gardens, as a focal point in your landscape, or near a patio. It is well

behaved and not as messy as the standard Southern magnolias or dwarfed cultivars.

Hummingbirds and insect pollinators are attracted to the blooms. It is also a host plant for the tiger swallowtail, spicebush swallowtail, and palamadies swallowtail butterflies.

Evergreen sweetbay magnolia is well adapted to many soil conditions, including the packed (and often saturated) clay-based soils of the greater New Orleans area. Fall and winter are the ideal time to plant. Choose a healthy nursery tree and trim away any circling roots. It can thrive in full sun to



photo by Allen Owings

A young sweetbay magnolia tree with three trunks.

partial shade. It generally requires no irrigation after establishment. In the first spring following planting, apply a half a pound of 10-10-10 or 4” of finished compost to the dripline of the tree to accelerate growth prior to the summer heat. Evergreen sweetbay magnolias grow moderately fast and have a lifespan of about 80-125 years.

Evergreen sweetbay magnolias are relatively low maintenance and require little to no pruning once the structure of the tree is established. Rake any fallen leaves, they decompose slowly. Mulch the tree to help regulate the soil moisture. Evergreen sweetbay magnolias have few pest or disease issues. All magnolias contain natural antimicrobial, insecticidal, and nematocidal compounds that reduce the threat of pests and diseases. Occasionally they will have small outbreaks of algal leaf spot (harmless) or magnolia scale, which can be treated using any insecticide labeled for scale control in ornamentals.

Evergreen sweetbay magnolia is an attractive mid-sized native tree that thrives just about anywhere in New Orleans. It provides ecological services in the landscape and works well in street plantings, even under power lines. If you are looking for a tree that checks all of these boxes, look no further than this month's Super Plant.

~Anna Timmerman



Photo by Dan Gill

The sweetbay magnolia produces bright red seeds that mature in autumn on cone-like pods.



Photo by Dan Gill

Sweetbay magnolia flowers are creamy white and about 2-3 inches in diameter.

What's Bugging You

American Cockroach (*Periplaneta americana*)

As we celebrate our nation's independence, what could be more American than the American cockroach. After all, in compared to German cockroaches or oriental cockroaches, the All-American is by far the largest. Never mind that they actually originated in Africa and were introduced into the United States as early as 1625. Some of the features that make American cockroaches so successful include: cockroaches can withstand doses of radiation that would be lethal to humans (so they likely can survive a nuclear war). They can hold their breath for up to 45 minutes, deliberately slow their heart rate, go without food for a month, and live without their head for a week. They run at close to three miles-per-hour (5 km/h) and have such fast reflexes they can turn completely around in 1/25th (0.04) of a second. Although most of us think of cockroaches as vermin, they do have a useful ecological role. Cockroaches are professional

recyclers, chowing down just about anything, including dead plants and animals, and animal waste. Their digestive systems are up to the task because they contain bacteria and protozoa that help convert the world's waste into easily-absorbed nutrients.



Photo by Chris Dunaway

An female American cockroach (*Periplaneta americana*) female.

American cockroaches are actually closely related to termites. In the wild, the waste of roaches nourishes growing plants, continuing the cycle. They are also a food source for birds, frogs, lizards, snakes, and mammals (even humans in some locales).

Description: Adults are approximately 1-1/2 inches long and

reddish brown, with fully developed wings that cover the entire length of the abdomen (Fig. 1). Both male and female are fully winged. The wings of the male extend slightly beyond the tip of the abdomen, while those of the female are about the same length as the abdomen. Nymphs are similar in appearance but are smaller and do not have wings. American cockroaches

are capable of flying but rarely do in northern areas of the United States. The American cockroach can be identified by its large size and reddish brown color with faded yellow edges on the thorax.

Management:

To control American cockroaches, it is important to do a thorough inspection to determine the extent of an infestation and reveal cockroach harborages and foraging areas. Cockroach surveys can involve placing sticky traps at strategic locations within the building. Whenever possible place survey traps either against a wall or in a corner of the floor, a shelf, a drawer, or under

equipment and counters. Most commercially available traps come complete with bait to encourage cockroaches to enter. One week of trapping with a sufficient number of trapping sites usually provides enough information for effective control.

Modifying the interior environment—removing food, moisture, and harborages available to cockroaches—is the first step in treatment. Eliminating cockroach harborages involves caulking in closets and cabinets, caulking under the sink, etc., or making similar structural repairs in the kitchen, bathroom, and other areas of the house. To prevent the insects from establishing a breeding population, clean up all spilled food materials, including crumbs on the floor. Do not leave dirty dishes overnight. Store items such as cereal, crackers, cookies, flour, sugar, and bread in airtight containers.

Dusts such as boric acid, silica aerogel, and diatomaceous earth can be applied to voids and other harborages such as cracks and crevices. Do not apply dusts to wet or damp areas. Dusts should be applied lightly because heavy deposits may repel cockroaches. Do not place dusts where children or pets could come



Ootheca and first, second, third and fourth instar nymphs of the American cockroach, *Periplaneta americana* (Linnaeus). Photograph by Paul M. Choate, University of Florida.

into contact with them. Take care to keep children away from areas treated with boric acid. Take precautions to assure that the dusts do not contaminate food.

Baiting can be an effective method to control or eliminate American cockroaches. Baits containing hydramethylnon, fipronil, sulfluramid, boric acid, or abamectin should provide a high level of control when applied to those areas where cockroaches harbor. Care should be taken to closely follow the label instructions for use.

Residual sprays can be applied inside and around the perimeter of an infested structure. . Loose, toxic, pellet baits are extremely effective in controlling America cockroach populations.

~Chris Dunaway

Plant Nutrition

Part 1: Understanding N-P-K

The first thing to know is that gardeners never provide food for their plants. Plants make their own food from the raw materials (nutrients) in the soil and air using energy from the sun. When we fertilize our plants, we are providing them with some of the raw materials or minerals they need to carry out photosynthesis – the process by which they make their own food. No matter what the label says, it is not plant food. Semantics aside, just what does a plant need to make its food.

Depending on which research you read, there are 16-21 essential plant nutrients. How is an element determined to be essential? 1) a plant cannot complete its life cycle without the element, 2) no other element can perform the function of the element, 3) the element is directly involved in plant nutrition. The number varies between 16 and 21 because there are some elements that have been shown to be essential to some plants but not to others.

Some elements are needed in large amounts and are termed macronutrients. Others are required in smaller amounts than macronutrients but still in fairly large quantities and are termed secondary macronutrients.

Others are required in very small amounts and are termed micronutrients.

As gardeners, we often supply these nutrients to our plants in the form of fertilizers. In this series of articles, when I use the term fertilizer, I'm referring to both

chemical and organic fertilizers. When I want to address chemical or organic fertilizers specifically, I will refer to them as such. In the U.S., all soil amendments or materials that are sold as plant fertilizers must have an analysis, and have the nitrogen, phosphorous and potassium content on the label. This content must be in the form of three numbers with dashes in between that represent N-P-K. The first number represents the percentage of nitrogen (N) in the fertilizer by weight, the second represents the percentage of phosphate (P₂O₅) in the fertilizer and the third represents the percentage of potash or potassium (K₂O) in the fertilizer.

A “balanced” fertilizer generally refers to one that has equal amounts of N-P-K, a 1-1-1 ratio. Therefore, a balanced commercially available fertilizer would be something like 8-8-8, 13-13-13, or 20-20-20. This is “balanced” in the concept of ratio but doesn't apply in the sense of a plant's needs. The historical theory was that different plants have different nutritional needs so no one level of available nutrients is right for all plants. However, research over the past couple of decades indicates that all plants have basically the same nutritional requirements, at least as far as the

Element	Uptake Form	Source	Element	Uptake Form	Source
CARBON	CO ₂	Air & Water	boron	H ₃ BO ₃ , H ₂ BO ₃ ⁻ , HBO ₃ ²⁻	Soil
HYDROGEN	H ₂ O	Air & Water	chlorine	Cl ⁻	Soil
OXYGEN	H ₂ O	Air & Water	copper	Cu ²⁺	Soil
NITROGEN	NO ₃ ⁻ , NH ₄ ⁺	Soil	iron	Fe ²⁺	Soil
PHOSPHORUS	H ₂ PO ₄ ⁻ , HPO ₄ ²⁻ , PO ₄ ³⁻	Soil	manganese	Mn ²⁺	Soil
POTASSIUM	K ⁺	Soil	zinc	Zn ²⁺	Soil
Sulfur	SO ₄ ²⁻	Soil	molybdenum	MoO ₄ ²⁻	Soil
Calcium	Ca ²⁺	Soil	nickel, silicon	Ni ⁺ , Si ⁺	Soil
Magnesium	Mg ²⁺	Soil	sodium, cobalt	Na ⁺ , Co ²⁺	Soil
			vanadium	V ₂ O ₅	Soil

Table 1: List of 20 essential plant nutrients, the chemical form which plants can uptake, and the common source of these nutrients. Nutrients in all caps are macronutrients, ones with the first letter capitalized are secondary macronutrients, those in all lower case are micronutrients.

macronutrients are concerned. Plants can carry out all biological functions and complete their life cycle using the same proportion of nitrogen, phosphorous, and potassium. This proportion translates to a fertilizer N-P-K ratio of 3-1-2. This would mean that using a “balanced” fertilizer (e.g. 13-13-13) would be adding excess phosphorous and potassium that the plant doesn’t really need. This is also a waste of money, resources and a possible source of environmental pollution.

Why might this be a problem? Nitrogen is lost quite quickly from soil because it is so water soluble. Potassium is lost more slowly and phosphorus much more slowly. If you add enough “balanced” fertilizer to provide the amount of nitrogen required for optimal growth, your phosphate and potassium levels will accumulate over time. Excessive soil phosphorus reduces the plant’s ability to take up required micronutrients, particularly iron and zinc, even when soil tests show there are adequate amounts of those nutrients in the soil. As a result, symptoms of phosphorus toxicity when they do occur are actually symptoms of iron and/or zinc deficiency. Healthy levels of P in soil ranges from 25 to 50 ppm. Healthy levels of potassium in soil range from 40 to 80 ppm. Excess potassium also interferes with nutrient uptake and can induce deficiencies of other nutrients,

particularly nitrogen, calcium and magnesium. A soil test can provide gardeners with accurate concentrations of the available nutrients in the growing medium.

Unless the label indicates otherwise, chemical fertilizers provide only nitrogen, phosphorus and potassium. If other elements are provided, they are listed on the label as well. If you need to add secondary macronutrients or micronutrients, you will need to obtain chemical fertilizers with these elements included. Many organic fertilizers, on the other hand, provide many of the secondary macronutrients and micronutrients depending on their composition. However, this information may not be listed on the label because the manufacturer is only required to list the N-P-K percentages.

More about chemical versus organic fertilizers in the next installment.

~Dr. Joe Willis

Selected References:

Mahler, R. 2004. Nutrients Plants Require for Growth. Univ. of Idaho. pdf version
Nachmansohn, J. 2013. Do Plants Require Nutrients in R. Similar Proportions? Bachelor's Thesis

Element	% Dry Weight		Element	% Dry Weight
CARBON	45		chlorine	0.01
HYDROGEN	45		iron	0.01
OXYGEN	6		manganese	0.005
NITROGEN	1.5		boron	0.002
PHOSPHORUS	0.2		zinc	0.002
POTASSIUM	1.0		copper	0.0006
Calcium	0.5		molybdenum	0.00001
Magnesium	0.2		nickel, cobalt	??
Sulfur	0.1		sodium, silicon	??
			vanadium	??

Table 2: The average dry weight percentage of the essential plant elements found in living plants.

Farmers Markets in the GNO Area

Orleans Parish

Crescent City Farmer's Market- Mid-City

500 N. Norman C. Francis
Thursdays from 3-7PM
Walk-up and curbside pre-orders at
www.crescentcityfarmersmarket.org

Crescent City Farmer's Market- City Park

Tad Gormley Stadium parking lot at
Marconi and Navarre
Sundays from 8AM-Noon
Preorder contact-free drive through only,
info at www.crescentcityfarmersmarket.org

Crescent City Farmer's Market- Uptown

200 Broadway
Tuesdays from 8AM-Noon
Walk-up and curbside pre-orders, info at
www.crescentcityfarmersmarket.org

SPROUT NOLA ReFresh Market-Truck Farm Table

200 N. Broad (In Whole Foods lobby or in
parking lot, weather permitting)
Walk up

SPROUT NOLA ReFresh Market-Lafitte Greenway

2606 St. Louis
Mondays from 3-6PM
Walk up and pre-orders at [https://
app.sourcewhatsgood.com/markets/refresh-
farmers-market/products](https://app.sourcewhatsgood.com/markets/refresh-farmers-market/products)

Vietnamese Farmer's Market

14401 Alcee Fortier Blvd., New Orleans East
Saturdays, 5:30AM-8:30AM

Marketplace at Armstrong Park

901 N. Rampart
Thursdays from 3-7PM

New Orleans French Market

Lower Decatur Street
Daily, 9AM-6PM

Know Dat Grow Dat Microgreens & Produce

Online Sales
<https://www.knowdatgrowdat.com/shop>

Mid-City Arts and Farmer's Market

Comiskey Park, New Orleans
Market dates vary and are on hold due to
Covid-19, check <http://midcityaf.org>

Laughing Buddha Farm Hubs

Pick up points vary, pre-orders available
Bywater, Broadmoor, Lakeview, Irish
Channel, Mid-City, Algiers Point, Uptown
Locations
[https://www.laughingbuddhanursery.com/
events](https://www.laughingbuddhanursery.com/events)

Barcelo Gardens Farmer's Market- Upper 9th Ward

2301 Gallier Street
Saturdays from 10AM-1PM

Bywater Market at Trap Kitchen-Bywater

1043 Poland Ave
Sundays from 10AM-3PM

Paradigm Farmer's Market-Central City

1131 S. Rampart
Sundays 9AM-Noon

Lot 1701 Small Business and Farmer's Market-Central City

1701 Oretha Castle Haley Blvd.
Every 1st and 3rd Saturday from 11AM to 3PM

BOUNYFUL Farmer's Market-Algiers Point

149 Delaronde St.
First and Third Sundays of the month, from
11AM-3PM

Edgewood Park Market-Edgewood

3317 Franklin Ave.
First market Sunday, May 2nd from 11AM-
3PM

New Orleans East Hospital Farmer's Market- New Orleans East

5620 Read Blvd.
First Tuesday of the Month- 3PM-Dusk
Third Thursday of the Month- Noon-3PM

Sheaux Fresh Sustainable Foods- Tremé-Lafitte

585 N. Claiborne at Lafitte Greenway
(under overpass)
Wednesdays from 2-5PM
Saturdays from 10AM-2PM
Check for current dates/times at
www.sheauxfresh.org

Holy Cross Farmer's Market- Holy Cross/ Lower 9th Ward

533 St. Maurice
First & Third Saturday of the month,
10:00AM-2PM

St. Tammany Parish

Covington Farmers' Market

Covington Police Department
609 North Columbia St., Covington, LA 70433
Saturday: 8:00 AM – 12:00 PM (rain or shine)
Covington Trailhead
419 N. New Hampshire
Wednesday: 10:00 AM – 2:00 PM (rain or
shine)www.covingtonfarmersmarket.org
General information: 985.966.1786

Mandeville Trailhead Community Market

Mandeville Trailhead
675 Lafitte St, Mandeville, LA 70448
Saturday: 9:00 AM – 1:00 PM (rain or shine)
[https://www.facebook.com/
TheMandevilleTrailhead](https://www.facebook.com/TheMandevilleTrailhead)
985.624.3147

Madisonville Market

Riverside Park South
Water St., Madisonville, LA 70447
Sunday: 10:00 AM – 2:00 PM
www.madisonvillemarket.org

Folsom Village Market

Hwy 40, one block east of Hwy 25
Saturday: 9:00 AM – 1:00 PM (weather per-
mitting)
Every 2nd and 4th Saturday
985.507.6496 (daytime only)

Abita Springs Art and Farmers' Market

22049 Main St., Abita Springs, LA 70420
Sunday: 12:00 PM – 4:00 PM (rain or shine)
[https://www.townofabitasprings.com/
farmers-market](https://www.townofabitasprings.com/farmers-market)
985.892.0711

Camellia City Farmer's Market

Old Towne Slidell
333 Erlanger St. (Corner of Third St.)
Saturday: 8:00 AM – 12:00 PM (rain or shine)
[https://www.facebook.com/
CamelliaCityMarket/](https://www.facebook.com/CamelliaCityMarket/)
985.640.7112

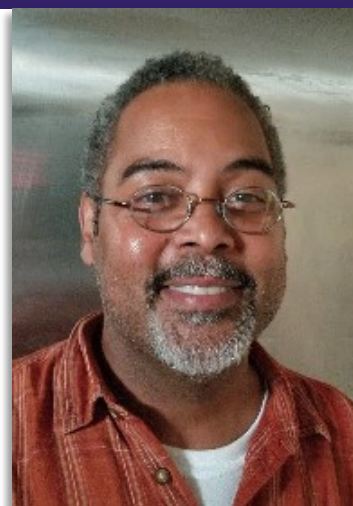
In the Kitchen with Austin

Baked Zucchini

This recipe is super simple and a great side dish with virtually anything.

Ingredients:

2 medium zucchini, sliced into ½-inch rounds.
1 Tbs. olive oil
½ tsp. Italian seasoning
Salt and pepper, to taste
1/3 cup shredded parmesan cheese, divided



Finished baked zucchini.

Directions:

Preheat oven to 400 degrees. In a large bowl, toss zucchini slices with olive oil, seasoning, salt & pepper, and about 2 Tbs. of the parmesan cheese.

Place zucchini on a baking sheet and top with remaining parmesan cheese. Bake for 5 minutes.

Turn oven to broil, and continue cooking for 3 to 5 minutes more until cheese is melted and starting to brown.

Bon Manger!

Farmers Markets in the GNO Area

Jefferson Parish

Gretna Farmer's Market

739 Third Street, Gretna
Every Saturday, except the Saturday of Gretna Fest, 8:30AM-12:30PM

Nawlins Outdoor Market

1048 Scotsdale Dr., Harvey
Every Saturday & Sunday, 9AM-5PM

Old Metairie Farmer's Market

Bayou Metairie Park,
Between Metairie Lawn Dr. and Labarre
See calendar on their website for dates and times: <https://www.oldmetairiegardenclub.com/>

Westwego Shrimp Lot

100 Westbank Expressway at Louisiana St., Westwego
Daily Mon-Thurs 8AM-6PM, Fri 8AM-7PM, Sat 7AM-7PM, and Sun 7AM-6PM

Lafreniere Park Market-Metairie

3000 Downs Blvd.
Wednesdays, from 2-7PM

Laughing Buddha Farm Hub-Clearview

4516 Clearview
Store Pickups, preorder online at <https://www.laughingbuddhanursery.com/buy-groceries-1>

Jean Lafitte Town Market-Lafitte

920 Jean Lafitte Blvd.
Last Saturday of the month, 9AM-1PM

Harahan Farmer's Market

6437 Jefferson Hwy., Harahan, LA
Sundays, 10 Am—2PM

Good Time Guild Farmer's Market at St. Martin's Episcopal Church- Metairie

Metairie Rd.
1st Thursdays monthly, 2PM-7PM
3rd Saturday monthly, 10AM-3PM

St. Charles Parish

German Coast Farmer's Market at Westbank Bridge Park

13825 River Road, Luling, LA
Wednesdays, from 1-5PM

German Coast Farmer's Market

13786 River Rd., Destrehan, LA
Saturdays, from 8AM-Noon

Local Independent Garden Centers

Orleans

Urban Roots	2375 Tchoupitoulas St., New Orleans, LA 70130	(504) 522-4949
The Plant Gallery	9401 Airline Hwy., New Orleans, LA 70118	(504) 488-8887
Harold's Plants	1135 Press St., New Orleans, LA 70117	(504) 947-7554
We Bite Rare and Unusual Plants	1225 Mandeville St., New Orleans, LA 70117	(504) 380-4628
Hot Plants	1715 Feliciana St., New Orleans, LA 70117	www.hotplantsnursery.com
Delta Floral Native Plants	2710 Touro St., New Orleans LA 70117	(504) 577-4290
Pelican Greenhouse Sales	2 Celebration Dr., New Orleans, LA 70124	(504) 483-9437
Grow Wiser Garden Supply	2109 Decatur St., New Orleans, LA 70116	(504) 644-4713
Jefferson Feed Mid-City	309 N. Carrollton Ave., New Orleans, LA 70119	(504) 488-8118
Jefferson Feed Uptown	6047 Magazine St., New Orleans, LA 70118	(504) 218-4220
Ninth Ward Nursery	2641 Deslonde St., New Orleans, LA 70117	(504) 296-8398
Crazy Plant Bae	800 N. Claiborne Ave., New Orleans LA 70119	(504) 327-7008
Canopy Plant Company	6030 St. Claude, New Orleans, LA 70117	(504) 381-4033
Too Tall Nursery	2817 N. Roman, New Orleans, LA 70117	tootallfarm@gmail.com
Nice Plants Good Pots	Pop Up and Online Sales	Etsy.com/shop/NicePlantsGoodPots
Plantery NOLA	Pop Up Locations	www.plantery.com
Canopy Plant Co.	Pop Up and Online Sales	www.canopyplantco.com
New Orleans Succulent Boutique	Online Sales	https://sites.google.com/view/nolasucculentshop/home
Root Life Mobile Plant Nursery	Pop Up Locations	https://rootlifeplantnursery.com/
New Orleans Green LLC	Online Sales	www.neworleans-green.com

Plaquemines

Southern Gateway Garden Center	107 Timber Ridge St., Belle Chasse, LA 70037	(504) 393-9300
Belle Danse Orchids	14079 Belle Chasse Hwy., Belle Chasse, LA 70037	(504) 419-5416

St. Charles

Plant & Palm Tropical Outlet	10018 River Rd., St. Rose, LA 70087	(504) 468-7256
Martin's Nursery & Landscape	320 3 rd St., Luling, LA 70070	(985) 785-6165

St. Bernard

Renaissance Gardens	9123 W. Judge Perez Dr., Chalmette, LA 70043	(504) 682-9911
Plant Pricks	Pop Up Locations	https://plantpricks.com/



Local Independent Garden Centers

Jefferson

Perino's Garden Center	3100 Veterans Memorial Blvd., Metairie, LA 70002	(504) 834-7888
Rose Garden Center	4005 Westbank Expressway, Marrero, LA 70072	(504) 341-5664
Rose Garden Center	5420 Lapalco Blvd., Marrero, LA 70072	(504) 347-8777
Banting's Nursery	3425 River Rd., Bridge City, LA 70094	(504) 436-4343
Jefferson Feed	4421 Jefferson Hwy., Jefferson, LA 70121	(504) 733-8572
Nine Mile Point Plant Nursery	2141 River Rd., Westwego, LA 70094	(504) 436-4915
Palm Garden Depot	351 Hickory Ave., Harahan, LA 70123	(504) 305-6170
Double M Feed Harahan	8400 Jefferson Hwy., Harahan, LA 70123	(504) 738-5007
Double M Feed Metairie	3212 W. Esplanade Ave., Metairie, LA 70002	(504) 835-9800
Double M Feed Terrytown	543 Holmes Blvd., Terrytown, LA 70056	(504) 361-4405
Sunrise Trading Co. Inc.	42 3 rd St., Kenner, LA 70062	(504) 469-0077
Laughing Buddha Garden Center	4516 Clearview Pkwy., Metairie, LA 70006	(504) 887-4336
Creative Gardens & Landscape	2309 Manhattan Blvd., Harvey, LA 70058	(504) 367-9099
Charvet's Garden Center	4511 Clearview Parkway, Metairie, LA 70006	(504) 888-7700
Barber Laboratories Native Plants	6444 Jefferson Hwy., Harahan, LA 70123	(504) 739-5715
Plumeria Insanity Nursery	https://www.facebook.com/Plumeria-Insanity-Nursery-102123651930419	

Soil Vendors

Schmelly's Dirt Farm	8301 Olive St., New Orleans, LA 70118	(504) 535-GROW
Laughing Buddha Garden Center	4516 Clearview Pkwy., Metairie, LA 70006	(504) 887-433
Reliable Soil	725 Reverand Richard Wilson Dr., Kenner, LA 70062	(504) 467-1078
Renaissance Gardens	9123 W. Judge Perez Dr., Chalmette, LA 70043	(504) 682-9911
Rock n' Soil NOLA	9119 Airline Hwy., New Orleans, LA 70118	(504) 488-0908
Grow Wiser Garden Supply	2109 Decatur St., New Orleans, LA 70116	(504) 644-4713

If you would like your licensed retail nursery listed, please email gnogardening@agcenter.lsu.edu

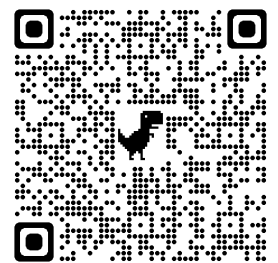
Help Support Horticulture programs in the Greater New Orleans Area

Funding helps the LSU AgCenter agents provide help for:

- School and Community Gardens
- Educational Training Events
- Seed Libraries
- Demonstration Gardens
- Educational Scholarships
- Local Research
- and Much More



Dr. Joe and Anna install plants in a butterfly garden for AgMagic on the River.



Scan the QR code above to go to the LSU Foundation donation webpage.

Or Click here: <https://securelb.imodules.com/s/1585/17/interior.aspx?sid=1585&gid=1&pgid=666&cid=1464&bledit=1&dids=5517>

July Checklist/Garden Tips

Sharpen your lawn mower blades. They have generally gotten dull by this time of the year.

Fine, silvery webbing appearing on the bark of area trees is completely harmless. The webbing is produced by tiny scavenging insects called bark lice.

Cut back perennials in the garden when they finish flowering and the foliage begins to look tired.

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.

Remember to harvest herbs such as mints, 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.

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.

Container plants should not be placed directly onto wooden decks. The moisture underneath can damage the wood (saucers do the same thing). Boost pots off of the surface an inch or two with pieces of brick, small blocks of wood or special terra-cotta pot supports available at some local nurseries and garden shops.

Keep old flowers cut off roses. Trim back to the first five leaflet leaf. Spray weekly with a combination insecticide/fungicide product labeled for roses if the types you grow are susceptible to black spot.

Pinch out the terminal growth of chrysanthemums during July. This encourages branching and more compact plants for fall blooming.

For late summer color, continue to plant heat tolerant bedding plants. Excellent choices for sunny areas include torenia, periwinkle, melampodium, salvia, scaevola, purslane, pentas, blue daze, narrow leaf zinnia, lantana and verbena, Purple Homestead. In part shade plant caladium, impatiens, begonia, torenia and coleus.

A long growing season and rapid growth often leads to over-grown beds this time of year. Feel free to trim bedding plants and tropicals to keep them under control. Stake or otherwise support plants that need it.

Keep old flowers cut off roses. Trim back to the first five leaflet leaf. Spray weekly with a combination insecticide/fungicide product labeled for roses if the types you grow are susceptible to black spot.

Numerous bedding plants such as impatiens, begonias, salvias and geraniums may look a little stressed now. Blame the heat, both day and night. Many bedding plants (especially the tender perennials we grow as annuals) can be cut back in August. They will revive as the weather cools and provide color until November or longer.

Keep old flowers cut off roses. Trim back to the first five leaflet leaf. Spray weekly with a combination insecticide/fungicide product labeled for roses if the types you grow are susceptible to black spot.

Pinch out the terminal growth of chrysanthemums during July. This encourages branching and more compact plants for fall blooming.

If you need to cut back your hydrangeas or gardenias, do so by the end of this month. If you need to cut back your hydrangeas, do so by early July. Flower buds are set in late July and August. When pruning hydrangeas, cut off faded flower heads with stems long enough to shape and control the size of the bush. Cut back excessively tall vegetative (leafy) shoots if necessary, but generally leave the vegetative shoots alone. They will produce flowers next year.

Lawn Care Do's & Don't's

Do's:

1. This is the last month to lay sod for Centipede, Zoyia, or St. Augustine grasses. Bermudagrass may be installed through August. Seeding of Centipede may be done this month but is not recommended.
2. You may fertilize at this time if you have not already done so. Look on page 5 of the [Louisiana Lawns Best Management Practices Guide](#) for information on the correct timing and application rates.
3. Chinch bugs are historically active this month so keep scouting for damage and apply treatment if chinch bugs are detected.
4. Irrigate as necessary to moisten the soil to a depth of 4-6 inches. The best time to water is in the morning. It is safest, from a disease standpoint, not to keep a grass wet all night long. Watering established sod during midday is discouraged because of extra loss from evaporation.
5. Aerate the soil if necessary to alleviate compaction.
6. Dethatch the lawn if necessary.
7. Spread fill soil and compost over the lawn to add organic material and smooth out the lawn. Do not add more than 2 inches over actively growing grass.
8. Set your mower to the correct height for your turfgrass type.

Don't's

1. Do not apply selective herbicides to the lawn.
2. Do not cut more than 1/3 of the height at a single time.
3. Do not try to grow grass in deep shade.

LOUISIANA HOME LAWN SERIES
A guide to maintaining a healthy Louisiana lawn

Southern chinch bug

Description
The southern chinch bug, *Blissus insularis* Barber (Hemiptera: Blissidae), is a common insect pest in turfgrasses throughout Louisiana. These insects favor thick thatch, full sun exposure and hot, dry weather. They are primarily a problem in St. Augustine grass but can injure other turfgrass species. Both nymph and adult chinch bugs injure turfgrasses by sucking sap from grass stems and stolons, causing turfgrasses to turn yellow-brown and eventually die. Turfgrass injury most commonly occurs in the summer when weather conditions are most favorable.

Identification
In Louisiana, the southern chinch bug can complete three to four generations a year. Females begin laying eggs in late winter, with new generations appearing the following summer and fall. Depending on the temperature, an egg can mature into an adult within five to 13 weeks. Chinch bug nymphs, the adolescent stage, are black to orange in color and have a white band on the back of the body. Adults are about the size of an ant, or one-half of a centimeter. They have black bodies with white wings that form an X shape across the abdomen.






Figure 1. Chinch bug nymph

Figure 2. Chinch bug adult

Figure 3. Chinch bug turfgrass injury

Indicators of Insect Presence
Nymphs and adults cause injury by sucking sap from stems and stolons.
— Injury causes grass to turn yellow, then brown and eventually die.
— Injury occurs in scattered patches that can merge together into one large dead area.
Adults can spread to new areas by crawling or flying.
Most injury occurs in hot, dry conditions in mid-to-late summer.

January	February	March	April	May	June	July	August	September	October	November	December

■ Injury common ■ Injury occasional ■ Injury rare

[The LSU AgCenter Louisiana Home Lawn Series publication on Southern Chinch bugs. The publication has information on identification and treatment options. To see the publication click here or go to: \[https://www.lsuagcenter.com/~media/system/3/b/0/5/3b055b020a2dea5e457ff74afe70121b/p3624r_lahomelawnsouthernchinchbugpdf.pdf\]\(https://www.lsuagcenter.com/~media/system/3/b/0/5/3b055b020a2dea5e457ff74afe70121b/p3624r_lahomelawnsouthernchinchbugpdf.pdf\).](#)

Your Local Extension Office is Here to Help

Contact your local extension agent for assistance.



Follow us on Facebook at GNOGardening

For more information visit LSUAgCenter.com

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