THE DISCOVERY GARDEN ISSUE

GULF COAST Gardening

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TEXAS A&M AGRILIFE EXTENSION

GALVESTON COUNTY

TEXAS MASTER GARDENER
TEXAS A&M AGRILIFE EXTENSION
Galveston County

WRITTEN BY GALVESTON COUNTY MASTER GARDENERS
IN COOPERATION WITH THE GALVESTON COUNTY OFFICE
OF TEXAS A&M AGRILIFE EXTENSION SERVICE

MG Kevin Lancon
President,
Galveston County
Master Gardener
Association

Discovering our Discovery Garden

Our Discovery Garden is a happy place for many Master Gardeners. The principal objective of the site is to function as a demonstration garden, providing outreach education for the community. Aptly named **Discovery** Garden, every day there is a discovery of new knowledge. It's a living laboratory to demonstrate best practices relative to gardening, such as showcasing plants that thrive in Galveston County, highlighting specialized gardening niches, experimenting and researching new techniques and plant varieties and most of all inspiring others with our passion for gardening.

This issue highlights many of the focal areas of the Discovery Garden. In addition to these areas, in 2026, we also have many new large projects that we are working on, including our new Outdoor Classroom, a Texas Superstar walking trail, which highlights the Texas Superstar plants and the program itself, as well as some great research-based projects including sunflowers, Earth-Kind® roses, garlic, strawberries, vine bore resistant squash, and rhubarb. Discovery Garden is open to the public every Thursday morning from 9 to 11 am, and we invite you to visit.

I hope you enjoy this issue. Visit our web site at https://txmg.org/galveston, our Facebook page at https://www.facebook.com/galvcountymg/ and our new Instagram page at https://www.instagram.com/galvcomastergardeners/ for more information of upcoming events and activities. We also thank you for supporting the Galveston County Master Gardeners and hope to see you soon.

Kevin Lancon

MG Ira Gervais with 20 lb. savoy cabbage grown in the Discovery Garden *MG Database*

MG Karolyn Gephart
Editor,
Gulf Coast Gardening

Spring in Discovery

The Discovery Garden is a lovely place to visit in the spring. This issue will give readers an inside peek into what happens in a place when Master Gardeners are there. It is truly inspirational.

Many MGs provide history of the garden and some had been part of the small extension office (and even smaller garden area) that had been originally in Dickinson. The Carbide Park expansion was a dream come true.

Also in this issue readers will enjoy travel to gardens in Hawaii and Tasmania, water lilies blooming in the area, research in growing broccoli successfully and making paprika from garden grown peppers. The Gardening Help Desk offers assistance with weed removal and bugs you normally don't like have a story to tell on their purpose and why they are needed. Plants are recommended for a spring yellow and blue color palette and even a cozy mystery with gardening throughout is reviewed.

I think you will enjoy this issue. Hope you take the tour page by page of the Discovery Garden and then put a Thursday on your calendar to visit.

Karolyn Gephart

Springtime in the DG *MG Briana Etie*

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Cover photo of firewheel with bumblebee, *MG Vicki Blythe*

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The Discovery Garden: A Journey of Vision, Collaboration and Growth

Linda Steber
GCMG 1991

In the summer of 2003, a seed of transformation was planted in the hearts of the Galveston County Master Gardeners. Dr. William Johnson, then County Extension Agent–Horticulture, shared news that would reshape and significantly expand the county's horticultural footprint: the demonstration gardens, then located atop an asphalt driveway at the State Highway 3 site shared with the Road Department, would be moving to a new location. After surveying options across the county in search of more land for a larger working and teaching garden, the Commissioners' Court proposed Carbide Park. Even more exciting, a new Galveston County Extension Office would eventually be built there as well.

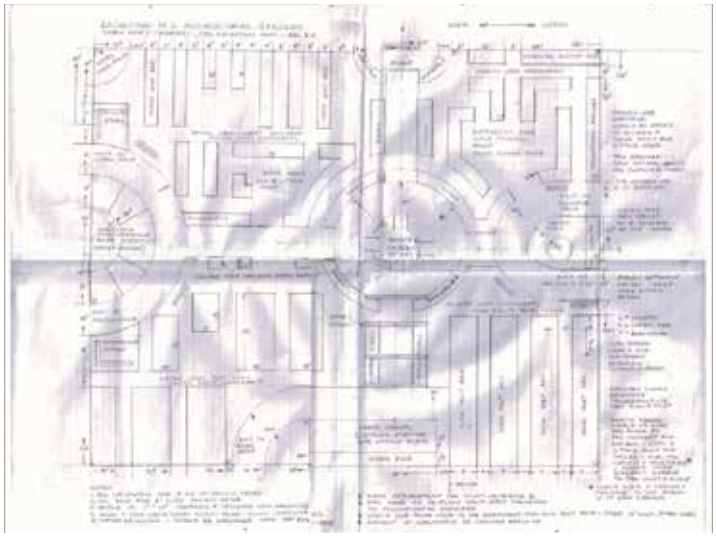
This announcement sparked immediate enthusiasm. The existing garden space behind the Dickinson Extension Office was modest at best—very limited in size and scope. The prospect of relocating to a larger, more versatile site presented a thrilling opportunity to reimagine what a horticultural demonstration garden could become.

The original Dickinson Extension Office on SH 3 *GCMG Database*

From Plot Plan to Possibility

Shortly after the announcement, Dr. Johnson entered the garden maintenance crew's shed, where weekly "technical debriefs" were held, and unveiled a blueprint plot plan of Carbide Park. He pointed to a heavily brush-covered area and declared it the future home of the Master Gardener gardens. The blueprint was subsequently pinned to the shed's wall, and the question was posed to then president, Jim Edwards: *"What are our plans for the gardens?"*

Edwards took the challenge to heart, gathering ideas from the Master Gardener community. From roughly 100 members, he received 125 unique suggestions. These ideas were compiled into a draft proposal, which underwent multiple rounds of review and refinement. On December 11, 2003, the final proposal was published—complete with diagrams and a vision for a multi-purpose horticultural haven.



Original plans for layout of garden *GCMG Database*

Clearing the Way

In March 2004, permission was granted to begin clearing the site. The designated area was dense with vegetation—so much so that one Master Gardener quipped it resembled a dump site. It took nearly a year to fully clean and grade the land. As the maintenance crew grew in size and momentum, the need for a formal landscaping design proposal and subsequent plan became urgent.

Armed with a pencil, ruler, and graph paper, MG John Jons began measuring the three-acre site with a 25-yard tape—often on weekends due to full-time work commitments. He developed the proposed original landscaping design drawing based on initial input, landscape principles, and public garden design concepts. Fellow MG Bob McPherson, equipped with a new tractor and a generous spirit, assisted by grading the site.

Even before a formal landscaping plan was finalized, horticultural research activities began. In cooperation with Texas A&M's initial Earth-Kind® rose trials, Master Gardeners planted 48 test roses using randomized design in blocks of 12 in four temporary beds—beds that later became permanent.

Designing the Garden

Drawing from the proposed original landscape design and ongoing input from Dr. Johnson, Jim Edwards (who had in-

"...thrilling to imagine what the garden could become"

formally taken on the role of site project manager and general contractor), and other Master Gardeners, a draft landscape plan was developed. After further revisions, the plan was approved in March 2005. MG Sam House stepped forward to coordinate its implementation.

The plan featured distinct garden areas to showcase various horticultural themes: butterfly, herbs, rose, vining, perennial, xeriscape, flowering shrub, orchard, and vegetable gardens. Walkways led to a central focal point—the pergola— with a water feature, a pond for aquatic plants, an outdoor meeting area, and multiple display, research, and demonstration beds.

More Expansion

In 2008, the garden at Carbide Park continued to expand. A pie-shaped parcel of land approximately 200 feet long was added to the north side of the orchard, bordered by the road to the west and the park fence line to the east. The area was cleared and graded, and preparations were made for fencing and installation of an irrigation system. Excitement grew as decisions were made about what to plant, where to place it, and why certain choices should be made.

The 2008 Master Gardener interns, known for their spirited opinions, joined forces to develop ideas for the new space. Drawing on the original landscaping design proposal and the expertise of Carine Grosjean and Yvonne Enos, along with the drafting skills of Karen Lehr and contributions from many other members, a tentative master plan began to take shape. Dr. Johnson reviewed the initial draft plan, offering valuable suggestions that were incorporated. Former Master Gardener president, Anna Wygrys, also provided significant guidance, sharing her extensive plant knowledge and long experience.

The central concept of the plan was to create a series of exploratory pathways connecting smaller, themed gardens. Building on ideas from the original design proposal and evolving input from members, these areas included a water feature, a butterfly garden, a fragrance garden, and a tropical garden, with the hope that other groups would contribute additional creative concepts. The overall master plan was approved, with flexibility for themed spaces to adapt and reflect the evolving visions of individual gardeners.

Shortly thereafter, construction of the Discovery House was initiated, followed by the storage building, creating essential support structures for the garden's expanding horticultural activities.

Several of the 2008 Master Gardeners began developing one of these themed spaces—a meditation garden with an Asian influence. Their design incorporated a water feature, bamboo

The property available in Carbide Park *GCMG Database*

It took almost a year to clean and grade the area for the garden *GCMG Database*

"...flexibility for themed spaces to adapt..."

plantings, and inviting benches to provide a secluded place for reflection.

The ultimate goal was to create a landscape that was beautiful, adaptable, educational, and low-maintenance—one that could eventually be shared with the public as a demonstration of how practical, attractive gardens can thrive in the region, showcasing plants well-suited to local conditions.

A Living Legacy

Today, the Discovery Garden stands as a testament to the vision, dedication, and collaborative spirit of the Galveston County Master Gardeners. While the garden has evolved beyond its original blueprint, the foundational ideas remain visible. The December 2003 proposal laid the groundwork for a space that continues to grow, adapt, and inspire.

Whether a longtime Master Gardener or a new volunteer, visitors to the Discovery Garden are offered a glimpse into what can be achieved when passion meets purpose. More than a garden, it is a living legacy—one that also serves as a classroom for the community. Here, the public is invited to learn, explore, and be inspired by sustainable practices, horticultural knowledge, and the beauty of nature shared through education and engagement.

The Discovery Garden is an educational program and research demonstration garden developed through the Texas A&M AgriLife Extension – Galveston County Horticulture Department, supported and managed by Galveston County Master Gardeners.

New orchard dirt work MG *Herman Auer*

Dr. J pointing his finger where the orchard berms should go *GCMG Database*

May 2005 *MG Herman Auer*

Aquaponic Garden: The Addition of a New System

Briana Etie
GCMG 2017

The Aquaponic Garden is a key feature of the Discovery Garden and has served as an educational space for the community, Master Gardeners, and interns since February 2017, a project started by MG Robin Collins. She was inspired seeing this type of growing system during a trip to Cambodia and Vietnam. Through extensive research, fundraising, and visits to several established aquaponic sites, she reached out to Aquaponic Source and found a perfect system for our garden. With the help of Dr. Johnson, the leadership of our organization and many Master Gardener volunteers, her vision became an award-winning teaching garden. Her passion for the project inspired my involvement, drawing on my background in aquaculture. Gene Speller and Tom Fountain also joined the aquaponics team, and over time many past Master Gardeners have contributed their time and skills to help sustain and maintain the system. Together we have grown many plants and fish through all seasons and hurricanes.

The hoop house that houses the aquaponics system was designed and constructed by Master Gardeners, including the installation of electricity and water, reflecting diverse skills and volunteer expertise within the organization.

Aquaponics is a sustainable growing system in which fish and plants are raised together in a mutually beneficial relationship. Fish provide nutrients, primarily nitrates, for plant growth, while plants help filter and clean the water for the fish. The term aquaponics combines aquaculture, the science of raising fish, and hydroponics, the science of growing plants without soil. Within this ecosystem, fish, bacteria, and plants work together to support a diversity of food production.

Over the years, we have measured the growth and yield of a wide variety of vegetables and herbs grown annually, including lettuce, kale, Swiss chard, tomatoes, peppers, broccoli, basil, parsley, and oregano. Past unique crops have included daikon radishes, Tonda di Parigi carrots, beets, and Chinese water chestnuts. Raft beds have also been used successfully to propagate bay laurel, rosemary, verbena and a few other ornamentals. MG Melissa Terrell donated two aeroponic Tower Gardens. We have had great success growing strawberries donated by the late County Commissioner Ken Clark and his wife. Gene Speller used a Brix refractometer to measure the sugar content of crops in the Discovery Garden versus crops we grew in aquaponics and wrote a research study published in a past newsletter article.

The complete system consists of a 650-gallon system featuring a 300-gallon fish tank, three Lightweight Expanded Clay Aggregate (LECA) media beds, and three deep water culture (raft) beds. The system will be nine years old in February and needs revitalization. Planned improvements include replacement of aging plumbing and fittings, leveling the beds on a more stable base, and replacing shade cloth. Over time, the Texas heat has degraded rubber fittings and plastic components, and the approximately 2,900-pound weight of the beds on a crushed granite base has caused uneven settling.

The Aquaponic Garden will be transitioning to new leadership. Gene Speller retired from the organization at the end of 2025. I look forward to the future of the Aquaponic Garden. With the planned revitalization of the system and the fresh ideas brought by new volunteers, Galveston County should look forward to a beautiful and thriving Aquaponic Garden by May 2026.

The Aquaponics Garden will continue to be a valuable space for learning, experimentation, and knowledge-sharing for both Master Gardeners and the community.

Reference:

https://agrilifelearn.tamu.edu/aquaponics

Mozambique tilapia *MG Database*

Award winning publication, MG Robin Collins and Beau Etie *MG Database*

MG Gene Speller discusses the process with tourgoers *MG Database*

The Berry Program

Monica Martens
GCMG 2013

I have been part of the Master Gardener program since 2013 and have managed three berry demonstration areas in the Discovery Garden: raspberries (with limited success), blackberries, and blueberries. Blackberries (*Rubus spp.*) are currently housed in four galvanized steel stock tanks with drainage holes and a wire trellis, next to the back fence. Stock tanks prevent plants from spreading and are a manageable option for small backyards. Blueberries (*Vaccinium* spp.) currently live in two raised beds with a special soil mixture, towards the front of the garden. Raised beds offer control of the soil pH (acidity) and for drought conditions. Over the years, the berries have had many stewards, some of whom are still active Master Gardeners and can tell us "remember when" stories. For instance, when the blueberries were planted 20-25 years ago, it was difficult to manage the acidity in the soil, for several seasons.

Currently, we grow two thornless blackberry varieties from the University of Arkansas breeding program: Prime-Ark® 'Freedom', a thornless variety that also produces a second crop on the first-year cane, later in the summer, and 'Ouachita' (pronounced "WASH-it-tah"). Prime-Ark 'Freedom' is interesting because of the double-crop, but it grows and grows. 'Ouachita' needs a large planting area, like a stock tank, or should be grown in the ground. Also, we are told by gardening friends that Sweet-Ark™ 'Ponca' is a productive variety for our area. As for thorny types, we grow 'Brazos,' which was developed more than 80 years ago by Texas A&M, and 'Kiowa', another variety from the Arkansas program. 'Kiowa' won my unofficial award for best producing blackberries in our 2025 season. It was more difficult to trellis as it set fruit but was worth the effort to try to keep it under control.

Our blueberries primarily come from two breeding programs: the University of Georgia (UGA) and the University of Florida. Georgia has specialized in rabbiteye (*Vaccinium virgatum*) varieties. They do well in our climate and further north, by Nacogdoches. They are not self-pollinating, so you must grow at least two types. Our plant sales used to feature five or six options. Of the three now available, I particularly like 'Climax' and 'Premier'. They tolerate our heat especially well. I highly recommend a hybrid created through a partnership of the USDA and UGA called 'Pink Lemonade'. It tastes great, and the pink berries are pretty. It also pairs well with the rabbiteyes; they bloom during the same time range, which helps with pollination, and increases the number of berries per plant. We grow and sell another type of blueberry called the

Blackberry plants are located along the back fence in stock tanks.
MG Monica Martens

southern highbush (*Vaccinium corymbosum*), developed by the University of Florida. These start to bloom in February. If the plants get nipped by a freeze, they will recover. I have been experimenting with a variety called 'Snowchaser', and it has performed well. I am excited to try more. Although southern highbush varieties are self-pollinating, it's best to grow at least two. Think of it this way: the blueberry is a very small fruit, so one will not fill you up like an apple. Therefore, your goal is to help the plants to produce as much fruit as possible.

You can find specific planting directions at the Texas A&M Aggie Horticulture website (http://aggie-horticulture.tamu.edu) or attend an upcoming berry presentation.

Bulb Bed Evolves, Relocates

Fran Brockington
GCMG 2018

The Bulb Bed was created in April 2020. It was originally located next to the fence upon entering the Discovery Garden through the drive-through gate. Its purpose was to serve as a research bed to determine which bulbs were hardy, bloomed well, and naturalized in Galveston County.

MGs Lisa Davis Nicklow and Fran Brockington planned and planted the bed. A presentation on bulbs was designed and presented by the two at the Extension office several times, as well as to garden clubs in successive years. Original team members who helped maintain the bulb bed included Kathy Maines, Debi Lambson, Kevin Lancon, David Eskins, Sharon Zaal, Barbara Canetti, Wendy Stratton, Nancy Petersen, and Joyce Maxwell.

The bulbs that were originally planted in the bed included many we sold and wanted to promote at the Fall and Spring Plant Sales. Some of the varieties included Amaryllis (*Hippeastrum* spp.), crinum lilies such as 'Milk & Wine' (*Crinum* x *herbertii*), 'Ellen Bosanquet' and 'J.C. Harvey,' rain lilies (*Habranthus* spp. and *Zephyranthes* spp.), spider lilies (*Lycoris* spp.), summer snowflakes (*Leucojum* spp.), daffodils (*Narcissus* spp.), Byzantine gladiolas (*Gladiolus* x *byzantinus*), blazing star (*Liatris* spp.), Schoolhouse/Oxblood lilies (*Rhodophiala bifida*) and hybrid lilies that perennialize in Galveston County (*Lilium* x *asiatic*).

Ongoing maintenance, donations, labeling, as well as preparing descriptions, and bulb packaging for the plant sales were handled by bulb team members including Ann Lyon, Pam Hunter, Bettye Vogler, Sandy McBride, Jan Fountain, Debbie Valdez, Judy Anderson, Jamie Hart, Patricia Martin, Lynn Shook, Helen Mabe, Norma Torok, Tanya Padgett, Carey Little, Joanne Hardgrove, Celia Philpot, Monica Martens, Andrea Levine, Tabatha Holt, Tina Proctor, Arthur Caulfield, Nancy Langston-Noh, Denny Noh, Briana Etie, Michael Reed, Jill Jessen, and Lisa Belcher. Bulb sale orders were managed until 2021 by MG Camille Goodwin.

The native and perennialized bulbs mentioned above were found to be the best for planting in the county. Many bulbs sold in catalogs and stores in this area proved to not return reliably because heat and rainfall overwhelmed many varieties.

As part of the evolution of gardens and locations that happen in the Discovery Garden, it was suggested that the bulbs be distributed around the garden for visitors to have a better example of how the bulbs fit into community environments and their own gardens. Now these hardy bulbs can be found throughout the garden, being added to the Earth-Kind® bed, the Pollinator Garden, the Serenity Garden, the vegetable beds, the pergola area, and even near the shop. Visitors to the garden will still be able to see the beautiful bulbs as they bloom, and the signage will continue to inform and encourage their use.

Crinum and amaryllis
MG Fran Brockington

Yellow and pink rain lilies
MG Fran Brockington

Surprise lilies *MG Fran Brockington*

Progress Update: Dr. William McCray Johnson Outdoor Classroom

Sharon Zaal
GCMG 2015

If the 17th-century French playwright Molière was right when he said, "Trees that are slow to grow bear the best fruit," then our patience may soon be rewarded with signs of the long-awaited outdoor classroom coming to bear.

The concept of building an outdoor classroom was first introduced in late 2021. With the passing of Dr. William Johnson, beloved 35-year horticulture agent with the Galveston County Texas A&M AgriLife Extension, the Dr. J Legacy Committee set their sights to commemorate him by furthering his passion for education.

Initially, the classroom vision took a modest approach to providing a new space in the Discovery Garden, outfitted with benches and shade, where students and visitors could attend "in the garden" classes hosted by Master Gardeners and AgriLife Extension instructors. The Discovery Garden's location in Galveston County's Carbide Park was deemed the perfect setting where the Dr. William McCray Johnson Outdoor Classroom could be utilized to continue Dr. J's commitment to serving the Galveston County communities with horticulture education.

The project took a substantial turn for the better and expanded with two altering events in late 2023: (1) The Galveston County Master Gardener Association was awarded a grant by the INEOS Group for the project, and (2) The classroom was selected by the University of Houston's Gerald D. Hines College of Architecture and Design as a project for graduate students utilizing its Graduate Design/Build Studio. In addition to the graduate students providing the design for a wonderful and more robust structure, the school and its business community partners are donating significantly to structural engineering, materials, fabrication, galvanizing, construction, and

Making It Possible: To date, the project has received contributions, support, and commitments from the following:

Galveston County Master Gardener Association
Texas A&M AgriLife Extension, Galveston County
Individual donations by friends/family/associates of
Dr. William McCray Johnson
INEOS Group
Galveston County Commissioners Court
Galveston County Parks Department
University of Houston, Gerald D. Hines College of Architecture
and Design & Graduate Design/Build Studio
Patrick Peters, professor/architect, associate director
Graduate students: Emilliano, Brian, Clara, Rickie,
Claudia, Ziyan, Lia, Diana, AnnaMarie
Colaco Engineers, Dr. Joseph Philip Colaco
Tolunay Engineering Group, Zeki A. Tolunay, P.E.
MSD Building Corp, Josh Hanson, COO
Triple S Steel
North Shore Steel
Valmont Coatings-United Galvanizing
Schulte Building Systems, W. Lee Shoemaker,
Director of Research & Engineering

What's next? Though you may soon spot the steel structure emerging in the Discovery Garden, there will be additional components needed to make the classroom "ready to use." Once the structure is in place, work will be scheduled to install roofing, floor decking, rotating side panels, electrical, benches, and instructor's table. Additionally, there are plans to extend a new ADA capable pathway from the pergola directly to the Dr. William McCray Johnson Outdoor Classroom.

While a bit of Molière's emphasis on patience is still advised, with these milestones, it just might be time to start getting excited!

References: Project Gutenberg, the imaginary invalid. (le malade imaginaire.)

Dr J Outdoor Classroom Model South View, *photo by Patrick Peters*

Dr J Outdoor Classroom Mock-Up, *photo by Patrick Peters*

Groundbreaking *Photo by MG Sharon Zaal*

Community Beds Providing Food for Those in Need

John Ely
GCMG 2022

Wendy Oalmann
GCMG 2022

The Community Beds answer the call, "Feed My People," as their main purpose is to feed the county community. Team members take produce from these beds to local food banks, typically twice a week. In addition, the beds serve to demonstrate what edible produce can be grown in each season.

Past GCMGA presidents Anna Wygrys and Ira Gervais advocated for the creation of the community beds to introduce Galveston County Master Gardeners to the public as well as to feed the needy. Circa 2009, eight isolated beds were dedicated to the area food banks. In 2017 the permanent beds were gathered into a contiguous group.

The number of beds has changed over the years, starting with eight, then transitioned to five, then seven, and now six plus two. Currently, the main six are grouped together with beds 3 - 8 located along the west side of the Discovery Garden (DG). This past year the team utilized empty intern research beds (the plus two) to grow spring and summer vegetables.

We deliver produce to food banks located in Santa Fe, Friendswood, Texas City, and Galveston. H.I.S. Ministries food bank in Santa Fe accepts the produce weekly. From September 2024 through October 2025, we delivered over 1,000 pounds of produce to food banks. This touched the lives of over 1,200 people in Galveston County.

The community vegetable beds offer visitors a look at what could be growing in their garden at this very moment. Visitors stroll through and see how vertical planting can be implemented in their own garden. There are at least five major plantings, and the beds remain full throughout the year. In the cooler seasons of winter and spring, you will find garlic, onions, carrots, radishes, beets, turnips, cauliflower, cabbage, kale, collards, and lettuces there.

The team's co-leads, Wendy Oalmann and John Ely, keep accurate records and send reports to the team on what is planted, what has been done, and what needs to be done. Fertilization and Integrated Pest Management (IPM) are well documented. A graphic map of what-is-planted-where is also included in the report. Each Tuesday, the team reviews the report, discusses issues, and creates an action plan.

The six beds have had every Master Gardener's hands helping in some way or another. Every intern has volunteered here. Many veteran Master Gardeners have been in charge at one time and they continue to support the mission of feeding the community by adding produce from their personal beds or giving advice to the team. The community vegetable bed team has several dedicated Master Gardeners who volunteer two or three times a week. Every Tuesday and Thursday the team is out there, and during okra season you'll find them on Saturdays, too. The core team consists of Debbie Brady, Lucy Brown, John Ely, Wendy Oalmann and Phil Starks. The team sometimes relies on expert advice from MGs Bobbie Ivy, Gene Speller, John Mitchiner, Herman Auer, Ira Gervais, and Kevin Lancon. The DG greenhouse team helps on occasion by getting desired vegetable seeds started into transplants. Our team especially appreciates it when other MGs help in their spare time.

References: MGs Herman Auer and Ira Gervais contributed to this article.

Community bed leaders are John Ely and Wendy Oalmann *MG Herman Auer*

The community bed area *MG John Ely*

Produce ready to deliver to food banks *MG Ira Gervais*

Compost Area Serves Vital Roles

Christie McGrath
GCMG 2023

The Discovery Garden's compost area may not have beautiful blooms and enticing floral fragrances, but it serves several vital roles in the garden. Officially titled The Kenneth W. Steblein Composting Demonstration Project, it is located on the east side of the garden along the fence and across from aquaponics. It consists of four bays for composting and an attached shed. Signage includes an educational sign on composting and a sign honoring Ken and the gift from his estate. It reads "*Master Gardener (Class of 1992) Kenneth "Ken" Steblein was our most avid composting advocate until his passing on April 14, 2016. In his memory, Ken's family requested that memorial donations be provided to the Galveston County Master Gardener Program to support construction of this composting project to continue Ken's passion for teaching environmentally sound recycling and sustainability practices."* The project was completed in 2019 and has been serving the garden and community ever since.

The compost area processes as much of the organic waste from the garden as possible. When Master Gardeners trim their perennials, remove spent annuals, harvest fruit and vegetables not suitable for human consumption or turn over their beds, all that organic waste can be composted in our bays. Most weeds are processed, if they are not invasive or have gone to seed. Materials are chopped by hand or by using a gas-powered chipper shredder stored in the attached shed to help speed the decomposing process. The finished compost is a wonderful soil amendment made in the Discovery Garden and used by Master Gardeners in bucket or wheelbarrow amounts.

Another function of the compost area is to serve as an educational facility on composting for visitors to the garden as well as Master Gardeners. Public seminars on composting are offered and for the past few years a compost educational booth was set up at the Galveston County Master Gardener Fall Festival.

Currently the compost area is managed by Jim Waligora (MG 1998) with a little help from me. We are looking to build a composting team to be able to process more materials and create more Discovery Garden grown compost. Anyone interested in learning more about composting, stop by The Kenneth W. Steblein Composting Demonstration Project and we will be happy to give you a tour.

Compost area sign MG Christie McGrath

MG Jim Waligora working at the bins *MG Tom Fountain*

MG Christie McGrath, Interns Suzy Domingo and Glenna Shields
MG Tom Fountain

From BBQ Pit to Farmhouse Kitchen & Classroom

Linda Barnett
GCMG 2015

When an educational research garden becomes more than an area to grow and learn from plants, something extraordinary happens—it becomes a hub for connection, education, and sharing meals. That's the journey the Discovery House has taken, evolving from a small lunch spot with a simple barbecue pit into a fully equipped farmhouse kitchen and vibrant teaching space.

The Early Days: In the beginning, cooking outside, the garden gatherings were casual. Volunteers would meet for garden workdays, and when it was time to eat, the barbecue pit was the heart of the action. Meals were usually grilled hotdogs and occasional hamburgers. It wasn't fancy, but it brought people together.

The Tractor Barn Years: As the garden grew, so did Master Gardeners' ambition to have a kitchen. The first real step toward a proper kitchen came when the old tractor barn was converted into a makeshift cooking area. It didn't have much—just two sturdy serving bars, a well-worn two-burner hot plate, and the trusty grill. It was simple, but it gave the MGs a sheltered space to cook, rain or shine, and allowed them to prepare bigger meals for volunteers and guests.

I got involved in 2016 and when MG Ed Klein and Greg Escamilla stepped down as leads, I took the title and had help from Deb Brizendine, Janie Carter, Phil Cone and Ed Klein.

The Spark for Change: Over time, we wanted to do more than just share meals—we wanted to share skills. People began asking about canning, preparing food from the garden, preserving herbs, and learning recipes from each other's backgrounds. The barbecue pit and hot plate, charming as they were, could only do so much. We needed a space that would allow for an educational space and year-round food preparation.

Building the Farmhouse Kitchen: Through baked goods, raffles, plant sales, and countless volunteer hours, the transformation began. The new farmhouse kitchen was designed to reflect the warmth and charm of down-home cooking while accommodating our growing needs. Spacious counters and Grade A appliances were added to handle large scale food preparation. Keeping one of our original handmade serving bars was a must, giving a nostalgic touch to the new space. The wide-open layout allows a clear view of the kitchen team preparing breakfast and lunch. It would also be a great space for classroom activities.

Team: Linda Steber, Janie Carter, Lead Linda Barnett, Debbie Brizendine and Ed Stein *MG Tom Fountain*

Original Discovery Kitchen *MG Herman Auer*

The Classroom in the Kitchen: The farmhouse kitchen now called the Discovery House doubles as a classroom. With lunch and learn classes after most Thursday lunches, it is easily transformed into a learning center.

Building Community Beyond Food: The Discovery House is a true gathering place. It is more than just a kitchen; it is a comfortable place to share a meal and conversation as well as working as a classroom. Not only do the Discovery House host *Lunch & Learn* classes but also the many events that the garden shares with members and guests. Educational seminars, Thanksgiving celebration, cookie contest, and Fall Festival are just a few of the events that are facilitated here. The current kitchen team consists of Linda Barnett, Deb Brizendine, Jane Carter, Ed Klein and Linda Steber.

What began with a pit and later a two-burner hot plate in an old tractor barn is now a thriving educational kitchen— a testament to what can happen when a vision becomes reality through hard work and determination.

Earth-Kind Garden at the Discovery Garden

Judy Anderson
GCMG 2022

The Earth-Kind® garden has design areas with mature plants as well as seasonal plants that includes the following: Texas Superstars; native, heirloom, tropical, and xeriscape plants. The garden originally was the vision of Alisa Rasmusson, a 2008 Master Gardener, who has since relocated to California.

In 2011, the Gulf Coast area and much of Texas suffered in drought. This was a big challenge to gardeners; That is when Alisa approached the GCMG leadership about adding an Earth-Kind garden to the new area at Carbide Park. It was approved in late 2011. Dr. William Johnson, past Extension Agent, recommended that there be blooming plants there in every season.

The Earth-Kind Garden followed the Serenity Garden into the North End of the Discovery Garden. Alisa designed it around the Earth-Kind principles of landscape design. The primary consideration was for the conservation of water and the minimizing of run-off hazards. Other principles include: the importance of giving plants enough space to grow and mature in the right light; placing plants with similar growth requirements together such as sun loving or thirsty plants; preparing soil with testing, good drainage, and organic matter to create microbial diversity; using mulch to reduce weed growth, evaporation loss, erosion and runoff, improve soil structure, and provide a continuous slow release of nutrient supply; watering as needed, monitoring all irrigation regularly and conserving water through rainwater harvesting; recycling garden waste as mulch or compost, prune and groom as needed, and limiting chemical uses.

The garden construction team met with Master Gardeners Alisa and Tish Reustle to lay out the garden. When they brought their stakes, string, and paint to mark out straight lines. Alisa and Tish said, "No, no, no! There are no straight lines in nature." The guys put down their paint can and left. Tish and Alisa took the can and designed the curving garden that visitors see today.

After the design was done, six truckloads of soil were delivered. From there, the garden began to take place. Ledge rocks were brought from the former Hwy. 3 location and used to edge the garden which was designed for minimal use of water. One section does not receive any irrigation with the other three sections using drip irrigation as needed. Alisa first added the rock outline of the state of Texas where she planted Alamo Fire bluebonnets. After that, a century plant from the Hwy. 3 location was moved to the section of the garden without irrigation. It bloomed in 2018 making a candelabra that reached approximately eight feet. After the plant died, Master Gardeners Pam and Tim Jahnke took the candelabra to their home where it continued to add beauty to their landscape. The dead century plant left behind was removed.

Alisa remained focused on plants that would meet the goals of Earth-Kind landscaping and her budget. She visited local

Alisa with first EK garden *GCMG Database*

"...garden is a living illustration..."

nurseries looking for sales. She selected a Mule palm (*Butiagrus nabonnandii*), Pindo palm (*Butia capitata*), a Silver Saw palmetto (*Serenoa repens*) and the Mizari palm (*Nannorrhops ritchiana*). Each has matured into magnificent specimens that serve as focal points in the garden's center, offering a shaded retreat complete with benches and a solar water fountain.

During the initial planting, two memorial trees were donated: an Arabian lilac (*Syringa vulgaris*) and a Desert Museum Palo Verde (*Cercidium* x 'Desert Museum'). The Arabian lilac, in the vitex family, dies back in the winter but returns each spring. The Desert Museum Palo Verde died during a harsh freeze but was replaced in the vacated location where the century plant had been. That area is not irrigated and is totally dependent on Mother Nature for moisture. The Desert Museum prefers those conditions and has thrived since its planting in 2021. The final tree added was the Mexican olive, (*Cordia boissieri*) a small tree that has great fragrance and frilly white flowers

In the initial planting, Alisa added paperwhites (*Narcissus tazetta*) and cemetery iris (*Iris albicans*) throughout the garden. They can still be found; sometimes when they bloom and sometimes during the transplanting of plants.

I began my work in the Earth-Kind garden in the summer of 2018. In the beginning, it was important to maintain the design and nurture the growing plants. As time went by, the mature garden needed to be managed with loppers and clippers. Bulbs, transplants and cuttings are shared during the Master Gardener plant sales, as well as with other Master Gardeners.

MG Bettye Vogler became active with the E-K Garden in 2020 when she began to provide plant identification for the plants displayed in the E-K Garden. MGs Steve Holliday joined the E-K Garden team in 2022 and Vickie Hall joined in 2023. They have all brought a wealth of experience and knowledge to the garden.

We are active with the Discovery Garden Texas Superstar Team and have identified the many Superstars in the E-K garden with labels, a gold star, and a Texas Superstar marker.

We actively support the Historical Louisiana Iris Project mentored by Monica Martens. Approximately eight historical iris plants are presently thriving in the garden.

During the year we assist with tours, students, camps and garden clubs interested in learning more about the Earth-Kind Garden. It is an excellent classroom and is used for programs. In addition, the garden is a living illustration of the principles of Earth-Kind landscape design. It is also home to pollinators, insects and creepy crawlers looking for shelter and a place to eat. The garden is abundant with life and changing with each season, showing the beauty found in nature throughout the year.

MGs Judy Anderson and Steve Holliday ***MG Tom Fountain***

Greenhouse, Hoop House Contribute to All Areas

Briana Etie
GCMG 2026

Our greenhouse serves as a valuable space for educating Master Gardeners, interns, and public visitors. It provides hands-on learning opportunities and allows us to learn as we grow. We have developed activities for both adult and youth visitors, making the greenhouse a welcoming and interactive learning environment.

The greenhouse was generously donated by a Master Gardener in 2014. Master Gardeners then came together to carefully disassemble the structure and reassemble it in its current location. Over the years, the greenhouse has endured hurricanes, floods, and freezes. During Hurricane Beryl in 2024, the greenhouse roof sustained damage; however, under the leadership of our current president, Kevin Lancon, volunteers were assembled and the roof was replaced. During the winter months, plants benefit from the added warmth provided by a heater and the recently installed exhaust and circulation fans.

To become a Texas Master Gardener, interns complete classroom education and then volunteer in various areas of the garden to gain hands-on experience. The greenhouse team looks forward to welcoming and getting to know new volunteers as they learn how our team contributes to the success of the garden.

The greenhouse contributes plants to many areas of the garden. We work closely with team leaders John Ely and Wendy Oalmann to grow vegetable seedlings that are transplanted into the community beds. Once harvested, these vegetables are donated to local food banks and soup kitchens.

Team and volunteers: John Mitchiner, Lead Briana Etie, Michael Reed, Kaye Corey, Kay Sandor and Donna Merritt *MG Tom Fountain*

Tomatoes and peppers *MG Briana Etie*

Herb Garden team leaders Donna Merritt and Christie McGrath are also members of the Greenhouse Team, allowing close collaboration on identifying optimal planting times and propagation methods for a wide variety of herbs through trials and research. All propagation efforts are documented to determine the most effective methods, care requirements, and varietal performance.

Research Bed team leaders John Mitchiner and Micheal Reed volunteer both inside and outside the greenhouse to propagate plants for their research trials. The greenhouse team is eager to assist their team since we benefit from the results of those trials. The Aquaponics and Greenhouse teams share members, plants, and propagation efforts, enabling successful herbs, vegetable, and ornamental propagation in aquaponic systems. We have been able to start plants in aquaponics and move the plant to a pot of soil. In the beginning of aquaponics we started seed in the greenhouse. Together, all areas of the Discovery Garden demonstrate plant varieties that perform best in Galveston County. Sharing this experience and knowledge with the public is central to our mission.

"...sharing experience and knowledge"

The greenhouse has also donated seedlings, plants and vines to the Pergola area, including the beautiful Rangoon creeper (*Combretum indicum*), which now climbs on one quadrant of the pergola. While it is difficult to propagate by cuttings, it is more easily propagated by division. On the opposite quadrant, the bleeding heart vine (*Clerodendrum thomsoniae),* which had been growing in the greenhouse for some time, has thrived since being planted in the Pergola area. In addition, we donate plants to the Pollinator Habitat and EarthKind areas. The Hibiscus, Earth-Kind, Pergola, and Serenity Garden areas share cuttings with us for propagation. After donating plants to these areas, we often request cuttings in return, most commonly before perennial dieback in winter, allowing us to continue the cycle of growth.

We grow herbs, vegetables, and a selection of flowering plants or ornamentals for both online and in-person plant sales. These plants are propagated from seeds, cuttings, and division. There are many annual and perennial herbs that are easily grown from seeds. We use cuttings to propagate rosemary, lavender, Texas tarragon, salvias, Cuban oregano, pelargoniums (or scented geraniums), verbena, and two perennial basils—African blue and green pepper basil. Division is used to create sellable pots of mint and ginger, and Texas tarragon is also divided when it outgrows our mother plant containers. Most of our mother plants are planted in the Discovery Garden. We keep a small portion inside the greenhouse in large containers to facilitate division, though the process remains labor-intensive.

Next to the greenhouse, volunteers built a hoop house. Historically it was constructed with 70 percent shade cloth. In 2019, we changed the roof from shade cloth to a light diffusing film with 12 percent shade. The greenhouse team uses the hoop house to harden off the plants that are grown in the greenhouse. This gives our plants the strength they need before being transplanted or sold at plant sales.

Many of the Master Gardeners who are part of our greenhouse team are also active members of other garden teams, strengthening collaboration across the Discovery Garden. Our core greenhouse team includes Lynne Slayton, Tanya Padgett, Donna Merritt, John Mitchiner, Phil Starks, Michael Reed, Ann Ross, Ralinda Fenton, Bronia Michejenko, Norma Torok, and myself as the lead team member. In addition, we are supported by a long list of dedicated greenhouse volunteers who step in whenever there is work to be done.

There are Master Gardeners volunteering to help us with seasonal changes. They remove windows in the spring and replace them to keep our greenhouse warm during the cool months. The Texas sun quickly degrades plastic, causing it to become brittle, fade, and fail over time. Recently the light-diffusing polycarbonate film had to be replaced on the hoophouse.

The greenhouse is truly fortunate to have committed Master Gardeners who share a passion for what we do and generously give their time and expertise to support our mission.

Plants in the hoop house *MG Briana Etie*

MGs work in the greenhouse propagating *MG Tom Fountain*

The Herb Garden

Christie McGrath
GCMG 2023

The poet Alfred Austin wrote "To nurture a garden is to feed not just the body, but the soul." Nowhere is this truer than in the herb garden. Our area of the Discovery Garden is where we showcase herbal plants with culinary uses, medicinal qualities, fragrance, and many other useful properties. We also enjoy some of the most beautiful blooms in the garden.

Located just south of the pergola, the heart of the Herb Garden is a round brick garden bed with a sundial in the center donated by the Galveston County Master Gardener Class of 2005. The winter planting in this bed currently includes rosemary (*Rosmarinus officinalis*), dianthus (*Dianthus caryophyllus*), sorrel (*Rumex acetosa*), calendula (*Calendula officinalis*), onion chives (*Allium schoenoprasum*), garlic chives (*Allium tuberosum*) and yarrow (*Achillea millefolium*). You will also see the garden sign in this bed.

Behind the round bed, we have a multi-level metal raised bed where we have Goodwin Creek gray lavender (*Lavandula* x *ginginsii 'Goodwin Creek'*), several basil varieties (*Ocimum basilicum*) and more calendula growing. Seasonally we have grown lemon balm (*Melissa officinalis*), oregano (*Origanum vulgare*), sage (*Salvia officinalis*) and Vick's plant (*Plectranthus tomentosa*) in this bed.

Next to the round bed we have a wooden bed we like to call our Tisane Bed because we grow plants used to make herbal drinks. This bed features an impressive double arch trellis of butterfly pea vine (*Clitoria ternatea*) in three varieties (blue, lavender, and sky blue) and was stunning at full bloom. We have also grown purple coneflower (*Echinacea purpurea*), stevia (*Stevia rebaudiana*), German chamomile (*Matricaria chamomilla*) and Agastache (*Agastache foeniculum*) in this bed depending on the season.

Across the walking path we have a bed currently featuring tulsi/holy basil (*Ocimum tenuiflorum*) but have also grown fennel (*Foeniculum vulgare*), dill (*Anethum graveolens*), salad burnet (*Sanguisorba minor*), parsley (*Petroselinum crispum*), and cilantro (*Coriandrum sativum*).

The Herb Garden has existed since the beginning of the Discovery Garden in one form or another. Starting in 2023, the herb team has been led by both Donna Merritt and Christie McGrath. The team includes Becky Jaschek, Briana Etie, Reagan Mears, Lynne Slaton, Vickie Hall, Tina Fincher, Sven Bors-Koefoed, Mary Gordon, John Mitchiner, and Nancy Hiefner. New members are always welcome. In addition to planting, weeding, and harvesting herbs, the team provides education on herbs, demonstrates growing techniques and runs experiments and research projects. *Lunch & Learn* classes given by team members generally include a sampling of herbs and products made from herbs. Recently we conducted a paprika pepper trial, growing several varieties of peppers that were harvested and dried to make paprika. Gardeners sampled the paprikas and decided which variety they preferred. We also grew a roselle plant (*Hibiscus sabdariffa*) that produced over 50 pounds of calyces (edible fleshy parts at the base of the flowers) and shared roselle jam and sauce with gardeners.

The Herb Garden is constantly evolving with new plants going in and spent plants being removed. Flowers, stems, seeds, leaves, roots and other parts are all harvested depending on the herb use that applies. Perennial plants are pruned and tender plants are protected when we have cold weather. Visit the Herb Garden and experience its beauty and fragrance and be inspired to grow some herbs in your own garden.

Purple coneflower, 'Apricot Sprite' Agastache, and stevia
MG Christie McGrath

An abundance of basil in the Vego bed *MG Christie McGrath*

Herb garden team *MG Database*

The Evolution of the Orchard

Debbie Espinosa
GCMG 2019

The Discovery Garden orchard was part of the original master plan approved in 2005. Over the years the large area has supported various varieties of fruit trees and has served as both a teaching area for interns and MGs as well as a research area to determine how well varieties of fruit grew in Galveston County. Rootstock was studied and chill hours were documented to understand the needs of varieties growing here. Over the years the research continued and techniques in grafting methods, tree pruning, and fertilization were practiced. Neighboring food banks not only received fresh vegetables but also fruit. The orchard had many citrus varieties as well as other fruit trees. A three-day freeze in 2021 destroyed citrus and it has not returned to previous quantities at this time.

Currently, the orchard is in the area adjacent to where the new outdoor classroom will be. It has a small variety of fruit trees and plants overseen by orchard team members. MG Herman Auer who has over 40 years of experience in growing fruit trees is an active participant in the orchard. Barbara Canetti oversees all fig trees. Maria Abad maintains the grape vines leading to the pergola. Debbie Espinosa, who is being mentored by Herman Auer, manages the stone fruit (peaches and plums), the apples, the pears, and the olive tree along with team members Charlotte Avant, Phillip Haught, Roxann Kriticos and Linda Crowston.

Even in its current state, the orchard is the largest area in the Discovery Garden. The trees currently in the orchard are peaches (*Prunus persica*), apples (*Malus domestica*), pears (*Pyrus communis*), figs (*Ficus carica*), an olive (*Olea europaea*) tree and a loquat (*Eriobotrya japonica*) tree. There are currently many varieties of grape (*Vitis* spp.) vines as well.

In 2026, the orchard is going through changes. Problems with inadequate rootstock during freezes as well as high maintenance with constant weeding, recurring ants and not enough labor to handle the problems, have caused the team to determine what will need to take place to establish production of a functioning orchard. The size of the current orchard is decreasing, and several trees have been removed. A smaller sized area will offer sustainable maintenance for the team.

It is the goal of the current orchard team to work in conjunction with our Extension horticulturist Boone Holladay to determine the best varieties of fruit trees that will be planted in the "new" orchard. It will take several years to see results and throughout this period, Master Gardeners there, as well as the public, will learn which fruit trees work best for Galveston County. Information will be shared in presentations as well as on Discovery Garden tours about results occurring in the new productive orchard.

The current orchard as it is undergoing changes *MG Phil Haught*

The orchard team hopes to have rows like this one in the 'new' orchard *MG Herman Auer*

The original orchard which would have citrus trees *MG Herman Auer*

Creating a Landmark: The Pergola

Tina Fincher
GCMG 2023

Lynn Shook
GCMG 2018

Pam Hunter
GCMG 2018

The Pergola was created as a welcoming landmark with pathways leading to all the diverse areas in the then called GCMGA Demonstration Gardens. In the fall of 2006, a brick walkway was installed around the pergola. It was added to improve the entrance appearance and comply with public accessibility standards set forth by the American Disabilities Act. In 2016 personalized bricks honoring volunteers and their families and friends were added to pathways and installed by MGs Joe Copeland, Linda Barnett, and James Carter. This helped generate funds for garden projects. The paver fundraiser continues and each year classes are offered pavers to purchase and engrave for the pergola area after their certification. Currently, the brick project and installation are handled by MGs Rachel and Santos Montemayor and Larry Brizendine with Linda Barnett taking orders.

Benches have been placed in the pergola area and the gardens within it are always offering beautiful plants that thrive in the area. The selection of plants has always been important for the pergola team. Both successes and a few failures are part of their research. The current team members are Pam Hunter, Lynn Shook, Tina Fincher, Nancy Hiefner, and Bob Siml.

Cosmos (*Cosmos sulphureus*) was planted for the welcoming area. They bloom beautifully but are extremely invasive in the southern United States. A definite success was trying a different cosmos (*Cosmos bipinnatus*), which comes in pink, white, red, and orange, with feathery foliage and all are low maintenance. They are easy to grow from seeds and attract

Pergola team: Tina Fincher, Nancy Hiefner, Pam Hunter, Lynn Shook and Bob Siml *MG Tom Fountain*

The pergola in spring can be a beautiful location *MG Database*

pollinators. They are an excellent source for cutting gardens and containers, blooming from summer to frost. They thrive in full sun with well-drained soil. Tolerating poor soil and drought when mature, they must be kept moist until established. Fertilizer is minimal since too much can decrease blooms. Seeds are sown directly outdoors after the last frost.

Another successful plant for the pergola area is the star jasmine vine (*Trachelospermum jasminoides*). It thrives in full sun to receive at least eight hours for maximum blooms. Watered when the top inch of soil is dry, the soil must dry between watering to avoid root rot. Star jasmine loves humid conditions and will thrive best in a moderately moist environment. It requires pruning to keep control of its growth as it can creep up trellises, trees, and houses. It is pruned in either the fall or early spring.

Peruvian lily (*Alstroemeria* spp) was added last year. It bloomed beautifully but did not survive after blooming. Although team members learned the hard way they were overwatering, they are giving it another try this year in a different area of the garden.

African corn lilies (*Ixia maculata*), a new selection, have been planted for this year. These perennials are known for their star-shaped flowers on tall spikes. They often come in yellow, orange, or white. They belong to the Iris family and grow from corms. They thrive in full sun and well-draining soil. They are excellent for cut flowers, borders, and pots.

Hardy dwarf mix gladiolus (*Gladiolus nanus*) with bright cherry-colored blooms is also new. These are cold tolerant perennials that bloom in mid-summer and are both hummingbird and butterfly friendly.

The team continues to research and try new plants to provide a welcoming garden area in the landmark entry and meeting place known as the Pergola.

The Pollinator Habitat Garden

Sue Bain
GCMG 2018

Hedy Wolpa
GCMG 2018

It was quiet in the Discovery Garden in February 2020 during the pandemic. That was when the Pollinator Habitat team began their journey to transform an area originally known as the Butterfly Garden into a true pollinator habitat. In 2013, Tish Reustle and Alisa Rasmussen (both MGs 2008) along with Judy Anderson (MG 2012) designed the Butterfly Garden and grew many beautiful flowering plants and shrubs. It continued to evolve over time until 2020 when Sue Bain (MG 2018) was asked to lead the work there. Her team, including Hazel Lampton (MG 2019), Vicki Blythe and Hedy Wolpa (both MGs 2018), began working in the Butterfly Garden and quickly observed that there were many more pollinators and other insects than just butterflies. In 2021, the name was changed to Pollinator Habitat (the PH). More Texas native plants were added to the original beds, and it was soon obvious that an expansion was needed to provide new varieties of nectar and larval host plants for the multitude of insects. By the end of 2023, the expansion of the Pollinator Habitat Garden, more than doubling the original size, was completed.

The PH is in the north end of the Discovery Garden beside the Earth-Kind® Garden and the Serenity Garden in Carbide Park, where it receives mostly full, unfiltered sunlight year-round. The team practices the mantra "plant with intention," which guides them in their research, plant selection, and maintenance of the habitat. It is with intention that the PH is now nearly 90 percent Texas native plants because natives are hardy, drought and heat tolerant, and thrive in poor soil. They are easy to maintain once established, and, as such, they also prevent water runoff and improve air quality by sequestering carbon and other pollutants. Most importantly, native plants provide food and shelter for the many insects, birds, and other small animals that make their home in the PH.

The PH is also home for a variety of bees, wasps, butterflies, moths, and other insects that migrate out to the vegetable and research beds, and elsewhere in the Discovery Garden, to help with pollination. This is especially important since flying insects have declined by nearly 70 percent in areas that have been studied. Insects need shelter, food, and water sources year-round to ensure that they mate and reproduce for continuous generations of offspring. Some insects are predatory and feed on other insects, thus providing food for themselves and their kin to continue their life cycles. The PH can sustain all these important activities to keep insect populations strong.

Also intentionally decided for the PH, the team prefers to avoid use of pesticides and insecticides, except for controlling fire ants that make maintenance of the beds difficult when they are present. The use of any targeted pest control chemicals in the PH can upset the balance of the ecosystem and life cycles of insects that depend on the food sources and shelter they need.

Then. 3-30-2020 *MG Vicki Blythe*

"PH…to keep insect populations strong"

Plants and insects have a symbiotic relationship. Plants need insects to help with pollination so that their species will continue to flourish. Insects need plants as pollen and nectar food sources, shelter from predators, places to lay their eggs, and for their larvae to mature. Both plants and insects have evolved over eons to make this relationship work. Plants have developed nectar guides and specific petal shapes to best attract insects for pollination. Insects have developed mouth parts, body shapes, and vision to quickly and efficiently help them locate the host plants that they need. The PH team enjoys helping visitors discover and discuss this relationship between plants and insects.

The team's research involves finding plants of various colors, textures, height and width, bloom times, petal size and shape, water needs, and, importantly, whether a plant is a particular larval host or a pollen and nectar source. The team also seeks a variety of different plants so that shelter and food are always available. As some plants fade or become dormant, other plants begin to flower. Plants are left to develop seed heads, berries, or leaf litter to continue to feed and protect both insects and other small animals. The development of the PH is further enhanced with photography by team member Vicki Blythe who helps the team keep track of plant locations during dormant times, the speed of growth, the longevity of bloom times, and the number and species of insects that come to the habitat.

Here are a few plants that the PH team recommends for attracting a diverse number of pollinating insects**:** purple coneflower (*Echinacea purpurea*), aquatic milkweed (*Asclepias perennis*), black-eyed Susan (*Rudbeckia hirta*), American basket flower (*Centaurea americana*), spotted bee balm (*Monarda punctata*), Texas lantana (*Lantana urticoides*), firewheel (*Gaillardia pulchella*), passion flower (*Passiflora incarnata*), and Missouri ironweed (*Vernonia missurica*).

Visitors frequently ask for information about the benefits of planting natives and how to plan and create a pollinator garden. The team provides hands-on demonstrations of propagation and seed collection. Visitors are introduced to insects of all kinds that they observe in their habitat as eggs, larvae, adults, and pupae on the plants that they must have to complete

Now PH *MG Vicki Blythe*

"...insects depend on food sources, shelter"

their life cycles and survive as species. Author and naturalist Doug Tallamy stated, "Because life is fueled by the energy captured from the sun by plants, it will be the plants that we use in our gardens that determine what nature will be like 10, 20, and 50 years from now."

The Pollinator Habitat welcomes human and insect visitors alike! Please join us on Thursdays from 9 to 11 am to enjoy this unique natural area of the Discovery Garden and its beautiful flowering plants.

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Aquatic milkweed *(Asclepias perennis)* with monarch butterfly *MG Vicki Blythe*

Basketflower with bumblebee *MG Vicki Blythe*

Firewheel with bumblebee, *MG Vicki Blythe*

Missouri Ironweed with tiger swallowtail- *MG Vicki Blythe*

Pollinator Habitat Garden. *MG Christie McGrath*

Purple coneflower and bumblebee- *MG Vicki Blythe*

Texas lantana and swallowtail *MG Christie McGrath*

Research Beds: A Vital Area of Discovery Garden

Michael Reed
GCMG 2023

Research has been an important part of the Discovery Garden and was part of the master plan in 2005 when the garden areas were decided. Master Gardeners share knowledge with others and results from research trials can be valuable to other gardeners as well as to the public. It is with that aim that many of the projects are put into the three large research beds that currently exist. All three beds are located on the west side of the greenhouse and hoophouse area. Research is part of all the areas in the garden, but large-scaled research is done in the three large beds maintained for that purpose.

MGs John Mitchiner and Michael Reed (both from the class of 2022) along with Kevin Lancon became the leads for the beds in 2023. Since that time, many projects have been underway. Norma Torok (MG 2022) joined the team to be the technical writer for research results. The group has been involved with such research trials as winter squash, bush beans, strawberries, and a variety of potatoes. The Galveston County group partnered with Keene Nurseries to do a garlic trial to determine which varieties would grow in the area. This research is continuing with another trial this year. A strawberry trial was conducted in late 2023 in Galveston County along with six other Texas county Extension offices. At the conclusion, Michael Reed put together a presentation that was presented to MGs at a *Lunch & Learn* training. The information was added to a strawberry seminar last year, one of the many presented yearly by Galveston Master Gardeners which is open to the public. A new strawberry trial is underway in the research beds with four varieties to see how well they produce. The results will be part of future presentations.

Over the years, many Master Gardeners have conducted research trials. A plan is underway in 2026 to have research results available for others to read. More information will be forthcoming when this happens.

Beds in the Discovery Garden used outside the three large research beds are also part of projects being conducted to learn which plants grow best, which fertilization products work, pest management, and other plant related areas. Recently, a trial was completed by MG John Ely to determine if rhubarb can grow in Galveston County (it can). Two others, MGs Karen Nelson and Steve Holliday, grew and compared four varieties of tomatoes.

Over the years, Master Gardener interns have conducted tomato trials as part of their classroom activities as well as work hours in the Discovery Garden as they work toward certification. This year's interns conducted a broccoli trial and are putting together their conclusions at this time.

Tours of the Discovery Garden are on Thursdays from 9 to 11 am. The research bed area is on the tour and information on projects underway will be discussed.

MGs John Mitchiner, Michael Reed and Norma Torok *MG Kevin Lancon*

Research beds *MG Briana Etie*

MGs Gene Speller and Bill Cummins were presented a state award on their research bed studying corn sugar *MG Karolyn Gephart*

The Serenity Garden

Jamie Hart
GCMG 2023

Established in 2008, the Serenity Garden is located at the north end of the Discovery Garden at Carbide Park. Inspired by traditional Japanese meditation gardens, it features thoughtfully arranged stones, fountains, and plantings designed to evoke peace, reflection, and a personal connection with nature.

Co-leads for the Serenity Garden are Jamie Hart and Michelle Turner. Team members include Wendy Stratton and Yvonne Enos. The primary goal of the Serenity Garden is to create a series of outdoor rooms that feel open and inviting while also offering secluded areas to unwind. Research shows that spending time outdoors, even for just ten minutes, can reduce stress and lower blood pressure. The garden has proven to aid in both physical and emotional healing, as time spent in green spaces can improve mood, enhance focus, and productivity. Elements of horticultural therapy throughout the garden provide visitors with a sense of purpose and accomplishment and is designed to foster a serene outdoor experience and a meaningful connection with nature.

The exterior gardens around the Serenity Garden welcome guests with vibrant garden beds along a vine-covered fence. These beds feature a mix of Texas Superstars such as golden dewdrop (*Duranta erecta*) and blue daze (*Evolvulus glomeratus*), alongside tropical plants including 'Peppermint Flare' hibiscus (*Hibiscus rosa-sinensis* 'Peppermint Flare') and various plumerias (*Plumeria* spp.). A rock-lined, winding path leads visitors through the newly developed ginger grove (*Zingiber* spp.), encouraging a slow and mindful stroll, and guides them into the Serenity Garden's water feature area.

The garden's natural hardscape features bamboo fencing that surrounds two thoughtfully designed spaces, defining distinct outdoor rooms while maintaining a sense of openness. Seven different species of bamboo (Bambusoideae subfamily) have been intentionally placed to create a soft, natural screening that provides privacy, texture, and visual interest. Intentional plantings continue throughout the garden, offering varied textures, soothing scents, and focal points that enhance the overall design. Resting spots have been incorporated to encourage reflection and relaxation.

Surrounded by tall bamboo stands, the meditation garden shelters an understory of ferns, tractor seat plant (*Ligularia dentata*), toad lily (*Tricyrtis* spp.), and oxalis (*Oxalis* spp.) beneath crape myrtle (*Lagerstroemia indica*), sweet almond verbena (*Aloysia virgata*), Hamabo hibiscus (*Hibiscus hamabo*), and Japanese black pine (*Pinus thunbergii*). Gentle wind chimes and benches are placed throughout the garden, inviting visitors to sit, listen, and enjoy the sights and sounds of serenity.

Often the final stop within the Discovery Garden, the Serenity Garden offers guests a peaceful place to pause and reflect on beauty, harmony, and healing power of the gardens.

Side beds at the Serenity Garden *MG Janie Hart*

Serenity Garden *MG Jamie Hart*

Serenity team: Yvonne Enos, Jamie Hart, Michelle Turner and Wendy Stratton *MG Tom Fountain*

Serenity Garden *MG Jamie Hart*

The Story of the Barn

Rachel Montemayor
MG 2011

The story of our barn begins in 2011. That year I had the privilege of interning with the last Master Gardener class held in Dickinson under the direction of the late Dr. William Johnson. That summer, the office moved to La Marque, and interns, along with other Master Gardeners, carried many stones and other garden materials to the Discovery Garden. At that time, there was only one building on the grounds where the tractor was housed. That building is now our current Discovery House.

The Need for a Barn

Recognizing the need for a dedicated space for the tractor, the Master Gardeners decided to build a pole barn. The original plan was simple: 6x6 posts with a roof to shelter both the tractor and a 40-foot storage container that held the wagons. However, the container was old and leaking, so they decided to enclose the 6x6 poles with Hardie® Plank to house the wagons and remove the container. After enclosing the building, they decided to pour concrete for a solid foundation. Over time, shelves, a workbench, and electrical outlets were added, transforming the structure into the shop, later renamed "the Barn" by Dr. J. That is how the Barn developed/evolved. We are grateful to all the Master Gardeners and their hard work over the past years, which has led to the current structure.

The Barn has grown. Today, it stores everything from tractor, wagons, tents, riding mower, tools, saws, PVC fittings, sprinkler supplies, tarps, paint, wood, ladders, greenhouse panels, and countless other essentials used across the gardens.

Building a Team

Its story is also the story of the people who built a shop team.

In 2015, Henry Harrison invited me to join the shop team, which at the time included himself, Sharon Zaal, and occasional volunteers. That year, we built several vegetable beds and handled numerous garden repairs. In 2016, Robin Collins joined the team, and together we took on the ambitious project of building the aquaponics greenhouse. The project also required plumbing and electrical skills, but we were fortunate to have several folks with expertise in those areas. It was a major endeavor that turned out very well.

By 2017, as Sharon and Robin took on other leadership roles, we were fortunate to have Kathy Maines and Phil Haught join the team. Together, we continued repairs, built benches, and supported other garden projects. When Henry moved on, and Kathy became president of the organization, I assumed responsibility for overseeing the Barn. With help from Larry Brizendine, Santos Montemayor, Kevin Lancon, Ronnie Corley, Phil Starks, Clarence Paul, and many other dedicated Master Gardeners, we have tackled and continue to tackle countless projects.

Maintaining order in the Barn is an ongoing challenge, but our goal remains clear: to ensure supplies are accessible when needed, and essential items are always on hand. I am deeply grateful to all the Master Gardeners who have helped tremendously over the years and continue to support our projects in the Discovery Garden. Their hard work, dedication, and community spirit have been the foundation of everything we accomplish.

Team members Phil Starks, Santos Montemayor, Rachel Montemayor, Larry Brizendine and Kevin Lancon. (Not pictured) John Mitchiner and Clarence Paul. *MG Linda Barnett*

Rachel Montemayor bending pipe for aquaponics area
Dr William Johnson

Clarence Paul, Rachel Montemayor and Tom Fountain wrapping plants for cold weather *MG Linda Barnett*

Gardening Help Desk: Weed Elimination

Ralinda Fenton
MG 2023

Question: How do I eradicate common weeds?

Weed control and elimination is a topic with extensive approaches. Best practices include prevention of weeds and cultural, manual or mechanical, and chemical controls. Prevention includes using the best possible seeds, sods, composts, and mulches to eliminate the introduction of new weeds. Cultural controls include using best practices for watering, fertilizing, mulching, and cultivating to minimize weed growth. Weeds grow easily in distressed, bare and disturbed soils. Maintaining healthy turf in yards and using a good mulch in proper amounts in your garden will help reduce weeds. Manual or mechanical controls include hand removal, mowing yards to the proper height and with appropriate frequencies, and bagging clippings contaminated with weed seeds. Always trying to eliminate weeds before they go to seed will help prevent new weeds from growing. Lastly, chemical controls are discussed in more depth in the rest of this article.

For general weed elimination, apply a pre-emergent herbicide and follow it with a post-emergent herbicide to eliminate annual weeds and some select perennial weeds. The pre-emergent will help keep the weeds from emerging in your yard or garden as well as help stop the germination of the seeds. Some examples are: Dithiopyr, Pendimethalin, Prodiamine and Indaziflam. The post-emergent helps control the weeds after they are already growing in your yard or garden. Some examples of post-emergent herbicides are: 2,4-D/Dicamba, Quinclorac, Glyphosate, Imazaquin and Metsulfuron-methyl.

Two top factors to consider when applying the preemergent control are soil temperature and timing. To get the best control, the pre-emergent would be applied twice a year. Apply once in early spring/late winter and then again in fall. This helps control both summer and winter weeds. Soil temperature is the best determinant of timing. For our area, the spring application will usually be around February or March. Look for soil temperatures to be around 55 degrees for several days. Fall application should occur when soil temperatures reach around 70 degrees for several days. Carefully following the instructions on the label is critical.

Before using a pre-emergent, there are things to consider. Pre-emergents can harm newly established or over seeded lawns. Other weed and feed products can affect how the product works, damaging your lawn. Timing of application, occurrence of precipitation, other environmental events, and the specific weeds you are trying to control all can affect the effectiveness of herbicide. Contact our office for specific guidance regarding your situation. Pre-emergent herbicides are generally safer for your other plants when used properly compared to some post-emergent herbicides. For more detailed information on pre-emergent herbicides: https://aggieturf.tamu.edu/wp-content/uploads/sites/24/Preemergence-Herbicide-Guide-4.pdf

Post-emergent herbicides work best when other methods are used to reduce the weeds before using the post-emergent. It is very important to apply before the weeds flower and go to seed as much as possible. Using a herbicide with multiple active ingredients is more effective than single ingredient treatments. Follow the label instructions. Apply herbicides at the right time and temperature. Also, follow the recommendations regarding additional applications. Over-treating herbicides may damage your lawn and garden as well as introduce unnecessary contaminants to the environment.

Identifying the weeds to eradicate can be helpful especially for hard to eliminate varieties. There are many resources available through our website. Here are some helpful links. https://extensionentomology.tamu.edu/wp-content/uploads/sites/8/2022/05/WeedManagementforSchools2022.pdf, https://galveston.agrilife.org/files/2023/11/GC-361_GalCo-12-Most-Aggressive-Weeds.pdf, https://aggieturf.tamu.edu/turfgrass-weeds/

Contact the Gardening Help Desk about these and other issues. 281-309-5061 gcmghotline@gmail.com

Weeding *Pixabay.com*

Decomposer Insects: Working Hard for our Planet's Environmental Health

Hedy Wolpa
GCMG 2018

Vastly underappreciated and often unrecognized, but highly valued for their hard work, are the decomposer insects. They are represented in several orders of insects including, but not limited to, Coleoptera (beetle and grub larvae); Hymenoptera (ants, wasps); Diptera (flies and maggot larvae); Blattodea (termites and cockroaches); and Lepidoptera (moth and butterfly larvae).

The role of decomposer insects, also known as saprophages, from the Greek words "*sapros*" meaning "rotten" and "*phagein*" meaning "eat", is important because they help keep the ecosystem in balance by breaking down and recycling organic matter. Through this action, nutrients in the soil are replenished and plants thrive in a more fertile environment.

Some insects are more efficient than others in their efforts to help with the decomposition process. Mainly, they break down dead matter, other insects and animals, plant material, fallen leaves, and feces into basic elemental nutrients, like carbon and nitrogen, that are useful to living plant organisms. Ants, flies, and beetles are among the most productive as decomposers because their mouthparts operate to bite, chew, grind, suck, and tear, making short work of dead and decomposing material. Other organisms such as bacteria and fungi further help in this process to make micro-bits of the matter. Earthworms, although not insects, are super decomposers as they tunnel their way through soil, moving these small bits, plus oxygen, moisture, and other organic material, aerating and boosting the soil's fertility.

The decomposition process often begins when insects, such as various species of flies, including blow flies and bottle flies (of the family Calliphoridae), are attracted to decaying flesh or plant material. Insects lay their eggs in, or on, a carcass or plant remains, which is a convenient food source for the larvae when they hatch. As the larvae feed, they further break down the dead tissue matter, attracting even more and larger insects. Beetles are significant contributors as decomposers, as are termites, ants, and other scavenger insects. Beetles also eat the larvae and eggs of other insects while they're at a carcass "buffet". Common beetle decomposers are carrion beetles (of the family Silphidae), rove beetles (of the family Staphylinidae), and hister beetles (of the family Histeridae), all of varying sizes, shapes, and levels of activity around dead animals and decaying plant material. Termites eat decaying wood and cellulose materials, and are considered important decomposers in woodland settings where nutrients from plant material quickly return to the soil. Other important decomposer insects are the golden dung beetles (of the family Scarabaedae, and often called Scarab beetles) and manure flies (of the family Scathophagidae), which are attracted to the odor of animal excrement. Adults lay eggs on fresh feces where their larvae will feed upon hatching.

We commonly see wasps, ants, moths, and butterflies in our daily encounters in our natural environment, but we don't usually associate these insects with decomposition. Some adult wasps and their larvae are carnivorous and they feed on dead animals, including insects. Ants also feed on dead organic matter, and contribute leftover bits of insects and plant tissue to the soil where they nest. I was surprised to learn that moths and butterflies, and their larvae, take in some necessary minerals like sodium and nitrogen from animal dung and urine in addition to the minerals from rocks and sand that they

Rove beetle, Platydracus maculosus,*Susan Ellis, Bugwood.org*

American Carrion beetle, Necrophila americana, *Susan Ellis, Bugwood.org*

"Some are more efficient than others…"

get from the puddling dishes we like to provide for them. All of these insects help put important nutrients back into soil.

As you may be aware, there is an entire field of science dedicated to forensic entomology. Since different decomposer insects feast at different stages of decay, scientists and medical examiners can tell how long a carcass or body has been dead. In fact, there is an order to decomposition in which blow flies and bottle flies are first to arrive on the scene of some dead matter to eat soft tissue, followed by maggots. Beetles, wasps, and ants show up later to feed on the dryer tissue and organs.

If you've read through the unpleasant text above and just want to know about the important contributions made by decomposer insects, here is some more tasteful information:

Decomposer insects help with plant pollination by dispersing seeds as they feed on dead organic matter.

These insects recycle nutrients as they feed, helping to keep our soil environment in a fertile balance so other plants and animals thrive on the wastes that become nutrients in soil. Even bone waste can be broken down into more serviceable and important nutrients in the environment.

They break down dead animal and plant material, making way for the fungi and bacteria to further decompose it, reducing the amount of organic waste and refining it into smaller elemental nutrients.

Blow fly, family Calliphoridae, ***Susan Ellis, Bugwood.org***

Green bottle fly, family Calliphoridae, ***Joseph Berger, Bugwood.org***

Soils are improved by becoming softer, looser, and better aerated. This supports healthy plant growth.

Will you look at decomposer insects from a new point of view when you see them? Join me in cheering on our insect population, including the hard-working decomposers who help keep the overall environment healthier and our soils and plant life thriving.

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In forensic entomology, (clockwise from top left) blow flies, flesh flies, carrion beetles, and rove beetles are common visitors to the scene of death and decomposition.

Landscape Plant of the Month: Sun and Sky: A Complementary Composition

Stacey Phillips
MG 2017

Spring is such a wondrous time of year as plants emerge from their winter's nap to transform our garden spaces. You never know from one year to the next whether we will have experienced an extremely cold winter, or a moderate one. Regardless, it is the perfect time to introduce some new garden beauties into bedding areas. When planning and planting a garden area, choosing complementary colors can be just as important as the types of plants you select.

One of my favorite color combinations in the garden is yellow and blue/violet. Using blooms and even foliage that is complementary to one another on the color wheel is not only aesthetically pleasing, but mimics that which we see in nature. While yellow is reminiscent of sunny days, blue imitates the clearing skies we see in spring. Both colors are a bright reset after the long stretches of dreary grays during winter.

I am a big fan of perennials. These garden headliners tend to be lower maintenance, drought tolerant upon establishment, and generally lacking pest issues. Many different varieties are available, with varying texture, color, form, and size.

For the sunny golden hues, two perennials are extremely well-suited to our region. Each of these can be quite sizeable and are irresistible to pollinators. Both specimen plants should be considered a singular focal point in the garden, versus mass or multiple plantings, due to the large size.

Tecoma stans, commonly known as Esperanza or Texas yellow bells

An evergreen perennial shrub or small tree that typically grows to a height of three to six feet, but can get as tall as 10-25' in frost-free zones

Esperanza should be planted in full sun

It is drought tolerant, once established

Plant in well-draining soil and allow to dry out between waterings

Long, tubular blooms grow in clusters and provide a bright yellow color from spring to frost

Very showy clusters of blooms are mildly fragrant

Deadheading can help to prolong blooms

Tecoma stans may die back from cold exposure, but once our climate warms, it can be pruned back and will re-emerge from undamaged roots underground

Cestrum aurantiacum is a tropical, deciduous perennial that grows up to 15 feet tall in warmer climate zones but typically grows 6 to 8 feet tall in our region. Common name is orange jessamine.

Esperanza *MG Stacey Phillips*

Esperanza bush *MG Stacey Phillips*

Mystic Spires *MG Stacey Phillips*

"...a bright reset after winter"

Yellow/orange small tubular blooms cover cestrum from spring to fall

Blooms are lightly fragrant, with a sweet and slightly spicy citrus scent

Cestrum is very drought tolerant once established

This tropical beauty performs well in full sun, but can also tolerate some late afternoon shade

Cestrum will survive freezing temperatures and come back from the roots in the spring

Now to balance out the sun with the cool blues and violets reminiscent of evening skies. True blue is the rarest of bloom colors (less than 10 percent of flowers), but luckily, we have quite a selection of varying hues of blues that work nicely in our region's gardens. Two are varieties of salvia: one option stays relatively compact, and the other grows considerably large. As with the golden blooming varieties previously discussed, each of these plants are pollinator attracting stars. The spikey flowers from both salvias also make nice additions to a mixed floral arrangement.

Salvia longispicata x *farinacea,* commonly referred to as 'Mystic Spires' salvia or 'Mystic Spires Blue' salvia

A compact growing perennial that is 18-30 inches tall

Plant in full sun

Blooms prolifically throughout the growing season

This cultivar prefers well-draining soil; suitable for container planting

Excessive watering and fertilization can result in overgrowth of foliage and diminished blooms

Blooms are 10-12-inch-long true-blue spikes

Can be pruned back to 12 inches after a freeze, but should not be pruned to the ground until danger of frost has passed

Group plants for high impact or use as a border plant

Designated a Texas Superstar®

Mid-season pruning can be done as reblooming occurs quickly;

Salvia guarantica x gesneraeflora Commonly known as 'Purple Majesty' salvia

This showy herbaceous perennial is a cross between *Salvia guarantica* and *Salvia gesneraeflora* that was developed at Huntington Botanical Gardens

Grows to a height of five to six feet tall in Galveston County

Plant in full sun

Requires well-draining soil

This hybrid salvia should be watered moderately and consistently

Blooms are deep purple spikes equaling nearly one foot long

Locate towards the back of a bed or as a focal point for vertical interest in a large garden

As our seasons transition from winter to spring, this color combination will bring gardens a little taste of sunshine and blue skies.

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Yellow cestrum *MG Stacey Phillips*

'Purple Majesty' salvia *MG Stacey Phillips*

The Sport of Gardening 101: It's Game Day, Gardeners

Carol Hairfield
GCMG 2020

It's Game Day, Gardeners!

It's time for the big game of the summer. That's right Mother Nature vs your garden. But you've got this. After planning out your strategy, it's time to take the field.

To do this a support staff, equipment, equipment preparation, and "players" or plants are needed.

Gearing Up

My staff consists of my granddaughter and my dog. While one is busy all the time, the other tends to water incorrectly, sigh.

Next equipment, I do better here. I have a cart to haul stuff, a stool that does double duty, padding for my knees and a helper upper, a bucket for spade, hand rake, pruners, journal, popsicle sticks, and pencils. The journal is to keep up with the what, where, and when of planted things. Brains get overloaded. Take a minute, write it down. Mark plants with popsicle sticks. Overkill? Better safe than sorry. Use a pencil, not a Sharpie, which tends to fade. Elves? Goblins?

If you haven't already done so, now is the time to clean your tools. I'll be honest, I never thought about the importance of cleaning tools or the pots I plan to use. It's just dirt. Right? According to the University of Minnesota Extension, "dirty gardening tools and pots can spread disease from an infected plant to a healthy one." Proper cleaning can reduce the spread of plant diseases." It is recommended to soak tools for 10 minutes in a 10 percent bleach solution, then air-dry them. It's a little extra work but it might make the difference in a successful garden. Also, don't forget to sharpen those things that are needed to prune or dig. Now, put on those gloves, hat, and sunscreen. Don't forget that water bottle. Hydration is not just for plants!

My staff at work *MG Carol Hairfield*

Assembling Your Players

Look at your "players"—the plants. If you haven't chosen a variety, your county extension can provide a list of varieties that are well adapted to your area of Texas. They also offer guidance on which are best for transplant, crowns, or seeds.

If you're working in a raised bed, calculate how much soil you're going to need. Type in "calculate cubic yards" in your browser search box to find a handy calculator. When it asks about depth, AgriLife Extension suggests that vegetable beds should be 12 to 18 inches deep.

For your soil mix, the University of Minnesota Extension says the ideal soil mixture for raised beds is around 2/3 to ½ topsoil and ½ to 1/3 plant-based compost.

Kickoff Time!

Finally, it is time to put those "players" on the field. Can't just stick them in the ground. Texas A&M has a useful resource, Easy Gardening series. It recommends purchasing a starter solution or DIY by combining 2–3 cups of fertilizer (like 10-20-10) in 5 gallons of water. Pour 1–2 pints of solution into each transplant hole before planting.

When planting seeds, read the package to know how far apart and how deep to plant. Generally, cover the seed two to three times as deep as its width. Plant seeds fairly thick, then thin plants once they sprout.

Water the soil to a depth of at least 6 inches. Each week most gardens need 1 inch of rain or irrigation.

Whew! Your garden is started. But don't get complacent. Mother Nature has a deep team. (insects, weather, disease) Is she planning your defeat? Next time we'll look at how to turn Defeat into Victory.

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The Paprika Trial

Christie McGrath
GCMG 2023

Donna Merritt
GCMG 2023

A paprika trial was held by the herb team under the direct of lead Donna Merritt in 2025 to experiment if a person can taste the difference between a pepper bred for paprika and other red peppers. Paprika is a powdered orange-red colored spice made from a variety of *Capsicum annuum* dried and ground peppers.

Native to North and Central America, paprika spice was originally used by indigenous peoples for food and color. Spanish explorers brought it back to Spain and from there it spread throughout Europe, the Ottoman Empire, Russia and beyond. Each country grew and prepared the peppers to their taste preferences from hot to sweet. Some, like the Spanish, added smoking to the process before drying and grinding the peppers.

Our paprika trial consisted of three pepper varieties: Aleppo (2500-10,000 Scoville Heat Units), Giant Marconi (0 SHU), and a variety bred for paprika, Hungarian Magyar (0 SHU). We transplanted three Aleppo (donated by MG John Ely), four Giant Marconi, and six Hungarian Magyar (both grown in the Discovery Garden greenhouse) and harvested the peppers once they turned red on the plants. Once we had adequate paprika from each variety, a taste test was held at the Discovery Garden using deviled eggs as the vehicle to sample the paprika.

Six samples were tasted: a regular and a smoked version of each pepper variety. The favorite taste in the sampling turned out to be the smoked Giant Marconi and the least favorite the Hungarian Magyar, although most people were able to identify the Magyar as the paprika bred variety. The trial revealed that the thin-skinned peppers were easier to dry as the thicker peppers tended to get moldy before they completely dried. However, when smoking, the thicker skin holds smokier flavor. Seeds or veins can be removed or left in by personal preference. Also note it takes many peppers to produce paprika. In this trial three pounds of Hungarian Magyar produced just five ounces of ground paprika.

Many paprika varieties are in local stores and online grocers. Look for sweet mild varieties for light flavor and deep red color or try a hot paprika variety for robust flavor and heat. Smoked paprika adds a smoky complex umami to cooking. Typical uses in the United States are as a garnish sprinkled on top of deviled eggs, hummus, potato salads and roasted meats and vegetables. Paprika is also the main ingredient in many rubs, marinades, and barbecue sauces and adds depth to chili, soup, rice, pasta, and many other dishes. Truly paprika is a staple spice in kitchens worldwide.

According to the USDA Food Data Central database, just a quarter teaspoon of paprika contains six percent of the recommended daily vitamin A, depending on the brand tested. Peppers are also considered an excellent source of vitamin C, providing twenty percent or more of the recommended daily amount, although some can come from anthocyanins, which function as antioxidants in the body.

This was a fun trial in the herb garden and whether you grow your own peppers to make paprika at home or buy one of the endless varieties on the market, you can't go wrong with this versatile tasty spice.

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Giant Marconi and Aleppo pepper plants
MG Christie McGrath

Three pounds of Hungarian Magyar peppers in a smoker *MG Donna Merritt*

Finished paprika: Smoked Aleppo, Smoked Giant Marconi, Smoked Hungarian Magyar
MG Donna Merritt

2025 Intern Broccoli Project Results. A Research Project to Determine a Replacement for 'Packman' Broccoli in the Galveston County Area of Texas

Becky Risinger
GCMG 2025

Summary

Galveston County had an established variety of broccoli (*Brassica oleracea* var. *italica*), 'Packman', that grew well in the area. Recently, 'Packman' became unavailable from reputable seed suppliers, so another variety for recommendation and growth was sought. The 2025 Master Gardener interns took this on as a project. The class grew five different varieties that were recommended as replacements for 'Packman': 'Lieutenant', 'Castle Dome', 'Pro Pack', 'Green Magic', and 'Imperial'. The seedlings were planted in mid-October and were completely harvested by the end of December.

Objective

The objective was to determine which variety of broccoli performed the best in Galveston County so that a replacement for 'Packman' could be recommended and grown.

Materials and Methods

The seeds were started in late August. The package directions recommended planting the seeds at a depth of one-fourth inches. This resulted in only 10 percent germination, so the seeds were replanted closer to the surface of the soil resulting in an 80 percent germination rate. These seedlings were nurtured and deemed ready to be planted in October. The area temperatures were still in the upper 80's and lower 90's, so the planting was delayed until mid-October.

The seedlings were planted in two raised beds (10x20 feet each). The soil was analyzed by Texas A&M and amendments (compost and fertilizer) were added to correct the deficiencies. In total, 100 broccoli plants were in the two intern beds with each bed having 10 plants of each variety. The plants were planted 18 inches apart and 36 inches separated each variety. Hay was placed between each variety to control weeds and for a place to care for the plants, preventing compaction of the soil.

The plants were watered twice weekly and sprayed with Bt (*Bacillus thuringiensis*) and copper fungicide weekly on separate days. Plants were also measured and recorded for growth weekly. At the midpoint, spinosad was added for additional pest control. The plants were only fertilized once during the trial and that was when the buttons began to show on the plants. The fertilization consisted of small linear side-dressing trenching with 21-0-0 applied at a rate of six tablespoons per 12 inches. When the broccoli heads were deemed ready to harvest, the team checked every two days for plants that were ready. When harvested, plant stems were cut at a 45-degree angle and cut about 3-4 inches below the head.

Results and Discussion

1. Significant Dates:

Seed Start Date - August 29, 2025

Trial Start Date (transplants planted) – October 21, 2025

Fertilization Date – December 6, 2025

Watering - Sunday/Mondays and Thursdays

2. Summary of Results

Total weight of broccoli harvested from the trial – 122.19 lbs.

Variety with the cumulative largest average weight – 'Lieutenant'

Variety with the highest weight – 'Lieutenant'

Largest broccoli head – 'Lieutenant' (9.5 inches)

Highest weight for one head – 'Castle Dome' (1.87 lbs.)

3. Variances

Largest diameter average – 'Castle Dome' (9 inches)

Smallest diameter average – 'Imperial' (6 inches)

Highest weight average – 'Pack Pro' (1.8 lbs.)

Lowest weight average – 'Imperial' (1 lb.)

4. Most productive sideshoots by weight and number – 'Castle Dome' at 3.128 lbs. and 27 side shoots

All varieties were productive and created good yields. 'Lieutenant' was the most productive at 26.98 lbs., followed closely by 'Castle Dome' at 25.75 lbs. and 'Green Magic' at 24.73 lbs.

'Lieutenant' was the last variety to produce buttons, but then quickly caught up within a week of the other varieties.

By the end, several of the stems were found to be hollow. This could be explained by the temperature variations with many days in the high 80's and low 90's and then followed by intermittently cooling off in the 50's and 60's. We experienced no freezing temperatures but had one bout of near freezing (33 degrees). It did appear that stems became more easily infected after the broccoli head was harvested, possibly from the high heat encountered. This reduced sideshoot production.

Note on Pests We observed cabbage moth caterpillars, leaf miners, diamond back moth larvae, and army worms.

"....objective to determine best variety"

Conclusion:

All five varieties could serve as replacements for 'Packman'. 'Lieutenant' and 'Castle Dome' were the most successful, but the others were not far behind. We had relatively little to no problems with pests and fungal issues, but consistent application of Bt and fungicide was helpful in the control. Broccoli can be a successful crop for the Galveston County area and should be tried if interested.

Recommendations for future broccoli studies:

A rain gauge would be useful to follow rainfall.

Calipers would ensure better accuracy in measurement.

Ideally, the same person should measure and harvest the broccoli.

The stem should be cut to the same length (as variances can affect the weight of the head).

Interns who participated in the trials include the following: Erin Alofoje, Stephanie Carmona, Beth Carroll, Theresa Cooper, Suzy Domingo, Kathy Hurst, Margaret Herrera, Dewana Jackson, Santos Montemayor, Becky Risinger, Glenna Shields, Janice Simonet, and Steve Wright. Mentors included MGs Ira Gervais, Jim Bridgett and Bob Siml.

Designated intern bed MG Intern Becky Risinger


Beds were maintained by interns *MG Intern Becky Risinger*

Group of interns by the bed area for the trial. *MG Intern Becky Risinger*

The Label: The Basis for Good Practices

Becky Jaschek
GCMG 2023

It's spring and the time of dreaming of the full glory of our gardens, flower beds and lawns. This is a good time to utilize the Texas A&M AgriLife Extension principles, Earth-Kind® Landscaping and the Integrated Pest Management (IPM) to minimize the use of fertilizers and pesticides. If, however, we determine an issue must be addressed by using these products, it is essential that we apply our training by reading and following the instructions on the product label. It contains information about what's in the product, its purpose, restrictions and how to use/handle it safely.

In the United States, pesticide labels are regulated and reviewed by the US Environmental Protection Agency (EPA) to ensure they meet all regulatory requirements to provide accurate information needed to work with the product safely. Once approved, Federal law requires us to follow them when using the product.

In Texas, consumer fertilizer labels are regulated by the Office of the Texas State Chemist (OTSC) under the Texas Department of Agriculture (TDA) to ensure the label provides clear and truthful information including the name of the ingredients, the percentage of N-P-K, the amount per unit area to use, the frequency of use and information on any additives.

Reading and following the label instructions sounds easy enough, but depending on the product, there are potential safety and environmental risks that need to be considered in choosing the right product and using it properly. Preparation for the whole job is important, from identifying the correct issue to the cleanup. To safely handle products in our gardens and lawns, using the simple project framework of Know, Plan and Do may help ensure all critical steps are considered and done.

Know

The first step is to correctly identify the issue. Research the issue and possible solutions. This is critical if you are addressing a pest or a disease. You must correctly identify it so that the correct product and correct course of action can be taken. Prior to taking action, know:

What is the issue or pest?

What is the proper use of the product?

What are the restrictions for its use?

You must know and understand the issue that you are addressing. Whether it is applying the side dressing to tomato plants, killing the squash borer, or getting rid of the fungus that is impacting your fig trees, read the label to make sure it is the right product for the right conditions and it's the right time to use it. For pesticides it is critical that the product label states that it addresses the specific pest and can be used on the type of plant. For example, some products may kill aphids, but the label may say it may only be used on ornamentals and therefore should not be used for food-producing plants. Right pest, wrong place.

Plan

This is basically preparation to fully implement the job safely. Preparing for the job may include protecting vulnerable or sensitive humans, pets and plants from potential exposure to the product.

Remove kids, pets, toys, food and drink items from the area

Determine what needs to be done and how to do it, following label instructions that incorporate all required restrictions and conditions.

What equipment will be used?

What is the process? This is a good place to consider how to minimize the generation of waste and how to address empty containers or unused product mixture by preparing only what is needed and using it for its intended purpose. An example might be to use the rinse water from the empty concentrate container to make the diluted solution.

Identify and use Personal Protective Equipment (PPE). At a minimum, wear the recommended PPE, recognizing the purpose is to reduce the potential for exposure. You can always wear additional appropriate PPE.

Protect eyes with safety glasses or goggles

Protect skin by wearing closed-toed shoes, long pants and long-sleeved shirt if using a spray or dust, apron, and/or a face shield

Protect respiratory system by ensuring there is adequate ventilation or using a respirator. The disposable respirators supplied at the Discovery Garden (DG) are only for particulates (including dust and droplets).

Determine what would be needed if there is an unexpected exposure or release

Locate the eyewash or hose to remove material

Let someone know if you are working with hazardous chemicals or conditions

"...determine what needs to be done"

Know how to contact your doctor, call 911 or call Poison Control (1-800-222-1222) if needed in the event of exposure, especially ingestion or inhalation

How to clean up a spill to prevent environmental exposure

Do

Implement the plan, following the label instructions explicitly. Once the task is completed, clean up and return the area to normal use as appropriate.

Clean equipment, using rinse water in the treated area if appropriate

Dispose of materials such as empty containers and disposable PPE. Render containers as empty as possible and triple rinse plastic containers.

Remove PPE, rinsing and removing gloves last. Launder contaminated clothing separately for general family clothing

Monitor area to determine when it is safe to return to normal use

In the DG, complete the Chemical Application Record for any product that is used there, whether it is stored in the garden or brought from home. This record is part of the Safety Program, providing information that the Chemical Safety Committee can use to evaluate the chemical needs and uses in the DG.

Safely handling chemicals by following all of the label information correctly will help ensure success and a garden that flourishes.

References:

Texas AgriLife Extension:

Earth-Kind on Landscape Pesticides: https://aggie-horticulture.tamu.edu/wp-content/uploads/sites/5/2010/10/pesticides.pdf

IPM Program: https://ipm.tamu.edu/ and

Vegetable IPM: https://vegetableipm.tamu.edu/

Landscape IPM: https://landscapeipm.tamu.edu/

National Pesticide Information Center, Oregon State University: "Reading Pesticides Labels", https://npic.orst.edu/health/readlabel.html

Cornell University Cooperative Extension, Pesticide Safety Education Program modules: https://core.psep.cce.cornell.edu/Tutorials/core-tutorial/Default.aspx

EPA.gov

GALVESTON COUNTY
MASTER GARDENERS

SPRING GARDEN FEST

2026 | IN-PERSON

Sale

TEXAS MASTER GARDENER
TEXAS A&M AGRILIFE EXTENSION
Galveston County

SPRING SALE HIGHLIGHTS

Get your garden ready for spring at the Galveston County Master Gardeners Spring Garden Fest—an in-person plant sale featuring plants selected specifically for success in our Gulf Coast climate.

Whether you're growing food, color, or pollinator habitat, you'll find healthy, well-adapted plants chosen by local Galveston County Master Gardeners.

PLANTS FEATURED

- Perennials suited for long-term Gulf Coast landscapes
- Spring and summer vegetables ready for the season
- Peppers selected for heat tolerance and productivity
- Herbs for cooking, pollinators, and easy garden success

TEXAS A&M AGRILIFE EXTENSION | GALVESTON COUNTY

WHEN

March 21, 2026 | 9 AM - 1 PM
In-Person

LOCATION

The Discovery Garden in Carbide Park
4102 Main Street | La Marque

PLAN YOUR VISIT

This is an **in-person** sale, held in the beautiful Discovery Garden setting at Carbide Park. Quantities are limited, and popular plants sell quickly—early shopping is encouraged.

LEARN MORE

This fundraiser is in support of Galveston County AgriLife Extension education and outreach services.

Visit https://txmg.org/galveston/ for plant sale updates and upcoming seminars!

SCAN ME

What's Blooming in My Garden

Jamie Hart
GCMG 2023

My absolute favorite pond plant of all ...the water lily (*Nymphaea* spp.). My water lilies are growing in shade with bright dappled light, under an old pecan tree. They provide blooms all spring through the first frost in winter.

They are named after water nymphs which are beautiful, female nature spirits from Greek mythology. The flowers look as if they almost glow. I also love the variegation on some of the leaves. The variegated leaves are showy enough without the flowers. Like a cloud, you can see so many different shapes and forms. I find them the most alluring of aquatic plants.

All images by *MG Jamie Hart*

The water lilies in the pond provide beautiful color and showy leaves

An Oahu Jewel: Harold L. Lyon Arboretum

Barbara Lyons
GCMG 2014

In May 2025, my husband and I, along with our two adult daughters, ventured on our most far-flung adventure to date: an 11-day trip to Hawaii. To minimize time spent on travel, we chose Oahu for our destination and a rental in the residential neighborhood of Manoa. It proved a wonderful location with a view from our back porch of Diamondhead and downtown Waikiki in the distance.

Manoa is where the University of Hawaii has its major campus and where its affiliate, the Harold L. Lyon Arboretum is located. (3860 Manoa Rd, Honolulu, Hawaii website: manoa.hawaii.edu/lyon/) It is a University of Hawaii Research Unit with goals of research, education, and conservation. Our rental was located nearby this garden which was the only one on Oahu that is a part of the American Horticultural Society's Reciprocal Admission Program (RAP). The free online tickets are available on Fridays for admission the following week. The garden is closed on weekends and on federal and state holidays. When we visited, online tickets were not possible due to road construction. Since this garden was my number one place to visit, I investigated further to find that if the lower gates were open, then the garden open to visitors. As we found out, a portion of the dirt road leading to the garden and adjacent Manoa Falls is sometimes unexpectedly closed due to washout from rain and the need for subsequent road repairs. The road, and I use this term loosely, is incredibly bumpy even when repaired. Luckily it is a relatively short section. Once through the garden gates, the road up the mountain is paved and in excellent repair. It took us a few days to find the gates open, but I am glad we persisted because this place was a truly wonderful experience.

The Lyon Arboretum is 193.5 acres of over 6000 varieties of subtropical and tropical plants. Our visit was a sheer delight! It is named in memory of Dr. Harold Lyon, a University of Minnesota-trained plant pathologist and botanist who was instrumental in restoring watersheds by replacing plants lost from environmental damage from sugar growing, cattle ranching, and tree-harvesting. He arrived in 1907 and worked developing restoration of trees in a demonstration garden on the property. His work was under the auspices of the Hawaiian Sugar Planters'Association (HSPA). He later fostered the idea that the area could also support a botanical garden and left his estate to fund in its planning and development. The formerly named Manoa Arboretum was named for him in after his death in 1957. Over the years, it has continued to be a place for

Breadfruit tree. *MG Barbara Lyons*

Bromeliad section. *MG Barbara Lyons*

Cacao plant. *MG Barbara Lyons*

research, education, and conservation while displaying a wide variety of plant life.

We were able to visit about half of the area and wish we could have come back another day or two to fully explore its treasures. The garden is built into the side of a mountain and traverses 400 feet of elevation. While we did not make it to the waterfall at the highest elevation in the garden, we did sample the nicely planned garden spaces. Many displays of tropical plants, including some rare ones, were thoroughly enjoyed. Bromeliads were featured in one large area and the various colored plants en masse made impressive displays, especially the groupings of plants set into the trunks of palm trees at various levels all the way up the trees. The ethnobotany area included plants and trees such as breadfruit and taro, that were used as food sources or medicines by Hawaiian natives. There was a large taro demonstration garden with signage showing how taro (*Colocasia esculenta*) was prepared for consumption. While we might not consider eating the bulbs from the plant we would call an elephant ear, it was an important food source for Hawaiians. In another area was a small grove of unfamiliar trees with large orange pods hanging from the branches. Upon closer inspection, I discovered their identity: cacao trees (*Theobroma cacao*). I had never observed them before but have long been a chocolate afficionado. Another place of interest was Inspiration Point. It was a large, flat, grassy area with some places to sit, reflect, and enjoy the view of the nearby mountainside with its different plant species at different elevations spanning from 450 to 1850 feet. Even though the day was a bit cloudy, the view was truly inspiring. Other parts of the garden displayed various gingers (*Zingiber officinale*), heliconias, hibiscus, plumeria, and more, all showing their full color. This was my first experience viewing plumeria as a tree as the climate allows the plant to grow all year long. The specimens were a delight to the visual and olfactory senses. Throughout the garden there are many types of palms which lend to the overall tropical nature of the garden and there are many mature hardwood trees, including sandalwood (*Santalum album*) and koa (*Acacia koa*).

Lyon Arboretum was a highlight of the trip for me.

Heliotrope plant. *MG Barbara Lyons*

Palm tree section. *MG Barbara Lyons*

Ti Plant. *MG Barbara Lyons*

References:

"Preservation Month Spotlight: Lyon Arboretum turns 100," *Historic Hawai'I Foundation*. 9 May 2018. historichawaii.org/

"Harold L. Lyon Arboretum." *University of Hawai'i at Manoa.* 24 November 2025.

https://manoa.hawaii.edu/lyon/

The University Rose Garden and Garden Roses in Hobart, Tasmania, Australia

John Jons
GCMG 2003

While visiting the city of Hobart in Tasmania, Australia, I was immediately struck by the abundance of roses in many of the street-facing home gardens. These roses were not only prolific bloomers, but the blooms themselves were unusually large. On closer inspection, I noticed something even more remarkable: the plants appeared exceptionally healthy, with little to no evidence of fungal disease.

On the return trip to my downtown hotel, our tour bus passed what appeared to be a formal rose garden. After checking in, curiosity got the better of me and I set out on foot to find it. To my delight, the garden was located just one block from my hotel. I soon learned that it was the University Rose Garden, situated within the Queens Domain, a public park area maintained by the City of Hobart. The garden is also recognized as an Australian National Rose Society garden.

The University Rose Garden is bordered on two sides by a busy public roadway and well-used pedestrian sidewalks, yet inside the garden the atmosphere is calm and meticulously maintained. Neatly arranged rose beds are set within a beautifully manicured lawn. Some beds are raised, and several stone walkways guide visitors toward a large central fountain that serves as the garden's focal point.

I estimated that the garden contains approximately 3,000 rose plants. Many of the varieties were unfamiliar to me, leading me to suspect that several of them were Australian-bred roses. At the same time, I encountered several well-known cultivars that I have grown in the Houston–Galveston area, including 'Double Delight', Mister Lincoln® and 'Pascali'. What I found particularly interesting was the dominance of hybrid tea roses throughout the beds.

Overview of the University Rose Garden. *MG John Jons*

Despite this, there was minimal to no visible fungal damage, an impressive feat for a mass planting of hybrid teas. Each bush carried an abundance of blooms, and the blooms themselves were extraordinarily large, ranging from approximately 4 to 8 inches in diameter. One striking example was Mister Lincoln, a classic American hybrid tea rose, and All-America Rose Selections winner released in 1965. In the Houston–Galveston area, Mister Lincoln typically produces blooms around 4 inches in diameter. In Hobart, however, I observed blooms approaching 8 inches. This dramatic difference provides a textbook illustration of genotype versus phenotype, where the plant's genetic makeup remains the same, but environmental conditions strongly influence how those genes are expressed.

Roses were introduced to Hobart by early European settlers and remain extremely popular with both home gardeners and public parks. It is evident that Hobart offers an ideal combination of climate and soil conditions for growing large, healthy rose plants. I also suspect that many of the varieties planted in the University Rose Garden were selected based on results from the annual Australian National Rose Trials. Given this careful selection process, it is no surprise that the roses perform so exceptionally well.

To view images of the entire rose garden, search YouTube for "A Visit to the University Rose Garden, Hobart, Tasmania, Australia." https://youtu.be/kYzUGXwfSpU

Yellow roses in a front garden. *MG John Jons*

Pink roses in a front garden in Hobart Garden. *MG John Jons*

Example of the unusually large blooms of 'Mister Lincoln' *MG John Jons*

Seasonal Bites: On the Go Snacks Sure to Please

Briana Etie
GCMG 2017

Easter has always been my favorite holiday with my kids. I love making cookies for them. Besides a few crumbs cookies are a great on the go snack, the end of the day small dessert for small hands and, for our furry kids, an opportunity to clean up crumbs. Linda Barnett is sharing her Sand Tart Crescent cookie recipe and I am sharing my kids' favorite cookie. We hope you enjoy them.

Sand Tart Crescent Cookies

Ingredients
2 cups all-purpose flour
1 cup unsalted butter, softened
1 cup ground pecans
2½ cups powdered sugar, divided
1/8 teaspoon salt
2 teaspoons vanilla bean paste

Directions
1. Line a cookie sheet with parchment paper
2. Mix butter until creamy; add the flour, nuts, 1/2 cup powdered sugar, salt, and paste
3. Mix until well combined
4. Refrigerate, covered for 30 minutes
5. Roll dough into 1-inch balls
6. Shape cookie dough into crescents
7. Refrigerate for 2 hours
8. Preheat oven to 350 degrees
9. Bake 15 minutes till set. Do not brown or over bake
10. When cool enough to handle, ROLL HOT COOKIES in the remaining 2 cups of powdered sugar
11. Cool on the wire rack

Thick Chewy Chocolate Chip Cookies

Makes 2 dozen
Ingredients
1 cup butter, at room temperature
1½ cups firmly packed brown sugar
2 large eggs (room temperature)
1 teaspoon vanilla
2½ cups all-purpose flour
1 teaspoon of baking soda
½ teaspoon salt
2 cups milk chocolate chips or 12 oz. bag (add Reese's peanut butter chips)
1 cup chopped pecans (optional)

Directions
1.With an electric mixer, cream butter for 3 minutes. Add brown sugar and cream for 3 minutes. Beat in eggs and vanilla until smooth, scraping down sides of bowl as needed.
2.Sift flour, baking soda, and salt. Slowly mix into butter mixture until well incorporated. Stir in chocolate chips and pecans, if using.
3.Use a 2-tablespoon ice cream scoop place flat side down an inch apart, onto baking sheet with silicone liner or parchment paper.
4.Bake in a 400 degree oven until cookies are lightly browned, 6 to 8 minutes; if baking more than one pan at a time, use the convection oven setting and turn pans around if necessary. Bake until the cookies are no longer shiny.
5.Let cookies stand on pan to firm up, 2 or 3 minutes, then transfer to racks to cool completely

Green Thumb Book Club Update

Cheryl Brueggeman
GCMG 2014

The Green Thumb Book Club held a tea party in the Fall organized by Briana Etie and others to honor Lisa Belcher, one of the founders of the club and to bid her a fond farewell as she and her husband moved from the area to start a new chapter in their lives. Lisa has led the group in monthly discussions of approximately 40 books and we all will miss her humor, insights, probing questions, but most of all we will miss her kindness and generosity. The club will continue in the capable hands of Joanne Hardgrove and Tanya Padgett. The Green Thumb Book Club meets the fourth Wednesday of each month at 1:30 pm in the extension office conference room. All Master Gardeners are welcome. Listed below are the books that were selected for 2026. The meetings do count as continuing education hours.

January 28 *Thyme of Death* by Susan Wittig Albert. The first in a series of novels involving China Bayles, a former lawyer turned herb-shop proprietor. The book is set in the fictional town of Pecan Springs, TX. Although she is not a trained private eye, her experience as a lawyer helps her when she decides to investigate the apparent suicide of a friend.

February 25 *Second Nature: A Gardener's Education* by Michael Pollan. Written over thirty years ago, but still worth considering, this is a culmination of Pollan's shared experiences in gardening.

March 25 *The Potting Shed Murder* by Paula Sutton. Daphne Brewster has left London to settle in the Norfolk hamlet of Pudding Corner. When the local schoolmaster is found dead on his allotment patch, one of Daphne's friends becomes the target of speculation. Of course, Daphne can't resist getting involved. This has been described as a gripping yet delightfully quirky mystery.

April 22 and May 27 *The Pollinator Victory Garden: Win the War on Pollinator Decline with Ecological Gardening* by Kim Eierman. This book will provide the reader with detailed descriptions of pollinators and the plants they love. It also provides step-by-step instructions for starting a pollinator paradise.

June 24 *Gardening Can Be Murder: How Poisonous Poppies, Sinister Shovels, and Grim Gardens Have Inspired Mystery Writers* by Marta McDowell. Written by the author of *Beatrix Potter's Gardening Life*, this promises to be an insight into the mystery genre's surprising connection to horticulture.

July 22 and August 26 *One Garden Against the World: In Search of Hope in a Changing Climate* by Kate Bradbury. By sharing her anxiety about climate change through stories of her own life experiences, Bradbury has written a book that should be a call to action to do more to protect wildlife and preserve the biodiversity of our planet.

September 23 and October 28 *Braiding Sweetgrass* by Robin Wall Kimmerer. This book has been described as a blend of scientific knowledge and indigenous wisdom and mythology.

November 18 *Botanists Guide to Parties and Poisons* by Kate Khavari. Set in 1923 London, this mystery involves the struggles of a young female research assistant in the male-dominated field of botany. When the wife of her college mentor is poisoned, she uses her knowledge of botany to help clear his name.

Lisa Belcher, former club leader ***MG Database***

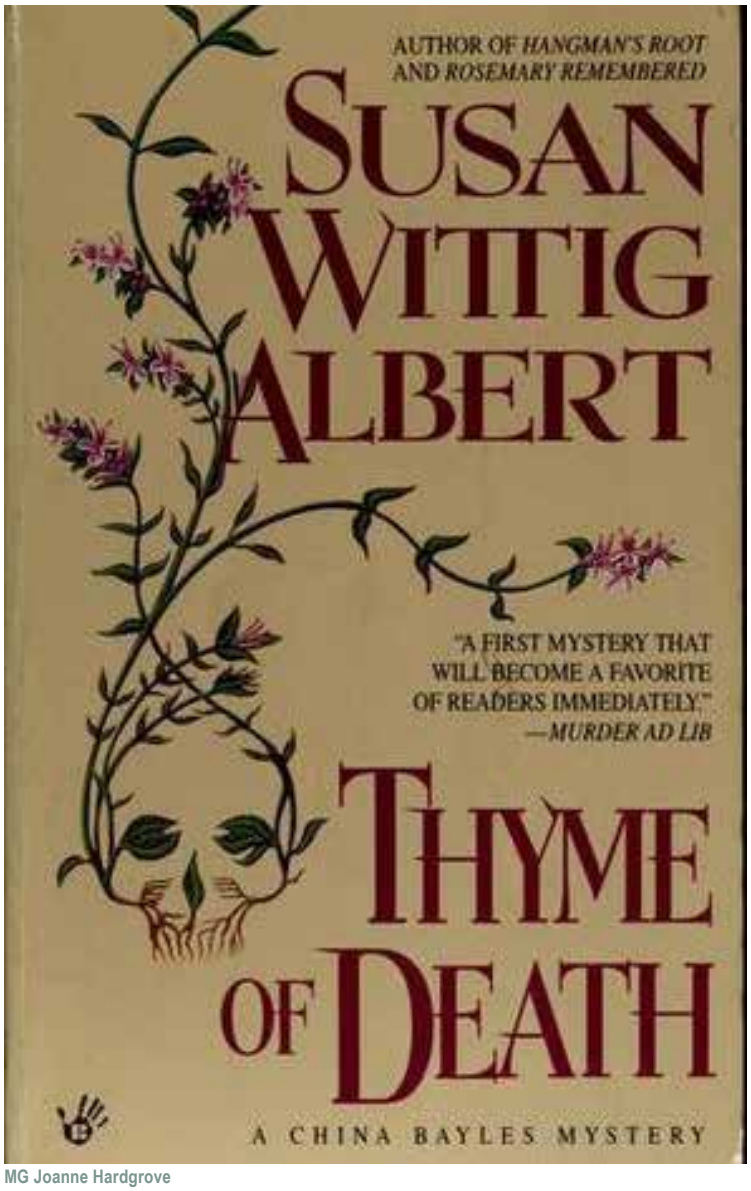
New leader Joanne Hardgrove ***MG Database***

New leader Tanya Padgett ***MG Database***

Green Thumb Book Club Update: *Thyme of Death*

Cheryl Brueggeman
GCMG 2014

Who would have thought that murder mysteries with a bit of information about growing and using herbs sprinkled into the storyline would be such a hit? Susan Wittig Albert did just that when she wrote *Thyme of Death* in 1992. It was a rather unique idea at the time and one that was apparently successful as there have been 28 other stories since all involving a signature herb connected in some way to the central theme of the book. This book is the first in the China Bayles series. China is the proprietor of an herbal shop in the fictional town of Pecan Springs, TX. In a previous life, she was a hot-shot lawyer in Houston. She became disillusioned and dissatisfied with climbing the corporate ladder and decided to move to a location that was peaceful and calm. She ended up in Pecan Springs which is half-way between Austin and San Antonio. Little did she know this sleepy little town had some secrets of its own.



MG Joanne Hardgrove

The book begins by introducing some of the central characters in this expansive series: China Bayles; Ruby Wilcox, her best friend and the owner of a New Age shop next door to Time and Seasons, China's shop; and Mike McQuaid, an ex-cop also from Houston who is China's love interest. China is on a mission to get a birthday gift for her dear friend, Jo Gilbert. Jo is very involved in the community and is on the Anti-Airport Committee intent on stopping an airport from being built near the town. Jo also has cancer which she has recently learned is spreading even though she's had a mastectomy and chemotherapy. China goes to Violett's Doll Shop in hopes of purchasing something to lift her friend's spirits. While she is shopping, we learn of the popularity of a doll named StrawBerry Bear, created by a former resident of the town, Rosalind (Roz) Kotner. Until StrawBerry Bear became a marketing phenomenon, Roz lived in Jo's spare room, pretty much hand-to-mouth. China does find a perfect gift for Jo and heads home to fix lunch for herself and Ruby. They were just sitting down to the meal when China receives a phone call from Meredith, Jo's daughter. She found Jo dead, an apparent murder-suicide. Pecan Spring's Chief of Police, Bubba Harris, is called in to investigate. He finds an empty bottle of over-the-counter sleeping pills, an empty vodka bottle, and a quart jar of Hot Shot Texas Style Bloody Mary mix, a quarter full. There is also a piece of torn-off notebook paper, the apparent suicide note. Bubba, despite his name, is an experienced and thorough cop with a stunning record of solving crimes, but even he sees this as an open and shut case. Ruby is having none of it. She had been helping Jo on her "healing path" and knew that Jo didn't take sleeping pills and didn't have more than one drink a day.

Thus begins the investigation by Ruby and China into the death of their friend. Even though China is not a trained private investigator, her skills in deductive reasoning and experience as a lawyer help her. As in all murder mysteries, there are any number of suspects that could have had motives to murder Jo all revealed gradually and skillfully by the author, but you'll have to wait until the last chapter to discover how this mystery resolves.

2026 Master Gardener Recertification Hours

Browse online to the members only webpage to review all hours: https://txmg.org/galveston/membersonly/

Date	Name of Program	Speaker	MG CEUs	# MGs
1/8/2026	Lunch & Learn - Sunflower Project	Hedy Wolpa & Team	0.50	41
1/10/2026	Wedge Grafting	Hazel Lampton	2.00	6
1/10/2026	Growing Great Tomatoes, Pt. 2	Ira Gervias	1.00	7
1/13/2026	MGA Jan. Mtg: Looking Ahead	Kevin Lancon, Sue Bain	2.00	47
1/15/2026	Safety Day in the Discovery Garden	MG Safety Team	3.00	44
1/22/2026	Lunch & Learn - Junior Master Gardeners	Tina Woods	0.50	27
1/29/2026	Lunch & Learn - Texas Superstar Program	Judy Anderson	0.50	40

2026 Recertification Hours for MGs	**Total CEUs (Hours)**	**9.50**	
Last Updated: January 30, 2026	MG Only Activities (# of MGs)		212

Reminder: In order to maintain your status as a certified Texas Master Gardener, each year you must complete a minimum of 10 hours continuing education, as well as 20 service hours. Additionally, those hours must be reported through the online Volunteer Management System or other means.

MGs at a Moody Garden event in Galveston: Claudia Trujillo-Vargas, John Hall, Karyl Mehlman, Robert Rodriguez and Doreen Hughes *MG Database*

Three MGs in the barn discussing storage: Tanya Padgett, Donna Woodbury and Rachel Montemayor MG Tom Fountain

2026 HORTICULTURE

MAR-APR EVENTS

TEXAS A&M AGRILIFE EXTENSION

GALVESTON COUNTY

MAR 7

PLANT PROPAGATION

Speakers: Galveston County Master Gardeners, Briana Etie and Donna Merritt

MAR 7

URBAN ORCHARD SERIES

Avocados

Speaker: Galveston County Master Gardener, Hazel Lampton

MAR 21

SPRING GARDEN FEST

In-Person Plant Sale

The Discovery Garden

APR 11

SUPERSTAR SERIES

Texas Superstar Trail & Tour

Speaker: Galveston County Master Gardener, Sue Bain

APR 11

URBAN ORCHARD SERIES

Blackberry & Blueberry Talk & Tour

Speaker: Galveston County Master Gardener, Monica Martens

ONE LINK | ALL EVENTS

See the full lineup of horticulture events and register for any seminar using this single link:

https://txmg.org/galveston/events/

QR CODE

Open your camera and scan the QR code to explore all horticulture events and sign up for seminars in seconds.

SCAN ME

TEXAS MASTER GARDENER

TEXAS A&M AGRILIFE EXTENSION

Galveston County

Judy's Corner: Galveston County Master Gardener Monthly Membership Meetings

Judy Anderson
GCMG 2012

March and April Member Meetings

March 10, 2026

Nature Based Education

Join the GCMG for a March luncheon meeting with a special speaker from The Gardens at Texas A&M University, Kathryn "Kat" Grier. The mission of The Gardens is to engage the community in a living teaching environment, encourage curiosity and discovery, and develop wonder for the natural world. Kat's passion for outdoor and nature-based education stemmed from involvement in those activities while in college. She has since amassed an extensive background in both outdoor education and instructional leadership and should be a great resource as we expand the education programs in the Discovery Garden. This will be a Zoom meeting after the luncheon, but we hope Kat will be able to visit with us in the Discovery Gardens in the future.

Kat Grier *Courtesy of Texas A&M University*

April 14, 2026

Alfresco in the Discovery Gardens

April is a celebration of spring in the Discovery Garden with an alfresco dinner, featuring the bounty of the garden. As visitors stroll to each area of the garden, tasty offerings will be available while the sweet sounds of acoustic music fill the air. When twilight skies turn to twinkle lights at the Pergola, a pasta bar will be available where a hearty Italian menu will be offered as the celebration continues with good food and good spirits.

The celebration concludes with dessert, coffee, tea and water served in the Discovery House.

Don't forget to visit the silent auction on the patio where experiences and gifts will be available for consideration. This special event will support the Junior Master Gardeners and future "Alfresco in the Garden" events.

Carpooling will be coordinated for those who can provide rides and those who need a ride.

The Alfresco in the Garden is a celebration of the Discovery Garden and the many contributions of our members. It is a joyous occasion to bring together our Galveston County Master Gardener family. Please join us as we embrace the joy of good food, friendship and living well.

Galveston County Master Gardeners 2026 Monthly Meetings

March 10	lunch	Kat Grier, Living Classroom: Utilizing the Gardens for Educational Programming (ZOOM); potluck
April 14	PM	Alfresco in the Garden; An Evening in the Discovery Garden
May 12	PM	Graduation hosted by Mikey and Allen Isbell; potluck
June 9	PM	Backyard with Steve and Robin Holliday; potluck
July 14	PM	Fish Fry and Plant Swap
August 11	PM	TBA
September 8	PM	TBA
October 13	PM	Backyard with Trish McDaniel; potluck
November 10	lunch	Annual Meeting and potluck
December 8	PM	Holiday Party hosted by Mikey and Allen Isbell

MG Robin Collins giving a Rose Presentation at Jimbo's Nursery with a little help from MG Robert Rodriguez *MG Karolyn Gephart*

MGs working on the February plant sale. *MG Jamie Hart*