LOUISIANA Master Gardener™
An educational program of the LSU AgCenter

THE GARDENGOER

LSU AgCenter Research · Extension · Teaching

ST. TAMMANY MASTER GARDENER ASSOCIATION
P. O. Box 2074, Mandeville, Louisiana 70470
Website: stmastergardener.org

VOLUME 22 Issue 3 May June 2020

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Spend your days picking flowers in the garden and drink from life's little stream. Maya Angelou


Photo by JBlazek

Identifying Poison Ivy, Poison Oak, and Poison Sumac
Part 1: Springtime

Poison ivy, poison oak, and poison sumac can be found throughout Louisiana. Urushiol is an oil that is found in all three plants. Urushiol can cause a severe rash in most humans when it comes in contact with the skin. So it is very important to keep an eye out for these noxious plants as we garden, trim our yards, and hike through our parish. These plants change as the seasons progress. This article, a 2017 Vegucator lecture, will review their appearance through springtime. The next issue of *The Gardengoer* will discuss their appearance in summer.

Poison ivy: *Toxicodendrum radicans* (formerly called *Rhus radicans*)

Three compound leaves whose edges are smooth or irregular, toothed or lobed.

The end leaflet rachus is slightly longer than the other two.

It can be a shrub, a climbing vine, or a creeping ground cover that grows everywhere. Vines grow aerial roots that look "hairy" and allow it to cling to the tree as it climbs fairly straight up.

Spring leaves begin as red and progress to green.

Identifying Poison Ivy, Poison Oak, and Poison Sumac
Part 1: Springtime, continued

Poison oak: *Toxicodendrum diversilobum* (formerly called *Rhus diversilobum*)

Compound leaves of three with lobed notches.

Leaves are thicker and can be hairy on both sides

Can be a vine or shrub. The vines are not "hairy," but climb by creeping under rough tree bark.

In spring leaves start out bronze then turn green**.**

In late spring small berries begin to grow on the poison oak plant.

Identifying Poison Ivy, Poison Oak, and Poison Sumac
Part 1: Springtime, continued

Poison Sumac: *Toxicodendrum vernix* (formerly *Rhus vernix*)

Compound ovate leaves of seven to thirteen.

Opposite leaflets on red rachi.

Young leaves can be bright orange.

Shrub or tree that grows up to 25 feet tall.

Found in swamps or near water.

The next issue of *The Gardengoer* will have more on identification of the toxicodendrum species throughout the seasons, as well as appropriate ways to eradicate, to dispose of cuttings, and to treat mild rashes caused by urishiol contact.

Resources:

Lsuagcenter.com
NCBI.nim.nih.gov
Healthline.com
Britannica.com
Alnature.com
Teclabsinc.com
Thespruce.com
Virginiatech.edu

Jamie Blazek
Master Gardener
Vegucator
Editor, *The Gardengoer*

FlameThrower™ Coleus: Newest Addition to the Louisiana Super Plant Program

The Louisiana Super Plant program is an educational and marketing effort by the LSU AgCenter to promote quality plants that work well in the Louisiana landscape. Plants are currently trialed at four locations throughout the state. The established research trial gardens are located at the Hammond Research Station, New Orleans Botanical Garden, Red River Research Station in Bossier City, and Ira Nelson Horticulture Center at the University of Louisiana Lafayette. Once the plants have undergone rigorous trials at multiple locations across the state, they are vetted and approved by the Louisiana horticulture and landscape industry.

Small leaves and ruffled edges provide great texture in the garden. (Photo credit – Ashley Edwards)

Dr. Jeb Fields and his staff at the LSU AgCenter Hammond Research Station are going to add three new plants to the LA Super Plant list this year. Selections will be released to the public during the spring, summer, and fall months. The first LA Super Plant for 2020 is FlameThrower™ coleus. This is not the first time that a coleus has been selected for the program. In 2015, 'Henna' coleus was crowned with LA Super Plant status and it was well deserved. Coleus, in general, are easy to grow plants. Once established most varieties last all season long with minimal inputs.

The FlameThrower™ coleus series sets itself apart from the rest of the pack with its compact size. On average plants reach between 12-16 inches in height and 16-18 inches in width. Interesting texture is another quality of this new line of coleus plants. The leaves offer a unique shape with a ruffled edge. These two characteristics make the plant a great choice for use in mixed containers. The striking colors offered in this series provide a mixed planter with both a "thriller" and a "filler" plant at the same time. Horticulturists commonly refer to this combination as a high impact plant.

Coleus evaulation bed at Hammond Research Station showing the compact growth habit of FlameThrower™ coleus. (Photo credit – Ashley Edwards)

FlameThrower™ Coleus, continued

When it comes to colors, this series doesn't disappoint. Exciting color combinations are a trademark of many coleus varieties and FlameThrower™ is no exception. Currently, there are nine varieties available in the trade. Look for spicy names like Salsa Roja, Serrano, Habanero, Chili Pepper, Chipotle, Spiced Curry, Cajun Spice, Siracha, and Salsa Verde.

Various colors offered in the FlameThrower™ series.
(Photo credit – www.ballfloraplant.com)

FlameThrower™ coleus grows best in a full sun location but will tolerate some shade. Amend garden beds to help improve drainage because coleus plants struggle in waterlogged soils. Place plants 18 inches apart in the landscape. Once in the ground, apply a two to three inch layer of an organic mulch product. Crushed pine needle mulch is an excellent choice for use around bedding plants and can be sourced locally in St. Tammany Parish.

Enjoy FlameThrower™ coleus in your garden today!

Will Afton
County Agent
LSU AgCenter

Create an Insect Hotel

With time on our hands during the stay-at-home orders, our interest was piqued by an on-line publication from the University of Nebraska-Lincoln Extension on creating a hotel for solitary bees. Almost everything needed for the construction was "found" in our shed and garden. We also located some discarded bamboo reeds from a neighbor. The nesting blocks are designed to attract various sizes and species of solitary bees.

It's important to use only untreated wood for the box and partitions. Treated wood can be used for the mounting posts, however, because they have no direct contact with the nesting materials. After constructing a 20 inch by 30 inch box with a solid back, Barry added compartments. To preserve the roof, we added some copper sheets (bought years ago for some long abandoned project).


Photo by MPierce

Then came the fun part! Barry cut the bamboo reeds into sections. We used the parts which had "walled" ends, so that they weren't completely hollow. We also used branches we had cut last year from some shrubs. We drilled various sized holes in these (also not all the way through the branches).


Photo by MPierce

In addition to the reeds and branches, we drilled holes into blocks of wood. Then we placed these wood and reed materials in the compartments, filling in with stones, shells, twigs, and some decorative elements. Again, we bought nothing. Everything was "found."

The box should be mounted in a sunny location facing south or southeast, three to five feet above ground. We placed ours in the backyard.

Creating an Insect Hotel, continued

The box adds interest to our garden area, and we are hopeful that it will make a difference with the native solitary bee population in our neighborhood. This was a fun project. We hope we'll see some results this year.

After completion, we have some advice for those interested in tackling this project. Go smaller! A large box requires a lot of materials. It is also quite heavy and requires several mounting posts.


Image from birdwatchinghq.com

Reference

Bauer, Erin C. "Creating a Solitary Bee Hotel." Nebraska Extension Publications, 2015, extensionpubs.unl.edu/publication/9000016369591/creating-a-solitary-bee-hotel/.

Monica and Barry Pierce
Master Gardeners
Vegucators

Virtual Field Trip: The Blazek's Vegetable Garden

One of the more pleasant outcomes of these stay-at-home policies is that we get to spend more time in our own gardens. This is a virtual tour of my vegetable garden.


Photo by JBlazek

Several years ago we decided to go easy on the knees and back. We installed raised beds that would allow us to stand or sit as we planted, weeded, and harvested. We used cinders blocks that were stabilized with pipes hammered through the openings and down into the ground. This made the wall strong enough to sit upon, and occasionally stand on. PVC tubing for irrigation was placed into each bed prior to filling it with mud. Cement pavers were added to the top of the raised beds for aesthetics and to make sitting more comfortable. The hoops, covered with chicken wire fencing, were added to allow vines to climb.

Fall leaves are used as mulch on the ground to keep the weeds at bay.


Rattlesnake bean vines
Photo by JBlazek


Tarragon
Photo by JBlazek


Oregano
Photo by JBlazek

I love growing herbs that give a fresh taste to prepared meals. Oregano, tarragon, basil, parsley, green onions, garlic, thyme, rosemary, chives, sage, are a few of this year's crop. Many, such as, oregano, sage, and rosemary are hardy enough to grow through the winter and have not been replaced in several years.

Virtual Field Trip, continued

I usually allow the cilantro and several other herbs to bolt. The honey bees and other pollinators enjoy the flowers. In addition to attracting pollinators, I never have to buy cilantro seeds or plants. They "volunteer" throughout the garden every year.

Share your garden photos and tips with your fellow master gardeners. Let's keep this virtual field trip going!

Jamie Blazek
Master Gardener
Vegucator
Editor, *The Gardengoer*

Lasagna Gardening

This was a Vegucator lecture on February 26, 2020 presented by Mimi Padgett.

Lasagna gardening is a non-traditional, organic, layering method you can use to create better soil while keeping your garden neat and attractive. The name comes from the layers you create in the garden bed. Lasagna gardening is an easy, time-saving way to install and maintain any kind of garden without removing the sod, digging or tilling.

Why use this method for gardening? It saves work, energy, time, and money. The ground stays cool and damp under the layers of mulch. You can recycle other products into your garden (grass clippings, newspaper, wood ash, kitchen scraps). Its chemical free, a safe environment for birds, bees, and butterflies.

To start, find the perfect spot in your yard to create your garden. Follow the sun in the morning, midday and afternoon. Note where the trees are and where the shade patterns fall. A site that gets a full eight or more hours a day can support a wide variety of vegetables, flowers, and herbs. Observe the ground for any area that forms puddles after a heavy rain. Make sure you are close to a water source so you can water efficiently.

Gather your mulch ingredients. These include, but are not limited to, peat moss, animal manures, shredded leaves, compost, mulched grass clippings, coffee grounds, hay, and newspaper. Mulch is important to cover and protect the soil. It releases material that feed earthworms and other helpful soil organisms. Then these organisms release nutrients in a form that plant roots can absorb. Organic mulch feeds the soil and the soil feeds the plants. You can increase the fertility of the soil by adding the type of manure available to you. I bought some chicken manure at the Covington Farmers market that worked well.

Page taken from Lasagna Gardening

Lasagna Gardening, continued

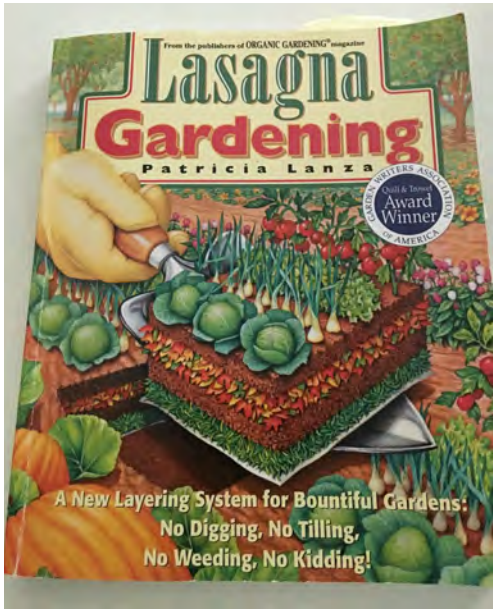
The site is chosen, the materials assembled…Now you are ready to prepare your garden bed. The steps include:

1. Layer the ground with something heavy like newspaper or overlapping cardboard boxes.
2. Add two to three inches of peat moss.
3. Add organic mulch material.
4. Layer the peat moss again.
5. Layer with organic mulch again.
6. Continue in this pattern until your bed is 18-24 inches high.
7. You can top with bone meal or wood ash to add extra phosphorus and potassium.

Page 16 from Lasagna Gardening

You can plant right away in your new lasagna bed or you can let it cook (break down naturally) over a season. Either way, do a soil test so you know the result of what you assembled is as good as you think it is. Lasagna gardening is a layering system that will give you a bountiful garden with no digging, no tilling and no weeding.

Information taken from the book Lasagna Gardening by Patricia Lanza.



Mimi Padgett
Master Gardener
Vegucator Co-chair
STMGA Educational Outreach Chair

Composting

This was a Vegucator lecture on March 4, 2020 presented by Paul Andres.

Compost is one of the basic features of all levels of gardening, commercial or personal, vegetable or decorative, large plots or small containers. It is a common topic in all levels of the master gardener program. Composting is easy to get started, easy to scale up or down, and easy on the plants and soil.

This two-part article will review the chemistry, the biology, and the practical aspects of composting. Part two will appear in the next issue of *The Gardengoer.*

Composting, or decomposition, is nature's recycling engine. Dying plants and animals are decomposed back to their base elements. On a much larger level, stars live and die, spewing their atoms back into the universe, giving life to other stars, planets and life forms. So, everything we know and see in our world, is a direct result of decomposition.

Usually decomposition is done in a controlled process, yielding the results which keeps life moving forward. Sometimes the process gets out of balance and does not result in the expected outcome. Examples of this are fossilization, mummification, putrefaction or rotting.

We watch and learn from nature. We try to keep the good, make it more efficient, and eliminate the bad. And there we begin our journey into composting. There are many "right" ways of composting, all succeeding although starting in different ways. Several steps go into a successful compost pile, and the way these are arranged offer a wide variety of approaches.

Remember that composting is organic chemistry. So, the main ingredient will be carbon. The ability of carbon to combine or break with other atoms and molecules to form useful new compounds makes composting the way to recover and distribute nutrients from dead plants. The other major players in the compost pile are oxygen, hydrogen, nitrogen, potassium, and phosphorus.

Composting, continued

Let's take a brief look at two of these actions. A live green plant takes carbon dioxide from the atmosphere and combines it with water in the presence of sunlight and chlorophyll. It produces a sucrose and releases oxygen back into the atmosphere.

$$6CO_2 + 5H_2O + \text{sunlight} \Rightarrow C_6H_{10}O_4 + 6O_2$$

Then, in decomposition of dead plants, sucrose and starches are converted in the presence of oxygen (and with the help of bacteria) into less complex hydrocarbons, carbon dioxide and water. Eventually all the hydrocarbons will be reduced to their simplest forms.

$$(C_6H_{10}O_4)X + 6O_2 \Rightarrow (C_6H_{10}O_4)X\text{-}1 + 6CO_2 + 5H_20$$

Don't let all these numbers and formulas overwhelm you. The bottom line is the materials assembled by plants during their growth will be unassembled in the compost pile, producing humus. This humus will condition the soil and feed other living plants.

So how do we run a successful compost pile. Four main ingredients need to be balanced: carbon (brown material), nitrogen (green material), water, and oxygen. All the other micro- and macro- nutrients will come into the compost pile along with these four ingredients.

Carbon comes from the dry, brown materials. Leaves, pine needles, shredded newspaper, even organic soils provide adequate carbon. Bacteria burns carbon in the pile, producing the heat needed for the chemical interaction to occur. Carbon is and should be the most abundant of the pile. But one can introduce too much carbon, resulting in a slower maturing compost.

Nitrogen, the green material, is the next ingredient. This is available in grass clippings, kitchen scraps, green leaves, and vegetable trimmings. Nitrogen provides the building blocks for peptides and amino acids, and the bacteria produces ammonium compounds and nitrates which are essential for plant life. Too much nitrogen in a pile can result in nitrogen being released into the atmosphere with an ammonia smell.

Carbon and nitrogen should be in a ratio of about 25:1. However, we are not adding either of these in their pure state. They come mixed together in the organic materials we add to the pile. If your pile is misbehaving one direction or the other, you might be able to see what has caused a problem.

Composting, continued

This chart gives a ballpark figure of some of the common materials used in compost piles.

The ratio is carbon to nitrogen

Sandy Loam (fine)	7:1
Humus	10:1
Food Scraps	15:1
Grass Clippings	19:1
Vegetable Trimmings	25:1
Leaves	35:1 to 85:1
Pine needles	60:1 to 110:1
Newspapers	170:1

I use a layering method for building my compost piles. Usually a layer of greens, a layer of browns, a thin layer of shredded newsprint, and a layer of compost from a previous run. This keeps the input controlled and reasonably mixed.

In the picture below, the left pile is the active compost with fresh additions. On the right is the finished pile that is being distributed into the garden.

The next two ingredients are equally important and easily maintained: water and air. Water is critical for the pile to work through the dynamic changes to produce humus. The moisture content should be as high as possible without blocking air flow.

All materials contain some moisture, and this also contributes to the process. Technically, the moisture content must be above 15% for bacterial activity to continue. A content of greater than 40% is ideal. The method that has served me over the years is to reach into the pile and grab a handful. If you can squeeze water out it is too wet. If that handful holds it shape without losing water, it is just right. If the handful falls apart when you open your hand, it may be too dry. Also, even after the pile has finished producing humus, do NOT let it dry out. It will become rock hard and draw water away from the garden and its plants.

Air or oxygen is the dividing line between balanced decomposition and unbalanced putrefaction or rotting. Although some anaerobic bacterial activity is necessary in the compost process, most of the decomposition is accomplished by aerobic bacteria. If the aerobic bacteria are not allowed to do their job, the plant material will not be completely decomposed. It could be unusable by plants and may even be toxic. And you will notice an offensive smell. The air content must be greater than 5% to keep the pile alive and active.

Composting, continued

It is very important to either turn the pile once or twice during its activity. Or, as I do, use a compost tool which allows you to open air channels in the pile. This is a metal cane shaped tool that is pushed down into the pile. It has wings that will open and create an air space when pulled up and out of the pile.

All items added to your pile should be in moderation, but there are some things that should not be added. These include diseased material, weed seeds, pet waste, manure from diseased animals, and ANY red meat components. Many people do not like using seafood products. I do use them, but I add these in SMALL quantities.

As mentioned earlier, decomposition is an ongoing dynamic process, with many changes including temperature. The pile starts out at ambient temperature, quickly rises to moderate temps. And it may spike at higher temps briefly before falling back into the moderate range where most of the bacterial activity occurs. Heat is produced mainly by bacteria oxidizing the carbon component. Some materials oxidize faster than others and may reach a higher temperature. But these usually do not remain at high temperature for long. Temperature changes can also be affected by adding more materials. This is why you sometimes have to restrain yourself from adding more materials to let the pile complete the process of making humus.

Pile size also effects temperature. Smaller piles may not have enough mass to reach higher temperature or to sustain temperatures long enough to complete decomposition. On the other end, larger piles, commercial size, may retain too much heat and kill the necessary bacteria, or produce hot spots at different locations in the piles. Commercial composting usually has a continuous mixing system which helps moderate the temperatures.

Two other points to be aware of are pH and particle size. Most bacterial decomposers operate best at a pH between 6.0 and 7.5. While most fungal decomposers are quite happy at a pH between 5.5 and 8.0. If you are putting too much acidic materials such as pine needles, then check the pH. Use lime to raise the pH. Or add sulfur to lower the pH. Check with your county agent for the correct amounts.

Particle size that is too small will compact down and block water and air flow through the pile. I find a normal lawn mower produces an efficient mix that breaks down in a matter of two to three months.

The last thing I want to discuss in this article is the compost pile container. There are so many choices it is hard to begin. First you may want to consider having more than one container or bin. At some point you will have to stop adding material and wait for the pile to mature. You will either need to start a second pile, store your materials, or otherwise, dispose of those materials.

Choose a pile size that is right for you. Consider how much humus you will need. How much material you will be collecting. And, most important, how much effort you are willing to contribute. Composting is a nonstop process. You may find you are spending more time in the pile than in your garden. So plan wisely.

Pile construction is another wide-open field. I like chicken wire to allow air to flow freely. Some like slotted wooden sides, others like cinder bricks. Wooden pallets are a favorite. Some build their compost frame into the side of a hill. Although this is not as common in southeast Louisiana. Your choices are only limited by your imagination.

For those who have made it this far and are still awake, I am going to close this article for now. These are the main compost topics which we have direct control over. Composting, part two, will appear in the next *Gardengoer* issue and will cover the life forms in the compost pile. It is a fascinating and complex universe to be sure.

References

The Rodale Book of Composting
ISBN0-87857-991-5

Composting for the Homeowner - Illinois Extension

http://cwmi.css.cornell.edu/chapter1.pdf

www.lsuagcenter.com/

Texas AgriLife Extension Service

Paul Andres
Master Gardener
Vegucator

Virtual Tour of Mayfair Gardens

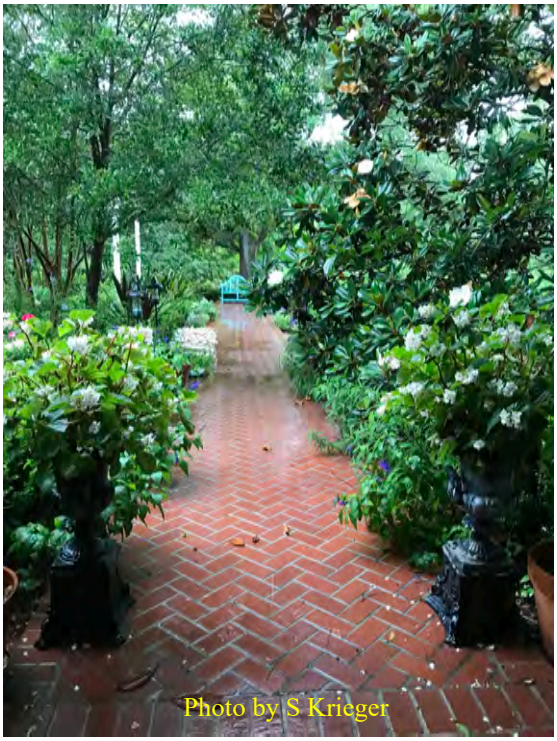
Lady statuary holding a bouquet of roses and a bird's nest, surrounded by Sonnet Rose Snapdragons and Sedum

A quiet place to rest

Dalmatian Purple Foxglove about to bloom, Dragon Wing Red Begonias and Lions Tail. In the background, Sonnet Mix Snapdragons, Knockout Roses and MixMaster Peppery Perfection Coleus

Virtual Tour of Mayfair Gardens, continued

Sedum dripping from an urn.



My favorite bench

After a long day on the Ferris, Bill brings me a glass of wine.

Suzanne Krieger
President, STMGA
Master Gardener

STMGA at the Slidell Farmers Market

STMGA purchased a new tent for the Slidell Farmers Market. It was first used on March 14, 2020.

Photo by JSchexnayder

STMGA volunteers attend the Slidell Farmers Market once a month to answer gardening questions and to publicize the organization's events.

Editor's note:
all STMGA public activities were suspended in compliance with the governor's stay at home orders to deter transmission of the COVID-19 virus.

Janet Schexnayder
Master Gardener
Chair, Slidell Farmers Market

A Walk Outside

Late winter and early spring have been a trial for all of us. The "new normal", social distancing, wearing gloves and masks are hard to comprehend. But all that changes when I walk outside into my yard. There, as a friend said, is my Zen Place. There I find peace in gazing at flowers, grass and, yes, even the weeds that are growing in my garden.

I watch a blue bird family build a nest in a gourd, woodpeckers eating suet from a homemade feeder and a titmouse pulling fibers from coconut liners in my hanging baskets. My list of things to do continues to grow as I walk around the garden. I'm finding that with more neighbors being at home their "to do lists" grow as well. Never has our area looked more beautiful. Families are walking and biking together, playing "I Spy", "Going On A Bear Hunt" and taking a nature walk treasure hunt.

People are friendlier as they realize that we're all in this together. And together we'll get through this.

The new normal of social distancing will continue at least for a while. But when you walk outside, you see a promise of good things to come: flowers blooming, new leaves, green grass and yes, even weeds.

Catherine Lynch
Master Gardener

Using Border Posts for Plantings

I like using pre-sized round metal posts for building my strawberry and herb planters.

You can also get metal sockets that will fit a wooden four-by-four post. The post can be cut to any height. I like the visual effect that varied heights provide as with these thyme-oregano baskets.

Border columns with baskets are available from a number of sources, even Walmart. They are mostly used for flowers. I have never seen them used with herbs.

This is the second year I have used them for the strawberries and the third year for the rosemary. I also planted thyme and oregano in baskets this year. I tried impatiens on the north side of the rosemary basket. It looked great for the first year. After the freeze, it was very difficult to replant in the side without removing the plants in the top.

Having the elevated baskets of herbs provide more comfortable access without having to bend over to harvest. And this location has more direct sunlight than if the herbs were at ground level.

The deck enjoys a full eastern exposure so the part of the basket in the picture above on the right is facing north. Other sides of the baskets get much more sun. You can see a close-up of the difference the exposure makes in strawberry plant growth in the picture below.

The stunted strawberry plants on the north side of the basket show the effect of full shade. The oregano seems happy in sun and shade. There is direct sunlight from around 8 am to 2 pm. I need to fertilize to get them to green-up.

For irrigation I ring the top of the basket with slow-drip, quarter-inch tubing controlled by a timer.

References:

Pamela Crawford books on landscaping and gardening

Art Scott
Master Gardener
MoM editor

Monarch Caterpillar and Chrysalis


Image from CANR.msu.edu

The female monarch butterfly lays its egg underneath the leaf of the host plant which most often is milkweed.

The egg is pale green and shaped like a lemon with a flat base.


Image from SusanMoore@metroparks.net


Photo by JMorgan

The monarch caterpillar is about 2 inches long. It is off white with black and yellow stripes. It has one pair of fine black filaments extending from its front and its rear. It spends its days eating the leaves of the host plant.


Photo by JMorgan

Monarch Caterpillar and Chrysalis, continued

Just before they pupate, the monarch larvae spin a silk mat from which they suspend themselves upside down hanging by their last pair of legs. The silk comes from its spinneret which is on the bottom of its head.


Image from monarch-butterfly.com


Photo by JMorgan

The monarch chrysalis is about 7/8 of an inch. It is pale jade-green, studded with glistening gold. It is plump, rounded, and appears to be lidded. More about the monarch butterfly can be found in the March-April 2020 issue of the *Gardengoer*.

Thanks to Jack Morgan, Master Gardener, for his awesome photos of caterpillars and the chrysalis.

References:

Monarch Joint Adventure.org

The Audubon Society Field Guide to North American Butterflies

Jamie Blazek
Master Gardener
Vegucator
Editor, *The Gardengoer*

THE GARDENGOER

THE NEWSLETTER OF THE

ST. TAMMANY MASTER GARDENER ASSOCIATION

Cooperative Extension Service
St. Tammany Parish
1301 N. Florida Street
Covington, LA 70433
Phone: 985-875-2635 (Covington)
Fax: 985-875-2639
www.lsuagcenter.com/mastergardener/