



ST. TAMMANY MASTER GARDENER ASSOCIATION
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Everyone needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul.

John Muir

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Photo by J. Blazek

For the latest research-based information on just about anything, visit our Web site:

GMO Plants ... Can We Live Without Them?



On June 7, 2023, Barry Pierce presented a lecture to the Vegucators on GMO plants. He posed a very serious question. Can we live without Monsanto/Bayer? Before you answer that question, read on, and learn some facts about GMO plants.

Start with a definition of the term "GMO, or Genetically Modified Organism." GMO is an animal, plant, or microbe whose DNA has been altered by introduction of foreign DNA using genetic engineering techniques.

A Few Facts To Consider:

- By the middle of this century, the population of Earth is expected to be nine billion people. To feed that many people, we need to increase world food production by 70%.
- The fresh market agriculture acreage in the United States has dropped from 2,038,870 acres in 2000 to 1,679,729 acres in 2012. We will need to produce more on less land.

What do we know about plants? Let's start with heirloom plants. These are old cultivars that were grown for food and maintained by gardeners and farmers in the past. They were usually passed from generation to generation. These were commonly grown during earlier periods in human history. Heirloom tomatoes are a good example of a plant whose seeds have been passed down to reproduce an old variety of tomatoes.

Advantages Of Heirlooms Plants

- Preserve genetic purity
- Better taste
- Do not ripen all at once
- More nutritional

Disadvantages Of Heirlooms

- Shorter shelf life
- Not as disease resistant
- Not as insect resistant
- Less fruit production



GMO Plants, continued



A hybrid seed or plant, on the other hand, is a cross pollination between two or more unrelated plants, resulting in a plant that carries one or more of the favorable traits of each plant. Hybrid plants are commonplace at commercial farms, specially bred to increase production. Hybrids are **not** GMO's. GMO's are modified through genetic engineering. Both hybrid and GMO plants are more expensive to produce, therefore, more expensive to buy. Also, both are patent protected.

Advantages Of Hybrid Plants

- 25% or higher produce yield
- More resistant to insects and disease
- Produce has long shelf life

Disadvantages

- Not as tasty
- Require more controlled planting
- More expensive
- Characteristics do not pass into seeds for subsequent plantings

Genetically modified crops have been around for years. They were first introduced in the United States in the 1960's. The Flavr Savr tomato was introduced in 1994 and production stopped in 1997. Future use of genetic modification of plants includes nutrition, stress tolerance, disease resistance, biofuel efficiency, and pollution remediation. Genetically modified crops are regulated by the Department of Agriculture, EPA, and FDA. Nearly 20 million farmers around the world invested in GMO seeds in the last two decades because they are getting better harvests and higher profits.

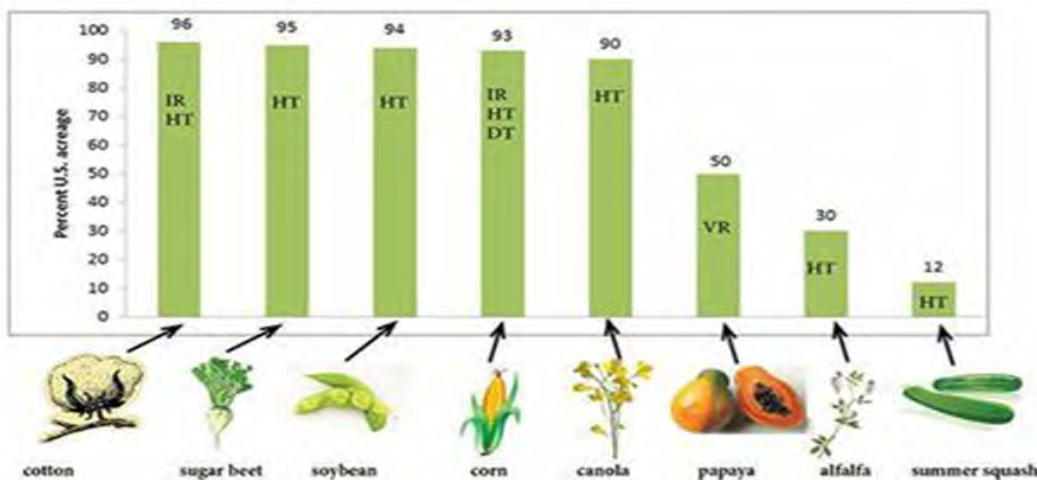
Advantages Of GMO Plants

- Increased attractiveness to customers.
- Increased crop production.
- Longer produce shelf life.
- Greater resistance to diseases.
- Greater tolerance to herbicides.
- Ability to survive in harsh climates.

Disadvantages

- Allergic reactions.
- Antibacterial resistance.
- Toxicity for body organs.
- Loss of nutrition.
- Immunosuppression.
- Cancer: the American Cancer Society states there is no evidence that GMOs cause cancer.

GMO's In The US



IR Insect resistant
 HT Herbicide resistant
 DT Drought resistant
 VR Virus resistant

GMO Plants, continued



More Facts About GMO Plants

- 92% of all corn planted in this country are GMOs.
- 95% of all soybeans planted in the US are GMOs.
- 95% of all canola planted in the US are GMOs.
- 80% of what you buy in the grocery stores are GMOs.
- GMO plants are patented.
 - You can be sued for saving seeds that are produced by a GMO plant from one year to the next. Do not save seeds. They are likely to NOT produce the same desired plant and fruit, anyway.
 - You can be sued if GMO seeds from one field blows into your field. (This mostly applies to large scale farmers.)
- The companies producing GMO plants/seeds have large legal teams to defend their patents and against lawsuits.
 - There are lawsuits pending on the following: Round up, Seed GMOs, Health and Environmental issues, including Agent Orange.
- There are two types of plant patents.
 - Plant Patent for new plants derived from crossbreeding.
 - Utility Patent that prohibits the replanting of seeds harvested from a licensed plant.

The Future Of GMO Plants: Good And Bad

- They are here to stay!
- Continued research and advancements are required to keep up with population growth and environmental changes.
- GMO corn was developed as resistant to herbicides, such as glyphosates.
 - Through natural selection, other weeds become resistant to glyphosate and develop into super weeds requiring stronger herbicides.
- With extensive use of antibiotics, we are creating antibiotic resistant strains of bacteria.
 - Bacteria are becoming resistant to standard antibiotics and must be treated with stronger medicine with bad side effects.
- There will always be a demand for higher crop yields, greater resistance to detrimental environmental factors, and more advances in medicine.
- Research never stops, it is only limited by man's imagination.

Barry Pierce
Master Gardener
Vegucator

Pelican Park Butterfly Garden



The Pelican Park Butterfly Garden is located near the Brown Gym. It was planned and planted by St. Tammany Parish Master Gardener class of 2021.



The butterfly garden contains both native host and native nectar plants. Each plant is identified by a sign stating the botanical name and common name. Eventually, the signs will have a QR scan code that will link to the LSU AgCenter website and provide information on the plants, including light and water requirements, seasonal bloom times, and which butterflies that are attracted to the particular plant. The garden contains *Stokesia laevis*, *Coreopsis lanceolata*, *Solidago sp*, *Callicarpa americana*, and other native plants.



Danielle Daigle
Master Gardener
La. Native Plant Butterfly Garden, Chair

Right-Sizing A Gardening Life With Swedish Death Cleaning

This is the first in a series of articles about adapting one's gardening life to the inevitable changes that come with chronic illness, aging, disability, and any number of changes that occur in our lives.

Nearly five years ago my husband and I underwent an unexpected and rapid downsizing. I began searching for a good book to guide me in continuing the process at a more reasonable pace. My answer was a small book titled *The Gentle Art of Swedish Death Cleaning: How to Free Yourself and Your Family from a Lifetime of Clutter*, by Margareta Magnusson. In a nutshell, Swedish death cleaning is a way of thinking and a way of life. An ongoing, daily activity of slowly eliminating from your home and mind all but what matters most to you in the present. And what you believe will matter most to you in the future. Not at all morbid, it is a life-giving activity that becomes a habit, and benefits not only you and but also those who survive after you die. And yes, it most certainly applies to the gardening life! I will begin by telling you the story of my father to illustrate this concept.

Daddy's gardening life was shaped somewhat like a series of ascending and descending cones. It began extremely small, then expanded, and expanded again, and expanded yet again. Then it decreased, and decreased one more time, almost to nothing. Like the bottom tip of a waffle cone.

His first home in New Orleans, a former slave quarters on Bourbon Street, had exactly one houseplant ... a sansevieria, or snake plant, based on photos my parents saved. The place did not have a yard or lawn. Instead it had a minuscule courtyard surrounded by tall walls. Its floor completely covered with damp flagstones with a fountain in the middle. A few small trees, perhaps growing in neighboring courtyards, created dappled shade.



The sansevieria moved with him, his wife, and their child to a house on a small lot in the brand new Gentilly Woods subdivision. Suddenly the cone had widened. He had a postage-stamp lawn to mow ... or pay a teenager to mow. But that was it.

Then they moved north of the lake to Abita Springs. Quite suddenly he had several large expanses of grass to mow, peppered with old trees, all surrounding the family's wooden cottage. The sansevieria moved with them. It lived as the sole houseplant, gracing the center of the dining room table.

Right-Sizing A Gardening Life, continued

Around 1968 the family moved again, this time with kid number two in tow. Daddy, this “city boy who had never wanted to live in the boondocks” in the first place, suddenly had, not just some grass to mow, but a second, unpaid, nearly full-time job as a gardener/landscaper. He was engaged in heavy manual labor for hours every evening after work, as well as all day long on Saturdays and Sundays.

For the next eleven and a half years, Daddy was nearly consumed with excavating, repairing, preserving, planting, and maintaining their large historical property and its abundance of hardscaping, lagoons, and numerous turn-of-the-century plantings. Like a parent with an infant, he fell in love with this place and nurtured it as his third baby. He added a delightful collection of indoor houseplants to the sansevieria, which had, of course, moved with us. Now it graced the center of Mama’s bedroom dresser, flanked on either side by a corpulent Hoi Toi with a wicked grin, and a serene crimson Buddha. Even with each of his daughters' help ... though he had retired ... the workload was becoming increasingly difficult for him to handle physically. Eventually Daddy hired a teenage boy to be his garden helper.

In the late 1970’s Daddy had the first of several heart attacks, which forced him into retirement. Then he was diagnosed with emphysema. These two things combined made it impossible for him to keep up the never-ending, labor-intensive maintenance of what amounted to a private park. Mama had been diagnosed with terminal cancer, and she was terrified that Daddy would work himself to death outdoors. His very being had become entwined with this magical landscape to which he had devoted his life. Even so, she had to talk him into moving. For years afterward, he would drive by our former home, tears in his eyes, grieving the loss of this place he had grown to love. Grieving the way most of his hard work was being swallowed by a jungle of overgrowth. The month we moved marked the time when the “waffle cone” of Daddy's gardening life began to narrow.



Our new abode was a wheelchair-accessible one-story brick ranch house on a lot that was a tiny fraction of the size of his previous garden. There was no hardscaping and no landscaping. Daddy’s gardening life, with my help, shriveled to mowing a moderately-sized lawn, a small amount of weeding, and one special project. And of course, caring for the sansevieria, which now lived on one of their dressers.

Right-Sizing A Gardening Life, continued

As Mama's health deteriorated, any hopes Daddy might have had of creating even a small garden were subsumed by the need to take over nearly all of Mama's household chores. Beginning in 1979, she still planned the menus and wrote the grocery lists, but Daddy and I shared all the cooking, cleaning, laundry, ironing, shopping, and errands, along with the yard work and vehicle maintenance. There was no time anymore for Daddy to create, much less maintain, an in-ground garden. What he did do for Mama, though, was create a tiny oasis of potted and hanging plants underneath the covered patio. She could enjoy it by peering through the sliding glass doors from her recliner. He installed a bird feeder nearby, and built a squirrel feeder which he attached to a nearby pine tree. It cheered her to watch the birds and squirrels, see the plants, and occasionally spot a flying squirrel at night, revealed by the floodlight Daddy had installed.

After Mama died, Daddy began dreaming about returning to New Orleans, moving as close to the French Quarter as possible. Daddy's new house was a "flipped" corner grocery store in the Faubourg Marigny. The garden cone decreased again. Like so many old homes there, crammed shoulder-to-shoulder, it had zero green space. But Daddy was endlessly creative. He made magic in the narrow two-foot-wide, fifteen-foot-long strip of sandy dirt that lay along the north side of the chain-link fence and gate-enclosed concrete pad that served as a parking space. A total of 30 square feet, against the fence that divided it from the house next door. All of which lay in full shade until the sun reached its zenith on late spring and summer days. The sun shone on that spot for only a couple of hours. Its rays blocked by the corner of the house, and the nearby church, long before dusk.



A passionate lover of beauty, Daddy could not entirely abandon gardening. The sansevieria had come with him, of course, and it had its place of honor in his living room. Outside, he spread a layer of egg-sized chunks of white marble over the strip of sandy dirt. He placed a matte black ceramic toro (lantern) in the center, an homage to the Japanese garden he had always dreamed of creating. Elegant in its simplicity, the only plants he put in were the purple tradescantia he had brought from our house in Covington. If he put in anything green, that memory is lost to me. I do remember a few astonishingly vivid pink four-o'clock volunteers brightened some cracks in the concrete drive.

Right-Sizing A Gardening Life, continued

From his kitchen and living room windows, there was nothing to see but an ugly street, an equally ugly grey brick wall surrounding the church parking lot, and the church. But because he had become a gardener at heart in his late forties and fifties, when Daddy looked out the window of his kitchen door, he had that tiny oasis he had created in the midst of grey concrete, grey chain-link fencing, and the peeling white paint of the house a couple of feet behind the fence. By then, he had been diagnosed with three different kinds of lung cancer. One lung was removed. He invested what little energy he had left in his passion of passions ... drumming with various Latin music groups. But as you can see, he did not entirely give up on gardening. He adapted. He adjusted. He did what he could with what energy he still had in him.

When Daddy died in 1997, his sansevieria, which he had transplanted from a small white and black ceramic planter to a large grey fiberglass planter, came home with me, along with some of the tradescantia. Now both live on our north-facing balcony, in that grey planter. The planter, split along one side decades ago, is ugly as ever. But to this day, I cannot bear to part with it. I have been keeping those plants alive for 26 years. The tradescantia is at least 46 years old. The sansevieria could be as much as 80 years old. It is possible he brought it with him from Washington, D.C., back in the 1940's. Of course the mother plants died many decades ago, and what I have been nurturing all these years are only the latest of many generations of pups. But still. Not bad, eh?



Daddy is my primary role model for how to adjust to the changes my husband and I have been going through in our own lives. There are other adjustments. I will tell you about those later. Over two decades I witnessed Daddy's frustration, disappointment, despair, and grief over having to say goodbye to the exquisitely beautiful world he had uncovered like an archaeologist. He had carefully maintained it for a decade. I witnessed his resignation and acceptance of circumstances beyond his control, and how he modified his behavior to reflect each of his new environments and his changing abilities. He made some mistakes that he deeply regretted. I have made a lot of unfortunate mistakes myself. The goal for this series of articles is to provide some insight into how to adapt one's gardening life to changing circumstances. I hope the lessons will benefit you. And encourage you to not give up, should you find yourself in what seems to be an impossible situation for a gardener ... diminishing areas in which to grow plants.

D'Wanna Hanes
Master Gardener
Vegucator

Recipe For Peanut Butter Power Balls

Here is a healthy and delicious sweet treat to enjoy and share with friends!

- 2/3 Cup Peanut Butter
- 2/3 Cup Honey or Agave Nectar
- 1 Teaspoon Vanilla Extract
- 2 Cups Rolled Oats (not the one minute oats)
- 1/2 Cup Ground Flax
- 3 Tablespoons Chia Seeds (or Bee Pollen)
- 1/2 Cup Toasted, Salted Pumpkin Seeds
- 1 Teaspoon Cinnamon Powder
- 1/3 Cup Unsweetened Shredded Coconut (get the one in the health food section if possible).



Mix the peanut butter, honey, and vanilla extract together. In a separate bowl; mix all the rest of the dry ingredients together. Pour the peanut butter-honey mixture into the dry ingredients. Using your hands, evenly mix all ingredients together. Once everything is well mixed together, take a heaping tablespoon and form into a ball. Dampen your hands with water to avoid the mixture sticking to them. You may need to re-wet your hands after every 2 or 3 balls. Makes about 35. Enjoy! They are so good, you will need to make an extra batch for sharing! Store in airtight box in the refrigerator.

Sandra Pecoraro
Master Gardener
Vegucator

Editor's note: If you make 35 peanut butter power balls with this recipe, the calories add up to about 100 kcal per ball.

International Master Gardener Conference, Kansas City

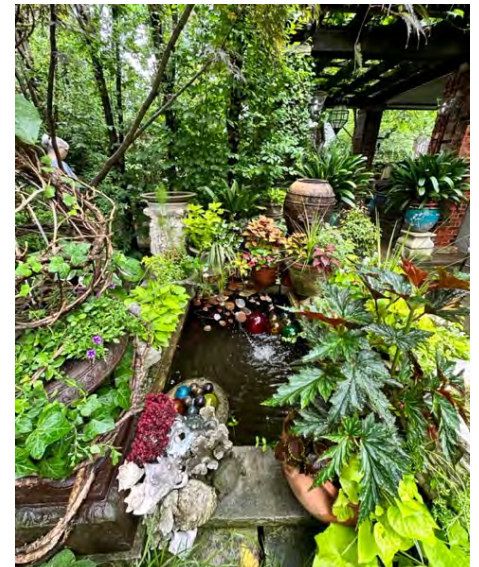
“WOW” is all we can say after attending the 2023 International Master Gardener Conference in Kansas City on June 18 – 22, 2023. Initially they had hoped to have 600 attendees post-Covid. The Kansas State University Extension's Master Gardeners of Johnson County, Kansas attracted 1130 attendees, representing 44 states plus Canada and England. After five years of planning, 280 master gardeners racked up thousands of volunteer hours and filled over 950 volunteer slots. They were able to create a beautifully organized meeting containing pre-event tours, workshops, a wide variety of daily educational sessions, daily keynote breakfast speakers, evening events with additional keynote speakers, a trade show with 100+ vendors, awards for poster submissions on projects submitted by numerous extension services, spirit poles, and a silent auction. The camaraderie and teamwork exhibited by the local master gardeners was evident throughout our visit.



St. Tammany Master Gardeners Christine Foster, Jeanne Comeaux, Kimberlee Burt, and Janice Wells enjoyed beautiful private and public garden tours during the pre-event days. We toured private gardens of beauty, elegance, and inspiration: English gardens to more formal, shady to sunny garden spaces, large and small spaces. We were impressed with the sheer creativity these gardeners expressed through their planted spaces, pots, and yard art.



These were not only small gardens but also extensive yards. One included a vegetable garden and orchard. To say we were envious of what they can grow in a less humid environment was putting it lightly. Someone in our group wanted to take this bear home.



International Master Gardener Conference, continued

The next day we attended a tour of Midtown Gardens, visiting the Shawnee Indian Mission Garden, Loose Park Rose Garden, Kauffman Memorial Gardens and Missouri Department of Conservation native gardens. The Shawnee Indian Mission Garden is one of eight demonstration gardens in the county. In addition to four other garden areas, it contains a rain garden to reduce flooding and stormwater pollution.

<https://www.youtube.com/watch?v=OYA8tEkzN6I>



Loose Park Rose Garden



Shawnee Indian Mission Rain Garden

The one and a half acre Loose Park Rose Garden was just coming into bloom with 3,000 roses of 130 varieties.

https://www.youtube.com/watch?v=z_RnJfAdZik&t=13s

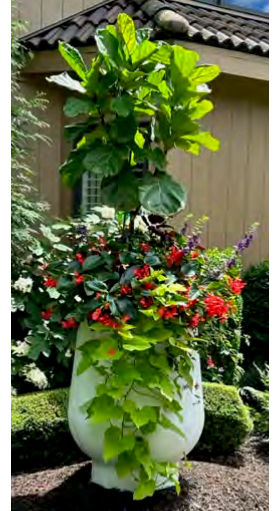
The Kauffman Memorial Garden contains annual and perennial beds, unique trees, and bronze sculptures (as well as the burial place of the Kaufmanns). It was inspired by gardens the Kauffmans visited throughout Europe. Finally, we visited a Missouri Department of Conservation native garden adjacent to the Kauffman Memorial Garden where they encouraged native plants to grow throughout the property to attract pollinators.



International Master Gardener Conference, continued

Numerous opportunities for learning were offered with six educational options per session (four sessions/day). We were able to listen to a total of six great speakers each day, including breakfast and evening speakers. Some of the topics included

- nurturing habitat for wildlife
- water-wise landscaping
- indigenous backyard gardens
- humane gardening
- native medicinal plants
- creating mini-forests
- boosting garden harvests
- plants for attracting birds
- monarch waystations
- challenges in a changing climate
- companion planting partners
- growing edible natives
- children in the garden
- high performing annuals
- hostas
- personal impacts
- the ripples of volunteerism
- herbs
- why gardens and gardening matter



Finally, the Garden Thyme Marketplace Trade Show gave us plenty of opportunity to spend money on garden trinkets. Ratcheted pruners and a painted rock generated a visit to the TSA Department for Christine's bag on the return trip. While Janet spent quite a bit of time trying to figure out how to get a four-foot shovel home to Louisiana. Be prepared to be convinced by Janet that you need a four-foot shovel. She plans to order a bunch of them because there is a minimum quantity for free shipping. Plenty of free seeds from Baker Seeds and their awesome catalog made us drool over what could be in next year's garden. We loved the spirit poles generated by the various master gardener groups of Kansas and NW Missouri. So many wonderful ideas for us to pursue.



Spirit Poles

The 2025 International Master Gardener Conference will be a virtual event hosted by the Texas Master Gardener Program of Texas A&M University due to the challenges of getting conference space in cities who had applied to host the conference. It will be exciting to see what they can pull together with their plan of offering registrants a month to view the various presentations. What about 2027 and beyond? There can only be a conference if states step up to the plate and are willing to host. The Johnson County Extension Master Gardeners enjoyed the

experience, highly recommend it to other master gardener groups, and are willing to provide advice. If interested, we can reach out to the National Extension Master Gardener Committee for more information. <https://mastergardener.extension.org/contact-us/>

Christine Foster
Master Gardener
FPJDC project, co-chair

Pawpaws: A Native Fruit Tree



On June 7, 2023 John Teague presented a lecture on Pawpaw trees to the Vegucators.



There are five American native fruit trees:

- American Persimmon (*Diospyros virginiana*)
- Mayhaw (*Crataegus aestivalis*, *C. opaca* and *C. rufula*)
- Red Mulberry (*Morus rubra*)
- Juneberry (*Amelanchier spp.*)
- Pawpaw (*Asimina Triloba*)

The pawpaw tree, *Asimina triloba*, is one of the five native fruit trees. It has the largest fruit. It is not a papaya. A member of the Annonaceae family, which includes a variety of other important fruit trees, including soursop (*Annona muricata*), cherimoya (*A. cherimola*), and sugar apple (*A. squamosa*). The pawpaw is the only member of the Annonaceae family which is adapted to temperate conditions. All others are strictly tropical or subtropical. The pawpaw is indigenous to a large part of the US, from New York to Florida, as far west as Nebraska, and including Louisiana.



Native range of pawpaw trees

History of Pawpaw in North America

- There is evidence that pawpaw trees have been present in North America for around 35 million years.
- They were eaten (and maybe cultivated) by native populations for thousands of years.
- DeSoto remarked on them in his early exploratory reports.
- Members of the Lewis and Clark expedition survived on nothing but pawpaws and a biscuit a day for one trek of a hundred and fifty miles.
- George Washington grew them at Mount Vernon.
- Thomas Jefferson grew them at Monticello. Jefferson had their seeds and plants shipped to France when he was the US Ambassador there.

Pawpaws: A Native Fruit Tree, continued



History of Pawpaw in North America, continued

- Audubon illustrated the yellow billed cuckoo feeding on pawpaws.
- Daniel Boone and Mark Twain were reported to be fans.
- For hundreds of years, large numbers of American kids ate them where they found them in the alluvial woods of America or took them home for family dessert.
- Hundreds of American sites have pawpaw in their names: towns, lakes, rivers, even islands. PawPaw Island is in Madison Parish, Louisiana.
- The town Natchitoches in Louisiana translates to “the pawpaw eaters” in the language of the Caddo Indians, who called the pawpaw "*nashitosh*".
- There is a children's song about pawpaw patches.



Where, oh where is dear little Nellie?
Where, oh where is dear little Nellie?
Where, oh where is dear little Nellie?
Way down yonder in the pawpaw patch

Pickin' up pawpaws, puttin' 'em in your pocket
Pickin' up pawpaws, puttin' 'em in your pocket
Pickin' up pawpaws, puttin' 'em in your pocket
Way down yonder in the pawpaw patch

<https://www.youtube.com/watch?v=mnplS5PNZpw>

Zebra Swallowtail Butterfly



The pawpaw tree is the exclusive host plant for the caterpillars of the Zebra Swallowtail Butterfly, *Protographium marcellus*, one of only two members of its group to be adapted for temperate climates, as well. It appears that the pawpaw and the Zebra Swallowtail may have co-evolved in North America millions of years ago. The swallowtail ingests

Zebra Swallowtail Larva



annonaceous acetogenins from the pawpaw, a chemical which is retained in the body and may help protect butterfly and caterpillar from being eaten by birds. Annonaceous acetogenins are repellent to most insects and birds so the caterpillar accumulates them to avoid predation. These natural bioactive compounds are present in the leaves, bark, and twigs of pawpaw, and other species of the Annonaceae family. They have shown insecticidal and anti-tumoral properties (McLaughlin 2008). Extracts of the pawpaw acetogenins have been used to make

- Shampoos effective in controlling head lice, ticks, and fleas.
- Pesticide sprays which protect host plants from a variety of pests.
- Ointments used to treat oral herpes and other skin afflictions.
- An encapsulated extract used by certain cancer patients as a botanical supplement.

Pawpaws: A Native Fruit Tree, continued



Habitat and Cultivation

Pawpaw trees can grow up to 30 feet in height in USDA hardiness zones 5 to 8. In the wild they are most often seen as understory trees. These trees propagate either clonally (hence the “pawpaw patch”), by root sprouts, or by seed. Pawpaw trees are hardy to at least -20 degrees Fahrenheit. They require approximately 400 hours of chilling to break dormancy. This requirement varies with provenance: pawpaws of northern origin require more chilling than cultivars of southern origin.

Pawpaw trees are flexible in their soil requirement. The main thing is good drainage. Soil pH should be moderately acid to neutral, in the range of 5.5 to 7.0. Pawpaws are happiest in a rich, deep, loamy soil with high organic matter content. In addition, they appreciate an organic mulch. In the wild, a natural mulching layer of decomposing leaves is normally present. Excessively dry sites should be avoided.

Because they can grow to 30 feet tall, trees should be spaced at least 20 feet apart when planting, but not more than 30 feet to help with cross pollination. Raised mound planting can be beneficial. Trees two years old and less must be protected from strong direct sun, but fruit production is enhanced in mature plants by being in direct sun.

The deep red, almost purple flowers are perfect. Male and female portions mature at different times. The trees are not self fertile and need cross pollination with another tree. The flowers are strongly protogynous (female, then male). Some growers have found hand pollination useful for fruit production.



Receptive Pistil



Mature Pollen

The dark flowers of the pawpaw tree are not interesting to bees. They are mostly pollinated by flies and beetles. The flower has a smell sometimes likened to yeasty bread or fermentation (or rotting flesh), which would be attractive to flies and beetles. However, flies and beetles are not reliable pollinators.

Pawpaws: A Native Fruit Tree, continued



The pawpaw fruits are botanically berries. (Dirr 1990). The fruits are sweet, highly nutritious, and have a pleasant but strong aroma. They have a unique exotic taste that resembles a combination of banana, mango, and pineapple (Pomper and Layne 2005). Because of their unusual tropical flavor and appearance, they have many nicknames: Hoosier banana, Indian banana, custard apple, Quaker delight. The pulp can be consumed both fresh and processed in many different ways: ice cream, compotes, jams, pies, and custards. Each fruit can weigh up to 7.6 ounces, on average they are about 5.3 to 7.1 ounces. The fruit has two rows of seeds with a total of about 12 to 20 seeds. The seeds measure up to 1.2 inches long (Pomper and Layne).



Potential Pests

- Pawpaw peduncle borer
- Japanese beetle
- Leaf-roller
- Zebra swallowtail caterpillar
- Asian ambrosia beetle
- Spotted wing drosophila (its host plant)
- Brown marmorated stink bug (its host plant)
- Pawpaw leaf spot



Advantages to growing pawpaws

- Delicious
- Unusual
- Native fruit
- Antioxidant-rich
- Superbly nutritious
- Versatile in the kitchen

Disadvantages to growing pawpaws

- Some unreliability in pollination
- Most propagation in nature done by clonal root suckering
- Largely self incompatible
- Very short shelf life of fruit

Pawpaws: A Native Fruit Tree, continued



Nutritional Properties of pawpaw fruit

	Paw Paw	Banana	Apple	Orange
Food Energy	4.0	4.6	2.3	2.4
Protein	2.4	2.1	0.4	1.9
Total Fat	1.8	0.7	0.6	0.2
Carbs	6.3	7.8	5.1	3.9
Fiber	10.4	9.6	10.8	9.6
Vitamin A	1.0	0.9	0.6	2.3
Vitamin C	30.5	15.2	9.5	88.7
Thiamin	0.8	3.5	1.3	6.7
Riboflavin	6.0	6.7	0.9	2.7
Niacin	6.5	3.2	0.5	1.7

Percent of Daily Requirements per 100gms of fruit

In 1993 KSU spearheaded The Pawpaw Regional Variety Trials, which involved 12 universities and institutions in a multi-year controlled pawpaw planting and assaying project. Charlie Johnson of the LSU AgCenter was a participant in the study. There are over 2,000 trees from 17 states that are planted on 12 acres at the KSU farm. Contact :Sheri Crabtree at sheri.crabtree@kysu.edu or telephone # 502-597-6375. Website: <https://kysu.edu/academics/cafsss/pawpaw/>



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John Teague
Master Gardener
Vegucator

Lang House Parterre: Now And Then

The Lang House parterre was designed and built by the St. Tammany master gardeners in 2017. Peter Weaver headed up the class project with the help of Will Afton, Nancy Clark, and a number of other new master gardeners and community volunteers. The garden has matured and become a centerpiece of enjoyment and education for visitors. The garden includes plants used for edibles, medicinals, ornamentals in the 1800's. Our diligent St. Tammany master gardeners continue to maintain and nurture this beautiful exhibit. This year with the help of Penny Bankston, Sandy Bezet, Debi Bowman, Danielle Daigle, Catherine Fabacher, Cindy Hemm, Beth Lachin, Barbara Moore, Roberta Torman, Kristin Weaver, Peter Weaver, and others, the garden continues to thrive.

Lang House beginnings in 2017 and now:



All photos by S Bezet

Sandy Bezet
Master Gardener
Lang House Gardens, co-chair



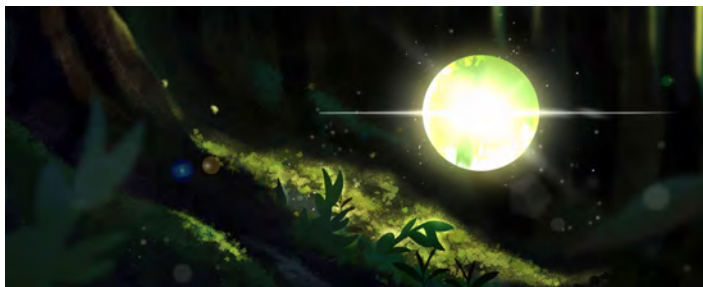
The Power and Science of Plants

An article on the best mulch for suppressing weeds. https://www.berkshireagle.com/arts_and_culture/home-garden/thomas-christopher-bark-mulch-bad-for-gardens-use-wood-chip-mulch/article_c4945676-0706-11ee-9e9c-d79866b79bda.html



An invasive Asian moth is making its way to Louisiana!
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A study demonstrating indoor plants can clean toxins from the air.
[Plants Can Clean Toxic Chemicals From The Air in Hours, Study Shows \(msn.com\)](https://www.msn.com/en-us/news/technology/we-finally-know-how-photosynthesis-starts-it-takes-just-a-single-photon/ar-AA1cCItU?ocid=msedgdhp&pc=U531&cvid=18037e317e524218847f3bd70dbc8ddc&ei=59)



We Finally Know How Photosynthesis Starts: It Takes Just a Single Photon. Story by Rebecca Dyer

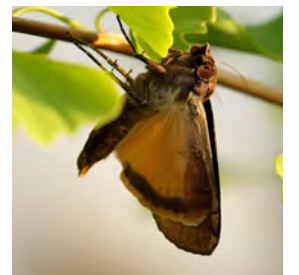
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The gene editing technique CRISPR
The gene-editing technology in your store-bought tomatoes that could eat agriculture Story by Vivek Wadhwa, Alex Salkever • Feb 27

Moths make efficient pollinators.
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Marigny Elementary Master Gardener Project

Recently the St. Tammany master gardener project at Marigny Elementary School in Mandeville was awarded a Silver certification by the Louisiana Native Plant Society for having 75 or more native plants. Our plants include strawberries, okra, irises, native trees and bushes, and many other native plants.



Some of the volunteers (left to right) Jim Russell, Karen Reisch, Sharon Hassinger, Carolyn Rault, Diana Cammatte, Sue McGuire, Marigny Elementary Principal Leslie Martin, Leigh Anne Wall, Paula Meiners, and Dave Maher.



Native plant bed with identification signs



Native winterberry and iris

Louisiana strawberries in our innovative planters – gutters attached to our fence



Native ironweed



Native plant garden with native alligator ...so far not one student loss!

Marigny Elementary Master Gardener Project, continued



The garden at Marigny Elementary School has been a project of the master gardeners for several years. We all enjoy watching the children discover the joy of planting a seed and watching it grow. Helping the children plant and harvest their vegetables never fails to put a smile on everyone's face! Not only are we instilling a love of gardening in these youngsters, but we are also helping them learn about the importance of native plants and pollinators.



In addition to our native gardens, we helped the students plant and cultivate vegetables. This year, students planted and harvested lettuce, kale, and carrots. After washing their harvest, the kindergarten and first students were able to taste the vegetables they planted. We were pleasantly surprised at how much they liked these fresh vegetables! Before school ended, we planted beans that will be ready for harvesting when the students return in the fall.



Kale and beans



Flowers to attract pollinators

Marigny Elementary Master Gardener Project, continued



These colorful "bee" planters make learning about pollinator plants fun!

Sue Maguire (right) with our colorful frog planter and flowers to attract pollinators.



Our master gardener volunteers on this project include: Sue McGuire, Sharon Hassinger, Jim Russel, Diana Cammatte, Carolyn Rault, Paula Meiners, Karen Reisch, Dave Maher, Leigh Anne Wall, Karen Martin, Joe Lapine, Kris Majnerick. In the hot months of summer, Liam and Jack, Sue's grandsons, and Tom Hassinger provided their much welcomed labor in the garden.

We are grateful for the support we have received from the Marigny PTA, the Church of the King, and the Mandeville Northshore Kiwanis Club for all their assistance in making the Marigny Elementary Garden a wonderful, fun place to learn about plants.

Leigh Anne Wall
Master Gardener

Carolyn Rault
Master Gardener

STMGA 2023 Scholarship Recipients

Congratulations to the 2023 St. Tammany Master Gardener Association scholarship winners!



Left to right: Nicolas Vaccaro, Rylie Hutchison, Allie Hubbard, Anthony Wootan, Abigail Davis, Clara Flynn.

Not shown: Logan Barowka

Rylie, Allie and Anthony received the Doctor Bobby Fletcher Senior Scholarship. The others received the STMGA Scholarship.

STMGA Tour Of Hopewell Gardens

On June 22, 2023, twenty St. Tammany Master Gardener Association members braved the heat and toured Hopewell Gardens. Kit and Mark Grote began Hopewell Garden in the late 1980's with mostly native plants. Over the years they collected plants and trees from across the country. The woodland garden now has many varieties of bamboo, two small ponds, and sculptures by Mark Grote. The gardens are located across the road from St. Joseph's Benedictine Abbey.



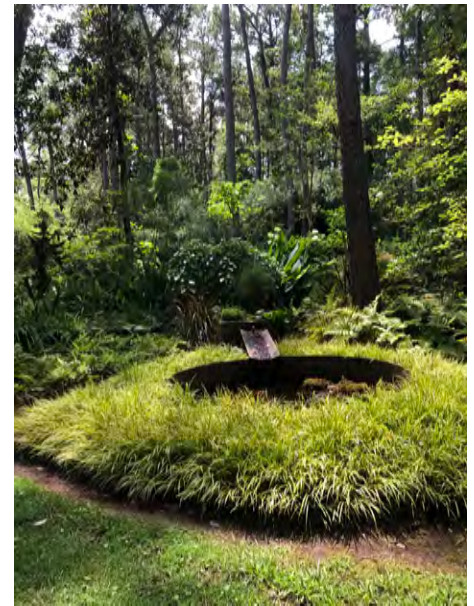
Kit and Mark provided a guided tour, winding us along the pathways. Kit shared her wealth of knowledge about plants, shrubs and tree names and growing habits.



STMGA Tour Of Hopewell Gardens, continued



Everyone was envious of their green house where they propagate plants. Kit and Mark work in the gardens every day, with a team of volunteers coming three days a week. We enjoyed the biodiverse habitat, architectural features included ponds, trickling water features, benches, sculptures, and large kettles.



There is a medieval belief that humans, as a part of nature, are strengthened and healed by spending time with plants and trees. Our tour provided that calming effect, despite the extreme heat.



250 year-old
Western red cedar

Photos by Jan Pesses and
Earlyn Pickering Jaster

Jan Pesses
Master Gardener
STMGA, past president

'Cinnamon Girl' Distylium A Louisiana Super Plant for Fall 2023

The Louisiana Super Plants program is an educational and marketing campaign that introduces gardeners to ornamental plants that grow well in the Louisiana environment. A committee of university researchers and industry leaders field plant suggestions and organize trial experiments. These plants are then observed for two years where selections are made and released to the public. This information is shared with local producers and then to local consumers through extension related educational programming. The local consumers learn about easy to grow plants and the local producers supply the demand created by the consumer. It's a win-win situation for all!

Every year the Louisiana Super Plant program releases 3 or 4 plants throughout the year. So far in 2023, we've seen *Evolvulus glomeratus* ('Blue Daze' and 'Blue my Mind') and 'Peggy Martin' rose in the news. Later in the fall you will see the release of 'Cinnamon Girl' distylium as the Louisiana Super Plant winner for the fall. The mature size of Cinnamon Girl is two to three feet tall and three to four feet wide with a spreading style growth habit.

The genus *Distylium* contains 18 different species in the witch hazel family known as Hamamelidaceae. All species are native to Eastern and Southeastern Asia. *Distylium racemosum*, is a tree or winter-hazel, is starting to become very popular in current landscape horticulture programs. These plants offer evergreen foliage which makes them excellent choices for hedges, foundational plantings, and background uses. Some folks are even marketing them as replacements for Japanese boxwood hedges. The generic species can get tall, up to 10-15 ft tall. However, there are several hybrids within this group that stay much smaller and more compact. Distylium can be left in its natural shape, or it can be pruned into a formal hedge.



'Cinnamon Girl' Distylium A Louisiana Super Plant for Fall 2023

'Cinnamon Girl' separates itself from the other distyliums by its mature size and the color of its new growth. It is considered a dwarf variety that can get two to three feet tall and slightly wider at three to four feet wide. The spreading style growth habit allows it to be used in mass planting as a ground cover plant. It would be a similar size to that of a Drift rose plant. However, it is also versatile and can be pruned for more of a formal look like you see in hedge and screen plantings. The leaves offer a somewhat fine texture that contrast well with coarse textured plants used in combination. The other interesting feature of 'Cinnamin Girl' is the copper-colored new foliage which is seen in early spring.



One of the characteristics of a Louisiana Super Plant is the ability to thrive in various environmental situations. Distylium plants in general are tolerant of a wide range of conditions from wet soils to dry soils. There are no major insects or disease pests to report. They prefer full sun but can tolerant some shade. When grown in more shade, plants will stretch a bit and look thinner, but they will surprise you with how much shade they can take before failing. Once this plant is added to the garden, you will understand how it made it into the Louisiana Super Plants program.

Look for 'Cinnamon Girl' distylium and other Louisiana Super Plant selections at your local plant nursery or garden center. Ask for them by name if you don't see them in stock. There are several wholesale plant nurseries that propagate this plant to make it available for retail operations.

Will Afton
County Agent
LSU AgCenter



Gaillardia pulchella: Indian Blanket

Gaillardia pulchella, commonly known as Indian blanket, firewheel, Indian blanketflower, and sundance, is native to southern and central United States from Arizona to Florida, from the Carolinas and as far north as Nebraska. Commonly seen along roadsides, it prefers sandy soil. It tolerates heat and drought well.



Indian blanket is the larval host to the bordered patch butterfly and the painted schinia moth.



Indian blanket is an annual that can grow as tall as 24 inches. It has a hairy stem that branches near the base. The leaves are lobed-shaped, pale green, alternate, and one to two inches long with smooth edges.

The showy flower head is has 10 to 20 petals which are one to two inches long in groups of three, starting red in the center, moving to deep orange then tipped with three yellow ends. The disc flowers in the center are brownish-red. Some species have entirely red flowers with the barest yellow tips. Indian blankets generally bloom from May through July. The bloom period can be prolonged by deadheading and supplemental summer watering.

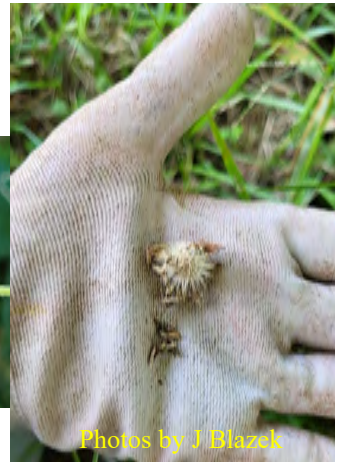
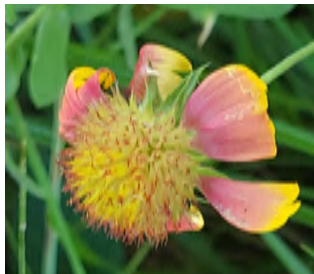
Indian blanket is usually found in prairies and meadows. It does require good drainage. Rich soils will produce large, floppy plants with few flowers. Indian blanket is very easy to grow and is commonly used in roadside and meadow plantings.



Gaillardia pulchella: Indian Blanket, continued

G. pulchella is an annual that reseeds itself. Seeds can be collected and transferred to new areas. To start a new area, plant the seeds in the fall or early spring by raking them into loose topsoil. Water regularly until the seeds germinate which should happen in one to two weeks. The seeds can also be started indoors, but must be transplanted outside. Either way, the plants need to establish a healthy taproot before the first frost. To collect seeds, look for flower heads that no longer hold onto dried petals. This allows time for the seeds to mature. Do not mow or collect seeds before seed maturity occurs. *G. pulchella* is an annual, so the plant will only re-occur if the seeds are allowed to mature. Seeds are easy to collect and save. Wait until the petals fall off and the center dries to a white color. Pick the center and the seeds will fall out. Seeds can be stored in a refrigerator.

Native Americans thought the *Gaillardia species* brought them good luck. They used the roots of certain species to make tea for upset stomach and to rinse inflamed eyes. They also chewed the dried root and applied the paste to heal red, cracked skin. None of these uses have been evaluated by western medicine standards. There has been some research in mice that shows compounds extracted from *G. pulchella* and other *Gaillardia* species have anti-inflammatory properties and are also protective of liver function. These show promise but no human studies have yet to be done.



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Master Gardener
Vegucator
Editor, *The Gardengoer*



THE GARDENGOER
THE NEWSLETTER OF THE
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