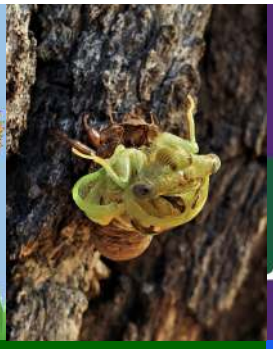



LSU AgCenter
Research · Extension · Teaching

GNO Gardening Magazine

October 2020

## In This Issue:



Cover photo:
A candelabra bush in bloom.
Photo by Chris Dunaway.

# Look At Me – Candelabra Bush

If you have one of these growing in your landscape, I'm sure you've had a lot of people ask you about it. With its large compound leaves, beautiful upright flower spikes and unusual winged seed pods, *Senna alata* is sure to attract attention.

*Senna alata*, previously *Cassia alata*, goes by many common names – candelabra bush, candlestick bush, Christmas candle, ringworm shrub, emperor's candlestick and king-of-the-forest just to name a few. It's the kind of plant that attracts attention from people and pollinators wherever it is grown.

*Senna alata* is in the Fabaceae family (legumes). It has large pinnately compound leaves 20 to 30 inches long with 7 to 14 pairs of obovate leaflets 2-3" long. The leaves are alternately arranged and will attract attention on their own even before flowering begins. The leaflets foldup closed at night and reopen in the morning as the sun comes up. This fast-growing tropical is most often grown as a multistemmed shrub reaching heights of 6-8 feet or more in a single season. It can also be grown as a small tree and can reach heights of 30 feet. It does well in-ground or can be grown in a container. If you want to grow it in a container, make sure you are using a large one – 20 to 25 gallons minimum.

The plant begins flowering in late summer to early fall (sometimes sooner) and will continue to flower until cold weather shuts it down. It is classified as a Zone 9 -11 plant but will often freeze to the ground even in these areas. But because of its rapid growth, it can easily be grown as an annual even into Zone 6.

The flowers of the candelabra bush show you where it got its common name. The beautiful yellow legume flowers are borne in 6-12" long upright racemes on a multistemmed branch that looks very much like a candelabra. The flowers open from the base upward and the spike resembles a lit candle. Each flower is about 1" in diameter with 5 sepals, 5 yellow petals and 10 stamens.


A large candelabra plant, *Senna alata*, growing in the New Orleans Botanical Gardens.

# Look At Me – Candelabra Bush

The attractive fruits are 5-10" long winged pods that change from green to dark brown as they mature. Each pod contains 50-60 brown to black triangular flattened seeds. Seeds germinate easily but may require scarification or presoaking. It seeds easily in the wild and can become invasive in areas.

The plant requires full sun but is tolerant of a wide range of soil conditions.

In addition to being a real attention-getter in the garden, *Senna alata* will also serve as a host plant for several butterfly caterpillars including Sleepy Orange, Cloudless Sulphur, and Orange-barred Sulphur. However, the caterpillars don't always get an easy meal. The plant has extrafloral (outside the flower) nectary glands near the base of the leaves that attract ants. The ants come to get the sweet nectar but add some protein to their diet by eating the butterfly eggs deposited on the plant leaves. It's a unique defense mechanism employed by the plant.

The plant is native to the tropics where, traditionally, the leaves, flowers and green pods are eaten or used for medicinal purposes. The plant contains several compounds (saponins, narengenin, anthraquinones, flavonoids, and yellow chyrsopanic acid) that have anti-inflammatory, analgesic, antibacterial, anti-fungal and antimicrobial properties. Preparations made from the leaves, flowers and bark have been used for centuries to treat skin conditions such as eczema, dermatitis and ringworm; thus, the reasoning for another of its common names.

Photo by Chris Dunaway

A carpenter bee collects pollen from a candelabra flower.

Candelabra plant is a tough, drought-tolerant plant that grows in any well-drained sunny site. It has a unique, bold, clean tropical look and makes a good plant for massing or for use as a tall background plant in the flower border. The Sleepy Orange, Cloudless Sulphur, and Orange-barred Sulphur will all visit the plants to lay their eggs. Look for green or yellow butterfly larvae on flowers, leaves, and stems. The yellow flowers will attract pollinators looking for nectar. Try planting a Candelabra plant and see what visitors it will bring to your garden!

~Dr. Joe Willis

# October Vegetable Planting Guide

| Crop | Recommended Variety |
|---|---|
| Beets | Bull's Blood, Detroit Dark Red, Red Ace F1, Ruby Queen |
| Broccoli (transplants) | Packman, Windsor, Greenbelt, Arcadia, Diplomat |
| Brussels Sprouts (transplants) | Long Island Improved, Royal Marvel, Jade Cross |
| Cabbage | Blue Vintage, Platinum Dynasty, Asia Express, Farao, Tendersweet |
| Chinese Cabbage | Minuet, Rubicon |
| Carrots | Purple Haze, Thumbelina, Apache, Atlas, Nelson F1, Bolero F1, Rainbow |
| Cauliflower (transplants) | Snow Crown, Freedom, Incline, Skywalker, Cheddar, Graffiti |
| Collards | Georgia Giant, Champion, Top Bunch, Flash |
| Kale | Toscano, Redbor, Winterbor, Starbor, Red Russian |
| Kohlrabi | Vienna, Early Purple Vienna, Early White |
| Lettuce | Allstar Gourmet, Oakleaf, Muir, Red Lollo Rossa, Tango, Buttercrunch, Black Seeded Simpson |
| Mustard Greens | Red Giant, Greenwave, Savannah, Tendergreen |
| Snow Peas | Oregon Giant, Super Sugar Snap |
| Spinach | Space, Carmel |
| Radishes | French Breakfast, Rover, D'Avignon, Ping Pong |
| Shallots | Saffron, Conserver, Camelot |
| Swiss Chard | Bright Lights |
| Turnips | Southern Green, Top Star, Tokyo |

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

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

# Seed Native Wildflowers in Fall for Spring Blooms

Autumn weather drives many species of wildflowers to go to seed as the days shorten and the temperatures drop. A quick look at any meadow, roadside, or natural area will reveal many types of seed heads, pods, ripening fruits, and other reproductive structures nearing maturity. These are a tempting source of food for animals, migrating birds, and some types of insects. Savvy gardeners can also harvest some of the ripe fruits of the year...

The leaves and namesake seedpods of a wafer ash *Ptelea trifolata.*

If you enjoy the cottage garden look or providing lots of food and habitat for pollinators and other wildlife in your garden, chances are pretty good that you have some native plants in your overall design. The Greater New Orleans area is home to several garden centers, plant sales, and independent nurseries that carry a wide range of native plants and wildflowers. Many seed companies now carry wildflowers in their inventories, and several specialize in wildflowers and other native plants exclusively. Gardeners can purchase seed or learn to collect seed from their garden and other appropriate sites to grow their own stock of plants for the springtime. By mimicking nature and seeding pots or flats in the fall months, growing your own has never been easier.

**Cool Weather and Moisture**

Prime seeding time to mimic nature's natural rhythms is roughly September through December. Seed heads ripen, seeds then drop to the ground, blow away, get dispersed by birds or other animals, or take advantage of many other ingenious ways of making their way out and into the world. Gardeners can copy nature by collecting seed by hand when it is ripe, drying and storing it properly, or seeding it directly into trays to be exposed to winter temps and rains, ensuring germination will take place in the spring months. Many wildflower species require exposure to cool, moist conditions to germinate properly.

Stratification is a method of artificially exposing seeds to cool temps and moisture to "prime" them for germination. For example, many milkweed species require this step or germination will be poor. Stratification typically means placing seeds onto moistened paper towels and putting them into a Ziploc bag in the fridge or freezer for a specific amount of time (depends on the seed), usually between 30-90 days. This process becomes unnecessary if you time your planting dates correctly, by planting in the fall months. No need to remember baggies of seed in the fridge, just seed the pots, trays, or gardens directly, label them, and let nature do the rest!

**Collecting Seed**

If you admire roadside flowers, that can be a good place to collect native wildflower seed. Private lands that you have access too can also be good locations if you ask permission from the landowner. Public lands usually restrict collecting to permitted individuals only, so be sure to check the rules before pocketing any seeds in State or National Parks or Forests, Nature Conservancy or other public trust lands, and municipal grounds. Never collect anything rare or endangered. Therefore, proper identification should be key. Identify plants when they are blooming, flag them so you can find them again later, and return in the fall to collect. Collect from populations that are abundant and never collect from isolated individuals. Take at most $1/10^{th}$ of the seed so that the species can regenerate in the following years.

If you grow wildflowers and native plants in your

# Seed Native Wildflowers in Fall for Spring Blooms

garden, the opportunity to propagate existing plants through saving seed is an easy one. Watch your plants for signs of ripening, including the formation of seed heads, fruits, or pods. Wait for these to either fully dry out or become fully ripe. This will vary a lot depending on what you are saving seed from, it may take some trial and error to discover the prime time to collect. Dry days are best. Use your hands or snips to gather seeds and seed heads into paper sacks (basic paper lunch sacks work great!). Be sure to label the sack. Collecting into flat trays also works. The key is to be able to further dry the seed to prepare it for planting. This is best done indoors in a low-humidity environment with good air flow. I lay my sacks and trays out on a worktable near a fan and leave them for a week or so to ripen and dry out further before cleaning the seed. Seed encased in fruits is a little trickier, typically I collect it onto a tray, label it with some tape and a sharpie, and let it rot. That's right, let it rot and ferment a bit before cutting it open and extracting and drying the seeds. American persimmon (*Diospyros virginiana*) is one example of a fruit that can be processed this way. Some fruit can be directly sown into a tray or pot and it will germinate, American Beautyberry, aka French Mulberry (*Callicarpa americana*) is an example of this. Some research into the best seed processing techniques for specific species is generally a good thing to do.

Seeds collected, cleaned and labeled by Anna Timmerman

**Cleaning Seed Heads and Pods**

Once the seed pods or heads are dry and crunchy to the touch, I sit and process the seed further. This is done by either crumbling them with my fingers in a tray or rubbing them against a simple metal sieve to remove the seed and sort out the debris. This makes assessing how much seed you have available easier and also removes anything you don't need if you intend to store some seed for later. Shaking the seeds and debris in a tray usually separates them enough that you can easily pick out the debris and leave a relatively clean batch of seed ready to be sorted. I sort my seeds into plain blank envelopes. Label each envelope with the name of the plant, collection date or year, and location it was collected.

Fruit of the American Beautyberry (*Callicarpa americana*)

**Storing Seed**

If you are not planning on planting right away, storing seeds you've collected properly is a must to preserve viability. A mini fridge is a good idea, or a small box in your larger household fridge. Silica packets help to remove moisture from the air within your box. Check out this past GNO Gardening article on seed storage in the resources section at the

# Seed Native Wildflowers in Fall for Spring Blooms

conclusion of this article.

**Scarification**

Some seeds require some further processing before they can be planted. Seeds with hard seed coats usually need some sort of damage to take place to that seed coat to ensure good germination. Mamou or Coral Bean


Seeded and labeled starting trays of native plants.

(*Erythrina herbacea*) is one example. This is a seed with a hard, lacquer-like coat to it that must be nicked in some way. This can be done by rubbing it against sandpaper, using a file, or a pair of nail clippers to crack the seed coat. There is a handy how-to in the resources section below.

**Seeding and Labeling**

September through December is a great time to seed trays and pots of wildflowers in the GNO area. This gives those seeds several months of natural cool weather and winter rainfall, just like what they would be exposed to in nature. Use a good quality potting mix that drains well. Seeding depth follows the same guidelines as veggie or herb seeds, generally meaning you should plant them twice the width or diameter of the seed deep. For very small seeds, this means scattering them on the soil surface and watering them in to lightly cover them. Label trays carefully with the name of the plant using a method that will persist long term. Sharpie tends to fade over a matter of months. A #2 pencil works well for labeling trays using plant tags or old window blinds cut up into plant tag sized pieces. Pencil will persist for a year or more if it is not rubbed off. Some species of wildflowers take a long time to get going. Seeding in autumn gives them a good shot at germinating as soon as spring weather arrives. This may take as long as into June for some of them, so be patient and don't give up on trays until at least a full year has passed. Little to no supplemental water should be needed until the plants germinate and begin to grow. Place trays in an area that gets full sun to partial sunlight. Shade loving species can be placed in shaded areas to germinate. The name of the game is understanding where these plants like to grow and reproducing that in our yards. This takes a lot of the fuss out of growing and propagating your own supply of native plants and wildflowers. Work with nature, not against her and you will be rewarded!

~Anna Timmerman

**Links and Resources**

- Lady Bird Johnson Wildflower Center: Collect and Store Seeds: https://www.wildflower.org/learn/collect-store-seeds
- Collecting Wild Seed Tips: https://www.hobbyfarms.com/collecting-wild-seeds/
- Seed Saving and Storage Basics: GNO Gardening https://www.mggno.com/wp-content/uploads/2019/12/December-2019.pdf
- How to Scarify Seeds for Spring Planting: https://www.americanmeadows.com/blog/2017/06/05/how-to-scarify-and-soak-seeds-for-spring-planting
- How to Cold Stratify Seeds: https://www.americanmeadows.com/blog/2018/03/07/how-to-cold-stratify-seeds
- Collecting and Planting Wildflower Seed: https://flawildflowers.org/resources/pdfs/2014/7StepsToGrowFromSeed.pdf

# What's Bugging You? Large Milkweed Bug

Fall color for us here in South Louisiana is pretty limited. We do not get the stunning display of autumnal reds, oranges, yellows, purples and browns that our northerly neighbors do prior to the winter months, but we do get to enjoy the bulk of the monarch butterfly (*Danaus plexippus*) migration. Gardeners across the GNO Area grow milkweed plants (*Asclepias*) to provide a food source for the last generation of caterpillars to pupate and migrate south across the Gulf to the wintering grounds in Mexico. This final Monarch caterpillar push is happening now, and has gardeners scrambling to acquire more milkweed, shuffle caterpillars to friends not-so-eaten plants, and protect their milkweed from unwanted pests.

A cluster of adult and juvenile large milkweed bugs in various stages of growth.

Large milkweed bugs ,*Oncopeltus fasciatus*, often show up on milkweed plants growing in our gardens. Like several other insects (milkweed tussock moth, swamp milkweed beetle, oleander aphid, etc.), large milkweed bugs mostly survive solely on milkweed. Large milkweed bugs are members of the order Hemiptera, which is also known as the "true bugs". They are found throughout North America, as far north as Canada and as far south as Costa Rica. Wherever milkweed can be found, so too can this interesting insect.

Adults are easily recognizable by their orange coloration and triangular shaped patterns of orange and black on their wings. This bright coloration is typical of many species of insects that utilize milkweed, which is an aposematic warning that indicates to potential predators that it will not taste good. Juveniles are born mostly red with black antennae and a few black spots on their backs. Eggs are also bright orange and easy to see with the naked eye. In our area, they can breed year-round if the weather stays warm enough. Northern populations are migratory, just like monarchs, and follow the milkweed northward as it grows and matures, moving south again as the cool weather decreases milkweed availability. Migration seems to be triggered by milkweed flowering and temperature.

Large milkweed bug, like the monarch, is an herbivore specialist feeder. It consumes largely milkweed, but also has been found consuming oleander and sunflower seeds. Large milkweed bugs feed only on the seedpods of milkweed, which allows them to take in the toxic compounds found in the plant, making them in turn toxic to predators. There have been reports of them consuming milkweed leaves and flowers, and sometimes oleander aphids in a pinch if there are no seedpods available. Since this insect primarily feeds on the seed pods of the milkweed and not the foliage, it is not considered to be harmful to monarch caterpillars or adults. Unless you propagate milkweed via seed, they are relatively harmless and an interesting, colorful addition to the garden.

~ Anna Timmerman

# Weed of the Month – Ruellia nudiflora

Violet Ruellia, Common Wild Petunia, Violet Wild Petunia, Wild Petunia are among the common names used for this pretty little tough and aggressive plant that is actually *Ruellia nudiflora*. While the flowers resemble petunia flowers, hence the common names, it is actually in the Acanthaceae family. The petunias we plant for our landscape are in the Solanaceae family.


*Ruellia nudiflora* tubular flowers with five fused petals.

This wildflower is native to Mississippi, Louisiana, Texas and Arizona as well as Mexico and some areas of Central America. However, it has been introduced to a lot of the southern states and is common. *Ruellia nudiflora* is a perennial that grows as a rosette with a hardened crown at the base. The stem can be up to 2 feet tall with few to no branches. The stem terminates in a panicle of purplish-blue flowers that open in the morning then fade and drop of by early afternoon. A panicle is a branched raceme in which each branch has more than one flower. Raceme is a flower cluster with the separate flowers attached by short equal stalks at equal distances along a central stem. The flowers at the base develop first. The trumpet-shaped lavender to purple flowers have five fused petals that flare and are a good nectar source for butterflies. Flowers are present from April through October. The plant serves as a larval host for Common Buckeye, Cuban Crescent, Banded Peacock, Malachite and White Peacock butterflies. The leaves are opposite and both the leaves and stem are pubescent (hairy). The fruit is an elongate pubescent capsule that is explosively dehiscent (splits open and forcefully ejects the seed) when mature.


Young *Ruellia nudiflora* plants. Note the hairy stems and leaves.


*Ruellia nudiflora* fruit (capsules) maturing along the stem.

*Ruellia nudiflora* spreads extensively by seed and can become quite aggressive and is often considered a weed in many circles.

# Weed of the Month – Ruellia nudiflora

It grows well in dry to moist soil, and in shade, partial shade, or full sun. Regular mowing doesn't kill it and it will flower on stalks as short as 3 inches. *Ruellia* can be controlled in lawns with broadleaf specific herbicides such as "trimec" type herbicides that contain dicamba, 2,4-D and mecoprop. Non-selective herbicides such as glyphosate and glufosinate are also effective.

This plant has been used as an ornamental and even a groundcover because of its hardiness and broad range of growing conditions. Many gardeners choose to embrace this plant for its host plant value and wildflower qualities. It is easily transplanted and will come back in a clump that expands year after year. It requires no fertilization and can thrive in a range of growing conditions. Plant it towards the front of wildflower beds so that it does not get lost in the overall design. For much of the year it is not blooming, pair *Ruellia nudiflora* with other wildflower species such as *Salvia lyrata* (Lyre-leaf Sage), *Salvia coccinea* (Scarlet Sage), *Asclepias perennis* (Aquatic Milkweed), *Stokesia laevis* (Stokes' Aster), and other wildflowers of a similar height and growth habit. ~Dr. Joe Willis, Dr. Ron Strahan and Anna Timmerman

Photo by Dr. Joe Willis

Drainage ditch with *Ruellia nudiflora* proliferating.

Photo by Dr. Joe Willis

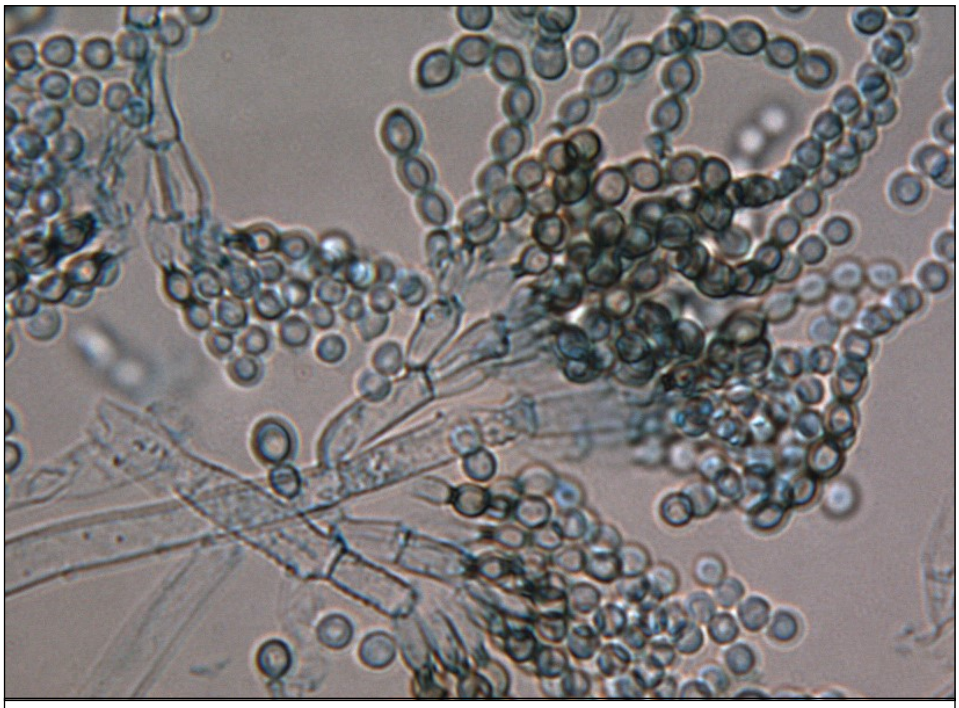
Small clump of *Ruellia nudiflora* in sidewalk crack. It will grow almost anywhere.

Photo by Dr. Joe Willis

*Ruellia nudiflora* seeds. Seeds are flattened and about 2 mm in diameter.

# Fungi Can Be Good Guys

Gardeners have come to think of fungi as one of the predominant impediments to successful gardening. From rusts to anthracnose to fruit rot and root rot, it seems like members of the Fungi Kingdom are determined to destroy our plants and bring us constant disappointment. But before we put a black hat on all fungi, consider all the benefits that fungi provide. The age of antibiotics began when Alexander Fleming discovered that *Penicillium notatum* produced an antibacterial substance that could be isolated and purified – penicillin. *Penicillium* also gives us Bleu cheese and its many variants. Not to mention all of the fungi breaking down the dead organic matter that accumulates constantly. There are even fungi that we can use to help control the insects that like our garden plants as much as we do.



Microscopic view of *Penicillium notatum* fungus.

Entomopathogenic fungi (EPF) are fungi that feed on insects. These fungi can act as a parasite of insects and kills or seriously disables them; however, they are generally facultative parasites. The fungal spores attach to the insect cuticle and when conditions are favorable, they germinate. They produce hydrolytic enzymes that allow them to bore through the insect cuticle and enter the hemocoel (insect body cavity). The fungus proliferates inside the insect body eventually killing the insect either by toxins or by destroying the internal organs. The fungus also produces thousands of spores so will continue to invade and kill susceptible insects.

A Colorado potato beetle infected with EPF.

Entomopathogenic fungi is not a new discovery but one that has received much more interest and research in recent years. This is due in large part to the emphasis on reducing the use of chemical pesticides and implementing IPM (Integrated Pest Management) procedures. Many of the chemical insecticides once easily accessible are being restricted or eliminated completely. This has happened to a greater degree in European countries and much of the current research is coming from scientists in these countries.

There are several fungal genera that are being studied for use as biological insect control agents. These

# Fungi Can Be Good Guys

include *Beauveria, Metarhizium, Hirsutella, Isaria* and *Cordyceps*. These are all naturally occurring organisms that have been observed to be EPFs. The common approach to developing fungi as bioinsecticides is to collect multiple isolates and screen them for hypervirulence and host range. The best isolates are grown in large quantities and tested in the lab and in the field. If results are good, they are EPA registered and produced commercially.


A high-magnification image of the spores and spore-bearing cells of the same fungus, Beauveria bassiana, taken from a Diabrotica beetle in Oregon.

There are several products available in the U.S. that use various strains of *Beauveria bassiana* as the active ingredient. Different strains show different host ranges. Some brand names are: balEnce, Mycotrol, BioCeres and BotaniGard. It is very important to read and follow the label directions exactly when using these biopesticides. Remember, you are working with living organisms so proper storage, mixing, conditions and application procedure are extremely important for effectiveness. These can sometimes be mixed with other insecticides but never with fungicides – fungicides will kill your insecticide.

Entomopathogenic fungi being used to control whiteflies.

These are all contact insecticides and generally considered safe for mammals and beneficial insects but follow all label precautions. These are fungal spores and may elicit an allergic response in some individuals.

Though we often battle with disease-causing fungi in the garden, we should stop and remember all the good things that fungi do for us and begin to think of some of them as allies. The use of fungi as biocontrol agents is still in the nascent stage (first U.S. product was 1995) but there is great potential.

~Dr. Joe Willis

# Pyrethrins vs Pyrethroids

Confused about the difference between pyrethrins and pyrethroids? Or maybe you never even realized there is a difference? You are not the only one. Every year many gardeners end up buying pyrethrin when what they really want, and need, is a pyrethroid—or vice versa. To clear up the confusion we must first add to it by adding two more "P" words, pyrethrum and permethrin.

***Pyrethrum:*** Pyrethrum is a botanical insecticide extracted from the dried flowers of pyrethrum daisies, *Chrysanthemum cinerariifolium.* Pyrethrum is one of the first insecticides, with some reports suggesting it has been used for almost 2000 years, and it is still one of the most common organic insecticides used today.

*Tanacetum cinerariifolium*

***Pyrethrins****:* Pyrethrins are the actual insecticidal components found in pyrethrum. There are six: pyrethrin I, pyrethrin II, cinerin I, cinerin II, jasmolin I, and jasmolin II. Collectively these active compounds are referred to as pyrethrins, or pyrethrum. Pyrethrins work as contact insecticides on the nervous system of most insects to provide quick knock-down activity. Although they work quickly, pyrethrins also break down quickly and provide little or no residual control. This can be a strength—sometimes you want a product with no residual control, but it is also a major weakness.

The efficacy of pyrethrins can be greatly enhanced by mixing them with a synergist, such as piperonyl butoxide, and synergized pyrethrins are widely used for fast-acting insect control. But because these synergists are not organic, synergized pyrethrins are not allowed for certified organic vegetable production.

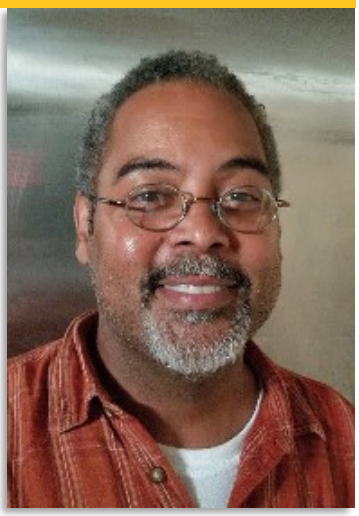
***Pyrethriods:*** Science fiction fans know "humanoid" means human-like. Well, pyrethroid means pyrethrin -like. Pyrethroids are man-made insecticides that have been synthesized by copying the chemical structure of natural pyrethrins and making changes or additions at key places in the molecule. Using this approach, chemists have been able to create many synthetic pyrethroid insecticides: permethrin, zeta-cypermethrin, bifenthrin, cyfluthrin, cyhalothrin, and many more. Notice that the chemical names of most pyrethroids end in "thrin," though there are exceptions. Pyrethroids are effective against a wide range of insect pests. Most pyrethroids have relatively low toxicity to mammals, and pyrethroids provide relatively long-lasting residual control. These traits make them ideal insecticides for many home uses, both outdoors and indoors.

***Permethrin*:** Permethrin is just one of many pyrethroid insecticides available today. Permethrin was one of the first pyrethroid insecticides to be marketed and it is still sold under dozens of brand names and in many different formulations. Depending on the formulation and label, permethrin is used for insect control on vegetables, lawns, ornamental plants, or houseplants. Permethrin is especially useful for home vegetable gardens because it can be used on most vegetable crops, controls most major vegetable pests, and has short pre-harvest intervals on most crops. Read labels carefully for exceptions

***Summary*:** Pyrethrum and pyrethrins are pretty much the same thing. Pyrethrum refers to the crop, the dried flowers, or the product extracted from the flowers. Pyrethrins are the actual active ingredients in pyrethrum. Pyrethroids are synthetic insecticides that were created by copying and modifying the molecular structure of natural pyrethrins and permethrin is just one example of a pyrethroid insecticide. Pyrethroids are much more effective than pyrethrins because they are more toxic to insect pests and provide longer residual control, but only non-synergized natural pyrethrins are suitable for organic vegetable production.

~Dr. Blake Layton, Extension Entomology Specialist, Mississippi State University Extension Service

# In the Kitchen with Austin



## Herbed Green Beans

As we move toward winter, most of the warm season veggies are finishing up their production. This is a great opportunity to prepare "transition" recipes; dishes that marry the flavors of two growing seasons. These herbed green beans transition your palate smoothly from summer to winter.

**Ingredients:**

- 1 lb. green beans
- 2 cloves garlic, minced
- 1 Tbs. grated lemon zest
- 3 Tbs. finely chopped parsley
- 3 Tbs. grated Parmesan cheese (optional)
- 2 ½ Tbs. olive oil
- Salt & Pepper, to taste

**Directions:**

In a large pot of boiling water, add the green beans for 3 minutes or so. Drain and immediately place them in a bowl of ice water.

In a small bowl, toss the garlic, lemon zest, parsley, and Parmesan together and set aside.

Remove beans from the ice water and pat them dry.

Heat the olive oil in a pan over a medium fire. Add the beans, herb mixture, salt and pepper, tossing well to warm everything through.

*Bon Manger!*

# Three Easy Actions Supporting Wildlife in October

1. MAKE A PILE. Use leaves, twigs and sticks to make as big a pile as you can to provide habitat for frogs, turtles, salamanders and overwintering butterfly and moth larvae. Earthworms and millipedes will reside in and decompose the leaves, becoming tasty treats for birds and other small wildlife. Decomposing leaves enrich the soil. *National Wildlife Federation*


Create habitat with natural materials.

2. MANAGE YOUR MILKWEED. The southbound monarch butterfly migration typically reaches our area (on its way to Mexico) in mid-October. The butterflies do not breed going south --that happens in the spring, March—so they do not need milkweed. In fact, they should AVOID it, because we get a fall build-up of OE disease spores on our milkweeds here. All milkweeds can be cut back to six inches as a precaution. Use judgment on cutting back small size natives and any plants being grown for seed. Native milkweeds in natural settings may be left alone. *Information compiled from various monarch conservation organizations and current research.*

3. PLANT NECTAR FLOWERS. All butterflies, hummingbirds, bees and other beneficial pollinators need large amounts of nectar this time of year. Mallows, swamp sunflowers, ironweed, goldenrod and field asters are well known native nectar plants. Zinnias and snapdragons are popular cultivated nectar flowers.

~Gina Hoff, Centennial Park Butterfly Garden Project Leader.

# Coming Events

## Pelican Greenhouse Plant Sales

Visit the Pelican Greenhouse for a large selection of plants for sale. Many of plants are propagated from cuttings, seeds, and divisions from plants already growing in the Botanical Garden

Happening **every weekend**. Fridays, Saturdays, and Sundays from 8am to Noon

**Location:** Pelican Greenhouse (not inside the Botanical Garden): 2 Celebration Drive.

Visit NewOrleansCityPark.com for Park map

## Farming Realities Webinar

Wednesday, October 14, 2020 at 6 PM – 7:30 PM

During this webinar, panelists will share their perspectives and experiences to assist in dispelling any myths about what it takes to become a farmer in today's agriculture and food system climate. The panelists will also discuss the challenges and barriers faced by new and beginning farmers. This session will focus on running a small-scale farm with an emphasis on fruits, vegetables, and other specialty crops.


Confirmed Panelists:
Marguerite Green, Executive Director, Sprout Nola (Moderator)
Tom Nguyen, VEGGI Farmers' Cooperative, New Orleans, LA
Allison Guidroz, Fullness Organic Farm, Baton Rouge, LA
Alisha Delahoussaye, Blazing Star Farm, Lafayette, LA

To register: https://www.surveymonkey.com/r/FarmingRealities

## Growing Your Farm Business Webinar

Tuesday, November 10, 2020 at 6 PM – 7:30 PM

During this webinar, panelists will share their perspectives and experiences on what it takes to run a revenue generating farm business. The panelists will also discuss crop specialization and diversification. This session will focus on a running small-scale farming operation with an emphasis on fruits, vegetables, and other specialty crops.

Confirmed Panelists:
Chris Adams, Acadiana Food Alliance (Moderator)
Ellis Douglas, Major Acre Farm, Laplace, LA
Madeline Yoste, Compostella Farm, Picayune, MS
Annie Moore and Cheryl Nunes, River Queen Greens, New Orleans, LA

To register: https://www.surveymonkey.com/r/GrowingFarmBusiness

# Coming Events

**October 3: An Afternoon with "Bug Lady" Linda Auld @ The Crosby Arboretum**

2-4 PM, Free, reservations required: 601-799-2311

https://www.facebook.com/events/238160904304257/
370 Ridge Road, Picayune, MS

*Master Gardener Continuing Education Credit!

**October 4: Grow Mushrooms On Logs Class @ Sugar Roots Farm, New Orleans LA**

12-2 PM, Reservations required. $50 class fee for materials.

https://www.facebook.com/events/665184017755775/

*Master Gardener Continuing Education Credit!

**October 8: Grow Native, Not Wild! Virtual Event from Texas A&M University**

6-8 PM, Free

https://www.facebook.com/events/376125066691781/

*Master Gardener Continuing Education Credit!

**October 14: Coastal Conversations: What is the Green Stuff In the Lake? Virtual Class from Lake Pontchartrain Basin Foundation**

6-7 PM, Free

https://www.facebook.com/events/240904957360228/

*Master Gardener Continuing Education Credit!

**October 14: Farming Realities Webinar from the LSU AgCenter**

6-7:30 PM, Free

https://www.facebook.com/events/242539530534534/

**October 16-17: PlantFest! 2020 Sale @ Hilltop Arboretum, Baton Rouge, LA**

Expanded COVID-19 Hours, for details please check event page.

https://www.facebook.com/events/377518633278391/

# Local Independent Garden Centers

| Orleans | Address | Contact |
|---|---|---|
| Urban Roots | 2375 Tchoupitoulas St., New Orleans | (504) 522-4949 |
| The Plant Gallery | 9401 Airline Hwy., New Orleans | (504) 488-8887 |
| Harold's Plants | 1135 Press St., New Orleans | (504) 947-7554 |
| We Bite Rare and Unusual Plants | 1225 Mandeville St., New Orleans | (504) 380-4628 |
| Hot Plants | 1715 Feliciana St., New Orleans | www.hotplantsnursery.com |
| Delta Floral Native Plants | 2710 Touro St., New Orleans (Weekends) | (504) 224-8682 |
| Pelican Greenhouse Sales | 2 Celebration Dr., New Orleans | (504) 483-9437 |
| Grow Wiser Garden Supply | 2109 Decatur St., New Orleans | (504) 644-4713 |
| Jefferson Feed Mid-City | 309 N. Carrollton Ave., New Orleans | (504) 488-8118 |
| Jefferson Feed Uptown | 6047 Magazine St., New Orleans | (504) 218-4220 |
| **Jefferson** | | |
| Perino's Garden Center | 3100 Veterans Memorial Blvd., Metairie | (504) 834-7888 |
| Rose Garden Center | 4005 Westbank Expressway, Marrero | (504) 341-5664 |
| Rose Garden Center | 5420 Lapalco Blvd., Marrero | (504) 347-8777 |
| Banting's Nursery | 3425 River Rd., Bridge City | (504) 436-4343 |
| Jefferson Feed | 4421 Jefferson Hwy., Jefferson | (504) 733-8572 |
| Nine Mile Point Plant Nursery | 2141 River Rd., Westwego | (504) 436-4915 |
| Palm Garden Depot | 351 Hickory Ave., Harahan | (504) 305-6170 |
| Double M Feed Harahan | 8400 Jefferson Hwy., Harahan | (504) 738-5007 |
| Double M Feed Metairie | 3212 W. Esplanade Ave., Metairie | (504) 835-9800 |
| Double M Feed Terrytown | 543 Holmes Blvd., Terrytown | (504) 361-4405 |
| Sunrise Trading Co. Inc. | 42 3rd St., Kenner | (504) 469-0077 |
| Laughing Buddha Garden Center | 4516 Clearview Pkwy., Metairie | (504) 887-4336 |
| Creative Gardens & Landscape | 2309 Manhattan Blvd., Harvey | (504) 367-9099 |
| **Plaquemines** | | |
| Southern Gateway Garden Center | 107 Timber Ridge St., Belle Chasse | (504) 393-9300 |
| **St. Charles** | | |
| Plant & Palm Tropical Outlet | 10018 River Rd., St. Rose | (504) 468-7256 |
| Martin's Nursery & Landscape | 320 3rd St., Luling | (985) 785-6165 |
| **St. Bernard** | | |
| Renaissance Gardens | 9123 W. Judge Perez Dr., Chalmette | (504) 682-9911 |
| **Soil Vendors** | | |
| Schmelly's Dirt Farm (Compost Only) | https://www.schmellys.com/compost-sales/ | |
| Laughing Buddha Garden Center | 4516 Clearview Pkwy., Metairie | (504) 887-4336 |
| Reliable Soil | 725 Reverand Richard Wilson Dr., Kenner | (504) 467-1078 |
| Renaissance Gardens | 9123 W. Judge Perez Dr., Chalmette | (504) 682-9911 |
| Rock n' Soil NOLA | 9119 Airline Hwy., New Orleans | (504) 488-0908 |

We recommend that you call before visiting to enquire about operating hours or special instructions.

# October Checklist/Garden Tips

Flowers to plant in October and November include seeds or transplants of calendula, carnation, sweet alyssum, Chinese forget-me-not, clarkia, cornflower, dianthus, foxglove, hollyhock, larkspur, lobelia, nasturtium, nicotiana, pansy, petunia, phlox, poppy, snapdragon, stock, , sweet peas, bachelor's button, Virginia stock and wall flower.

Summer bulbs may still be growing, but colder weather is in the not too distant future and none of them should be fertilized now. Bulbs that are in active growth such as Louisiana iris, calla lily, Easter lily and spider lily (Lycoris) could be fertilized lightly now.

Azalea lace bugs will be active through November. These insects feed from the underside of the leaves causing small, white dots on the upper side of the leaves and dark brown spots on the back. Do not let a lot of damage occur before you treat. Once the damage occurs, the leaves will not turn green again even if you control the lace bugs. Spray under the leaves with Orthene (acephate), Malathion or horticultural oil every ten days or as needed.

Gardeners often place their tropical plants in containers outside for the summer and bring them indoors during winter. Move any plants you intend to winter indoors to very shady areas outside, such as under carports or trees, for the next three or four weeks. This will allow them to adjust to lower light intensities before you bring them inside where light is more limited. Make sure you place plants in front of bright windows when you bring them indoors. Also check them for insect pests and other hitchhikers before bringing them in.

Spray plants such as camellia, holly, gardenia, magnolia, privet and citrus with horticultural oil sprays to control scale and whitefly.

Dig, divide and transplant perennials such as daylilies, ajuga, daisy, rudbeckia, coreopsis, yarrow and others now through February. Keep plants well watered and mulched.

Water in newly planted bedding plants with a half strength fertilizer solution to get them off to a good start.

Don't forget that late October through early December is the time to plant spring flowering bulbs. Tulips and hyacinths are exceptions that are planted later. They must first be chilled in the vegetable bin of your refrigerator for six to eight weeks, and are planted in late December through mid January.

Plant sweet peas now through November. If you wait and plant them in the spring they will not have time to grow and bloom before hot weather sets in, so planting in fall is a must. Choose a sunny location at the base of something they can climb on such as a chain-link fence or lattice work. Sweet peas planted now will generally begin to bloom in March and last until early May.

Control aphids with insecticidal soap or horticultural oils.

Control caterpillars on cool season vegetables and bedding plants with applications of Bacillus thuringiensis (or BT for short). This bacterium is deadly to caterpillars but harmless to other organisms. So remember, not all caterpillars need to be destroyed. Citrus trees, for example, will recover from the feeding of orange dog caterpillars and the giant swallowtail butterflies that they become are a marvelous addition to your garden.

Now is the season of free mulch. Collect fallen leaves to use as mulch. Use a bagging mower to chop and collect them at the same time. Chopping the leaves makes for a more even look and they do not blow away in the wind.

# Lawn Care Do's & Don't's

## Do:

1. Make every effort to pull up or otherwise control warm season weeds going to seed now. If you let the flower set and drop seed your problems will only be worse next year. Do not put weeds with seeds on them in your compost pile.
2. Apply selective herbicides and sedge killers to kill off summer weeds and sedges.
3. Apply pre-emergent herbicides to prevent winter weed germination.
4. Continue to scout for insect damage and control with insecticides if necessary.
5. Continue to scout for fungal damage and control with fungicides if necessary. The most prevalent is called Large Patch of Warm-Season Turfgrass.
6. Take a soil test.
7. Apply sulfur or lime to adjust the pH if necessary according to soil lab recommendations.
8. **Leave the leaves**. The leaves falling on the ground are an excellent source of organic matter for your soil. Use the mower to shred them and leave them in place to break down. You can also collect leaves to add to your compost pile. In the spring you can aerate the lawn and rake out the compost over the area and fill in the holes.

## Do Not:

1. Do not apply fertilizer until mid-February or March of next year.
2. Do not lay sod.
3. Do not spread warm-season turfgrass seed.
4. Do not dethatch the lawn.
5. Do not aerate the lawn.
6. Do not overseed St. Augustine or centipede grass with winter ryegrass. In these lawns, ryegrass can compete with the turfgrass as spring comes on.

## Your Local Extension Office is Here to Help

**E-mail us at: GNOGardening@agcenter.lsu.edu**

**Follow us on Facebook at GNOGardening**

**For more information visit LSUAgCenter.com**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