

Gulf Coast Gardening

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

Issue 201 - July/August 2016

Migratory monarch butterflies

Tropical Milkweed vs Native Milkweeds



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Never go to a doctor whose office plants have died (Erma Bombeck). Gardening is the work of a lifetime, you never finish (Oscar de la Renta). Gardens are not made by singing 'Oh, how beautiful,' and sitting in the shade (Rudyard Kipling). A weed is a plant that has mastered every survival skill except for learning how to grow in rows (Doug Larson). I love things that are indescribable, like the taste of an avocado or the smell of a gardenia (Barbra Streisand). Plant and your spouse plants with you; weed and you weed alone (Jean-Jacques Rousseau).



Do not underestimate the power of gardening, even famous people have contemplations about the subject. Erma Bombeck certainly has an opinion worth considering! I regularly talk with many Master Gardeners, we seldom talk about any other topic, so it's nice to know gardening creates delight collectively. Your newsletter team hopes this edition of our newsletter will extend your summer pleasure by providing education or information on several timely happenings that might be occurring in your own summer landscape. One of my least favorite insects, the stink bug, is profiled in the Q&A on page 6. Robin Collins describes an unwanted mystery visitor to her blackberry garden (page 6). Maybe it's in your yard, too?



Our fabulous Demonstration Garden remains very busy and is continuously changing. Several updates, enhancements and additions are either almost completed, in the works or are in the initial planning stages. President, Ira Gervais, tells us about all the exciting changes on page 5.



Did you know there is a native and a tropical milkweed? Linda McKillip informs us on page 7. Every garden needs plants that bloom in our summer heat. Jan Brick gives us some prospects with Dahlia, Dianthus and *Portulaca grandiflora* on page 8. Donna Ward is possibly cooking up a French delicacy on page 9 with another of my least favorite insects, the snail. Our Best Shots story this newsletter covers some beautiful ornamental grasses. See pages 10 - 11 and learn how to add some additional movement and interest to your landscape



By Camille Goodwin
MG 2008

with these ornamental grasses. What do you know about the Elderberry? Dr. Margaret Canavan tells us why this is an important plant for wildlife. Are you using all the edible parts of your flowers and garden or grocery produce? Barbara Canetti (page 13) describes items you may not have considered as edible but are wonderful additions for your eating enjoyment.



We are entering the hottest part of our summer along the Gulf Coast, do you know the signs of heat related illnesses? Be safe outside with knowledge from the article on page 14 by Pam Jahnke. Please enjoy meeting MG Jerlee Owens (MG 1982, Charter Member!) who is interviewed on page 16.



Whether you have just an odd, small or limited space to garden, have a large area that you like divided into sections or themes, or want to downsize; perhaps a Pocket Garden is just what you need. Kaye Corey tells us about these inspiring gardens on page 17.



Our on-going tool of the month primer this month features the pruner. Don't miss the Carbide Park Update on page 20 and the popular Seasonal Bites on page 21. Dr. Johnson tells us how to invite butterflies into our landscape in the Last Word on page 25. All our calendars, garden team schedules, upcoming events, volunteer opportunities and announcements have been updated.



If there is a topic you'd like researched or have an idea for a newsletter feature, please contact me, mrgmsc@comcast.net or Linda Steber steber8@msn.com

*I am a Master Gardener –
what's your superpower?*

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Cover:
Spectacular Milkweed Foliage
Photo by MG Tabitha Holt



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we are all about the joy of gardening.
Thanks for your interest!



By Pat Forke
MG 2010

ask a master gardener

Q&A

Hot Line Topic - Stink Bugs

Question: Stink bugs have taken over my garden. What do I do?

There are hundreds of species of stink bugs in the United States. Some are beneficial and most are not. It is important to accurately identify what you are dealing with before you determine your plan of action to eliminate the non-beneficial ones from your garden. Adult stink bugs are fairly easy to recognize. They are relatively large, growing up to 3/4 inch long and have distinctive shield shaped bodies. They may be green or brown and when held or squished, they emit a foul smelling fluid. Young stink bugs are smaller, rounder, and more colorful, with highly patterned black, red, white and green colored bodies. The brown, cylindrical eggs are laid end-to-end in a string-like strand on a host plant, often along a stem or leaf midrib. Most egg masses have 10-15 eggs, though more than 50 have been reported. Eggs hatch into small nymphs that have dark heads and dark legs on bodies that range in color from orange to reddish brown.

Stink bugs overwinter as adults, typically in protected areas, such as woodpiles, barns, or other buildings, palm fronds, citrus or juniper trees, under peeling bark or in tree cracks. A mild winter can result in large populations of stink bugs in the spring. Rainfall, food availability, and the prevalence of natural enemies can also affect the size of the spring population. Adults

feed on weeds before moving into gardens and landscapes, particularly when fruits have started to ripen. Tomatoes are a favorite of the adult stink bugs. They have piercing-sucking mouthparts that can extend more than half the length of their narrow bodies. They use this mouthpart to probe into leaves, shoots, and fruit to suck plant juices. These bugs excrete from its mouthparts a fungal yeast into the fruits which causes discoloration. The damage to tomatoes can appear as cloudy areas of hard yellow spots forming just under the skin of the tomato. Besides making fruit appear damaged, stink bugs feeding also allows other insects to enter the fruit and spread plant diseases. Stink bugs also will feed on stems and leaves of plants.

For controlling these bugs, start by removing possible overwintering sites. Weedy areas can serve as a food source during winter and spring when fruits are not available. Try to eliminate such areas near your garden and keep weedy areas closely mowed. Row covers can prevent feeding by the stink bugs. Covers should be applied early before bugs arrive and lay eggs on plants. Otherwise, bugs could be trapped inside. Unfortunately, row covers will prevent pollinators and beneficial insects from reaching plants. Some garden plants, like tomatoes, are self-pollinating, but whiteflies or aphids may build up if beneficial insects are excluded.

In small gardens, these large bugs can be controlled by hand

picking them from plants and either squishing them or drowning them in a bucket of soapy water. These bugs will not bite or sting but be sure to wear your gloves to keep the smell from passing to your hands. It is especially important to remove the bugs as early in the season as possible, when the very young nymphs are tightly clustered together. Morning is best to reduce movement and flight. Be sure to also destroy the egg masses found on the underside of leaves. Natural enemies include birds, spiders and the assassin bug. Avoiding use of persistent broad spectrum insecticides and assuring pollen and nectar sources for adult beneficials are important ways to protect natural enemies.

Insecticides are rarely needed for stink bug control because small blemishes on most fruit are tolerable in most gardening situations and because landscape plants are rarely damaged. Most insecticides available to homeowners only have temporary effects on the bugs and it is not desirable to apply insecticides to fruit that is going to be consumed. However in severe cases, insecticides can be considered as a last resort. If needed, insecticides will be most effective against small nymphs. Monitor infected plants for egg masses and try to make insecticide applications when small nymphs are present. The most effective insecticides against the stink bug are broad-spectrum, pyrethroid-based insecticides, such as permethrin. Keep in mind that these are toxic to bees and other

beneficial insects. Insecticidal soap or botanicals, such as neem oil or pyrethrin, may provide some control of young nymphs only. If insecticides are used close to harvest, make sure to observe the days-to-harvest period and wash the fruit before eating.



What's Happening in the Demonstration Garden...



By Ira Gervais
MG 2011

As Galveston County (GC) Master Gardeners, we are committed to educating the general public on sustainable horticulture and pest management practices based on traditional, current, and evolving research. One of the best tools we have to do this is by educating the public with the interaction of the GC Master Gardeners at the Demonstration Gardens. Our goal for the GC Demonstration Garden is to provide the public with a hands-on, interactive experience using research-based, sustainable gardening practices specific to Galveston County, appropriate for all ages and cultures, and reflective of a variety of gardening experiences and methods.

In order to accomplish this goal, the GC Demonstration Garden is constantly evolving. Here are a number of things that are happening at the Demonstration Garden:

- The real estate of the GC Demonstration Garden has expanded to the south thanks to the Parks Department. We have grown from 3.2 acres to approximately 4 acres. The old fencing has been removed and new fencing installed. The dumpster and the bee hive have also been relocated to the southeast corner. Thanks go to Dr. Johnson for his great negotiating skills.



- We are moving forward with the design and planned

construction of new toilets for the Demonstration Garden. We have solicited help from the College of the Mainland to develop construction plans. We have asked that the design submitted have toilets for the ladies and for the men and that a toilet in each meets ADA standards for accessible design. Attendance numbers at the garden for public days have greatly increased; the number of Master Gardeners working on Thursdays has increased from about 30 a few years ago to an average of 45-50. The highest number attending this year so far is 60. This increase in numbers has necessitated the building of the toilets.

- We are also moving forward



with the early design and planning for an Aquaponics system for the Demonstration Garden. Heading the design and raising funds for the project will be MG Robin Collins.



- The Butterfly Garden has been certified and designated as an official "Monarch Waysta-

tion." To achieve this designation, a number of requirements must be met. Some include providing nectar-producing plants — perennials and annuals — as well as shelter for the butterflies and sustainable management. Judy Anderson did a great job in obtaining the certification for the garden.



- The Hoop House is near completion with the crushed granite flooring and tables are now finished. The front and back gates and lower side protection are now being installed. MG Sharon Zaal and MG Henry Harrison have done a great job handling this project.

- We are building a covered area to house the BBQ grill. This will open up more space in the lunch room and get the propane bottles out of the lunch room area as a safety measure. Thanks to MG Jim Edwards and MG Ken Deslattes for taking on this project.



- Each Thursday workday at 11:30 - 12:00am, MG Barbara Lyons has developed a short educational program in the gazebo area for our Master Gardeners. Barbara's Vegetable Education Series features an overview of planting and growing instructions for specific vegetables. Also discussed are the recommended varieties for our area and common problems/solutions. Persons attending receive .5 hrs of educational credit.

- The orchard group continues to experiment with methods of grafting that are new to us. They have had success with root grafting and grafting to a rootstock trimmed to resemble a carrot.

Funding for the Galveston County Master Gardener Demonstration Garden comes from proceeds of Galveston County Master Gardener plant sales, donations from the community, cash and in-kind contributions from individuals and businesses, and grants. As always, donations of any kind are always welcome.

If you haven't done so or if you haven't done so in a while, come to visit our Demonstration Garden on a Thursday workday. The GC Demonstration garden continues to provide excellent examples of vegetables, edible and ornamental plants, shrubs, trees, and citrus and fruit trees that flourish in Galveston County soil, attract specialized pollinators and insects, provide habitat for wildlife and are especially hardy, requiring minimal maintenance. We hope visiting our Galveston County Demonstration Garden will inspire you to create your own garden paradise.



I Don't Share Well! What's that Bug?!

By Robin Collins
MG Intern 2016

I get going most mornings by wandering through my garden, grabbing a strawberry, blackberry or cherry tomato and graze while I water, assess, inspect and admire. Amazement comes often as I view what has transpired with any particular plant overnight. They do amazing things in a short amount of time - grow inches, bloom, sprout, AND attract undesirables. I figure if I like how the fruits taste - so may the varmints. A few days ago while on my morning inspection I noticed new fuzzy looking "stalks" on my blackberries. As I moved in for closer inspection there were very large, prickly, greenish, ravenous caterpillars having a feast on my vines! Of course this called for IMMEDIATE action - no time to grab the 5" Master Gardener binder and read - this is 911 action. So, I grab trusty cell phone, snap photos and text Dr. J, MG Ira Gervais and MG Julie Cartmill ASAP saying "What are these critters? And what do I do?" (Julie should never have offered her time and expertise anytime.) She and Dr. J responded with diagnosis and varying solutions fairly quickly.

The beautiful Io moth, *Automeris io* (Fabricius), is one of our most recognizable. Prominent hind wing eye spots give it distinction and is also well-known because of its painful sting. It is less common now in parts of its range from southern Canada throughout the eastern U.S. to eastern Mexico and its populations have declined in the Gulf States (except Louisiana) since the 1970s.



Automeris is a large genus with about 145 species. Five of these, are found only in the western U.S. with *Automeris louisiana* found only in coastal salt marshes of southwestern Mississippi, Louisiana, and eastern Texas where it feeds predominately on smooth cord grass.

These moths go through a traditional life cycle inclusive of eggs, larvae, cocoons, pupae and adults. Adults usually emerge in late morning or early afternoon and remain still until evening. It has been reported that females begin to release a pheromone to call males from approximately 9:30 pm to midnight on the day of emergence. Adults do not feed and are short-lived.

Eggs are white with yellow transverse areas on sides and a yellow spot atop each egg. After three to five days the spot turns black and yellow areas become orange to brown in fertilized eggs. Typically eggs are laid in clusters on underside of leaves or stems and hatch within 8-11 days. After hatching, larvae eat the egg shells before feeding on the host plant. First instar Io moth larvae are reddish-brown with six longitudinal light lines and six longitudinal rows of spine-bearing scoli. The number of instars may vary depending on rearing conditions. Full-grown larvae are approximately 2 $\frac{3}{8}$ " in length, bright green



with a lateral abdominal white stripe edged with red stripes. Both thoracic legs and abdominal prolegs are reddish, and their body is surrounded with black-tipped venomous spines. Early instar larvae are gregarious and form lines following silk trails as they move to new feeding areas. After the hardening of their new exoskeletons, recently molted larvae return and eat their exuviae except for the head capsules. Fully grown larvae crawl down from the host plants and spin cocoons in leaf litter or protected places like crevices in logs.

Io larvae are polyphagous - meaning they are able to feed on a variety of plants. In my case - blackberries but the list includes pears, cherries, willows, redbuds, wax myrtles and wisteria to name a few.

A variety of predators during its life cycle include birds, mammals, spiders and insects. Hornets commonly attack Io moth larvae.

Caterpillars of all instars sting and probably gain some protection from vertebrates. The spines may also repel some insect predators.

Stings to humans by Io moth caterpillars are not particularly common but result in an immediate painful itching reaction followed by formation of a localized welt and redness. The pain usually resolves within a couple of hours and the welt



within 6-8 hours. Virtually the entire bodies of larvae are protected by venomous spines. When spines penetrate the skin, the tips break off and release venom. Recommended treatments include application of tape to the affected area to strip embedded tips from the skin and ice packs applied to minimize the inflammatory response.

Adults are strictly nocturnal and remain motionless during the daytime and mimic the dead brown, red, and yellow leaves common in forests. Dead leaves of a number of plants exhibit a range of colors that match the color variants of male and female Io moths in their typical resting positions.

If control measures are required, *Bacillus thuringiensis* applications or chemical insecticides recommended for control of other caterpillars should be effective. For current control recommendations, contact your County Extension office.

As suggested by Dr. J, I clipped leaves with an overabundance of caterpillars and wearing gloves placed all in a bucket of soapy water. For all that I could not see - malathion spray was administered. So far - a week later there are no signs of the Io moth on my berries.

Not a competitor I want in my garden -

I don't share well!!

What to Feed the "Bambi" of the Insect World? Native vs Tropical Milkweed



by Linda Garren-McKillip
MG 2003



The Monarch butterfly is possibly the most recognizable critter on the planet. It certainly has become the poster child for concern, research and disagreement over the plight of pollinators, rivaled only by the honeybee. Cause for concern has been building over the last 20 years, but just when you think scientists would have it all sorted out, the scene continues to be confusing. In August 2015, seven separate studies were published in the *Annals of the Entomological Society of America*. Guess what? They disagreed among themselves. People aren't doing bad research; there's just so much to learn.

One 'known' is that the number of Monarchs overwintering in Mexico has plummeted more than 90%. Strangely, this decline has not been matched by a similar decrease in key summer breeding areas. Plus, there hasn't been a decline in fall migration numbers according to another study. Another piece of research suggests that the butterflies may be laying fewer eggs. Part of the problem comes from the "population structure and life cycle, which includes a lengthy migration completed, relay-style, by several generations of insects. Each spring, many monarchs head north from Mexico to the southeastern United States, where they produce the first of

up to three generations that can swell the total population. The offspring then spend the summer feeding and breeding on milkweed throughout northern United States and southern Canada. In fall, a final generation makes the trek back to Mexico," so says Emily DeMarco, a writer for *Science* magazine.

You might ask "Who cares?" And the answer is we all need to care whether you are a scientist, environmental group or us as individuals. We need to make sure we put our resources on the right thing.

One issue currently trending is the need to plant native milkweeds instead of Tropical milkweed (*Asclepias curassavica*) that most of us grow. Many of us know the issue with Tropical milkweed is the presence of OE or *Ophryocystis elektroscirrha* which is an obligate protozoan parasite whose primary host is the monarch butterfly. Can't pronounce that? Try this: 'o-free-us-sis-tus electra-sceer'. According to Dara Satterfield, a PhD candidate studying Monarchs, "This is a very sensitive subject in the Monarch world. We just don't have the data right now." Most of us agree that planting natives is a best practice, but have you ever tried to find native milkweed or get it to germinate? I found some Aquatic milkweed (*Asclepias perennis*, native to

Texas) for sale in Houston, \$12 for a scrawny 1-gallon pot. Willing to invest in the future of the "Bambi of the insect world", I bought all 3 plants.

Tropical milkweed needs to be cut back in the fall for several reasons. Our winters are so mild that the plant doesn't die back; therefore OE isn't eradicated as it would be elsewhere. Instead, OE concentration builds up to extremely high levels if not pruned back to 6-inches or less. Instead of making this epic round-trip journey, an opportunist Monarch might just decide to call the Texas Gulf Coast home. That might work until we have a killer freeze or maybe we just don't have enough milkweed to feed caterpillars hatching out in December and January. I've been part of desperate calls trying to locate milkweed for dozens of them. This past winter, a friend relayed 6 of the 12 she was given to me to bring them home to rear. Milkweed was so scarce that she brought the caterpillars to me in a brown bag with no milkweed for their journey.

So now we come to my dilemma. Had I followed the latest advice, I wouldn't have had milkweed to feed them had I been keeping it cut it back from October-February. Am I the Monarch's friend or foe? Research tells us that part of the Monarch's life cycle includes a

period of abstinence, called reproductive diapause, when they are deadheading on their return to Mexico. What they need at that time are nectar plants to give them high-octane energy for their journey, not milkweed. However, theory has it that if they do find milkweed in sunny Kemah, maybe it's not a bad thing to run into high rates of OE. It might just remove the weak links from the gene pool. No, no, no!

To find out about native milkweed for various parts of the county, go to Monarch Joint Venture's website at: <http://monarchjointventure.org/images/uploads/documents/MilkweedFactSheetFINAL.pdf> or the Xerces' Milkweed Seed Finder: <http://www.xerces.org/milkweed-seed-finder/#search>. If you would like to understand the impacts of OE on Monarchs, check out: <http://monarchparasites.uga.edu/testing/index.html>. If you want information on how to grow your own natives, go to: <http://texasbutterflyranch.com/2013/03/13/how-to-get-texas-native-milkweed-seeds-to-germinate/> Let's keep asking our local nurseries about stocking natives. Perhaps groups (like Master Gardeners) should start germinating natives to make them available to their community. I'm just sayin'.



THE ISLAND GARDEN

Summer Beauties - Dahlia, Dianthus & Portulaca Grandiflora

Editor's Note: This is a reprint from Jan's article in "The Island Garden."

By Jan Brick
MG 2001

FUN FACTS



Dahlia - The dahlia is the national flower of Mexico grown by the Aztecs as a food crop—commonly used as decoration on cakes, and pastries.



Dianthus - The color pink may be named after the dianthus flower because of the frilled edge of the bloom (the verb "to pink" dating from the 14th century means to decorate with a perforated or decorative edge—think pinking shears).



Portulaca - *Portulaca oleracea*, the variety with only yellow blossoms, is one of the most esteemed wild and cultivated edibles in the world (except oddly the United States). It is used in salads, and as a vegetable. The leaves, stems and flower buds are all edible.

The incentive for the planning, preparation and anticipation during the winter and spring months has arrived. Summer is here and the garden is in bloom. Gardeners are always on the search for plants that are heat tolerant, drought tolerant and easy care yet produce an abundance of bright colors from morning to night. The dahlia, dianthus and portulaca are perfect choices for the Galveston area.

Dahlia and dianthus are perennials while portulaca is an annual that needs to be replaced every year—no problem since they are readily available at local plant centers. All prefer sun and well-draining soil although the latter is less fussy when it comes to soil requirements. Let's touch upon each of these plants with a little history, some thoughts on planting, maintenance and pests as well as a look at any special needs.

DAHLIAS are tuberous (growing from an underground stem) plants that are cousins to the chrysanthemum, daisy, sunflower and zinnia. They appear in all colors of the spectrum except blue. Dahl originates from the Swedish word "dal" which translates to the English word "valley" and may be the reason the dahlia is referred to as the "valley flower." Spanish explorers found dahlias growing in Mexico as early as the sixteenth century where they were cultivated in gardens as well as gathered from the wild.

Dahlias are summer bloomers and hardy in zones 7 through 11. They prefer full sun and will tolerate most well-draining soils noting that excessively wet soil could cause the tubers to rot. Plant the tubers horizontally about six inches deep with the eye pointing up. Pinch back new growth and deadhead regularly to promote bushier plants and stake taller plants for added stability. Dahlias are heavy feeders and call for applications of a water-soluble fertilizer monthly for top performance.

Dahlias are subject to pests and

diseases including wilts, rot, aphids and caterpillars. Regular applications of Neem oil, *Baccillus thuringiensis* and fungicides should control any infestations—remembering also to remove any fallen plant debris from around your plants as routine maintenance.

Dahlias range in height from one foot to six or eight feet with thousands of varieties available. Dahlias can provide your garden with beauty and grandeur from summer through fall—use the blooms for dazzling bouquets and arrangements that can last a week or more.

DIANTHUS is a combination of Greek words that translate to "flower of Zeus." The genus includes nearly three hundred species found in Europe and Asia; only one species is native to North America and is located only in Alaska and the Yukon Territory.

With thousands of cultivars and a vast variety of shapes and shades of color, dianthus are divided into several groups:

Border carnations—hardy, large blooms

Malmaison carnations—strong fragrance of cloves and cinnamon

Old-fashioned pinks—evergreen with blue-green foliage and masses of blooms in summer

Modern pinks—new varieties that flower several times during the year

Spider mites and aphids are attracted to dianthus and both pests can be managed with applications of insecticidal soap; dianthus can also be affected by wilt causing the leaves, roots and blooms to suddenly wilt and rot. The removal of affected plants is the best defense.

Plant dianthus in full sun in well-draining soil (they cannot tolerate wet soil). Fertilize with a little compost and a thin layer of mulch in the spring. Water sparingly in dry periods, stake tall varieties, deadhead to encourage more blooms and divide growth into clumps every three years. Dianthus multiply

readily—are fragrant—are great cut flowers.

PORTULACA GRANDIFLORA - This annual is native to the South American countries of Argentina, Brazil, and Uruguay. Because the portulaca flower has a specific time to bloom, usually from early morning to late afternoon, it is frequently called the "time flower"—it needs full sun to display its delightful array of astounding colors. Also known as moss rose, it is a low-growing spreader with blooms in orange, fuchsia, and red as well as lavender, yellow, white and brilliant combinations of these colors.

Portulaca is perfect for beginning gardeners as it doesn't mind a little neglect. It is not fussy about soil types and prefers hot, dry conditions and full sun. If your plants begin to look "leggy," pinch back the stems and they will quickly rebound with fresh new growth—no need to fertilize portulaca as that will encourage more foliage but less bloom production. Because they thrive in dry conditions, portulaca is well suited for Xeriscape gardens and rock gardens; plant them also in containers and in hanging baskets or as a ground cover.

Happily, portulaca is rarely bothered by pests or disease—plants may wilt but this is usually due to over-watering rather than under-watering—good drainage is important—water sparingly except for hanging baskets and potted plants that dry out quickly.

Popular Cultivars of Portulaca "Margarita"—early-flowering plants with compact, mound-forming habits and reliable garden performance, shades of red, pink, orange, white, yellow and purple "Sundial"—early-flowering variety with double, rose-like flowers, shades of white, pink, red, orange, yellow and purple, grows four to six inches tall

"Calypto"—double flowering, shades of yellow, red, pink, orange, purple and white

SNAILS

Should They Stay or Should They Escargot?

- 3 doz snails purged and removed from shells
- 1 sm garlic clove finely minced
- 3/4 t salt
- 4 oz unsalted butter
- 1 1/2 t minced shallot
- 1 T finely minced parsley
- 1 T dry white wine...

Oh My Gosh, I'm so sorry. I was lost in thought - dreaming of #1 on my Bucket List - creating Escargots a la Bourguignon in the kitchen of a 5-star Michelin restaurant on the Champs Elysees in Paris. Pierre, the handsome French chef in charge this evening positions his tall, starched white toque on his head like a crown, and we begin to prepare tonight's appetizer for wealthy Parisian elites - snails complemented with a wine-infused, herbal garlic butter sauce. Oh, that I could later be sitting at one of the restaurant's white linen-covered, candle-lit tables sipping champagne and a dainty two-pronged snail fork poised in my hand. But - back to reality. The snails (*Cornu aspera*) in my garden and yours are a far cry from anything we would want to see on our hors d'oeuvre plate!

These creepy-crawlies with their slimy, legless bodies belong to the mollusk family, a classification of invertebrate animals with a soft unsegmented body, covered with an exoskeleton or shell. In our area the common garden snail with their hard coiled shell is usually light brown in color and can range in size from pin-head to our 5-cent nickel coin. They do not have a very discerning palate, as they eat almost any green plant. They feed by scraping

the surface tissue of leaves and flowers, thereby creating holes. But in their defense, they also consume rotting plant material. Those in my garden must be quite sophisticated as they have acquired a taste for my phalaenopsis orchids (*Orchidaceae*) displayed on a shelf under the arbor. A few years ago we brought a tall potted weeping fig (*Ficus benjamina*) into the family room to over-winter. The next morning the hunter-green carpeting was covered with glistening trails of slime - tell-tale signs of snail activity. This slime is a lubricant they use to allow them to move across almost any terrain. They are slow moving, and when they are not dining on your plants you'll find them hiding in damp places. They seek the debris in your yard to hide from predators and lay their eggs. We can assume they have an uninteresting sex life, as they are hermaphrodites, meaning they are both male and female in one body. You may find clusters of their gelatinous eggs under flower pots, rocks, garden debris, landscape timbers and other damp areas of your garden. Of course the question begs to be asked: "How do we get rid of them"?

There are several answers - first of all, keep garden debris at a minimum, hunt them at night (flashlight in hand) when they are most active, and drop them into a bucket of soapy water. Or, put out a shallow container of beer (any brand will do), hollowed out melon or fruit rinds will attract them also. Early in the morning before they go into hiding they can be destroyed by your method of choice. Interestingly enough, copper strips or wiring around planters or pots will give them a 'shock' when they try to

crawl across. Sprinkled in your flower beds, the sharp shards of diatomaceous earth will cut their soft bodies. Last but not least, and one that works best for me is the application of a product called Deadline. It is a semi-viscous, gray liquid product that when dripped around the perimeter of your flower or vegetable beds, containers, etc., will attract snails away from your plants. It is not a poison, but a desiccant. In the morning a horde of snails (depending on the extent of the infestation) will be 'belly-up' in your garden. This product's active ingredient is metaldehyde, and it is very toxic to pets, so be forewarned. There are tamper-proof bait stations available for metaldehyde products.

"Garçon - please bring more of that crusty baguette"

Oh, My Gosh.
I'm so sorry.....
there I go again.....



By Donna J. Ward
MG 1996



The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Texas A&M AgriLife Extension Service is implied.

MG Best Shots

Ornamental



Little Kitten Maiden Grass (*Miscanthus sinensis*)



Mexican Feather Grass (*Nassella tenuissima*)



Photos by Elayne Kouzounis

Muhly Grass (*Muhlenbergia capillaria*)

They sway and flow, and bend with the wind - when adding trees and shrubs this increases form and texture to the garden. Ornamental grasses are usually allowed to develop throughout the year without pruning, staking, spraying, or deadheading. In late winter they should be cut back to the ground and mulched. As new foliage begins to emerge, fertilized with a general purpose nitrogen fertilizer. Seed heads are allowed to ripen and stand through fall and winter, and there are lots of fruit and berrying plants that also bloom throughout the fall and winter season. This design and maintenance plan I find promotes a healthy ecological balance that encourages birds and does not exclude insects and that is what I strive to attain in my garden. The majority of insects are beneficial whenever a garden includes a variety of plants and somewhat resembles a naturally evolved ecosystem. Color, texture, and unfolding growth are present in all four seasons. From early summer to fall, the dominate grasses mature. Gardens designed around ornamental grasses adapt too many situations. Many ornamental grasses flourish in our Gulf Coast. Their year round beauty is not meant to be forever perfectly in bloom.

Planting ornamental grasses in home gardens requires thought, or your garden will look unkempt. Plan with care. Expect to use half flowering perennials and half ornamental grasses---tall ornamental grasses work best for sculptural effects, for screening, and to replace time-consuming espaliers against bare walls; medium and small ornamental grasses work best for edging. Our eye learns to appreciate their wind-tossed freedom. Choose ornamental grasses that will thrive with a minimum of stress in the site and can create the illusion of always having grown there. Choose ornamental grasses that will flourish without staking or pruning. I have even added native rocks to the design. Ornamental grasses are usually planted as are other perennials, rather high in the ground, in well-drained soil unless otherwise specified, to which 25 to 50 percent organic matter has been added. Do not fertilize ornamental grasses immediately after planting. Grasses should be planted fairly close together to discourage weeds, but with enough room for growth. I believe working in masses makes a small space look larger. Several grasses should be planted together rather than just one. They will have a greater impact. And let us keep in mind like perennials, grasses do not fill out until the second year. Once planted ornamental grasses are not expected to require division for at least 5 to 10 years.

There are many ornamental grasses that will grow very well in our Texas Gulf Coast area. These are a few that I have growing in Galveston.

...and Narrative Grasses



By Elayne Kouzounis
MG 1998

Muhly Grass (*Muhlenbergia capillaria*). In the fall this grass creates a spectacular billowy- inflorescence (the mode of development and the arrangement of flowers on a stem in a single axis) of mass, vibrant pink airy flowers on 4 ft. stems. It thrives in full sun and is very tolerant to drought, heat, and poor soil. Height is from 3 to 6 feet. Spreads from 1 to 3 feet.

Purple Fountain Grass (*Pennisetum setaceum 'Rubrum'*). Fountain grass likes full sun. Moist, well-drained soil. It is an upright, clump-forming grass with glossy dark purple leaves and nodding burgundy-red plumes 1 to 2 inches above the foliage from June into the winter months. Protect when it gets below 40° F. Mine is a tiny grass now and am anxious for the beautiful color as it matures.

Little Kitten Maiden Grass (*Miscanthus sinensis*). A smaller form of ornamental grass with a clumping growth habit. It has arching green foliage, which turns golden in the fall. Flowers spikes remain just above the foliage throughout the winter months. It likes full sun. Height is 12 to 18 inches. Spreads 15 to 18 inches. Water as needed to keep moist.

Mexican Feather Grass (*Nassella tenuissima*). This is a southwest native grass and is the grass which has the finest texture of all ornamental grasses. Silvery flowers appear among the dark green foliage in late spring. Grows to 1 to 2 feet tall and wide. Full sun and drought tolerant. Cold hardy to 0 to 10°F. Feed in early spring and early fall with all-purpose fertilizer. Prune in early spring before new growth appears.

Aztec Grass (*Liriope muscari*). The clumping form with very attractive, variegated foliage is a great choice as a container plant. Sun to partial shade. Height and width 2 feet. Blooms white in the summer. Water as needed to keep moist. Any plant that has white in it I gravitate too as I can see it at night as well.

Pampas Grass (*Cortaderia selloana*). No other grass can match its show in July and August, it has huge, fluffy flower plumes which stand tall against billowing foliage. As this grass gets quite big easily 10 feet tall and 10 feet wide. It is best used as an accent, border, or tall screen on large properties. "Why doesn't mine bloom?" is a question many people ask. Pampas grass can either be female or male. Female plants have showier plumes, nurseries do not sell pampas grass by sex. So purchase from a reputable nursery and hope they sell you a female division or from a friend's garden. The plumes are usually white but if it has a tag 'Rubra' or 'rosea' the plumes will be pink.



Pampas Grass (*Cortaderia selloana*)



Purple Fountain Grass (*Pennisetum setaceum 'Rubrum'*)



Aztec Grass (*Liriope muscari*)



Tree Stories

The Unappreciated Elderberry

Editor's note: This is a reprint of Margret's article recently published with the permission of The Daily News.

By Dr. Margaret Canavan
MG 2003



Recently, while walking the dogs one morning, I saw an unexpected sight: a small tree in my neighbor's yard with massive white bloom clusters. Upon inspection, I recognized a rangy native shrub that can grow tall enough to be considered a small tree, the common elderberry (*Sambucus canadensis*). This relative of honeysuckle is often found in untended alleys and along fence lines in Galveston. While often unloved, it deserves attention.

Elderberry is a common Texas native that often shows up in damp soils near streams and helps control erosion. However, it also flourishes here in our often-dry conditions. Multiple stems spread underground to form large, dense colonies when allowed to, and can grow to more than 15-feet in height. They feature large bright, green leaves and showy, white flowers in spring and summer that can be up to 10-inches across. This hardy plant takes sun to shade, is heat tolerant, adapts to a variety of soils and produces an edible purple or black berry.

The elderberry has deep roots in human history. In the Middle Ages it was considered a holy tree, capable of keeping and restoring good health and aiding longevity. Many folk medicine traditions use all parts of the plant. The fruit is full of antioxidants, vitamin C and potassium. Berries make a tasty pie or cobbler alone or in combination with other fruit. And don't forget elderberry wine. Only blue or purple berries are edible, as unripe berries and the plant's leaves, twigs, stems and roots contain traces of cyanide.

The wood and fruit have been used to create dyes for basketry. Branches can make arrow shafts, and hollowed-out stems can become flutes, whistles and blow guns.

Elderberry is a fabulous habitat plant. Bees and butterflies love the delicate white flowers and berries feed more than 45 bird species. The plant also provides food, cover and nesting sites for other wildlife.

The plants are available online and from your neighbor's yard or alley, but not local nurseries. They can be grown from seeds or cuttings or by

digging established plants. Canes appear annually and may flower and fruit after only two to three years, so let the plants run wild the first year or two. However, they do tend to spread by creeping root-stalks and can become invasive. Canes usually don't need pruning until after the second year, when the wood becomes weak and less vigorous.

Elderberries are mostly known as wildlife plants, but can fit nicely in a natural garden setting as well and can create a tall hedge or windscreen. There are native "wild" elderberry plants, new varieties with improved fruit flavor, and varieties have been developed for their ornamental value alone.

Whether you want elderberry plants for the unique fruit that they produce or for your landscape and wildlife habitat, it can be a good choice if you have a spot for it. If you find some in a neglected corner of your yard, let it be and the birds and other critters will thank you.

"Tree Stories" is an ongoing series of articles about Island trees, tree care and tree issues. If you have or know of a special tree on Galveston Island that should be highlighted, please email treesforgalveston@gmail.com. Margaret Canavan is a Galveston resident, a Galveston County Master Gardener and a member of the Galveston Island Tree Conservancy Board."



Some Useful Ideas Don't Leave Me Behind

*Editor's note - This article reprinted with permission from Houston House and Home magazine 2016
The research for this was based on an intern project: Barbara Canetti, Frances Mack, Brenda Romero and Sharon Davis.*



*By Barbara Canetti
MG Intern 2016*



You choose to buy your vegetables fresh, from a farmer's market or supermarket which boasts farm-to-table produce. You take them home, prepare them for meals but unknowingly throw out some of the best tasting and most nutritious parts of those items.

For example, what about those leaves surrounding the crown of the broccoli? Delicious if they are sautéed in olive oil and garlic. Or chop them up and throw them in your morning breakfast smoothie. And the thick stems? Make a broccoli soup using the stalk, mixed with onions and potatoes. Use the leaves from carrots or cauliflower in the same ways.

The long red and green leaves on beets are high in iron content and antioxidants and taste very much like kale. They are also good sources of phosphorus, zinc and fiber and helps ward off osteoporosis and Alzheimer's disease. Additionally, beet leaves are higher in iron content than spinach. They can be substituted for lettuces in salads, served with some balsamic vinegar.

Green beans and lima bean leaves can be cooked and eaten. Eggplant leaves can be added to casseroles, soups or salads for extra protein. And the leaves and stem tips from the sweet potato can be eaten, although some of the tips may be bitter. The sweet potato is also high in protein.

Also on the safe-to-eat list are the leaves from cucumbers, kohlrabi, okra, peas, peppers, radishes, squash and zucchini. All are edible and nutritious.

It is estimated that Americans throw out more than 200 pounds a year of edible food when they prepare their vegetables. There are approximately 1,500 edible leaves, plants, flower, stems and weeds. The practice of consuming stem-to-root is popular in Africa and Asia, and is quickly becoming widespread in more avant guard restaurants across the country. The leaves can add flavor – from spicy to bitter to sweet.

Here's an idea: Collect all the extra pieces from your fresh vegetables that you choose not to eat, boil them together with scraps from onions and garlic and make your own vegetable broth. Cheap and easy!

Also, many fresh flowers from your garden are edible and also add

color and flash in salads. And many of the blooms are fragrant, too. Marigolds (peppery taste), violets (garnish for salads, desserts and drinks), orchids (most commonly used orchid species is *Vanilla planifolia*, which produces vanilla oil), hibiscus (tart and sweet) and squash blossoms (usually cooked by dusting with cornflower and then deep fried).

Also edible are the nasturtiums, which could add a peppery flavor to foods, or carnations, which have a clove-like taste and could be used to treat mild depression and fatigue. Likewise, chives, jasmine, lavender, roses, lemon verbena and rosemary flowers all can be eaten and used in recipes.

And then there are the weeds: plants with no discovered virtue. Many are edible and they are readily available. They require no watering or fertilizing and are everywhere. Be careful, however, because some are toxic and others are tasteless. But mallows have a mild flavor and dandelions – which are a delicacy everywhere in the world except the U.S. – are tasty if blanched to remove any bitterness. Clover is high in protein, Vitamin B and C, and young tender leaves of purslane can be used in salads or replacing spinach or lettuce. It is rich in Omega 3 fatty acids and Vitamin C.

A few rules to remember when indulging in flowers, weeds or leaves. Don't eat anything picked from the side of the road or somewhere where it is unknown what chemicals or pesticides have been used. Never eat flowers from florists, nurseries or garden centers. They may have been sprayed with a preservative or pesticide, which could be harmful if ingested. Skip the stamens and styles from the flowers – pollen can detract from the flavor. Don't try any flower unless it is documented it is not poisonous – do the necessary homework first. And, people who suffer from hay fever, asthma or allergies, avoid eating flowers or weeds.

One other tip: each time you trim an onion, scallion or shallot, instead of throwing out the little nub with tiny roots, put them in a pot of soil or in the garden. Try this also with celery, lettuce and carrots. A new, cloned veggie will soon appear – grown in your own garden under your watchful eye. You can't get much fresher than that.





By Pam Jahnke
2015 MG Intern

It is summer in Texas and it is HOT Heat Related Illnesses



Heat-related deaths and illness are preventable yet many people are affected by extreme heat. People suffer heat-related illness when their bodies fail to compensate and properly cool themselves. The body normally cools itself by sweating but sometimes it just isn't enough. When humidity is high, sweat does not evaporate quickly and efficiently. Very high body temperatures may result, and could damage the brain or other vital organs. The elderly, the very young, and people with mental illness and chronic diseases are at highest risk, but even young and healthy people can be affected.

Center for Disease Control recommends the following to prevent heat-related illnesses:

Drink Plenty of Fluids: Don't wait until you're thirsty to drink. During heavy exercise in a hot environment, drink two to four glasses (16-32 ounces) of cool fluids each hour. Liquids that contain alcohol or a lot of sugar can actually cause you to lose more body fluid.

Replace Salt and Minerals: Heavy sweating removes salt and minerals from the body. Fruit juice or a sports drink can replace the salt and minerals you lose in sweat.

Wear Appropriate Clothing and Sunscreen: Choose light-weight, light-colored, loose-fitting clothing. Sunburn affects your body's ability to cool itself and causes a loss of body fluids. Protect yourself from the sun by wearing a wide-brimmed hat (also keeps you cooler) along with sunglasses, and by putting on broad spectrum sunscreen of SPF 15 or higher.

Schedule Outdoor Activities Carefully: Try to limit your outdoor activity to morning and evening hours. Rest often in shady areas so that your body's thermostat will have a chance to recover.

Acclimatize: You will have a greater tolerance for heat if you limit your physical activity until you become accustomed to the heat.

Pace Yourself: If you are not used to working or exercising in a hot environment, start slowly and pick up the pace gradually. If exertion in the heat makes your heart pound and leaves you gasping for breath, STOP all activity. Get into a cool area or at least into the shade, and rest, especially if you become lightheaded, confused, weak, or faint.

Monitor Those at High Risk: Although anyone at any time can suffer from heat-related illness, some people are at greater risk than others. Those at higher risk include people 65 years of age or older, people who are overweight, people who overexert, and those who are physically ill, especially with heart disease or high blood pressure, or who take certain medications, such as for depression, insomnia, or poor circulation.

Hot Weather Health Emergencies

Know the symptoms of heat disorders and be ready to give first aid treatment.

Heat stroke occurs when the body cannot regulate its temperature. The body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 106° F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided.

Warning signs of heat stroke vary but may include the following:

An extremely high body temperature (above 103° F, orally)

Red, hot, and dry skin (no sweating)

Rapid, strong pulse

Throbbing headache

Dizziness

Nausea

Confusion

Unconsciousness

What to Do

If you see any of these signs, you may be dealing with a life-threatening emergency. Have someone call 9-1-1 for immediate medical assistance while you begin cooling the victim.

Get the victim to a shady or cool area.

Cool the victim rapidly using whatever methods you can. For example, immerse the victim in a tub of cool water; place the person in a cool shower; spray the victim with cool water from a garden hose; sponge the person with cool water.

Monitor body temperature, and continue cooling efforts until the body temperature drops to 101-102° F.

Do not give the victim fluids to drink.

Heat exhaustion is a milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate replacement of fluids. It is the body's response to an excessive loss of the water and salt contained in sweat. Those most prone to heat exhaustion are elderly people, people with high blood pressure, and people working or exercising in a hot environment.

Warning signs of heat exhaustion include the following:

Heavy sweating

Muscle cramps

Weakness

Headache

Fainting

Paleness

Tiredness

Dizziness

Nausea or vomiting





The skin may be cool and moist. The victim's pulse rate will be fast and weak, and breathing will be fast and shallow. If heat exhaustion is untreated, it may progress to heat stroke. Seek medical attention immediately if symptoms are severe or if the victim has heart problems or high blood pressure. Otherwise, help the victim to cool off, and seek medical attention if symptoms worsen or last longer than 1 hour.

What to Do

Cooling measures that may be effective include:

Cool, nonalcoholic beverages

Rest

Cool shower, bath, or sponge bath

An air-conditioned environment

Lightweight clothing



Heat cramps usually affect people who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture. The low salt level in the muscles may be the cause of heat cramps. Heat cramps may also be a symptom of heat exhaustion.

Recognizing Heat Cramps: Heat cramps are muscle pains or spasms—usually in the abdomen, arms, or legs—that may occur in association with strenuous activity.

What to Do

Those with high blood pressure or heart disease should seek medical attention.

Stop all activity, and sit quietly in a cool place.

Drink clear juice or a sports beverage.

Do not return to strenuous activity for a few hours after the cramps subside, because further exertion may lead to heat exhaustion or heat stroke.

Seek medical attention for heat cramps if they do not subside in 1 hour.

For more information,
emergency.cdc.gov/disasters/extremeheat/index.asp

Remember, use common sense to prevent the ill effects of excessive heat and keep your eye on others, especially those most susceptible. Those with chronic conditions should follow their doctor's advice regarding exertion and fluid replacement. Stay hydrated.

Happy, healthy gardening!

HEAT EXHAUSTION		OR	HEAT STROKE	
Faint or dizzy			Throbbing headache	
Excessive sweating			No sweating	
Cool, pale, clammy skin			Body temperature above 103° Red, hot, dry skin	
Nausea or vomiting			Nausea or vomiting	
Rapid, weak pulse			Rapid, strong pulse	
Muscle cramps			May lose consciousness	
<ul style="list-style-type: none"> • Get to a cooler, air conditioned place • Drink water if fully conscious • Take a cool shower or use cold compresses 		<p>CALL 9-1-1</p> <ul style="list-style-type: none"> • Take immediate action to cool the person until help arrives 		
SacramentoReady.org				@SacramentoOES



She believed she could so she did.... Meet GCMG Lifetime Achievement Award Recipient Jerlee Owens

By Susan Meads-Leahy
MG 2014

She believed she could so she did....Jerlee Owens wasn't born in Galveston but she grew up there and per her thinking that makes her a ROI (Raised On the Island)! Mrs. Owens celebrated her ninetieth birthday on June 24, 2016. Now BOIs (Born On the Island) take this title as serious as IBCs (Islander by Choice) but I have to say this is the first ROI I have ever met in person! She moved to Galveston with her eldest brother and his wife in the mid 1920's. Mrs. Owens recalls a much different Galveston back then since it was mostly agricultural and undeveloped save the east end. She also recalls going out to the west end to get fresh vegetables and getting their fresh chickens from a shop on the Strand. She said there were many farmers that brought their vegetable carts into town and walked up and down the street selling their produce.

Mrs. Owens wed Lawrence Owens in 1962; she affectionately refers to her late husband as Brother Owens. They had a large garden and chickens as big as turkeys! She fondly recalled learning about moles and the extensive network of tunnels in the soil. The Owens tried to flush them out with a water hose but to no avail. However, she recalled finding their underground network of "refrigerators" when they dug down into the tunnels. She said her beans from the garden were stacked nice and neat in these little nooks the moles dug for storage of their vegetable loot.

It didn't take long during our chat to hear the biblical phrase "a house divided" regarding the beginnings of the Galveston County Master Gardener program. Mrs. Owens, along with Jimmy Dunn (fondly referred to as Mr. 4-H for his volunteer support of 4-H programs) and Mr. Preston Poole and Mr. Joe Doby (both Galveston County Extension Agents) and several others Extension volunteers founded the Horticulture Club in the mid-40s. On a side note, in the event you aren't aware, the Gazebo behind the Wayne Johnson Community Center at Carbide Park was donated in memory of Mr. Preston Poole by his wife after his passing.

Mrs. Owens remembers their first meetings were held at various restaurants around Texas City. She said the Chair and the Secretary of

the Horticulture Club shared the various duties associated with keeping club records. Most importantly, Mrs. Owens was responsible for keeping the financial records for the club.

Mrs. Owens recalled the first show the Horticulture Club held at Runge Park in Santa Fe. She and Brother Owens displayed vegetables they had grown on a six foot long table. Laughingly, she recalled there were animals there for show and they kept eyeballing the vegetables on their table. In addition to shows, the Horticulture Club went on various field trips and held seminars at the College of the Mainland in Texas City in an effort to get more people involved in their organization.

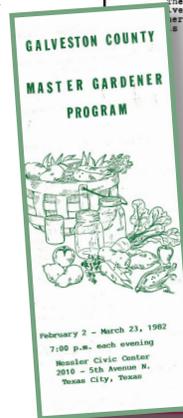
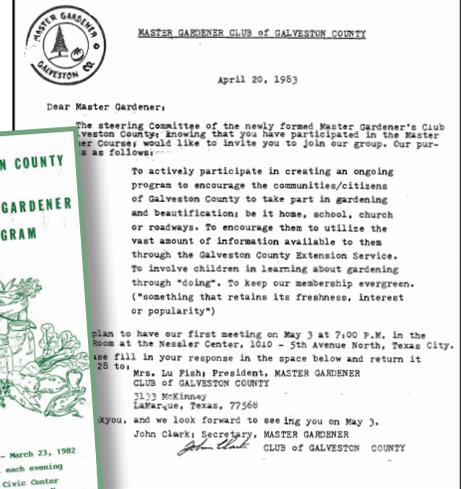
As the Horticulture Club grew in number, she recalled, smiling, Betty Langford joined and they fast became best friends.

The shows were eventually moved from Pool Station to the Nessler Center in Texas City. This is where Dr. Johnson appears in the union of the Horticulture Club and the Galveston County Master Gardener program. Mrs. Owens recalled the transition of this union was a rocky one but eventually everyone agreed it was time to marry the two into the one we now know and love as the Galveston County Master Gardener program.

Mrs. Owens and her husband were also in the first Master Gardener Training Class started in 1982 and conducted at the Nessler Center. She recalls there were 124 in this initial class but only 50 or so actually graduated.

Mrs. Owens still has an absolutely stunning yard (complete with a greenhouse) that is tucked away behind her own private forest. I will treasure our time together while she reminisced about her childhood, married life and the beginnings of the Master Gardener program. I sincerely hope that I am asked back sometime to listen to more of her wonderful life stories!

I am mindful of the value of preserving history and appreciated the opportunity to hear oral history of our Master Gardener Program from a Founding Member of the program. I am also very proud to be a Galveston County Master Gardener and I really appreciate that our Master Gardener program is of "one house."





Pocket Gardens

Provide a restful green spaces to enjoy the outdoors.



By Kaye Corey
MG 2001



I recently had the pleasure of attending the Keep Texas Beautiful Conference in Sugar Land, TX. One educational session entitled Salado's Pocket Gardens lead by Susan Terry stimulated me to share the concept of pocket gardens with you.

Salado is a small Texas village that has transformed itself into a tourist destination by showcasing their history and art in 12 beautiful pocket gardens. Their themed gardens focus on a Monarch Way Station, meditation gardens with a wedding chapel, library reading gardens and sculpture gardens. One attraction is walking trails by a creek through native plant gardens leading to an outdoor theatre. By using native and adaptive drought-tolerant landscaping they have demonstrated water conservation techniques and landscaping that requires less maintenance.

Salado's community project has been created by local volunteer gardeners, Master Gardeners and Master Naturlists in cooperation with local businesses and organizations. Funding was through public and private sponsorships, and grants. Visit www.KeepSaladoBeautiful.com for how-to information.

Pocket gardens are small landscaped gardens accessible to the general public. Frequently, they are created on a single vacant lot or small irregular piece of public or private land. This is a place for wildlife to gain a foothold. Although too small for physical activity these gardens provide a restful green space to enjoy the outdoors. Creativity is endless with water features, sculpture gardens, decorative benches, bird houses and butterfly gardens with various tree and plant species. Studies

show that small pocket gardens can increase the value of nearby homes and property values.

Good organization is the key to success with a project like this. Find a group of dedicated volunteers with your vision and locate and secure the land. You may need to clear the land before you can develop a landscape design. Once you discover the scope of the project, funding for development and continued maintenance can be decided. Funding can be accomplished through local organizations, business and private sponsors and grants. There are local resources to help you also. With funds in place and dedicated volunteers the fun can begin as you create this special green space.

Local Resources: Texas A&M AgriLife Extension Service has a WaterSmart team in our area who are ready to assist in site visits, design presentations and help seeking funding for landscape projects. WaterSmart Program Director Charriss York and Assistant Stephanie Hendrickson will work with your group in development of WaterSmart Landscape plans that use water conservation techniques. They will introduce you to the concept of installing rain gardens, drought-tolerant planting methods and rainwater harvesting system using rain barrels. WaterSmart.tamu.edu - cyork@tamu.edu - 832.561.4988

AgriLife Extension's Galveston County Master Gardener Association educates Master Gardeners about the latest gardening techniques. Our primary purpose is the teach and help the general public.

We volunteer in many areas, and pocket

garden development sounds great!

Area Garden Clubs are a resource that may be able to assist you in the creation of a new pocket garden. Their members are talented and creative gardening volunteers.

Nassau Bay Garden Club maintains small memorial pocket gardens and assists local schools with their gardening programs.

Gardeners by the Bay in Clear Lake is a large club that teaches proven gardening practices to the general public and sponsors small community and school pocket gardens.

Heritage Gardeners in Friendswood maintains Briscoe Gardens, a small public pocket garden, at their garden center on Spreading Oaks. Large Oaks, benches, swings, a butterfly garden and patio are a restful way to enjoy their certified Wildlife Habitat.

WaterSmart Rain Gardens were mentioned above and I didn't want to leave you wondering about them. They are bowl-shaped depressions in the ground designed and planted gardens to catch and hold rain water run-off in a landscape. The rain water seeps into the soil, and the soil cleans the water of pollutants before it enters storm drains. A simpler approach is a shallow rain garden that simply holds water runoff on your property while it seeps into the soil. Rain gardens use native and adapted plants. When designed correctly, the rain water should stand no more than 24 to 48 hours, too short a time for mosquitoes to hatch. Birds, butterflies and wildlife love rain gardens; they are not only functional by being a solution to water pollution and conservation but they add interest to any landscape.



the language of garden tools

Tool Primer

By *Barbra Markey*
MG 2013

Snip! Snip!

Visit a gardening friend, and you might hear this sound or see them with pruners in hand, snipping and tinkering in the backyard. People have been pruning/ cutting plants for over a thousand years; it is not unusual for the modern day gardener to continue this practice.

The “pruning shear, also called hand pruners (in American English), or secateurs, are a type of scissors for use on plants... They are used for gardening, farming, flower arranging, and nature conservatism.”

Pruners are specifically tailored for different jobs. Selecting the correct pruner will make your job easier, and plants will appreciate your knowledge. The outcome will produce happy, beautiful, and healthy plants.

Bypass pruners are most readily used to remove unwanted small, dead branches for cleaning up existing green plants in the landscape. Pleasing results are achieved when used to “dead head”, trim, or very light shrub pruning. Greatest results are achieved when stems are less than 1/2” in diameter. When you cut through larger size stems, you risk dulling your blades, as well as weakening the springs on your pruners. A word of caution—don’t use your bypass pruner on larger size branches. This job is for loppers, which



will be discussed another time.

The Bypass pruner has a pointed tip and works with a slicing motion, similar to scissors. Blades resemble a somewhat curved cutting surface and slide pass one another for the cut. The top blade is thinner and sharper than the bottom (anchor) blade. A slight squeeze with the hand allows the blades to come together for an exacting, clean cut. A good rule is to check for daylight when the two blades come together-- if it can be seen, purchase new ones.

Sharpening the blade requires locating the bevel edge, found on lower blade. If not

confident with the sharpening process, farmers/ flea markets usually have individuals who sharpen knives, as well as garden tools, for a minimum fee.

Anvil pruners have one sharp, cutting top blade, which meets the flat plate, used as the cutting surface, and to trim woody or dead stems. They are sharpened with a diamond file, from both sides, and remain reliable when slightly blunt. A dull blade will allow your stem or small branch to tear, and they are not for jobs that require precise cuts--allocate those jobs to the sharp blades of the bypass. The anvil pruner can be found with a ratchet system, if desired.

Search for pruners with aluminum bodies and blades made of high grade steel that don't rust. Scalloped handles allow fingers to rest; shock absorbers prevent fatigue; and, a gear locking system allows the adjustment of tension between the blade and anchor-- another way to avoid fatigue. Ergonomic handles are great for people with arthritis; a relaxed grip can help prevent blisters.

Clean pruners after using—never leave outside and spray the hinge mechanism with good all-purpose tool oil; it makes them happy.

Snip! Snip!



July/August "Things To Do" Gardening Calendar Video

by *Jenifer Leonpacher*
MG 2010



by *Gregory Werth*
MG 2012

Click on the "Play Video" icon (right) to see what a "group effort" can do by the aforementioned Master Gardeners to prepare an exceptional "Things to Do" Calendar.



2016 MG Re-certification (Continuing Education)

Hours Available Through the AgriLife Extension Office

Date	Name of Program	Speaker	CEUs for MGs
1/7/2016	Wedge Grafting - MG ONLY	Sue Jeffco	2.00
1/9/2016	Growing Avocado and Papaya	Jerry Hulbert	3.25
1/9/2016	Growing Peaches in Galveston County	Herman Auer	2.25
1/14/2016	Care & Pruning of Bamboo	Tish Reustle	1.00
1/16/2016	Wedge Grafting	Sue Jeffco	2.00
1/16/2016	Kitchen Gardening	Mary Demeny	2.25
1/19/2016	Gardening by the Square Foot	John Jons	1.75
1/21/2016	Adult CPR Certification Class - MGs Only	Jaclyn Jones	4.00
1/23/2016	Spring Vegetable Gardening	Luke Stripling	2.50
1/23/2016	Growing Blueberries	Dr. David Cohen	1.75
1/28/2016	Anyone Can Grow Roses	John Jons	1.50
1/28/2016	Fig Tree Pruning & Propagation	Terry Cuclis	1.00
2/2/2016	Propagation of Plants by Cuttings	Bill Cummins	1.50
2/6/2016	Growing Backyard Citrus	Chris Anastas	2.00
2/6/2016	Citrus Greening	Robert Marshall	0.75
2/6/2016	Growing Great Tomatoes (Part 2)	Ira Gervais	2.25
2/11/2016	Rose Pruning	John Jons	1.50
3/12/2016	Tomato Stress Management (Part 3)	Ira Gervais	2.00
3/12/2016	Vermiculture - Worm Castings for your Garden	Linda Brown	1.50
3/15/2016	The ABC's of Composting	Susan Meads-Leahy & Rodger Allison	1.50
3/19/2016	Honeybees Around the Garden	Robert Marshall	1.25
3/19/2016	Turning Dirt into Soil	Jim Gilliam	1.50
3/24/2016	Peach Thinning	Sue Jeffco	1.00
3/29/2016	Texas Tuff - Landscape Plants	Sandra Devall	2.00
4/7/2016	Vegetable of the Week Educational Series in the Demo Garden - Potatoes	Barbara Lyons	0.50
4/9/2016	The Culture & Care of Palms	O.J. Miller	2.50
4/9/2016	A Passion for Plumeria	Loretta Osteen	2.00
4/14/2016	Vegetable of the Week Educational Series in the Demo Garden - Green Beans	Barbara Lyons	0.50
4/14/2016	Grafting Pecan Trees	Herman Auer & Various MGs	1.00
4/16/2016	Olive Oil Production	Randy Brazil	1.00
4/19/2016	Rainwater Harvesting	Tim Jahnke	1.50
4/21/2016	Vegetable of the Week Educational Series in the Demo Garden - Eggplant	Ira Gervais for Barbara Lyons	0.50
4/21/2016	Chemicals for the Home & Garden - MGs ONLY	Rod Mize	1.25
4/28/2016	Vegetable of the Week Educational Series in the Demo Garden - Cucumbers	Herman Auer for Barbara Lyons	0.50
5/3/2016	Chemicals for the Home & Garden	Rod Mize	1.50
5/5/2016	Vegetable of the Week Educational Series in the Demo Garden - Peppers	Gene Speller for Barbara Lyons	0.50
5/5/2016	Canning Class	Jackie Auer, Gloria Funderburg, Barbara Turner	2.50
5/7/2016	Plan Before You Plant	Karen Lehr	2.00
5/12/2016	Vegetable of the Week Educational Series in the Demo Garden - Corn	Barbara Lyons	0.50
5/19/2016	Vegetable of the Week Educational Series in the Demo Garden - Garden Soils	Barbara Lyons	0.50
5/26/2016	Vegetable of the Week Educational Series in the Demo Garden - Squash	Barbara Lyons	0.50
5/31/2016	Bamboo Uses in the Landscape	Tish Reustle	1.25
6/2/2016	Pruning Peaches - A Hands-on Demonstration	Sue Jeffco & Robert Marshall	1.00
6/7/2016	Drip Irrigation - Easy & Efficient	Susan Roth	1.00
6/9/2016	Pruning Peaches - A Hands-on Demonstration Session 1	Herman Auer & Sue Jeffco	0.75
6/9/2016	Pruning Peaches - A Hands-on Demonstration Session 2	Herman Auer & Sue Jeffco	0.75
6/11/2016	T-Bud Grafting - A Hands-on Demonstration	Sue Jeffco	2.25
6/11/2016	Planning For Your Successful Fruit Tree Orchard	Herman Auer	2.00
6/18/2016	Design Principals for Landscapes	Karen Lehr	2.00
6/21/2016	Growing Cucurbits: Summer & Winter Squash, Cucumbers, & Cantaloupe	Herman Auer	1.50
6/23/2016	Vegetable of the Week Educational Series in the Demo Garden - Okra	Barbara Lyons	0.50
6/30/2016	Vegetable of the Week Educational Series in the Demo Garden - Vegetables: All-American Selections	Barbara Lyons	0.50
2016 Recertification Hours for MGs		Total CEUs (Hours)	76.75

Last Updated: June 2016

Reminder: In order to maintain your status as a certified Texas Master Gardener, each year you must complete a minimum of **6 hours continuing education**, as well as **12 service hours**. Additionally, those hours must be reported through the online Volunteer Management System or other means. Contact MG **Wayne Elliott** at mghours@wt.net for more information.

Demonstration Garden

Carbide Park



By Tom Fountain
MG 2008



Rains over our area have been almost twice the normal for the season, or around 7.5 inches a month instead of 3 inches. Temperatures have continued about normal on average. However, all this may change soon. Weather Service graphics indicate a high pressure system developing over the central planes. This system will warm up temperatures and shutdown rainfall in our area. So a long hot summer may just be arriving! Be sure when working outdoors to drink plenty of water, take work breaks to cool down, and keep an eye out for others.

Pictured above is one of our heavy rain events at the garden. Next is Marie, Tish and Barbara. They spend a lot of time keeping the north end looking good. Then, there is Herman giving a tour of the orchard and a pruning workshop. Barbara



is also pictured giving a talk on the okra plant.

The greenhouse group has been functioning for about a year now. They have done a great job of learning how to operate a productive greenhouse. They produced some excellent starter sets for the spring plant sale and the garden. The greenhouse crew pictured here are Stewart, Glenn, Nancy, Wendy, Julie and Lisa. Glenn, Bronia, and Sharon are preparing to start a group of plants.

Work has also been started on the new covered area for the grill. We will have more space on the porch and we won't get smoked out at times. Pictured are Jim and Robert getting more lumber for the cover.

I suspect that our Demonstration Garden at Carbide Park is one of the very best Master



Gardner projects in the state of Texas. Our diversity in both plants and activities is outstanding. We have vegetable gardens in production year around growing a variety of seasonal vegetables. Our orchard has excellent fruit trees, where we grow apples, oranges, peaches, plums, lemons, kumquats, jujubes, mangos, and even olive trees. Our master gardeners teach and demonstrate to those interested, how to grow, to prune, and how to propagate. Our garden also contains a new greenhouse, hoop house, a rose garden, low water use garden, serenity garden, and butterfly garden. Additionally, most of our produce is sent to local food banks. We can be very proud of the variety of gardening activities which we gladly share with anyone interested in learning about them.

Photos by Tom Fountain





by Sandra Gervais
MG 2011

Once again, the heat has arrived here in Galveston County. Thanks to all the rain so far this year, everything is still green and thriving. And that especially means the weeds! Facing July and August, it's going to be a challenge to keep them knocked down and the plants that we want up and happy as the temperature rises.

Here are two recipes that were both hits at Master Gardener pot lucks. Jo Anne Hardgrove's uses some of the corn that was harvested not too long ago. If you don't have any fresh corn, use frozen corn for a similar taste. Both have more flavor than canned. The second recipe from Lisa Belcher calls for no cooking and the name sounds like a perfect fit for the dead of summer.



Creamy Corn Pudding

from the kitchen of
MG Jo Anne Hardgrove

- 6 tablespoons of butter plus some for greasing the dish
- 1 medium onion, chopped
- 1 1/4 teaspoon salt
- 1/2 teaspoon pepper
- 2 cups heavy cream
- 5 large eggs
- 1/4 cup all-purpose flour
- 2 T sugar
- 16 ounces frozen corn, thawed (about 3 cups - can use fresh)
- 2 tablespoons chopped fresh chives

- Preheat oven to 350°
- Butter 8 inch square or shallow 2 quart baking dish
- Heat 3 tablespoons of the butter in a skillet and sauté onion over medium heat with 1/4 teaspoon of salt and the pepper
- Cook, stirring occasionally until softened, about 8 minutes
- In a blender, combine the cream, eggs, flour, sugar, 2 cups of the corn, the remaining 3 tablespoons of butter, 1 teaspoon of salt and 1/4 teaspoon pepper
- Blend until smooth
- Add cooked onion and the remaining cup of corn
- Pulse once or twice, just to combine
This leaves some texture from the corn
- Pour into greased dish
- Bake until set but still wobbly in center, about 50-60 minutes
- Sprinkle with chives

Note....adjust seasonings to your liking by adding more sugar, salt or pepper.

Dirt Cake

from the kitchen of
MG Lisa Belcher

- 20 ounce pack of Oreo cookies
- 1/4 cup of softened butter
- 1/4 cup powdered sugar
- 8 ounces of cream cheese (Philly)
- 2 1/2 cups milk
- 2 small packs of Instant French Vanilla pudding
(must use instant)
- 12 ounces of Cool Whip

- Put Oreos in a ziplock bag and crush with a rolling pin
- Cream butter, powdered sugar and cream cheese and set aside
- In another bowl, beat milk and pudding together with electric mixer
- Combine this mix with the creamed butter, powdered sugar and cream cheese mix
- Carefully fold in Cool Whip
- Put 1/3 to 1/2 of mix in serving bowl and cover with Oreo crumbs
- Repeat with another layer or two (Looks good in clear bowl)
- Top off with crumbs
- Refrigerate overnight before serving

Looking at it, it's easy to see why it's called a "dirt cake."
After enough yard work in the summer heat, this may be the only kind of dirt you can actually enjoy.

May 2016 Meeting

Lynne' and Rod Mize hosted the May Master Gardener back yard party. We served chilly dogs that were delicious and our guests brought tasty potluck side dishes that fit perfectly with the main entree. Mike Cothorn grilled the wieners to perfection. Ira said grace before our meal. Every one had a very nice visit and all had a good time. Weather was great and it did not rain.

Thank goodness. Rod



June 2016 Meeting

The annual meeting of the GCMGA took place Tuesday, June 14, 2016, at the home of Allen and MG Mickey Isbell on Galveston Island.

Dr. Johnson and Ira Gervais, MG President, welcomed everyone present and thanked Mickey and Allen for their hosting the event each year in their beautiful outdoor area. The first order of business was to introduce the new Master Gardener Intern Class for 2016.

Dr. Johnson then presented certificates to each member of the 2015 Master Gardener Class who completed all program requirements to be certified as a Texas Master Gardener. After the certification Dr. Johnson recognized Master Gardeners with various levels of volunteer hours this past year and thanked them for their involvement.

Several Master Gardeners were presented "Making a Difference Award" plaques for outstanding volunteer service over the past year. MG Clyde Holt gave the blessing before everyone shared a bountiful of offerings for the potluck dinner which was then served.

By
Mary Lou
Kelso
MG 2000



The 2016 Southern Region Master Gardener Conference will be hosted by Texas this year!

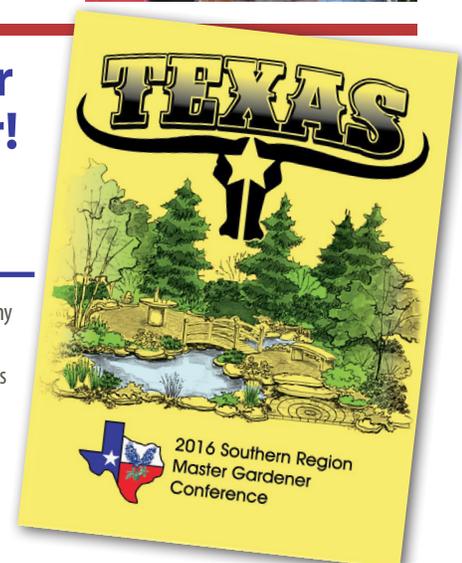
November 1-4, 2016 | Arlington and Fort Worth
Barry Corbin, Actor Capstone Speaker | Tarrant County Host

Texas is delighted to have been chosen to host this biennial conference. The conference will take place at the Sheraton Arlington and the Arlington Convention Center.

Master Gardeners from thirteen southern states will come together to learn from gardening specialists, tour local sites and gardens, partake in The Cowboy Experience and be treated to some good old-fashioned Texan hospitality.

The Capstone Speaker, Barry Corbin who will regale you with stories of growing up in West Texas and talk about drought and water conservation.

On the tours you can visit many glorious public, school and residential gardens, as well as the two sports facilities near the hotel.



Starts **November 1 @ 5:00pm** | Ends **November 4 @ 4:00pm**
Sheraton Arlington

1500 Convention Center Drive | Arlington, TX 76011 | United States
Regular registration is ongoing until **October 9, 2016**.

Don't miss your chance to participate in the 2016 Southern Region Master Gardener Conference!
2016southernregionmg.com
[facebook.com/southernmgconference2016](https://www.facebook.com/southernmgconference2016)

Upcoming Events - July/Aug 2016

Galveston County Master Gardener Educational Programs for Interested Gardeners

The following Master Gardener Programs are free to the public.

Location: **Galveston County AgriLife Extension Office in Carbide Park**

4102 Main Street (FM 519), La Marque Texas 77568

GPS location: **29.359705, -95.003591**

For course reservations, call **281-534-3413, ext. 1, and then press option 2**, or email **GALV3@wt.net**

Website: **aggie-horticulture.tamu.edu/galveston/index.html**

A HOMEGROWER'S GUIDE TO WEED CONTROL

e-mail galv3@wt.net to pre-register

Tuesday, July 19

6:30 - 8:30pm

Galveston County **Master Gardener Jon Johns** will present a comprehensive, illustrative, and entertaining program on identifying, managing, and controlling the weeds in your garden. This program is appropriate for both new and experienced gardeners.

AQUAPONICS

e-mail galv3@wt.net to pre-register

Saturday, July 23

9 - 10am

Galveston County **Master Gardener Robin Collins** will explain what an aquaponics system is, how to set up and maintain one, and the advantages of using aquaponics over more traditional methods of growing vegetables and herbs. Included in the presentation will be information about the wide variety of herbs and vegetables that grow successfully using this method, as well as how to select the fish to use in it.

SUCCESSFUL FALL VEGETABLE GARDENING

e-mail galv3@wt.net to pre-register

Saturday, July 30

9 - 11:30am

Long time Galveston County **Master Gardener Luke Stripling** will present a program on growing cool weather vegetables in Galveston County. Topics will include soil preparation, drainage, the use of raised beds, the use of fence or other supports, the best seed planting dates, the best varieties, planting depth, fertilizer methods, water requirements, and harvesting.

GARDENING BY THE SQUARE FOOT

e-mail galv3@wt.net to pre-register

Tuesday, August 16 6:30 - 8:30 pm

6:30 - 8:30pm

Galveston County **Master Gardener John Jons** will present a workshop teaching the basics of small space gardening. Come learn how much you can grow in just a small 4'x4' garden. It includes planning, selecting plants, building the bed, maintenance and renewing the bed. A great introduction to a gardening program.

FLOWER ARRANGING

e-mail galv3@wt.net to pre-register

Saturday, August 27

9 - 11am

Galveston County **Master Gardener Jackie Auer** will demonstrate and explain the basic techniques of fresh and artificial flower arranging. She has produced arrangements for the retail market and for individuals.

GROWING STRAWBERRIES

e-mail galv3@wt.net to pre-register

Saturday, August 27

1-2 pm

Presented by Galveston County **Master Gardener Robert Marshall**, this program will cover the history of how strawberries arrived in this area, as well as how to successfully grow strawberries in the Galveston County area. It will include the correct time to plant, choosing the best varieties for this area, and planting bare root vs plugs. Also covered will be how to prepare your garden beds, water and fertilizer needs, and disease and pest control.

**For Galveston County residents needing help on horticultural issues -
Call the help line 281.534.3413 ext.1 and press option 1 to ask a Master Gardener.**

bulletin board

VOLUNTEER OPPORTUNITIES

To volunteer for the **MG Phone Desk** contact Ginger Benson by e-mail at galv3@wt.net or call the office at 281.309.5065.

Libbie's Place Adult Day Care has been designated as a Demonstration Garden for the Master Gardener Association. It is located at 5402 Avenue U in Galveston and is part of Moody Methodist Church outreach ministries www.moody.org/libbies-place-senior-day-program. A crew is needed to maintain and upgrade the garden as needed with your time spent counting towards MG volunteer hours. MG Pam Windus is heading up the crew and will determine the day, time and frequency of the work days. If you are interested, or have any questions, please contact Pam at 409.771.5620, email DrPGilbert@aol.com to let her know the day/times (AM/PM) that would work best for you. Thank you for your time and consideration in this great new endeavor for the Master Gardeners.

Tideway is a program of the Transitional Learning Center
Dr. Johnson has approved Tideway Transitional Learning Center (644 Central City Blvd., Galveston, Texas 77551) as a location where Master Gardener service hours may be earned. Plans to prepare the gardens at Tideway for spring planting are ready and volunteers are needed. Volunteers can contact Brack Collier at bcollier@tlc-galveston.org. The focus is on the long-term needs of individuals with an acquired brain injury. The program offers accessible horticultural experiences, through which individuals with a brain injury can improve sensory awareness, motor skills, range of motion, endurance and flexibility as well as regain confidence, and learn new skills. This provides the opportunity for our residents to develop the necessary skills to gain and maintain a productive lifestyle whether it is on site or volunteering in the community. The residents at Tideway are very much "hands on" in building the different garden beds, in fact some of the residents came up with the designs. And they have chickens.

VOLUNTEERS NEEDED

Tour Guides for "First-Thursday-in-a-Month" Public Access and Tour of our Demonstration Garden

Long-winded title but it says what we will be doing. Our Demonstration Garden will be open for touring by the general public on the first Thursday of each month from 9 to 11am. MGs are needed to serve as tour guides for our demonstration Garden. Contact MG Robert Marshall 281.993.5595, email rbrtm01@att.net or MG Bobbie Ivey 713.748.8564, email blivey@sbcglobal.net to volunteer.

Volunteers are needed to help with the Saturday programs and the Tuesday evening programs. If you can help please contact Herman Auer 409.655.5362, e-mail hermanauer@comcast.net

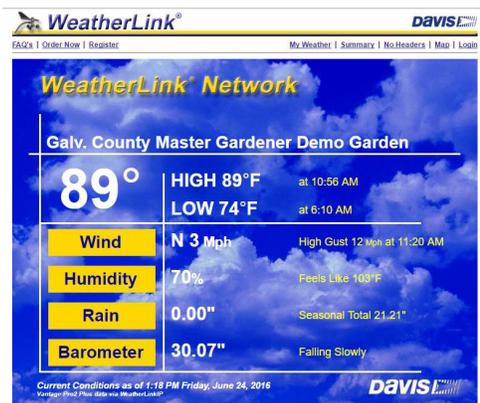
AgriLife Extension Office Demonstration Garden needs volunteers! The gardens around the AgriLife Extension Office are maintained by Master Gardeners under the team leadership of MG Peggy Budny. This is an opportunity to make a good impression on the many visitors to the AgriLife Extension Office. Come out and have a good time while learning more about ornamentals. Please contact Peggy at 281.334.7997, email fmnbab@verizon.net to find out the schedule and join her team.

SPECIALIST & OTHER MG RELATED TRAINING

Please see the Texas Master Gardeners Website for details. Please note that if you go to the website you can find up-to-date information on Specialist Programs that were added in between editions of the newsletter. txmg.org. You may download the application forms from that website. Note that all applications for the Specialist Training courses must be approved and signed by Dr. William M. Johnson. Note that fees do not include lodging or food unless specified otherwise.

For more information on the Specialist Training on Propagation on the following programs, check out the details at txmg.org

- Earth-Kind®** - August 3-5, 2016, hosted by Fort Bend County, to be held in Rosenberg, TX
- Texas Superstar®** - September 20-22, 2016, hosted by Bexar County, to be held in San Antonio, TX
- Vegetables** - November 9-11, hosted by Bexar County, to be held in San Antonio, TX



Don't forget to put the link for our weather station on your smart phone and computer:
www.weatherlink.com/user/gcmga



Here is a great way to support our GCMGA

Amazon will donate 0.5% of our personal purchases to Galveston County Master Gardener Association.

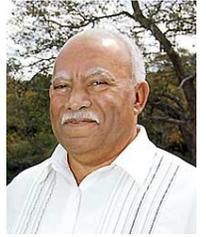
All you have to do is:

Go to smile.amazon.com - Choose Galveston County Master Gardener Association as your charity. Save smile. amazon.com to your favorites. - Always start from this site to do your amazon shopping. - You should see your chosen charity in the top bar on amazon's website. - If you have any problems, search smile on amazon's website

the last word . . .

INVITE BUTTERFLIES INTO YOUR LANDSCAPE

Editor's Note: This article is a reprint of Dr. Johnson's Weekly Gardening Column in The Galveston County Daily News



*By Dr. William M. Johnson
CEA-HORT & MG
Program Coordinator*

You can invite butterflies into your landscape if you provide the right conditions and the right plants. If you want butterflies in your yard, there are certain things to do and certain things not to do.

The process is simple. The rewards are stunning.

Go ahead, imagine a garden full of beautiful flowers. Now, add the fluttering movement and brilliant color of butterflies and you have one of nature's most enchanting combinations.

Not satisfied with the occasional, chance appearance of butterflies, many gardeners are creating butterfly gardens with plants specially chosen to invite these creatures to the landscape.

To plant a butterfly garden properly, you need to have a general understanding of the life cycle of butterflies. They pass through four distinct stages: egg, caterpillar (larvae), chrysalis (pupae) and butterfly (adult).

While they may look very different at each stage, it is important to understand that a caterpillar is not a different creature — it is simply a baby (or teenage) butterfly.

Although some of the butterfly caterpillars, such as Gulf fritillary larva, appear to be heavily armed with spines, none are able to sting. On the other hand, moths are closely related to butterflies and also have a caterpillar stage, but some moth caterpillars do sting.

Butterfly caterpillars feed voraciously on the leaves of plants. Each type of butterfly caterpillar will feed specifically only on certain plants, and the adult female butterfly will lay her eggs only on those plants that will properly nourish her offspring.

For example, Monarch butterfly caterpillars will feed only on milkweed plants (*Asclepias*). Gulf fritillary caterpillars prefer species of passion vines (*Passiflora*). The parsley worm, which grows up to be the Eastern black swallowtail, feeds on parsley, dill and fennel. Sulfur butterflies lay their eggs on cassias, and the preferred food of long-tailed skipper larvae is bean leaves (as in Lima, snap and other beans grown in the vegetable garden). The orange dog caterpillar, which feeds on citrus trees and disguises itself to look like bird droppings, grows up to be the spectacular giant swallowtail butterfly.

Larval food plants are planted into a butterfly garden with the hope that butterflies will lay eggs on them and they will be consumed by caterpillars. This is one of the few situations I can think of where a gardener actually hopes a plant will be eaten by caterpillars.

Needless to say, the use of insecticides should be limited in areas dedicated to butterfly gardens.

But remember that the caterpillars are picky about what plants they will feed on, so they generally will feed only on the larval food plants you provide for them. That means you really do not need to be concerned they will attack and damage other types of plants in your landscape.

As for adult butterflies, they feed primarily on nectar from flowers. Many commonly grown garden flowers are attractive to butterflies, and the more kinds of flowers you include in your garden the better your chances of attracting butterflies.

Certain nectar plants seem to be especially irresistible to butterflies. Some of the best are butterfly weed (*Asclepias curassavica*), coneflower (*Echinacea purpurea*), wild ageratum (*Eupatorium coelestinum*), butterfly bush (*Buddleia species*), lantana (*Lantana camara*, *L. montevidensis*), pentas (*Pentas lanceolata*) and salvias (*Salvia species*).

Don't be disappointed if at first you don't see butterflies flocking to your yard in droves. Remember, a butterfly garden is an invitation, not a command performance.

The more plants you put in, and the longer you stick with it, the more likely you are to see butterflies. After a while, spotting a butterfly will be more common. And the first time you find caterpillars on your milkweed, parsley or passion vine, you'll find the excitement makes it all worthwhile.

As insects, butterflies are coldblooded and depend on the warmth of the sun for energy to maintain proper body temperature. Locate your butterfly garden in an area that receives the morning sun and warms up early. This is especially important in spring and fall when nights are cool. (This location also is important because most larval and nectar food plants prefer to grow in a site that gets six to eight hours of direct sun a day.)

Butterfly gardens strive to attract, welcome and nurture these fascinating and lovely insects that add so much to the pleasures of gardening. With their abundance of bright, colorful flowers, these gardens also can contribute to the beauty of the overall landscape.

Don't forget to include your children, grandchildren or others in the process. Kids are delighted by the changing stages in a butterfly's life cycle, and it is a great way for them to learn more about nature.



Butterfly Gardens

You can invite butterflies into your landscape if you provide the right conditions and the right plants. Kids are inquisitive about the stages in a butterfly's life cycle, observing these various stages is a great opportunity for kids to learn more about nature.



By Judy Anderson
MG 2012

2016 MGA MONTHLY MEETINGS

September 13, 2016

MEXICAN FIESTA BACKYARD PARTY

Robin Collins "Nest" | 615 Bel Rd. | Kemah

Bring a Mexican Themed Pot Luck!
Have some Sangria and Margaritas!!

- Grilled Beef and Chicken Fajitas
- Tour the "Chicken-Inn" (coop)
- Give suggestions on her new garden...
- Enjoy the "Deck"!

October 18, 2016

After the Master Gardener Plant Sale, take some time for a Backyard Meeting at the home of **Bret and Raini Cunningham** in the historic area of Galveston. Bret and Raini have created a haven for butterflies in their garden along with their collection of plants and pots.

Save this date!

for a relaxing evening on the island

September, 2016 TBA

Fall Plant Sale Preview
Extension Office
Carbide Park - La Marque

October 11, 2016 5:30pm

Raini & Bret Cunningham -
Backyard Meeting
2711 Avenue O, Galveston Island

November 8, 2016 5:30pm

Ira Gervais - Annual Meeting,
Election of Officers; Updating by-laws
Extension Office, Carbide Park - La Marque

December 13, 2016 6:30pm

Holiday Meeting - Mikey & Allen Isbell
715 - 35th Street, Galveston Island



September 13, 2016. Robin Collins has invited the Master Gardeners to her Kemah home for a Backyard Meeting. Her extended family includes her chicks and you don't want to miss seeing their artistic hen house. Robin's love of gardening is reflected throughout her property along with her creative display of art in the garden. Mark your calendar for a visit with Robin.

**It will be a
festive pot
luck occasion!**



MG Judy Anderson thanks MGs for hosting backyard meetings.

You may contact Judy at jande10198@aol.com for information.

GALVESTON COUNTY MASTER GARDENER ASSOCIATION

Upcoming Master Gardener Programs

Tuesday, July 12, 2016, 6:00 pm - Emmeline Dodd Presenting Insects and S'More

Emmeline Dodd was a biology professor at the College of the Mainland for 31 years where she received the Medallion of Excellence in Teaching from the University of Texas, named COM's Teacher of the Year four times, and selected as a Piper Professor (top ten professors in the state of Texas. Emmeline is a graduate of Stephen F. Austin State University and the University of Houston Clear Lake; she was selected as a distinguished Alumnus in 2004 by both universities. Emmeline is a Master Naturalist and devoted to many Bay Area philanthropic efforts including the Houston Livestock Show and Rodeo and the Cattle Baron's Ball benefiting the American Cancer Society. In 2015, the Clear Lake Chamber of Commerce selected her as one of the 50 Faces that shaped the Bay Area during its 50th anniversary celebration. Won't it be fun to hear her program?

Tuesday, August 9, 2016
Master Gardener Day at Moody Gardens

- 1:00pm** Check in at Moody Gardens Visitor Center
- 2:00pm** Depart by shuttle at Visitor Center for Greenhouse Tour by Curator, Donita Brannen
- 2:30pm** Greenhouse Tour
- 3:30pm** Group 3D Movie National Parks 3D, Visitor Center
- 4:30pm** Rainforest Pyramid tour by Curator, Donita Brannen
- 5:45pm** Doors open for seating in Garden Restaurant
- 6:00pm** Dinner, Garden Restaurant, Visitor Center
- 7:15pm** Moody Gardens Hotel Sunset Viewing 9th floor in Viewfinder's Terrace

More details to come!

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