



GN Gardening Magazine

December 2023

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Cover photo: Lantana bud gall.

Photo by Chris Dunaway

Disorder of the Month

Witches Broom

One of the many services that the LSU AgCenter offers is the diagnosis of plant disease at the Plant Diagnostic Center run by Dr. Raj Singh. At the center, Dr. Singh and his staff

use various techniques to identify the source of a plant disease from samples sent to the laboratory. Two years ago I came across some unusual looking lantana shrubs at an area residence. It seems that some of the flower buds were developing abnormally by growing a

profusion of tightly spaced tiny leaves instead of the typical flower head. I collected samples from the abnormal plants and shipped them to the PDC for diagnosis. Using a high powered

microscope, Dr. Singh was able to find eriophyid mites in plant material and confirmed that they were the cause of the problem. Eriophyid mites are translucent, cigar-shaped microscopic mites that cause deformities on many plants species. Because they are not visible to the naked eye, they are not detected until the plants that they are feeding on show signs of abnormal growth. There are 1,859 species of eriophyid mites described

from around the world with many species still undescribed. Fortunately, these mites rarely cause serious harm to plants, and control is seldom needed. Furthermore, many eriophyid mites will only feed on

specific host plants and not cause damage to others. The visible sighs of feeding are specific to the species of mite and the host plant. In general eriophyid mites are divided in to four groups: gall, bud, rust, and blister mites.

In the case of our lantana, the culprit was the lantana flower gall mite, *Aceria lantanae*. The mites feed on the developing buds by piercing the outer cells with their needle-like mouthparts. They inject saliva to

dissolve the cellular structures and suck out the material. The saliva either mimics growth hormone or caused the plant to produce excess growth hormone which causes the host plant to produce vegetative galls in place of the flower head. Although this does not injure the plant, it does reduce its attractiveness in a landscape and it also shuts down sexual reproduction. In fact, lantana gall mites have been introduced into areas where lanatana has become and invasive weed to reduce the spread. According to



This malformed lantana flower head is caused by feeding by eriophyid mites on the developing bud.

research in South Africa, *Aceria lantanae* can reduce seed production by nearly 90%. This reduces both the rate at which lantana stands become denser, and the rate at which lantana is spread by fruit-eating birds and other animals. The reduction in growth and reproduction of lantana caused by the flower gall mite is highly beneficial, because it reduces the rate of loss of natural pasturage, and of biodiversity, and the frequency and cost of mechanical and chemical lantana control activities.

Control

According to Dr. Singh, the best control method is to prune away and discard symptomatic plant tissue. This will remove most of the adult and juvenile mites as well as the unhatched eggs. To help prevent reinfestation, the plants can be treated with a solution

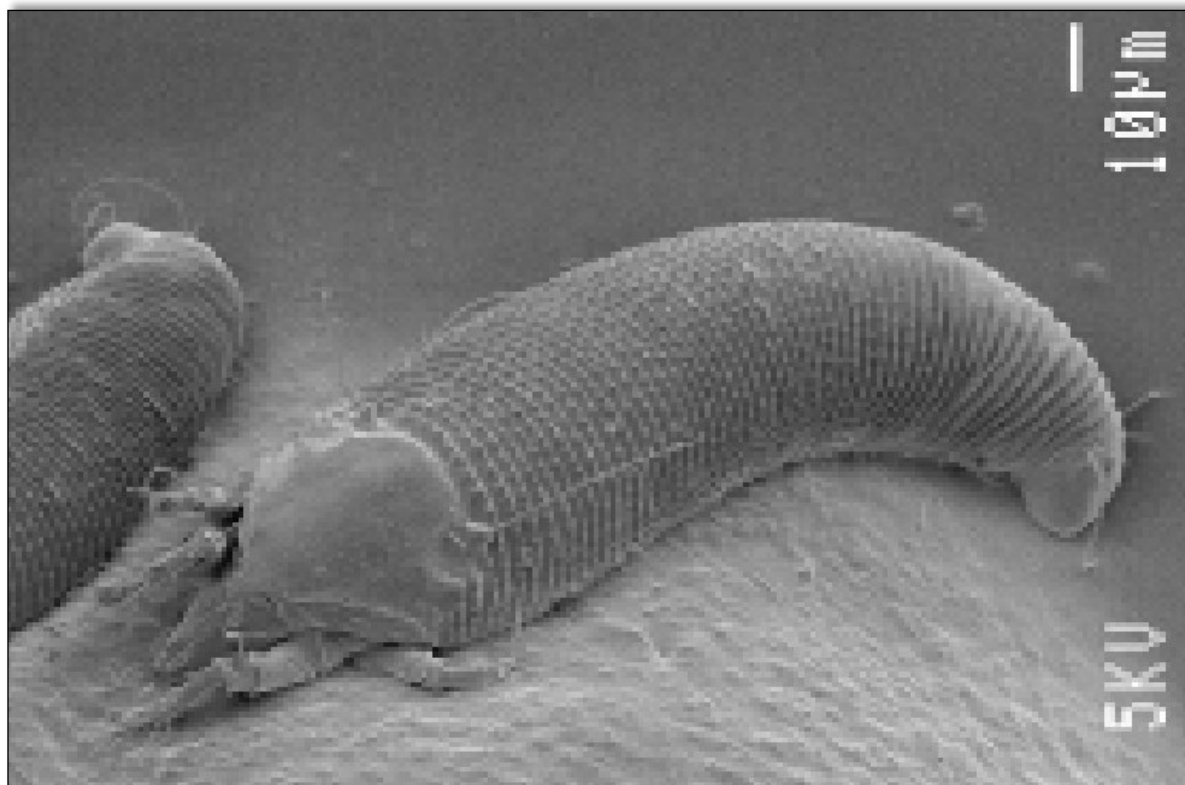


Photo by Dr. Raj Singh

A photo of eriophyid mites at 200x magnification taken by Dr. Singh at the Plant Diagnostic Center.

of malathion 57% EC. Ultrafine oils or insecticidal soaps can also be effective in managing eriophyid mites. The mites only feed on the undifferentiated immature cells of the flower buds. Time your applications to begin as the new buds are forming. Be sure to read and follow the label directions.

~Chris Dunaway



Scanning electron micrograph of adult lantana flower gall mite, *Aceria lantanae*.
Photo: C. Craemer (ARC-PPRI) & A. Hall (University of Pretoria).

Resources

Utah State University
Ryan S. Davis and Taun Beddes, 2011. [Eriophyid Mites—Bud, blister, gall, and rust mites.](#)

Plant Protection Research Institute
[Lantana flower gall mite: established, spreading, and making an impact](#)

Plant Protection Research Institute. Lin Besaans 2012

[Aceria lantanae lantana flower gall mite](#)

December Vegetable Planting Guide

Crop	Recommended Variety
Beets	Detroit Dark Red, Kestrel, Red Ace Fl, Ruby Queen
Brussels Sprouts	Jade Cross E, Long Island Improved
Cabbage	Blue Vantage, Platinum Dynasty, Stonehead, Cheers, Blue Dynasty, Emblem, Rio Verde
Carrots	Danvers 128, Purple Haze, Thumbelina, Apache, Enterprise, Maverick, Sugar Snax 54
Celery	None Given
Chinese Cabbage	None Given
Collards	Champions, Flash, Georgia Southern, Top Bunch, Vates
Garlic	Creole: Early, Louisiana, White Mexican; Italian: Early Red, Lorz; Large: Elephant (Tahitian)
Kale	None Given
Kohlrabi	Early Purple Vienna, Early White, Vienna, Winner
Leeks	Alora
Lettuce	Esmeralda, New Red Fire Fl, Nevada, Tall Guzmaine Elite
Mustard Greens	Florida Broadleaf, Greenwave, Red Giant, Southern Giant Curled, Savannah, Tendergreen
Onions	Red: Red Creole, Southern Belle; White: Candy, Savannah Sweet; Vidalia: Candy Ann, Caramelo, Century, Georgia Boy, Mata Hari
Radishes	Cherriette, Champion, White Icicle, April Cross
Shallots	Matador, Prism
Spinach	Bloomsdale Long Standing, Melody, Tyee, Unipak 151
Swiss Chard	None Given
Turnips	Alamo, All Top, Purple, Top White Globe, Seven Top, Southern Green, Top Star, Tokyo Cross

Look At Me

Citrus Chimera

This month's standout thing to look at comes with both a historical story and rediscovery in modern times, and some ties to

contemporary citrus research. Plus, I found one!

Citrus chimeras are rare, but naturally occurring mutations. In Greek mythology, the chimera was a mythical beast that breathed fire and was made up of several animal's parts. It was usually depicted as a lion with the head of a goat growing out of its back, and a serpent's tail, sometimes with the head of a snake attached. The term "chimera" has come to mean any mythical or fictional creature with parts taken from several animals, or anything, plants included, composed of disparate parts.

In citrus, chimera fruits visually have two different rinds on the same fruit, creating a segmented appearance. Inside, the flesh resembles two different cultivars. These fruits often form as a result of a graft union of two different citruses. It is not a true hybrid, but rather contains cells from both parents that are fused together, sometimes with somatic mutations. These are changes triggered at the genetic level by environmental conditions versus crossing two parent plants genes.

Most citrus in Louisiana is grafted to cold-hardy

rootstock. My chimera is the product of *C. trifoliata* 'Flying Dragon' rootstock and 'Owari' satsuma mandarin (*C. unshiu*). The rind and flesh of the

satsuma half resembled those of the other hundreds of satsumas I have been harvesting. The other half had the green, thick pithed rind of trifoliolate oranges, and contained a couple of seeds. The flesh was bitter, exactly like fruit from a rootstock that has been allowed to produce. Chimera citrus has been observed by gardeners and orchardists in the distant past, garnering lots of attention. In 1640, Italian gardener Pietro Nati found a chimera citrus at the Villa di Castello, owned by a wealthy banking family. He named it "bizzarria" and it came to be known as the Bizzarria of



Illustration of the Bizzarria of Florence by D. Del Pino, 1882

Florence. This fruit formed from the graft union of a Florentine citron (*C. medica*) and a sour orange (*C. aurantium*). It existed in the villa orchard at least through 1821, as it was painted as a curiosity by botanical illustrator D. Del Pino.

Over the centuries, the Bizzarria of Florence was lost until it was rediscovered on private property near Florence by citrus expert Paolo Galeotti in 1980. Galeotti took some cuttings home to grow out before announcing to the world that he had rediscovered the Bizzarria of Florence in a long-neglected corner of a

Florentine garden. It was reintroduced to the potted citrus collection once owned by the wealthy Medici family at the Villa di Castello. The villa garden was once home to over 100 different citrus species and varieties. Many of which had been forgotten over time, labeled in garden records as simply “lemons”. Galeotti was able to identify many of the remaining citruses on the property using four paintings by the Renaissance master Bartolomeo Bimbi, who was commissioned by the Medici family to paint all 116 citruses they were growing in their collection in 1715. From the paintings, Galeotti was able to identify 80 of the citruses that remained and survived to 1980.

Citrus chimeras are used by modern plant breeders to look for new genes to improve citrus cultivars. In the field, roughly 0.01-0.02% of citrus will be chimeras showing some rind sectoring, or segmented discoloration. This is seen as undesirable in the packinghouses, and these fruits are often culled or discarded. Applying cyanide and the insecticide Lorsban

(chlorpyrifos) to the buds of citrus as they flower has been shown to trigger chimera mutations in greater

numbers. Most important cultivars of oranges and grapefruits are not the result of natural breeding efforts, but rather are discovered selections from chance mutations in previously existing cultivars. Triggering chimera formation and the somatic mutations that come with them can result in new, delicious types of citrus fruits. Chimera citrus have held interest in the centuries past and today in the present. Keep your eyes peeled, you just might find one!

~Anna Timmerman

Resources

Journal of the American Society for Horticulture, Bowman, K. D., Gmitter, F. G., Jr., Moore, G. A., & Rouseff, R. L.

[Citrus Fruit Sectors as a Genetic Resource for Cultivar Improvement:](#)

Atlas Obscura, Federico Formica

[Meet the Citrus Archeologist who Rediscovered Dozens of Ancient Plants](#)



The rediscovered fruit from the Bizzarria of Florence.



Photo by Anna Timmerman

Chimera cross between an 'Owari' satsuma and 'Flying Dragon' *C. trifoliata*.

Container Gardening Part 3:

The Growing Medium

We've already published a 4-Part series of articles on "Growing Media for Containers" (GNO Gardening August 2021-November 2021). In that series, we go into detail about the different organic and inorganic components commonly found in most container media. We define what they are and list their physical and chemical properties. I suggest you reread those articles for a basic understanding of the components that make up container potting media. All those articles can also be found here: [Joe Willis \(www.lsuagcenter.com/profiles/JWillis\)](http://www.lsuagcenter.com/profiles/JWillis).

In most situations, it's faster, easier, and more economical to purchase a commercial potting mix than to make your own. There are a lot of general-purpose potting mix brands available. There are also specialty potting mixes created for a specific type of plant, such as, orchid potting mix, succulent and cacti potting mix, tropical plant potting mix. No single potting mix is ideal for all containerized plants. Most plants will do well in any high-quality potting mix. Often, a general-purpose commercial mix can be improved by adding components. With a little research, you can get information regarding the optimal mix for growing a particular plant species, then adjust your commercially purchased mix accordingly by making additions.

Regardless of what plant you are growing in a container, the role of the growing medium is the same.

- Anchor for the roots and stability of the plant.
- Store inputs such as water and nutrients and make them available to the plant roots.
- Home for soil microorganisms involved in organic matter breakdown, creating nutrient availability, and root-microbe interactions.

- Facilitate gas exchange – oxygen and carbon dioxide
- Buffer soil temperature

To accomplish this, a good growing medium needs:

- **High permeability to water and air.** Soil texture and structure that begets large aggregates and large pore spaces allow rapid air and water infiltration and percolation.
- **High water-holding capacity.** Small particle size and pore space and certain components increase a medium's water-holding capacity. This means more water will be available to the plant on a longer, more continuous basis.
- **Good drainage.** Loose soil with large aggregates and pore spaces allows excess water to drain quickly allowing for good gas exchange.
- **Good aeration.** Large aggregates and organic matter create pore space for gas exchange providing roots with oxygen and removing carbon dioxide.
- **Light weight.** Medium with a low bulk density makes it easier to move the container when necessary but should be weighty enough to maintain containerized plant stability.
- **Good fertility.** Plants need nutrients to survive. They get the majority of these from their soil. A potting mix with a high cation exchange capacity (CEC) can retain nutrients for an extended time. Many commercial mixes also contain organic matter and controlled release fertilizer that provide nutrients for the plants.
- **Disease, insect, and weed free.** Your starting media should be mostly free of

disease, insects, and viable weed seeds. Often, commercial mixes are pasteurized prior to bagging.

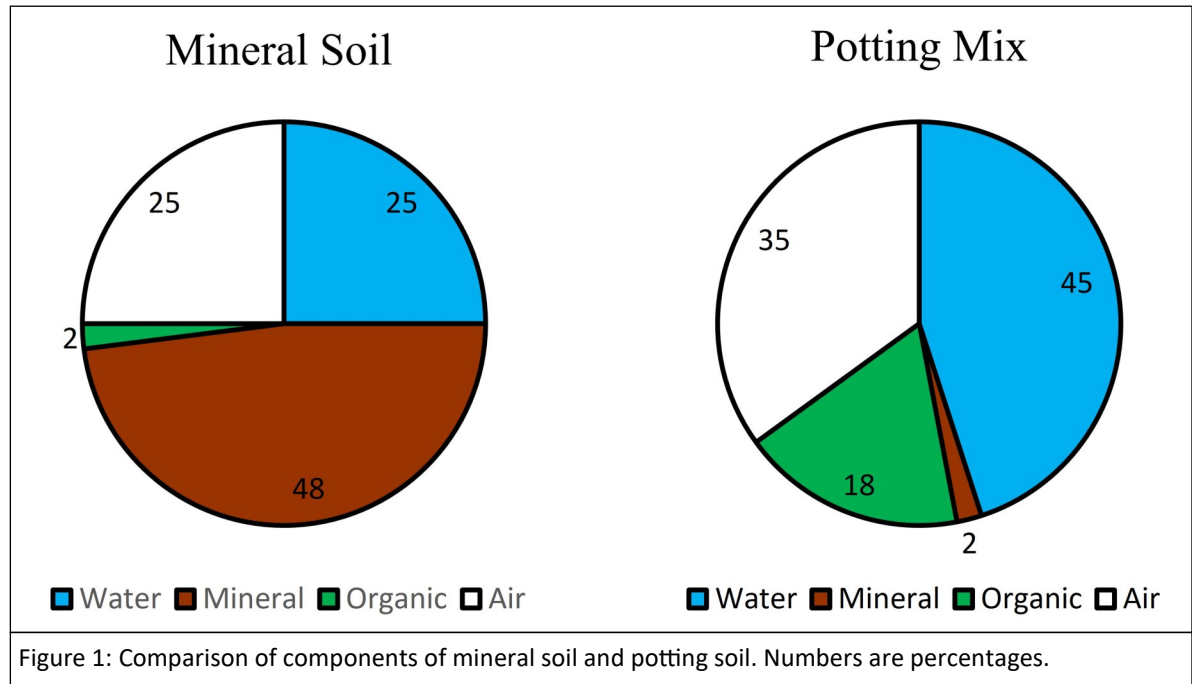
- **Plant stability.** The potting mix should provide adequate weight to stabilize the plant as it grows and good structure for roots to grow into and grab hold.

Let's look at the characteristics of a good potting soil and what influences these characteristics. Good mineral soils are made up of roughly 1-5% organic matter, 45-50% mineral matter (sand, silt, clay) and 50% water/air (pore space). Potting soils on the other hand are 55-85% water/air (pore space), 0-5% mineral matter (usually sand) and 15-45% organic matter. In other words, mineral soils are mostly mineral matter with a small amount of organic matter and half or less pore space. Whereas, potting mixes are mostly pore space, the solid portion is mostly organic matter, and very little if any mineral matter (Figure 1).

Pores exist between soil particles and sometimes within soil particles and the type of particle determines the type and amount of pore space. To illustrate, in pure sand, where sand touches sand there is space/pores between the granules; however, the sand particle itself is smooth and dense with little to no internal pores. Whereas in pure perlite, where perlite touches perlite there is space/pores between the particles and space/pores within the perlite particle itself (Figure 2). An equal volume of Perlite has much more pore space than an equal volume of sand.

The size and percentage of pore space in a growing

medium is very important. Pores are where all the action takes place in the soil. Pores are the pathway for water and air movement through the soil. Pores are where gas exchange takes place, where the roots exchange carbon dioxide for oxygen and nitrogen-fixing bacteria take in nitrogen. Pores are where nutrients are attached to or released from soil



particles and where nutrients are taken up by plant roots. Pores are where water is stored and taken up by roots and root exudates are released. Pores are where microbes hang out and do their job of breaking down organic matter. Pore size greatly determines the rate and extent at which all this activity occurs. The mixture of different media components determines porosity. The individual particles and how they bind together to create aggregates is what determines soil

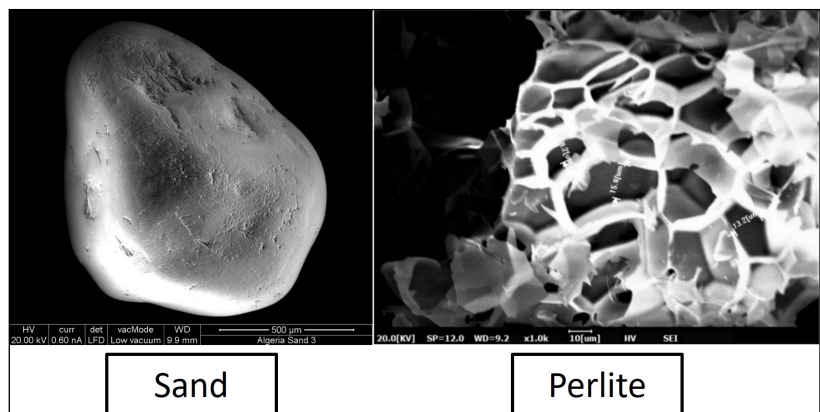


Figure 2: Electron micrograph of sand and perlite. Sand is very solid with almost no internal pore space whereas perlite is mostly internal pore space.

structure and soil structure determines porosity. Large pore spaces give the media high water and air permeability, good aeration, good drainage, and light weight. The small pore spaces give the media high water-holding capacity and good plant stability. Therefore, a good balance of large (macropores) and small (micropores) pore spaces is required for the best container potting soil. The combination of porous components (e.g. perlite and vermiculite) that form aggregates creates both macropores and micropores. The mixture of soil components and microbiota creates microaggregates (<250 µm) that assemble into larger macroaggregates (0.25–2 mm) held together by organo-mineral complexes and organic matter (Figure 3). The formation and breakup of aggregates and organic matter breakdown means the porosity of soils is a dynamic characteristic. Soil compaction is just a change in pore size due to compression; there is no change in soil composition. We've discussed containers, irrigation, soil and potting mixes. Next, it's time to plant.

~ Dr. Joe W. Willis

Resources:

Davis, E., T. Moreau, and D. Justice. 2020. Home Grown Food: Growing In Containers. UBC Botanical Garden. <https://botanicalgarden.ubc.ca/home-grown-food-growing-in-containers/>

Gardner, W.H. 1988. How Water Moves in Soil. <https://gsr.lib.msu.edu/1980s/1988/880323.pdf>

Hydrophobic Soil: Treatment and Prevention. 2022. <https://www.theseedcollection.com.au/blog/hydrophobic-soil-treatment-and-prevention#:~:text=The%20simplest%20way%20to%20do,to%20maintain%20the%20soil's%20condition.>

Owen, J.S. and J.E. Atland. 2008. Container Height and Douglas Fir Bark Texture Affect Substrate Physical Properties. HORTSCIENCE 43(2):505–508. <https://journals.ashs.org/hortsci/view/journals/hortsci/43/2/article-p505.xml>

Soil Compaction. 2018. Uni. Minn. Ext. [Soil compaction | UMN Extension](#)

The Science Behind Our Favorite Potting Mix. 2023. Mulhall Nursery. <https://mulhalls.com/garden-home/blog/the-science-behind-our-favorite-potting-mix/>

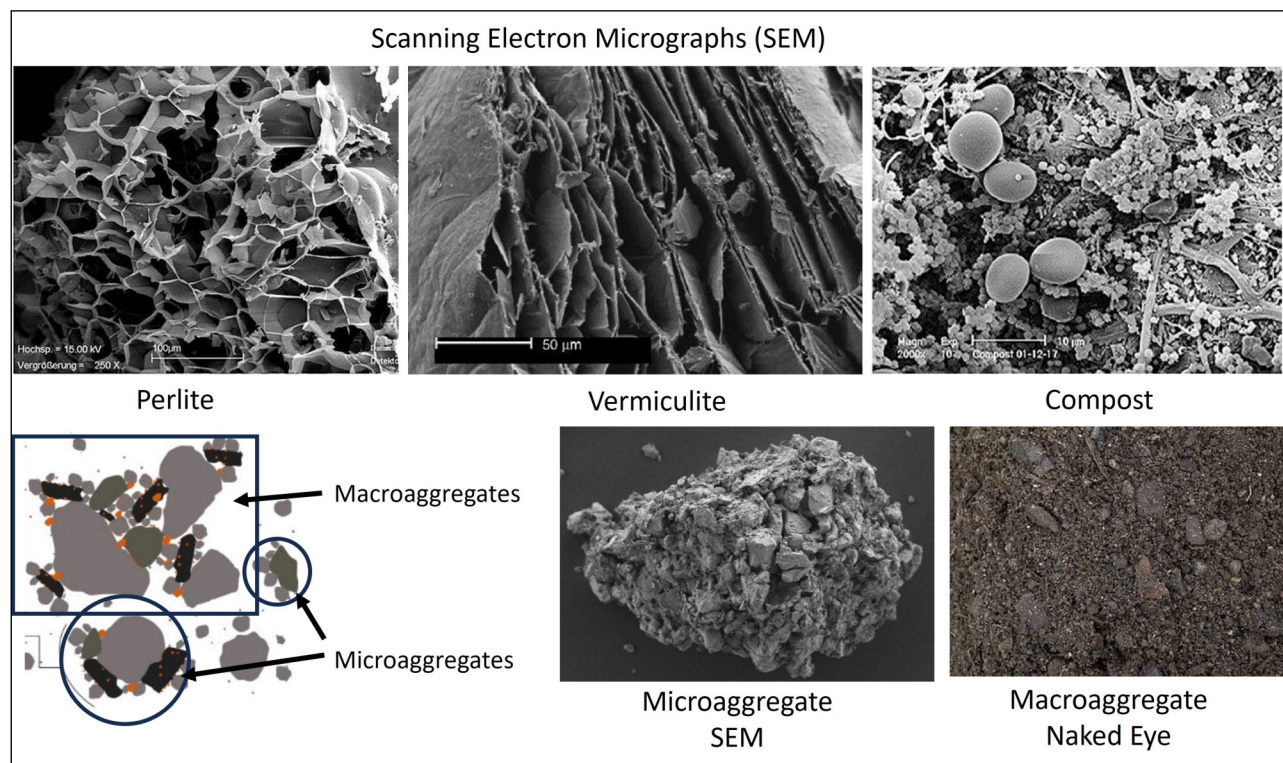


Figure 3: The top row are scanning electron micrographs (SEM) of potting mix components showing their microscopic porous nature. The second row shows an SEM of a microaggregate made up of components from the top row – these are still microscopic particles. The macroaggregates are what we can see with our naked eye as small clumps. The bottom left is an illustration of this and the pore spaces created.

Weed of the Month

Common Ragweed *Ambrosia artemisiifolia*

Driving around St Tammany Parish the other day I came to a stop sign and let out an unplanned sneeze. Low and behold to my left growing on the shoulder was a community of ragweed plants in full bloom. Ragweed is one of the most hated plants in existence, ranking up there with poison ivy and stinging nettles. Most of the public are familiar this plant from television commercials advertising allergy medicines, but I wonder if they can actually identify it and put together a plan to manage it.

Ragweed and goldenrod (*Solidago* spp.) commonly get mistaken for one another and most probably don't care, but native plant enthusiasts will be quick to point out that

goldenrod plants don't contribute much to airborne allergies and they are one of the more common native pollinator plants that bloom in the fall. The latter is the main reason on why these two plants are always confused: they both bloom at the same time of year. Ragweeds are wind pollinated plants whereas goldenrods rely on pollinating insects to transfer pollen from flower to flower. Reinforcing the fact that ragweeds are the major allergy concern.

To distinguish between the two plants, pay attention to the general plant form, leaf shape, and flower color. Ragweed flowers are green in color. The plants themselves are highly branched and the leaves are

very dissected and fine textured. Goldenrod plants have glowing yellow flowers. Most goldenrod plants are single stemmed and rarely branched. The leaves of goldenrod are broad and coarse when examined closely. At the end of the day the plants couldn't be any more different!



Photo courtesy of: [Illinois Wildflowers.info](http://IllinoisWildflowers.info)

Common Ragweed *Ambrosia artemisiifolia*

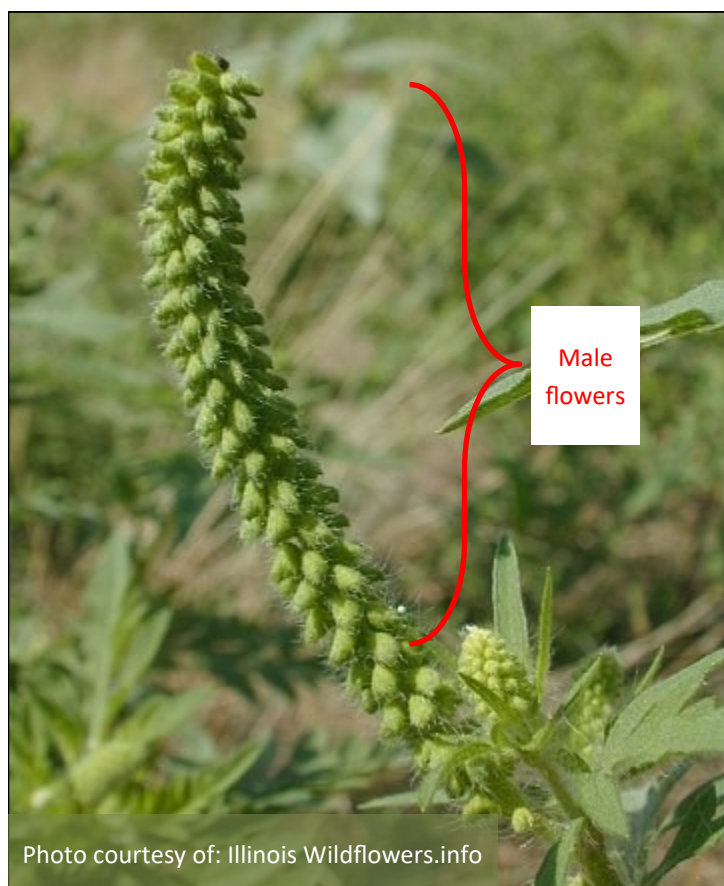
I wouldn't say ragweed is a common weed in home lawns, but it can show up in natural areas and sometimes in flowerbeds. Those with larger properties are probably impacted more than those who live in urban neighborhoods and subdivisions. The easiest way to manage ragweed is prevent it from flowering and dropping seed. Review google images of ragweed plants, familiarize yourself with the dissected foliage, and practice identifying ragweed plants as you go throughout the day. When you see ragweed growing pull it out by hand (wear gloves because some folks may develop a skin rash). Regular mowing will also help to keep ragweed plants from blooming

and producing seed.

Chemical control of ragweed can be achieved using herbicides. Glyphosate is a non-selective active ingredient that's can be used a point and spray option to eliminate single plants. Be careful when applying in this manner as glyphosate will kill any type of plant (grass-like, broadleaf-like, or sedge-like) that it touches. Three and four-way selective herbicide mixes that contain 2,4-D can be used to control ragweed in a home lawn setting. Remember to always read and follow label instructions when using a pesticide product. Make sure you are using it as the



The lobed leaves of common ragweed.



Common ragweed inflorescence. These large spikes support male flowers. The female flower are in clusters at the base of the spikes

manufacturer intended.

Learning to identify ragweed is key to not only dealing with it but also in managing it. After reading this article start paying attention to



Common ragweed seeds

plants along the roadside, sidewalk, and natural areas you encounter through the day. Ragweed is common during this time of year and the more practice you have with identifying it in the wild, the more confidence you will have in identifying it around your home.

~Will Afton

What's Bugging You?

Beet Armyworm *Spodoptera exigua*

The beet armyworm (*Spodoptera exigua*) is one of the most familiar agricultural pest insects. Thought to have originated in south-east Asian countries, it was first reported in North America about 1876, when it was found in Oregon, and had reached Florida by 1924.

The beet armyworm has a wide host range and is a serious pest of vegetable, field, and flower crops. Susceptible vegetable crops include asparagus, bean, beet, broccoli, cabbage, cauliflower, celery, chickpea, corn, cowpea, eggplant, lettuce, onion, pea, pepper, potato, radish, spinach, sweet potato, tomato, and

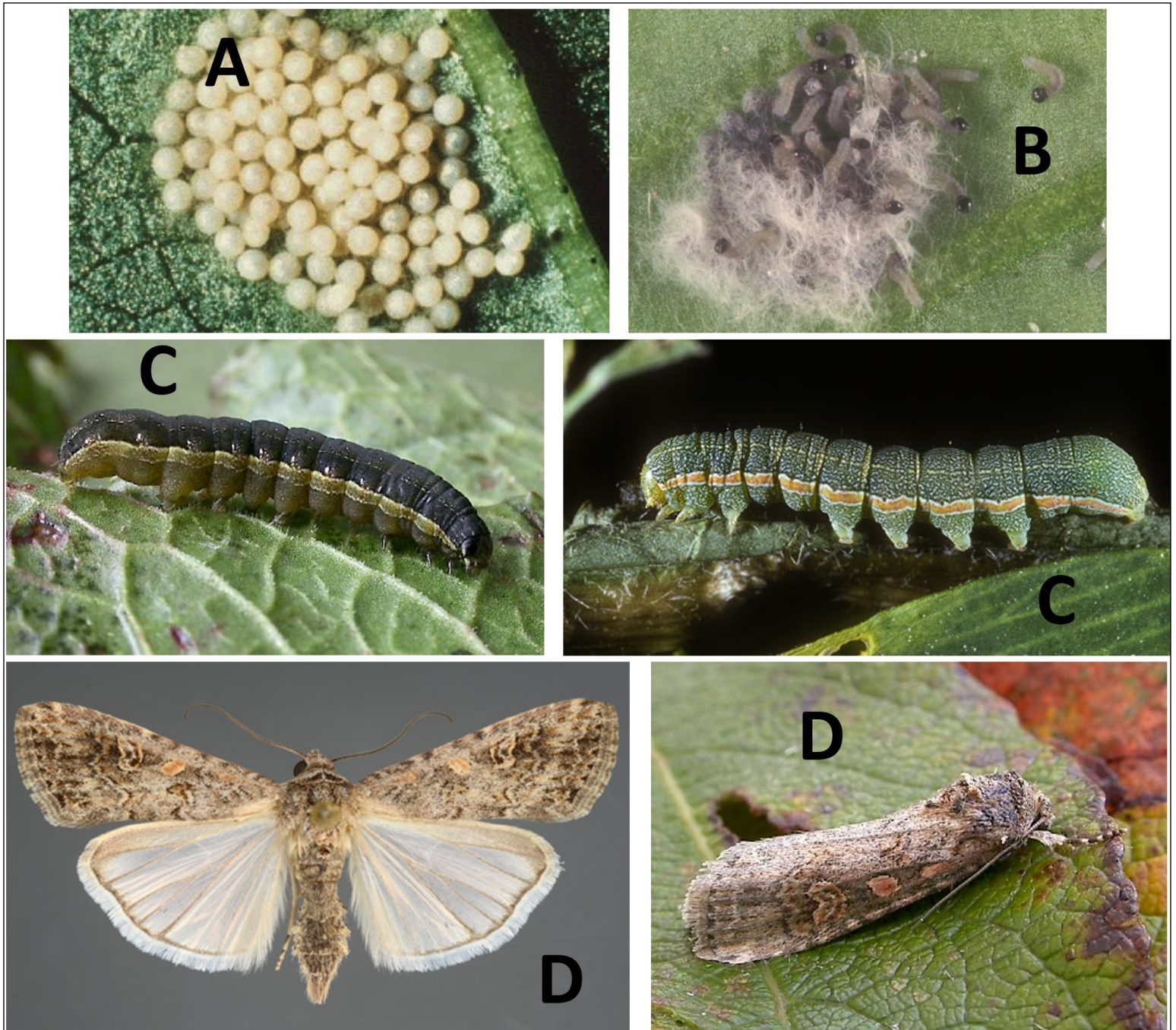


Figure 1: Beet Armyworm (*Spodoptera exigua*) lifecycle. A-Eggs; B-Young instars feeding in mass; C-Mature larva showing variation; D-Mature moth with wings open and wings folded.

turnip. Field crops damaged include alfalfa, corn, cotton, peanut, safflower, sorghum, soybean, sugarbeet, and tobacco. Weeds also are suitable hosts for larval development especially lambsquarter and pigweed.

Description

The life cycle can be completed in as few as 24 days, and 6 or more generations have been observed in our area.

One female moth can lay 300 to 600 greenish to white eggs in clusters of 50-150 eggs usually on the leaf underside.

Eggs hatch in 2-3 days. There are usually 5 instars. The larvae are pale green or yellow in color during the first and second instars but acquire pale stripes during the third instar. During the fourth instar, larvae are darker on the back (dorsally), and have a dark lateral stripe. The mature larva can be variable but is generally a light green to black larva with four pairs of abdominal prolegs and a dark head. There are many fine, white wavy lines along the back and a broader stripe along each side. There is usually a distinctive dark spot on each side just above the second pair of true legs.

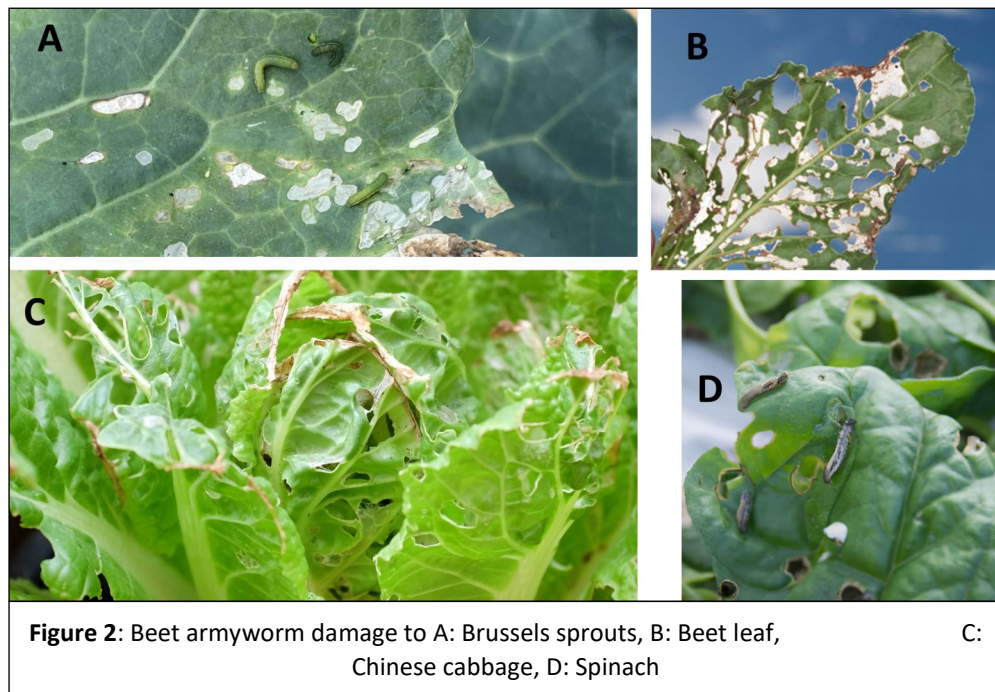
Pupation occurs in the soil and takes 6-7 days. The adult moths are medium sized, with a wingspan of about 1". The forewings are mottled gray and brown, and normally with an irregular banding pattern and a light-colored bean-shaped spot. The hind wings are a more uniform gray or white color with a dark line along the margin.

Damage

Larvae feed on both foliage and fruit. Young larvae feed in groups and skeletonize foliage. Often a fine webbing is produced by smaller larvae near their feeding sites. As they mature, larvae become solitary and eat large irregular holes in foliage. They also burrow into the crown or center of the head on lettuce, or on the buds of cole crops.

Control

Beet armyworm has a number of natural predators. These include parasitoid wasps, minute pirate bug, big-eyed bug, damsel bug, and predatory stink bug. There is also a naturally occurring polyhedral virus that seems to be specific for the beet armyworm. However, when conditions favor beet armyworm development, these naturally occurring predators are insufficient to control the outbreak.



BT (*Bacillus thuringiensis*) and Spinosad are both recommended for beet armyworm control in home gardens. Neem oil has also been shown to be effective.

Carbaryl (Sevin) is a chemical insecticide that is labelled for use against beet armyworms.

~ Dr. Joe W. Willis

Resources:

[2023 Louisiana Insect Pest Management Guide.](#)

[Wikipedia -Beet armyworm](#)

UF-IFAS Featured Creatures 2020. [beet armyworm, *Spodoptera exigua* \(Hübner\) \(ufl.edu\)](#)

Univ. of MO. IPM 2022. [Beet Armyworm Identification & Scouting // Integrated Pest Managment, University of Missouri](#)

University of Kentucky. [Beet Armyworm in Kentucky | Entomology \(uky.edu\)](#)

Cinnamon Girl”

Madonna – (Material Girl Parody)

Boxwoods sickly
Dieback, disease
That is such a shame
If I see Indian hawthorn
I’ll just walk away

A mid-size shrub Is what I
need

Part shade to full sunlight
(that’s right)

Cause the evergreen that’s
cold hardy

Is always a delight

Cause we are living in a
Distylium world,

And my favorite is
‘Cinnamon Girl’

You know that we are
living in a Distylium
world,

And my favorite is ‘Cinnamon Girl’

Spreading branching

Featured on this plant,

And that appeals to me,

Blue green foliage has my interest

Come on by and see

Some soils are moist and some are dry

But my soils are well drained

I need a plant that handles droughts

And can take those rainy days

Cause we are living in a Distylium world,

And my favorite is ‘Cinnamon Girl’

You know that we are living in a Distylium world,

And my favorite is ‘Cinnamon Girl’



A Cinnamon Girl distylium shrub.

Blooms may come and blooms may go,

They are red but not showy,

Botanically they are a part of the
witch hazel family

Cause we are living in a Distylium world,

And my favorite is ‘Cinnamon Girl’

Cause we are living in a Distylium world,

And my favorite is ‘Cinnamon Girl’

~Dr. Damon Abdi and Dr. Jeb Fields

In the Kitchen with Austin

Potato Soup

This has to be the simplest recipe of all times. But don't be fooled, it is absolutely delicious.

Ingredients:

3 lbs. russet potatoes, peeled and diced	3 slices bacon, cooked and crumbled
2 cups whole milk	1 tsp. garlic salt
1 bunch green onions, sliced thinly	¼ tsp. black pepper
1 cup shredded cheddar cheese	



A bowl of potato soup.

Directions:

Boil potatoes gently for about 15-20 minutes until soft. Remove from heat and drain, leaving about a half-inch of water at the bottom of the pot.

Add milk, garlic salt and pepper, then mash potatoes until they break apart.

Return pot to stove and warm soup over low heat for 5 minutes.

Serve with a sprinkling of green onions, cheese, and bacon.

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
<https://www.gretnala.com/visitors/farmers-market/>

Nawlins Outdoor Market

1048 Scotsdale Dr., Harvey
Every Saturday & Sunday, 9AM-5PM
<https://www.facebook.com/NawlinsMarket/>

Jean Lafitte Town Market-Lafitte

920 Jean Lafitte Blvd.
Last Saturday of the month, 9AM-1PM
<https://www.facebook.com/JeanLafitteLa/>

Lafreniere Park Market-Metairie

3000 Downs Blvd.
Wednesdays, from 2-7PM
<https://www.facebook.com/profile.php?id=100064920097975>

Westwego Farmer's Market

484 Sala Ave., Westwego
3rd Tuesday of the month, 10AM-2PM
<https://www.facebook.com/profile.php?id=100075979938725>

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
<https://www.facebook.com/officialwestwegoshrimplot>

Laughing Buddha Farm Hub-Clearview

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

Harahan Farmer's Market

501 Oak Ave., Zeringue Park, Harahan
Sundays, 9AM-1PM
<https://www.facebook.com/HarahanMarket>

Rivertown Farmer's Market

400 Block of Williams Blvd., Kenner
Thursdays Noon-6PM (Off for August)
<https://www.facebook.com/RivertownFarmersMarket>

Old Metairie Farmer's Market

Bayou Metairie Park, Between Metairie Lawn
Dr. and Labarre
1st & 3rd Tuesday of the month, 3:30PM-
7:30PM** Check for seasonal dates!
<https://www.oldmetairiegardenclub.com/tag/farmers-art-metairie-market/>

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 Truck Farm Table

200 N. Broad (In Whole Foods lobby or in
parking lot, weather permitting)
Walk up <https://www.sproutnolaform.org/>

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
<https://www.facebook.com/MarketplaceArmstrongPark/>

New Orleans French Market

Lower Decatur Street
Daily, 9AM-6PM

Mid-City Arts and Farmer's Market

Comiskey Park, New Orleans
Market dates vary.
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/](https://www.laughingbuddhanursery.com/events)
events

Barcelo Gardens Farmer's Market- Upper 9th Ward

2301 Gallier Street at the garden, Saturdays
from 10AM-1PM
3440 Piety Street Fresh Market open daily,
weekly bulk produce sale.
<https://www.facebook.com/BarceloGardens/>

Bywater Market at Trap Kitchen-Bywater

1043 Poland Ave
Sundays from 10AM-3PM

BOUNYFUL Farmer's Market-Algiers Point

4123 Woodland Dr. Algiers
First and Third Sundays of the month, from
10AM-1PM
<https://www.bounyfulgreenmarket.com/>

Sankofa Fresh Stop Market

Coming soon!
<https://sankofanola.org/rfq/>

Sheaux Fresh Sustainable Foods- Treme-Laffite

585 N. Claiborne at Lafitte Greenway
(under overpass)
Check for current dates/times at
www.sheauxfresh.org

FUBU Market

3101 Erato Street New Orleans, location
changes, check website/social media
<https://www.facebook.com/TheFUBUMarket>
www.fubumarket.com/

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/](https://www.facebook.com/TheMandevilleTrailhead)
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/](https://www.townofabitasprings.com/farmers-market)
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/](https://www.facebook.com/CamelliaCityMarket/)
CamelliaCityMarket/
985.640.7112

St. Charles Parish

Luling Farmer's Market at Westbank Bridge Park-Luling

13825 River Road, Luling, LA
Wednesdays, from 1-5PM
<http://www.germancoastfarmersmarket.org/>

German Coast Farmer's Market

160 West Campus Drive, Destrehan, LA
Saturdays, from 8AM-Noon
<http://www.germancoastfarmersmarket.org/>

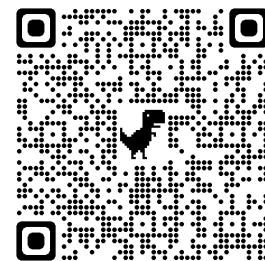
Help Support Horticulture programs in the Greater New Orleans Area

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



Chris Dunaway teaches a segment on soil mix to a group of Junior Master Gardener Students



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>

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, Marerro, LA 70072	(504) 341-5664
Rose Garden & Pet Store	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
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



Fallen ginkgo leaves on the ground in Metairie, LA.

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
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
Plantery NOLA	Pop Up Locations	www.planterynola.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

Plant Pricks	Pop Up Locations	https://plantpricks.com/
Nice Plants, Good Pots	6720 St. Claude Ave., Arabie, LA	Etsy.com/shop/NicePlantsGoodPots

St. Tammany

The Boho Being	1184 Front St., Slidell, LA 70458	(985)707-1623
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December Checklist/Garden Tips

Don't forget to add nature's generous bounty of leaves provided this time of year to your compost piles, or use them to mulch shrub and flower beds. You should have a 3-4 inch mulch layer over your garden soil. Mulch insulates the soil, keeps the soil moisture consistent, helps prevent plant disease and neatens everything up. Shred larger leaves with your lawn mower before adding them to the compost pile or using them as mulch. Stock pile pine straw and cypress leaves in plastic bags to use to cover low growing plants for freeze protection. Use the wand of your vacuum cleaner to remove the air from the bags to compress the material to save space. See a demonstration at the following link: <https://www.facebook.com/1030624690304124/videos/3299251646811530/>

You can also make your own home-made baler to make your own bales of pine straw and cypress leaves for future use. See my demonstration video at the following link: <https://www.youtube.com/watch?v=Fb8v9SXUAFg&t=7s>

Winterize your garden tools before you put them away. Clean and sharpen tools, apply a thin layer of protective oil to the blades, and coat wooden handles with sealer, tung oil or varnish to protect the wood and keep it in good shape. Drain the gas from lawn mowers and other gas powered equipment (see the owner's manual for recommendations).

Poinsettias are a great addition to interior holiday displays, place them near a window to give them a longer "shelf-life". Wait to water them until the soil feels dry to the touch.

If you bought tulip or hyacinth bulbs last month, plant them at the end of December. If you want to have hyacinths blooming indoors, plant them halfway into a shallow bowl with pebbles or marbles in the bottom. Add just enough water so that the bottom of the bulbs stay wet, adding water when it stops making contact. Place them someplace sunny. It takes four to six weeks for them to bloom, bringing a welcome jolt of spring into the house.

If we get a hard freeze, wait a few days to evaluate the damage. Many cole crops will bounce back, as will some landscape plants. Things usually look worse the next morning after a frost than they actually are. Waiting gives the plants a chance to recover, and you can see the extent of the true damage. Prune cannas, philodendrons, clerodendrons, and gingers back to the ground that got burned. They will be back in the spring.

Many garden chemicals are water based and can be destroyed by freezing. The loss of chemicals can be expensive and spilled chemicals can create dangerous conditions. Keep chemicals in a location that doesn't freeze, and if there are children in the house, they should be stored in a locked location.

Cut back any lingering tropical milkweed (*Asclepias curassavica*) to encourage Monarch butterflies to migrate south. Cut the plants back to the ground if possible, they will be back in the spring just in time for the return of the butterflies.

Consider creating holiday arrangements and centerpieces using plant material from your yard and gardens. Many of our most common landscape plants make excellent seasonal greenery, including magnolias, nandina, hollies, juniper, cypress, and camellias. Cut some greenery and spend some time creating arrangements for your table or mantelpiece. This can be a fun holiday activity to share with family members. The fragrance of evergreens also adds to the seasonal ambiance!

If you have any of the holiday cacti, including Thanksgiving, Christmas and Easter cacti, be sure to put it on display. Once the blooms finish, place it in a sunny window to recover and prepare for next year's flowering. Allow the soil to dry out between all waterings. Prolonged soil moisture can rot the roots. Fertilize lightly with a little water-soluble fertilizer once a month to keep it happy.

Plant cool season bedding plants now, and be sure to keep them deadheaded so that they bloom well into the spring months. Great things to plant now include snapdragons, foxgloves, dianthus, pansies, petunias, violas, columbine, delphinium, and cyclamen.

Lawn Care Do's & Don't's

Do's:

1. You may apply selective herbicides to eliminate broad leaf weeds in the lawn.
2. Cool damp weather is ideal for the appearance of Large Patch Disease in your lawn.
[Click here to find information about large patch disease from the LSU AgCenter.](#)
3. Mulch fall leaves and let them decompose in place if possible or collect them with a bagging mower and add them to your compost pile or use them as mulch in your gardens.
4. Take a soil test. Test kits are available in our offices in the Botanical Gardens, the Yenni Building, and New Orleans City Hall as well as local garden centers. Follow this link to see Dr. Joe demonstrate how to take a soil sample: <https://www.facebook.com/1030624690304124/videos/1452161988150390/>

Don't's

1. Do not spread fill over the lawn until it is actively growing again in the spring.
2. Do not apply fertilizer to the lawn again until April of next year.
3. Do not apply phosphorous winterizer to the lawn without taking a soil sample first. We have ample amounts of phosphorous in our soil already.
4. Do not attempt to install a new lawn until spring.
5. Do not cut more than 1/3 of the height of lawn grass at a single time.
6. Do not aerate the lawn.
7. Do not dethatch the lawn.



Soil test kits can be picked up at our parish offices and at local garden centers.

Your Local Extension Office is Here to Help



Follow us on Facebook at **GNOGardening**

For more information visit **LSUAgCenter.com**

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