

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

# GULF COAST *Gardening*

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*While it is February one can taste the full joys of anticipation. Spring stands at the gate with her finger on the latch. Patience Strong "The Glory of the Garden"*

*There is always in February some one day, at least, when one smells the yet distant, but surely coming, summer. Gertrude Jekyll*

The months between the holidays and spring, to me, are gray with too many consistently cloudy, short days. Our Gulf Coast weather often exhibits a behavior issue not knowing if it should be cold, wet or warm, all within the same week! I like these months to rush by and the rest of the year to go slowly (if only!). Nonetheless, these months are a slower time in our landscapes. It can be a productive time and an excellent time to review, organize and plan for the coming year. It can be an extremely creative time to take a new *Gulf Coast Gardening* course, learn a new landscape technique, a plant or design a new garden. After 2017's assault on our community with the horrific Hurricane Harvey flood, multiple freeze days



in a row, and then snow (really, some of us had snow!) and then more January 2018 freeze days, we'll have more work than usual to get our gardens back into Master Gardener shape. While working through your horticultural alterations, use this time to step out of your comfort zone and into your own creative space. Please also gather inspiration and education from the latest issue of our Newsletter. Have you ever wondered how to espalier something in your garden? Joyce McMillan's story on page 6 can get you started. Most of us grow citrus, stone and other fruits in our gardens, but how about adding something unexpected like Dragon Fruit or Kumquats, Jan Brick fills us in on page 8. I have a Dragon Fruit in my own garden, and can't wait for it to make fruit. I often see my neighbors standing next to it trying to figure out what the heck it is. Donna Ward almost conducted a science experiment to track the progression of an industrious interloper she found in her yard (page 12). Margaret

Canavan discusses how some extremely important trees were recently saved from destruction in Galveston on page 15. Bulb sales at our MG sales have become exceptionally popular. If you don't have bulbs in your yard yet, learn about these easy to grow, low-maintenance, most perfect plants, in Elayne Kouzounis's article on page 10. Speaking of the plant sale, the story on page 20 gives us ideas on how to plan and get the most success from the sale. I, myself, have failed the first tip which says to look for openings in the landscape for the new item! Oops—I hope there is no scoring! Tropical Sod Webworms have been decimating our lawns. Rodger Allison tells us about this insect on page 4. We are so incredibly lucky to have many very accomplished and knowledgeable Master Gardeners in our Association. John Jons talks about growing Hops on page 18 and



by Camille Goodwin  
MG 2008

Karolyn Gephart's article (page 16) begins a new series of wonderful stories telling us how they came by their talents. On page 24, John Jons describes a visit to the beautiful Harlow Carr garden, one of the Royal Horticultural Society gardens, in England. His story makes you want to visit in every season. Checkout a new recipe on page 23 and enjoy reading the Discovery Garden Update on page 21, and our calendars and bulletin boards have been updated, to date, for the new year. In the Last Word (page 31), Dr. Johnson discusses Microclimates in the Landscape with other gardeners everywhere! Enjoy.



Camille's Meyer Lemon tree after the December 8, 2017, snow.

# Inside This Issue...

- 2 *Intro* by MG Camille Goodwin
- 3 *How to Reach Us*
- 4 *Question and Answer - Tropical Sod Webworm* by MG Rodger Allison
- 6 *Question and Answer - What is Espalier?* by MG Joyce McMillian
- 7 *Save Money, Time and Stress* by MG Intern Karolyn Gephart
- 8 *Exotic Fruit - A Taste of Something Different!* by MG Jan Brick
- 10 *MG Best Shots* by MG Elayne Kouzounis
- 12 *Big, Bad and Hairy!!* by MG Donna Ward
- 13 *Landscaping with Native Plants* by MG Kaye Corey
- 14 *Meet a Master Gardener* by MG Trish McDaniel
- 15 *Saving the Trees* by MG Margaret Cananvan
- 16 *Tracing Roots Show MG's have a Past wth Plants* by MG Intern Karolyn Gephart
- 18 *How to Grow Hops in Galveston County, Texas* by MG John Jons
- 20 *What WE learned in the Discovery Garden Series - Beneficials in the Garden and Landscape...the Rest of the story* by MG Joanne Hardgrove, MG Judy Anderson, MG Tish Restle, MG Wendy Lemmel, and MG Susan Creasy
- 22 *Master Gardener Association Meeting Minutes* by MG Mary Lou Kelso
- 22 *Salsa Gardening* by MG Camille Goodwin
- 24 *The Discovery Garden Update* by MG Tom Fountain
- 25 *2018 TMGA 40th Year Conference in College Station*
- 25 *GCMG John Jons Recognized by the American Rose Society*
- 25 *Continuing Education for Certification Hours* by MG Ginger Benson
- 26 *A Visit To Yorkshire Garden* by MG John Jons
- 28 *Upcoming Events* by MG Denny Noh, MG Nancy Langston Noh and MG Nita Caskey
- 28 *February Plant Sale Information*
- 29 *Seasonal Bites - Easy Recipes* by MG Sandra Gervais
- 30 *Bulletin Board* by MG Linda Steber
- 31 *Last Word - Microclimates in the Landscape* by Dr. William M. Johnson
- 32 *2018 Monthly Meetings and Invitation* by MG Judy Anderson



Cover:  
Dragon Fruit Cactus  
Photo courtesy MG Barbara Hankins



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Due the 20th of each month.

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Thanks for your interest!

# Q&A ask a master gardener

## *Tropical Sod Webworm*



By Roger Allison  
MG 2010

Last year in early September, I first noticed a large area of damaged grass in my St. Augustine lawn. My neighbor and his wife, who were also tending their lawn and landscape at the time, came over and asked me what caused the damage, as they were having the same problem in their lawn. I told them that I wasn't quite sure but that I was going to start researching the cause, as there were several insects and fungi that could be the culprit.

My neighbors' wife asked me if I was also seeing swarms of small tan-colored moths in my yard that had appeared in their back years in late summer for the last two years when they started seeing their lawn damage. When I heard that statement, I knew immediately that we were dealing with Tropical Sod Webworms.

Many phone calls to the Master Gardeners' Garden HotLine last Fall reported homeowners stirring up small clouds of moths scattering when mowing their lawns or trimming shrubs. While the moths themselves pose no danger to landscape plants, the appearance of the moths should be a red flag and a reason to begin carefully watching for damage to the lawn.

There are several genera of Sod Webworms in Texas. The native species in the genus *Crambus* are widespread, whereas the Tropical Sod Webworm, *Herpetogramma phaeopteralis* is less cold tolerant and thus is confined to areas along the Gulf Coast from South Texas to Florida. The Tropical Sod Webworm caused extensive damage to St. Augustine lawns in the Galveston/Houston area in 2016 and 2017.

Sod webworms are a yearly threat in the Galveston and Harris County areas though widespread severe infestations occur infrequently. The fall of 2017 (September through November) was one of the more damaging outbreaks. The Sod Webworm life cycle consists of three stages. The adult stage is a tan-colored moth (Photo 1) with a wing spread of  $\frac{1}{2}$  to  $\frac{3}{4}$  of an inch. The moths' wings are held in a flat triangular shape when at rest. Although the moths themselves pose no danger to landscape plants, the presence of the moths is a legitimate cause for concern. The moths are not the issue as they do not feed on the grass (or shrubs). Adult moths sip nectar produced by flowers. It is the moths' caterpillar offspring that are the problem.

Adult females deposit clusters of creamy-white eggs on the upper surface of grass blades. The eggs become brownish-red as they mature and hatch out into larvae in 3 to 4 days (depending on temperatures). The caterpillar stage (Photo 2) voraciously feeds on lawn leaves. Caterpillars may feed for one to two weeks before transforming into a pupa and later on into the adult stage. Even though the lawn looks dead, the grass is actually still alive.

During the summer months, Tropical Sod Webworm larvae live on the soil

surface in silken tunnels constructed in the thatch of the grass. Lawn damage occurs as the larvae chew off blades and retreat into their protective silken tunnels to consume the foliage. Injury first appears as small brown patches of closely clipped grass. Lawns are particularly susceptible to larval damage during the months of July and August when the temperatures are hot and lawns are not growing vigorously. Lawns may be damaged rapidly if controls are not applied.

Healthy turfgrass, proper fertilization, proper irrigation and proper mowing can decrease susceptibility of turfgrass against Tropical Sod Webworm. Excessive application of nitrogen is a primary factor of Tropical Sod Webworm outbreaks in lawns.

There is some good news in this. The caterpillars only eat the blades of grass. They do not damage the runners (stolons), roots or growing points. As a result, as bad as the lawn looks, recovery is generally reliable if lawns are otherwise healthy.

Tropical Sod Webworm control can be determined by close examination of the grass and thatch. If six-to-eight Tropical Sod Webworm larvae are found within a 1-foot square of infested sod, then chemical treatment is recommended. Larvae are most active on at night as well as cloudy days. At least ten pesticides are currently registered for control of lawn caterpillars including sod webworms. Insecticides are available in granular form or emulsifiable concentrate formulations (liquid form).

Granular insecticides generally provide more long-term residual control than spray applications. Granular insecticides can be applied with a fertilizer spreader. Following application, the lawn should be thoroughly watered/irrigated to facilitate the downward movement of granules into the turf zone. In contrast, spray applications provide quicker control. Use insecticides containing acephate, bendiocarb, carbaryl, or the microbial insecticide *Bacillus thuringiensis* (available commercially as Dispel, Thuricide and other trade names). Apply insecticides according to the manufacturers' directions contained on the label of the container.

Will the exceptionally cold temperatures that occurred this winter in mid-January eliminate Tropical Sod Webworms in our growing region since this insect pest is not tolerant of cold temperatures? The cold temperatures will likely severely reduce overwintering populations of Tropical Sod Webworms especially in northern areas of the county. While we will not likely experience another severe outbreak again this year, if any of the immature stages survived the cold weather, the survivors will start the life cycle over.

Moreover, moths are capable of small-distance flights so even if all stages of Tropical Sod Webworms were killed by the cold, it is expected that our area will be re-populated by Tropical Sod Webworm moths moving from south Texas. The clock keeps ticking!



Photos courtesy MG Rodger Allison



# Q&A ask a master gardener

*What is Espalier? Hard to say but easy to do!*



By Joyce McMillian  
MG 1993

The French word “espalier” (ess-PAL-yay) was originally a noun that referred to the trellis or support upon which the tree was grown; but, today, it’s also used as a verb referencing the technique itself. The art of espaliering is when trees and branches are pruned and trained and grown along one plane. They’re commonly found up against a wall or fence, creating a living sculpture. Not only is the look a classic focal point in your landscape, but it also helps to maximize your growing space providing you with a bountiful harvest. Implementing an espaliered tree still requires maintenance throughout your growing season, but

no more than with any other backyard fruit tree.

My interest in espaliered trees began years ago when I visited my parents’ home in Europe. Their backyard fence had beautifully trained espaliered pear trees six feet tall and with a beautiful crop of pears. Europeans have used this technique for centuries. Depictions of espaliered fig trees have even been found on the walls of Egyptian tombs and throughout the art of the middle ages. But in the 21st century, espaliered fruit trees have become more popular in the American backyard landscapes.

## Why espalier fruit trees?

Well, there really isn’t a reason not to try espaliering. Just a few of the benefits include:

- Homegrown fruit from a narrow space
- Very easy picking, no ladder needed
- A striking bit of garden artistry that will have your neighbors talking

To begin the process, plant your tree 6-10 inches from a wall or fence and in full sun (at least 6 to 8 hours a day) on well-drained, fertile soil. A south, east, or west facing wall, fence, or building is best. You’ll have to support the developing branches with a trellis system, so select a site where you can run a wire trellis outlining the ultimate shape of the tree. Water the newly planted trees regularly and apply specially-formulated fertilizer for fruit trees as needed during the growing season.

## Which fruit trees espalier best?

Apple and pear trees are the usual choices. Apple trees are a little easier because new stems don’t harden as quickly as pear tree stems, and they are more pliable when you bend them toward your support wires. Citrus trees work well also. You can try espaliering any variety of fruit tree...be creative!

## Pruning and training

Prune your espaliered fruit trees while they are in the training stage:

- In the winter (when your tree is dormant), you should be performing your major cuts and pruning your fruit tree back. This will stimulate growth and bud production in the spring.
- In late spring/summer for the purpose of creating your tree “shape,” as it grows, you can train the branches to follow the pattern you want.

## Patience is a Virtue

It usually takes up to 3 to 4 years of training and pruning to have a great-looking tree and a bountiful fruit harvest. You may see fruit as soon as the second year, but if you want the most from your espaliered tree, remove the developing fruit for the first couple of years. This helps your tree develop a stronger root system and more branches for your future crop.

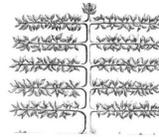
The reward of your patience, persistence and attention to detail will provide you not only with a fine fruit crop, but with a rather spectacular living sculpture that will set your fruit garden far apart from the ordinary!

## Espalier Patterns

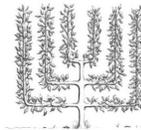
The most popular patterns are the following: Horizontal Cordon, Candelabra, Belgian Lattice & Fan.

My Golden Dorsett, now in its third year, is being trained on my fence. I was so excited to see three apples on it last year but sadly had to pick them early. My Satsuma is training on a fan shaped trellis.

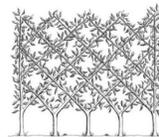
For more detailed information on “How to Espalier,” a good website to go to is [www.finegardening.com/espalier](http://www.finegardening.com/espalier)



HORIZONTAL CORDON



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# Save money, time and stress

## *Make a Plan BEFORE you shop the MG plant sale*



**By Karolyn Gephart  
MG 2017**

The countdown of days has begun for the upcoming Galveston County Master Gardeners' Spring Plant Sale set for 9 am to 1 pm February 17, 2018, at Jack Brooks Park. Shoppers/gardeners are dreaming already of the 1000s of plants that will be for sale.

Photos presented at the educational seminar make each shopper want to buy them all! In preparation for the event, take a few moments and get a plan. It will help your garden, your work later and your wallet!

Walk your yard. Where are there openings waiting for a new plant, shrub or tree? Are there victims of winter weather that need to be eradicated? If yes, then determine what is best to replace the one leaving. Remove it and prepare the area for the new resident. Have you wanted more trees? Where would you put one or more? Sun and shade are strong determining factors. When shopping perennials (a popular area of the sale), determine your lighting conditions for the areas where you are placing the new purchases.

Each plant sale area offers much information about the plants and will cite how tall the adult version of each plant will be. Take this into consideration. Will this get too tall and affect other thriving plants around it? Will something block the new plant's growth?

Plants or shrubs requiring more alkaline or more acidic soils offer challenges if the opposite soil type is what is at the planting site. Preparing soil is not difficult but does require some work before the new plant or shrub can enter the ground. If you are willing to prepare the soil for it, get that new shrub!

Vegetable and herb gardens sound so wonderful. Many people have plans in the future to prepare one in their own yards. Is this the spring that you make this happen? Square foot gardening can be the perfect choice for small yards or spaces but remember that preparation for the new planting area is a must. Decide where the new garden will go and then determine what plants will be put there. Do you want large containers for a patio garden? Will you build a box for a square foot garden? Do you need to till the soil for vegetable rows? Make sketches of new beds. Look at color schemes for flowering choices. Notice other yards you like and see what is planted that appeals to you, noting size and light availability of the plants. Make a plan and pursue it.

Quite often buyers attend the Master Gardener Sales and laughingly tell the volunteers as they are leaving, "I don't have a clue when I'll get around to planting all these new plants!" Don't let this be you! The plants are ready for their new homes. Don't make them wait for the correct address in the yard.

Check out our MG website (<http://aggie-horticulture.tamu.edu/galveston/index.html>) for a list of sale plants. The AgriLife Extension Office in La Marque has much information on its website about gardening topics. Write

down questions you have and take advantage of the knowledge of the Master Gardeners at the sale. They can tell you about the new plants you are pursuing as well as help you with questions about growing them in your yard.

Should you not be spontaneous at a sale aimed at delighting the gardener in each of us? Of course you should! But know if there is room for more patio plants, more shrubs, a new variety of vegetable, or a native grass. Know what is best for your yard and then shop with abandon! If you are prepared by knowing what can be welcomed into your home and yard, you will make the right new choices and be delighted from spring to fall (when the next Master Gardener sale will be offered). Happy planting!



Photos courtesy of MG Library

# Exotic Fruit

## *A taste of something different!*



By Jan Brick  
MG 2001

Planning ahead and looking forward to the annual influx of fruit trees that will soon be offered for sale at neighboring nurseries and garden centers plus the fact that the Galveston County Master Gardeners are energetically preparing for their Spring Plant Sale on February 17, undoubtedly the best place to purchase trees and plants especially for our area, let us focus on a taste of something different. If these particular plants are not offered locally, they are readily available on-line.

**Dragon Fruit Cactus** or Thai Dragon Fruit (*Hylocereus undatus*) has become increasingly popular in recent years and at eight dollars per fruit at grocery stores, perhaps worth a consideration for home garden cultivation. The Thai Dragon Fruit is an exotic cactus from Asia, Mexico and South America that can be grown as an ornamental plant in pots or as a climbing-vine that not only bears a tasty and most unusual flaming-neon-pink fruit but produces as well large white blooms with an exotically fruity perfume; these night blooms may spread up to nearly a foot long, one of the largest flowers known.

The fruit is easily peeled exposing a milky-white flesh speckled with tiny black seeds similar to kiwi fruit with a melon/pear taste. It is often used in jam, ice cream, sorbet, smoothies or fruit juice. Its high levels of Vitamin C will boost the immune system, carotene levels make the fruit anti-carcinogenic and with no cholesterol, they can be good for the heart and cardiovascular system.

A climbing vine that may need the support of stakes, a fence or a wall, dragon fruit needs full or part sun (base in shade...tips in sun) well-draining soil, a balanced fertilizer monthly during the growing season and water only when surface is dry to the touch (do not allow plant to sit in water). Fast growing, drought tolerant, some varieties are self-fertile but propagation is easily achieved through the use of cuttings. One plant can produce fruit for up to twenty years.

Few diseases bother the dragon fruit but root rot may occur if overwatered, mealybugs and aphids can be problematic as well as mites or thrips. The use of commercial pesticides or a spray cleansing with soapy water will keep these challenges under control.

### Dragon Fruit Varieties & Recipes

*Hylocereus Megalanthus* - white fruit, thorny yellow shell

*Hylocereus Undatus* - white flesh, red shell

*Hylocereus Costaricensis* - bright red flesh, red shell

**Dragon Fruit Salsa**...mix peeled and mashed dragon fruit with cilantro, onions and lime juice. Trickle over your favorite tacos or serve with chips.

**Dragon Fruit Smoothie**...combine dragon fruit, bananas, pineapple and coconut milk in a mixer and blend.

**Nagami Kumquat** (*Citrus japonica*) is an edible fruit that resembles a small oval orange but is more the size of a large olive. The name kumquat is derived from a Cantonese word meaning “golden orange.” The kumquat originates from China and Southeast Asia and can be found referenced in Chinese literature in the 12 century. *Citrus japonica* is grown in several states including Florida, California and Hawaii as well as Nevada, Arizona and some eastern states as far north as the barrier islands of Massachusetts (Nagami kumquats can withstand frost and low temperatures into the teens).

The kumquat is a slow-growing evergreen tree with dark green glossy leaves and blooms similar to other citrus and can produce hundreds of fruit each year. The sweetest part of the fruit is the peel as the seeds and pulp are actually quite sour but the entire fruit can be eaten whole.

Nagami kumquat trees may reach heights of eight to fifteen feet under favorable conditions; well-draining soil and full sun. They can tolerate seaside environments, do not require extensive grooming or pruning, only removal of any suckers that may drain the tree of needed nutrients. The kumquat is rarely bothered by pests or disease and the use of mulch can inhibit the growth of weeds around the base of the tree.

### Kumquat Varieties & Recipes

Marumi kumquat... evergreen, round golden yellow fruit

Meiwa Kumquat... round or oval-shaped fruit, small ornamental tree that is great for bonsai

Jiangsu Kumquat...bright orange round or bell-shaped fruit, round leaves

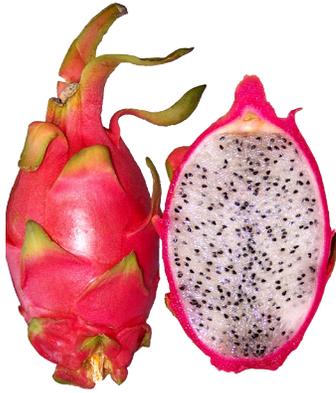
Many photos courtesy MGJan Brick



Dragon Fruit Smoothie



Dragon Fruit on plant



*Hylocereus undatus*



*Hylocereus megalanthus*

### Candied Kumquats

Bring to a boil two cups of granulated sugar and two cups of water in a medium sized heavy bottom saucepan, stirring well until sugar dissolves, add four cups of kumquat slices (discard stems and seeds), cover with parchment paper and weigh down with a heatproof plate. Reduce heat to simmering and cook until kumquat slices are tender and translucent (about thirty minutes). Remove from heat, transfer fruit to a bowl and ladle syrup over the fruit to cover, cool completely then refrigerate. The remaining unused syrup can be refrigerated and added to cocktails or fruit drinks. Yields two cups.



**Candied Kumquats**



### Kumquat Chicken

Pan fried chicken thighs with a sweet kumquat and hoisin sauce with a sprinkling of sesame seeds. Serves four.

#### Ingredients

20 oz. boneless, skinless chicken thighs  
 3 tbsp. vegetable oil  
 1 clove garlic, minced  
 6 kumquats, thinly sliced  
 1/2 tsp. soy sauce  
 1 tsp. toasted sesame seeds

#### Marinade

1.tbsp. Soy sauce  
 1/2 tsp. ground Szechuan pepper  
 1/4 tsp. salt

#### Sauce

2 tbsp. Hoisin sauce  
 1 tbsp. Soy sauce  
 1 tsp. sugar  
 1.tsp. corn starch  
 1/4 cup water

Marinate chicken with soy sauce, Szechuan pepper and salt for 20 minutes. Heat wok or large fry pan, add 2 tablespoons of vegetable oil. Place chicken thighs in a single layer and fry 3 to 4 minutes on each side until golden brown and cooked through. Remove from wok and cut into strips.

Combine sauce ingredients in a small bowl. Heat remaining tablespoon of vegetable oil in small saucepan, sauté minced garlic for one minute then pour in sauce mixture. Cook until mixture becomes thick and bubbly. Stir in kumquats, turn off heat. Add sesame oil and pour over cooked chicken. Sprinkle sesame seeds on top and serve immediately over steamed rice.

Visually appealing, easy to grow with essential health benefits, the dragon fruit and the kumquat could be a staple among adventurous area gardeners who are looking for a touch of the exotic and a definite source of conversation among guests.



**Kumquat Chicken**

# MG Best Shots and Narrative!



By **Elayne Kouzounis**  
MG 1998

## Bulbs

TRUE bulbs are either tunicated or formed in rings or layers like hyacinths or onions, or scaly like those of the liliiums and amaryllis; however, for commercial purposes and to be properly understood, the term “bulb” applies to a very large class of plants besides the true bulb. These include solid corms such as crocus and gladiolus, tubers which are succulent and have buds or eyes near the surface such as the dahlia and the potato, rhizomes or fleshy roots that creep underground like certain iris and ginger, pips or the flowering crown of

the lily-of-the-valley, as well as other fleshy roots or herbaceous tubers like the ranunculus.

The bulb is the storehouse for the plant, which is formed after producing the new stem, leaf and flower. The bulb as you buy it contains a new plant that is protected and sustained within that bulb by the reserve food and energy collected during one season’s growth. After the flowering period, the plant above the bulb and the roots beneath it ripen and die away. At this stage, the bulb enters its dormant state. If you must lift a bulb, please do not do it until the foliage is brown and dried-appearing or the new plant contained within the bulb will not fully develop.

A true bulb lives indefinitely as a single unit and reproduces by seed or by splitting. The corm dies after producing flowers for one season and is replaced by a new corm that forms either above, below, or alongside the old one. The rhizomes and tubers multiply through the roots and tubers.

I have found through process of trial and error that bulbs have certain locales in which they do their best. While it is very tempting, I do not advise ordering all the beautiful blooms from bulbs that you see in the catalogues. Instead, find out which ones do the best in your area and then choose accordingly. In our area with our mild winters, long hot summers and humidity, we have to battle with the three-letter word that is the bulb’s worst enemy, ROT.

Good drainage is very essential to successful bulb growth. Planting your bulbs in the right conditions will ensure a glorious show of colorful blooms. It is important to plant your bulbs correctly. The teardrop-shaped bulbs, including large bulbs such as daffodils and hyacinths, should be planted with their tips facing up. If their tips face down, they waste their energy trying to grow in the opposite direction. Some bulbs, such as irises, are flat or have claws. If a bulb has an obviously flat side, plant this side facing up. Plant all bulbs that have appendages or roots facing down. If you are unsure, plant the bulb sideways.

### The best planting depths are as follows:

- |                        |                      |
|------------------------|----------------------|
| Hyacinths: 6-8 inches  | Tulips: 4-6 inches   |
| Dahlias: 3-4 inches    | Gladioli: 3-4 inches |
| Daffodils: 3-4 inches  | Crocuses: 0-2 inches |
| Ranunculus: 0-2 inches | Cyclamen: 0-2 inches |
| Iris rhizomes: Surface |                      |



Hyacinth (l) and Tulip (r) • Photos courtesy of MG Margie Jenke



Dahlia • Photo courtesy of Dr. William Johnson



Daffodil • Photo courtesy of MG Margie Jenke

To plant a bright and vivid show of bulbs, you will need a kneeling mat and a garden spade, trowel or bulb planting towel. You can create a dramatic effect by planting bulbs in large masses. Since bulbs are sold by color, you can choose vivid, contrasting colors, or more subtle combinations. My suggestion is to lay bulbs out on the ground before planting to get a sense of your color scheme.

To plant a full bed or wide border of bulbs, dig a trench, placing the soil nearby on a plastic sheet. Follow by placing the bulbs in the trench according to your design. Plant bulbs close together for impact, but do NOT let them touch. Replace the soil, being careful not to disturb the positioning of the bulbs. Then firm the soil once all the bulbs are covered. Lastly, water thoroughly if the soil is dry and add a thick layer of mulch, such as pine bark, to keep the bulbs moist.

If you are planting a few bulbs or one single bulb in your garden, there is no need to dig out a tray bed. An easier way to plant a small number of bulbs is with a special bulb planting tool. Excellent bulbs for small plantings include Emperor tulips, irises, daffodils and hyacinths. First, sink the bulb planting tool straight down into the soil to the proper depth. Pull up the tool and squeeze its handle to remove the soil plug. Next, place the bulb in the hole, making sure that it faces the correct way. Lastly, replace the soil and water well.



Gladiola, Photo courtesy of MG Margie Jenke



Iris, Photo courtesy of Dr. William Johnson

### Seasonal Tips

#### Fall

Plant spring-flowering bulbs in the fall.  
Plant earlier in cold areas to avoid attack by frost.

#### Spring

Plant summer-flowering bulbs in the spring.  
Plant in a cool but frost-free place.

#### Early Summer

Pinch off the heads of faded flowers BEFORE they set seed. Let the leaves die naturally. After they've finished blooming, dig up spring-blooming bulbs (and some summer-blooming bulbs in cold climates) and store them in a dry, dark place for replanting the next year.

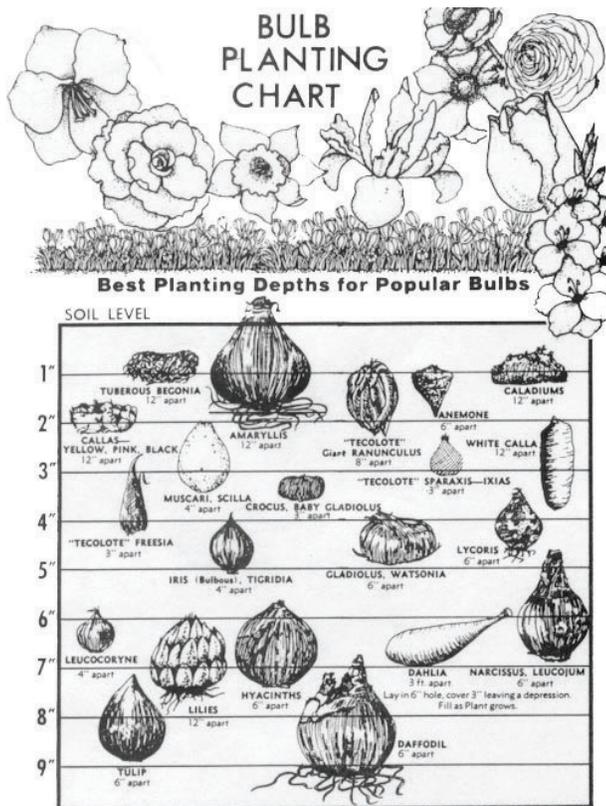
#### Summer

Plant fall flowering bulbs during the summer months.  
Pertaining to tulips and other bulbs requiring cold days in their dormancy: In warmer areas, give bulbs an artificial cold period to simulate winter. Place the bulbs in the refrigerator for about eight weeks to trick them into dormancy so they can store energy for new growth. Keep fruit out of refrigerator during this time. Fresh fruit produces ethylene, a gas that will stop bulbs from flowering.

#### After-Care

Cut faded blooms before the flowers have started to seed. This will ensure that the bulb conserves and stores up all its energy ready to produce new blooms in the next season. Bulbs can be left in the ground. Some will, in time, spread out from their planting position and form new bulbs. This is called "naturalizing." After a few years, dig up and divide overcrowded bulbs. Bulbs need to be kept dry. To store them properly, clean and keep them in a cool, dry place, such as a garage. Plant or replant them in well-drained soil. Dig in a gritty draining material, such as sand, if the soil is very wet.

Rooting for you that good things happen!



# Big, Bad and Hairy!!!

## Tropical Orb Weaver Spiders



By Donna Ward  
MG 1996

“Yikes!” That was the opening line of an email I received from a neighbor. One night last spring while on a stepladder, he was replacing a burned-out light bulb on the side of his garage. When the new bulb came on, my neighbor found himself face to face with the “biggest, baddest, hairiest spider known to man,” or so he said. The next morning through my bedroom window I spotted two of the biggest, hairiest spiders I had ever seen.

Below my bedroom window outside over the deck, there is a shelf on which I place my sun-loving potted plants. Two spiders had spun their webs from the outer edge of the shelf up to the outer edge of the soffit. So, looking out of my bedroom window, I saw two hairy spiders in their webs back-lit by the early morning sun. Not being able to identify the hairy critters, I contacted Dr. William Johnson, Galveston County’s Extension Agent-Horticulture and Master Gardener Program Coordinator. I suspect Dr. J knows more about insects than anyone in Galveston County. It seems he also had a couple of these at his home. He identified them as Tropical Orb Weavers, *Eriophora ravilla*.

I periodically checked on my resident hairy critters day and night for about two weeks. In the beginning around 10:00 a.m. they would climb up the web to who knows where to spend the day. Then the web would mysteriously disappear, to be rewoven again at sunset in the same location. I read somewhere in my research that they consume the web, as it’s high in protein. Later on, one of them quite often would remain in the web in spite of the blazing afternoon sun. Do spiders get sunburned I wonder? The other always left the web each morning only to return in the evening and rebuild its web. They are not particularly beautiful webs, rather ragged, to tell the truth. I considered that it might be possible that they knew the light from my bedroom television seen from outside would attract night-flying critters and the unsuspecting prey would become entangled in the web. Anthropomorphic - who me?

Tropical Orb Weavers live along the Gulf Coast, mainly in Florida, Louisiana, Texas, Mexico and Central America. They are not particularly attractive, generally just dull brown and fuzzy. Including their legs, they would probably be the size of our American 25¢ piece. They favor woodlands, trees and scrubby areas.

One night I managed to catch a beetle and tossed it into one of the webs. Apparently it had been quite a while since the spider’s last meal. Instead of encasing the critter in a silken cocoon, the spider immediately made the beetle a late-night snack. One morning toward the end of two weeks, I noticed hundreds of eggs clustered together in the center of one web while the adult remained on the web’s outer edge. Over two or three days the eggs began to hatch, and little by little baby spiders appeared. When all eggs had hatched, they proceeded to move upward over several days in a group, but separating just a bit each day. By the third day, they had reached the soffit. They were larger, their legs and body shape was much defined and they began to individually distance themselves from their siblings. The next day the babies had totally disappeared, there was no sign of an adult, no web to be seen. It was as if they had never existed. It became quite obvious to me that the one who often stayed in the web in spite of the blazing sun turned out to be the female, apparently safeguarding her eggs and eventual brood---an across-the-board trait of motherhood whether she has two, four, or eight legs!



Photos courtesy of Donna Ward

# Landscaping with Native Plants

Photos courtesy of MGs Margie Jenke, Herman Auer and Kathleen Crabb



By Kaye Corey  
MG 2001

In the past few months, I have become interested in the promotion of native plants in our landscapes to aide pollinators, wildlife, and conservation. I hope this article will interest you to venture into using native plants in your home landscape.

Lady Bird Johnson once asked “Why can’t Texas look like Texas?” Thus, her Texas wildflower projects. So, to be more precise, why can’t the Texas Gulf Coast look like itself with coastal native plants?

What is a native plant, anyway? They are the plants that were here when the settlers arrived. The settlers brought their own favorites to Texas and those plants have adapted to our environment. We all have our favorite plants that we enjoy in our gardens. I am not saying to use only native plants. However, I hope you will want to incorporate them into your gardens. If you try ‘em, I am pretty sure you will like ‘em! Native plants in our Zone 9 and Zone 10 growing region are naturally adapted to our growing conditions. They are low maintenance, conserve water, are winter hardy, and can stand our summer heat. They will grow in our varied soil types.

Conserving water is a concern today. Only 1% of the water on Earth is available for our use (for drinking, irrigation, and other purposes) and we can’t afford to waste it. Xeriscape gardening, dry gardening, is a perfect concept for native plants that require less water. Coastal natives are hardy and adapted to both dry and wet conditions. I didn’t lose any native plants during Harvey, but my non-native eucalyptus tree bit the dust.

I took a tour of my garden after the recent freezes. Non-natives that I didn’t cover were damaged. They get fooled by our mild winters and break winter dormancy and put out spring growth early. Natives are smarter and break winter dormancy later.

Recently, I heard Lauren Simpson’s program on “Gardening for Wildlife in Your Own Backyard.” She said the average neighborhood yard looks pretty, but doesn’t support the range of wildlife crucial to a healthy community environment.



Goldenrod



Gayfeather  
(*Liatris scariosa*)



Mexican Hat



Wine Cups



Bluebonnet



Bitterweed



Firewheel



Texas Coneflower

Mrs. Simpson’s promotion of a wildlife habitat for pollinators such as birds and insects (including butterflies, bees and other beneficials) stresses the need for native plants in our gardens.

Native plant gardeners also collect seeds to share with others. Mrs. Simpson provided seeds from her native garden habitat in Houston. This fall I planted Goldenrod (*Solidago altissima*), Gayfeather (*Liatris* spp.), Mexican Hat (*Ratibida columnifera*), Winecup (*Callirhoe* sp.), and Bluebonnets (*Lupinus texensis*). In the spring, I will plant Bitter Sneezeweed (*Helenium amarum*), Firewheel (*Gaillardia pulchella*), Texas Coneflower (*Rudbeckia texana*), Lanceleaf Coreopsis (*Coreopsis lanceolata*) and Texas Coneflower (*Redbeckia texana*).

I also grow host plants for a variety of butterflies including native and tropical milkweed for the Monarch butterflies, Passion-flower for the Gulf Fritillary butterflies and Pipe-vine varieties for the swallowtails. Native plants are the nectar plants for the pollinators and many native plants produce berries for the birds.

In the past, the idea of landscaping with native plants was just an idea. Home gardeners found it difficult to find a native plant list or a plan about how to landscape their gardens with natives. Nurseries did not sell native plants and were of little or no help. Fortunately, nurseries like Joshua’s and Buchanan’s Native Plants in Houston and other nurseries are getting on the bandwagon. An excellent and informative book by Sally and Andy Wasowski, *Native Texas Plants Landscaping* would make a terrific addition for your gardening library.

Today, the Native Plant Society of Texas (<http://npsot.org>) has local chapters and monthly meetings. They provide field trips, plant/seed swaps and wildscape workshops. A Native Landscape Certification Program is offered to familiarize you with our Texas ecoregion and soil types. You will learn to create a native landscape design for your garden and identify native plants of choice. Locally there is a Clear Lake chapter meeting at the University of Houston at Clear Lake. There are also Houston Chapter meetings conducted at the Houston Arboretum.

# Meet Master Gardener - Sharon Zaal, MG Class 2015



By Trish MeDaniel  
MG 2001

On a chilly December morning I set out to meet with the newly inaugurated president of Galveston County Master Gardeners, Sharon Zaal (rhymes with “doll”), MG 2015. With miraculously precise direction from Siri, I easily navigated the serpentine path to her beautiful home tucked deep within a Seabrook neighborhood that hugs Taylor Lake.

After a generous welcome of hot coffee and delectable citrus, we settled beside the warm hearth of her living room. In addition to being supremely gracious,

Sharon’s disarming manner made me feel like an old friend, and too many minutes passed before I realized that I was the one being interviewed. Teasing the focus back to her, I got to the business of learning a bit about this marvelous lady who has committed to be our North Star for the coming term.

A native of Beaumont, Texas, Sharon is the middle daughter of a family of three girls. Her mother was a bookkeeper and her father owned a steel fabrication shop. Sharon, a talented mathematician, focused her career on computer science. She worked as an information technologist for Union Oil and ARCO in her hometown. She later married and owned a computer service business in Houston.

After divorcing, Sharon stayed in Houston to continue her career in IT. Later, during an interview with an employee recruiter for Curtin Matheson Scientific, she met her future husband, Tom. Only after several social occasions and the conclusion of the requisite employee “guarantee period,” she and Tom began dating and the rest is history in the making. Sharon later earned her MBA in International Business and completed her career working as Director of the Project Management Office for BJ Services, retiring in 2010.

Together she and Tom have a blend of five adult children and two grandchildren. Although their home is beautifully decked for the holidays, Sharon says with relief that this year’s family get together will be hosted by her daughter in Northern California, a break from tradition to which they both look forward.

Among their shared passions are sailing, cooking and travel. Recently, they were on Galveston Island with their new RV for a shakedown cruise, a prelude to extended future adventures. Sharon also enjoys cycling and kayaking.

Throughout our visit, Sharon expressed her love of turning old things new again. The notion that beauty and function are not mutually exclusive is demonstrated in several home projects. Recently, she beautifully restored her father’s drafting table, handcrafted by him in school shop class. In the wings is her grandparent’s freestanding radio cabinet, exterior to be restored, interior to be refitted as a custom cabinet.

As a MG volunteer, Sharon is drawn to the tangible activities surrounding the Discovery Garden, specifically the process of the construction projects, several of which she has managed. With her heart in the shop, she reflects that her father would have been tickled to death by her accomplishments in

welding, a skill honed under the guidance of MG Henry Harrison, MG 2011.

As to her role as MG president, Sharon will proceed with projects currently underway in the Discovery Garden organized under the leadership of Past President Ira Gervais. Future improvements to the site include a kitchen expansion and working with the county to construct public/private restrooms.

Through many seasons of working in the Discovery Garden, Sharon has been inspired by the meaningful growth she observes when hardworking volunteers, great food (key!) and shared knowledge come together. She mentions the prospects of this trend becoming a new avenue for earned educational hours and an inspired way to attract more volunteers.

What a great pleasure it was to make her acquaintance. So, with a spot of superb homemade limoncello she bestowed as a parting gift, I toast to her success and upcoming accomplishments and look forward to seeing her again soon.

*Term for President: 2 years.*

*Anecdote regarding Dr. J: Be careful about casually pitching ideas to Dr. Johnson. You may realize your misstep when he leans forward, looks you in the eye, and gives you “that look” and then says, “Worthy idea indeed! Would you like to make it happen?”*



# Saving the Trees



By Margaret Canavan MG 2003

There is a saying that the best time to plant a tree is 20 years ago, and the second-best time is now.

One of many lessons learned from Hurricane Ike in 2008 was the value of our existing trees. Forty thousand of them perished from that catastrophe and seeing the empty landscape was emotionally devastating. In recovery we have learned that it's not quick, easy, or cheap to re-establish a lost urban forest. It will be years before the thousands of new trees gain the stature of many of those we lost.

So, we value those trees that were planted five, 10, 50 years ago. In addition to adding beauty to the landscape, a mature tree can provide cooling shade (that also reduces energy costs and postpones street repairs), reduce storm flooding by absorbing water, and absorb 28 pounds of carbon dioxide each year while producing 260 pounds of oxygen — the list goes on.

A recent event in Galveston has shown that our community recognizes this value.

Planning for a new public baseball complex at Crockett Park on Galveston's Avenue S went through a lengthy design process. Somehow after all that planning, the final design did not include survivor trees on the site. They had been installed 20 years ago by the Galveston Foundation and had flourished. Implementation of the plan as approved would have required removal of 24 live oaks and seven palms. Many of the oaks were over 10 inches in trunk diameter.

Bulldozers were not an option! But how to save them? To the rescue came a group effort that set an example of great tree stewardship. This included the City Tree Committee, the Tree Conservancy, numerous contractors and subcontractors, and city staff and leaders. Several issues had to be resolved: developing a moving plan, identifying new locations with proper irrigation available, figuring the cost, and finding funding.

Contractors developed the moving plan. This included preparation of the trees for relocation and working around existing power lines. Pruning of roots and canopy was necessary to ensure the trees' stability once moved. New homes for many trees were available in the area around the new ball field, and the Galveston Independent School District welcomed several next door at Burnet Elementary School.

The next step was finding the money. The City of Galveston's Industrial Development Corp. (IDC) allocates 4B Sales Tax funds to eligible projects that can include parks and park facilities. The IDC was able to reallocate funds to provide for relocation of the soon-to-be-homeless trees.

Once the plan was in place the landscape contractors arranged for the proper pruning and irrigation. Three giant tree spades were brought in to ensure safe removal and replanting. The actual move was done just as Hurricane Harvey threatened. All trees made it safely through the deluge, although one floated up and had to be reset. Almost two months later all are doing well.

These trees are proof that we can learn from history. We can make a difference with dedication plus planning and coordination from people who care!

*Margaret Canavan is a Galveston resident, a Galveston County Master Gardener, and a member of the Galveston Island Tree Conservancy Board.*



Huge tree spade moves a tree for relocation at Crockett Park - Photo by Pricilla Files

# Tracing Roots Show MGs have a Past with Plants



By Karolyn Gephart  
MG 2017

Master Gardeners have one thing in common: they enjoy working with plants, whether it be through propagation, research and experimentation, photography, reading and writing about a topic for our *Gulf Coast Gardening* newsletter, cooking, landscaping, and all other forms of fun with (and learning more about) horticulture. This is a given.

What is interesting is the many avenues that took them to this

spot, this decision to be MGs.

This series of articles will look at the past, the families and friends of MGs who influenced their paths, many times subconsciously by giving them an appreciation and love that continued to grow and mature. Suddenly, they were adults and buying gloves, sun hats, and an array of pruners and planting tools.

**There is no doubt Class of 1983 MG Herman Auer** would be involved with growing things. At a very early age, he can remember being in a vegetable garden with his mother. As he and his family moved around Texas, the variety of produce changed. It started with raising and selling tomatoes and then to sharecropping watermelons, peanuts and corn with a vegetable garden at home.

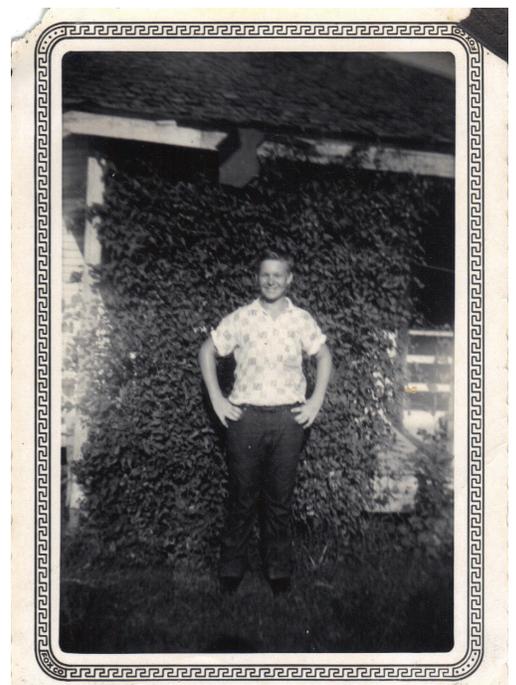
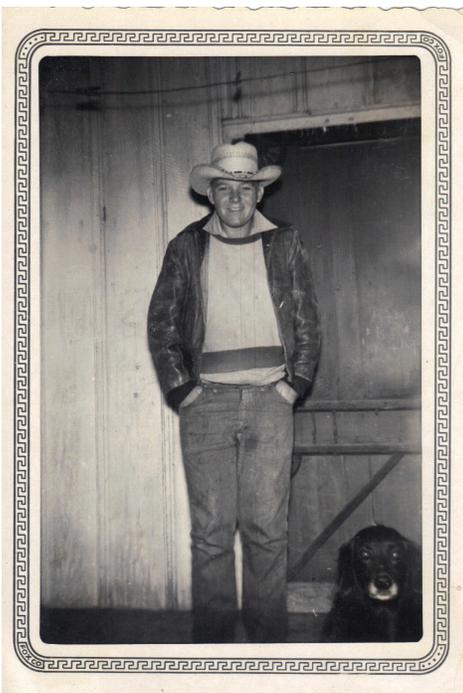
Herman's family and ancestors were farmers. He has a rich history of planting, harvesting, storing, feeding animals and people as well as working with buyers and seeing his produce leave by steam engine. In 1981 he took an agricultural class at Santa Fe High School and it led him two years later to the Master Gardener program.

"In 1983, the second Master Gardener class was started and I was in it. Later the Galveston County MG Association was formed and I was in. I was like a sponge soaking up knowledge and then Anna Wygrys asked me to do a

program for the public on growing peaches in Galveston. I did so and now I was beginning to pay back to the Master Gardeners, Galveston County and the public. At present, I have done the peach program about 23 times, once each year," Auer said.

Herman has also taught grafting, answered hundreds of questions regarding fruit trees, taken many photographs that are in the MG digital library and helped anyone with multi-media needs. His career centered around 30 years at the GAF Corp. in Texas City. He and his wife Jackie currently live in Texas City.

What a legacy he gives to all Galveston County MGs as well as his two children and three grandchildren.





**Class of 1991 MG Linda Steber** (front left in photo) was born in Galveston and raised in Texas City. Linda is the editor of our *Gulf Coast Gardening* newsletter as well as a graphic artist for it. As a career, she retired from a chemical plant and also worked as an office manager of a yacht brokerage and of an architectural firm. She has also worked for Dr. William Johnson at the Extension Office.

Her grandparents' lives were involved in gardening and farming.

Her maternal grandmother

grew her own food in Oklahoma and with a vegetable garden and a chicken yard, always had a bountiful meal on her table. Linda's paternal grandfather raised cows and horses and Linda remembers he made a great homemade wine.

But it was her mother who instilled a love for growing things. "My mother had a beautifully landscaped yard. She worked in her yard every day. She could grow anything. She definitely had a green thumb. When she would come to visit, she would always bring me a beautiful bouquet of something from her yard – she never came empty-handed," Linda said.

That love of landscaping and a well-planned yard of beauty have worked their way into Steber's art of newsletter design as well as her own yard and lifestyle.



**Class of 2017 MG Intern Briana Etie** (pictured on left in photo) has researched her family ancestry and found she is a descendant from a long line of farmers. Growing up in Hitchcock and then Texas City, her parents were the inspiration for the type of gardener she is today.

"My Mom and Dad influenced my love of gardening. They were organic gardeners in the 70s. They believed in the pow-

ers of coffee grounds and egg shells. We had chickens and nice gardens. I remember my Dad buying praying mantis from the back of a *Mother Earth News Magazine* for insect control," Etie said.

"When I moved into my first home with my husband, my Mom helped me plan, amend the soil with rice hulls and till it in on my first Mother's Day in 1996. I continue to learn about gardening every season since that day. I lost my Mom just days after Mother's Day in 2006," Briana said.

Yet, her Mom's touch has never left her. Briana is seen weekly, no matter what the temperature, at the Discovery Garden.

"I am currently working in our Aquaponics Hoop House and the Greenhouse. I enjoy every part of the Discovery Garden," Briana said. "We have started some Adriana butter head lettuce seeds in the greenhouse to grow out in the aquaponics unit. I love growing tomatoes and greens in my raised beds at home."

Once a worker in hospitality department at The Flagship in Galveston, Briana is now the Mom to four children, a great home gardener, and a constant worker at the Discovery Garden. Everyone who works there also knows what an incredible garden cook she is by her generous lunch contributions.



**The parents of retired teacher Kaye Corey (MG Class of 2001)** also were the inspiration to what blossomed into a gardener and Junior Master Gardener instructor. Kaye (pictured left) remembers her Dad's Victory Garden and how her family and the brown bunnies loved what was produced. Her Dad let the bunnies have their share.

Her Mom loved roses, butterflies and birds and these topics were often discussed from Kaye's childhood through adulthood. It was what they had in common. Kaye currently raises butterflies and enjoys landscaping projects. She is active on Keep Friendswood Beautiful committee and her work there is appreciated.

While she remembers fondly her mother gardening as she sang *I Come to the Garden*, she also remembers another side of childhood that used the garden to help build character.

"When I needed to reconsider my behavior when I was a kid, I was sent to weed the garden and flowerbeds," Kaye said. "We were often weed free."

*This is the first in a series of articles about our Master Gardeners. So many Master Gardeners and such wonderful stories to tell about those who came before them and provided such legacies.*

*Special thanks to MG Henry Harrison III (Senior Vice President of our Master Gardener Association) who sat with me in the Discovery Garden outside for lunch this summer and shared this idea for a series. He too will appear in this series (rumor has it he's a City Kid from Chicago...now how did HE get the urge to become a Master Gardener?) Stayed tuned & coming soon....*

# How to grow Hops in Galveston County, Texas



By John Jons  
MG 2003

As the interest in craft beers and home brewing has increased so has the interest in the ingredients that go into making beer. One of the key ingredients in brewing beer is hops. The oils encased within a hop plant's flowers, called cones, are used as a flavoring and stability agent in the beer. Hops are also used in herbal medicine, and young hops shoots may be eaten like asparagus. Hop plants can also make an attractive garden ornamental.

Hop plants (*Humulus lupulus*) are typically grown in the northern climates between the 35th and 55th parallels. Galveston is near the 29th parallel. Hops are large climbing, perennial plants that require long days and a mild temperate climate. Some varieties of hops can be grown in our area with limited success and can produce cones.

The following information on growing hops in Galveston County, Texas, is written for the Galveston County home gardener or adventurous home brewer.

**Growing Hops in a Garden Bed.** To successfully grow hops in our area, local proven gardening practices have to be utilized that may vary from the traditional hop growing practices. Keep in mind that our shorter days, shallow clay soils, high humidity and high temperatures will impact the growth and productivity of the hop plant and may result in the hop plant being more of an annual vs. a perennial plant. The hop plant's vertically growing canes called bines may grow 14+' and will require some kind of vertical structure (trellis) to support them. Below the soil, the canes, called rhizomes and roots, can grow up to 5' horizontally and the roots can go as deep as 15'. During the wintertime, dormant hop plants like 6-8 weeks of cold weather (32-40 degrees F.) that we may not get. We often get lots of (warm) rain in our fall-winter period resulting in a high mortality of dormant hop plants due to the rhizomes and roots rotting in the ground.

- 1) **The Hop Plant's Garden Bed:** Hop plants should be grown in a raised garden bed that is at least 12" high (or more) and about 48" wide. Fill the garden bed with the best garden soil that you can acquire (with a pH in the 6-7 range). The soil must drain freely (no puddles). The hop plant likes full sun, but due to our intense and hot sunny days, you may want to consider locating the garden bed in a partial shade location. The garden bed site must have good air movement to help keep the hop plant's vegetation dry.
- 2) **The Hop Plant's Trellis:** A suggested hop trellis may consist of a single vertical pole, 8' to 18' tall, with a vertical support string (jute twine or coir) attached to the top of the pole and stretched out triangularly 48" from the base of the pole and anchored to the center of the garden bed. Or you can use 2 (or more) vertical poles and place a cable stretched at the top of and between the 2 poles. Then attach a vertical support string to the cable and stretch the support string vertically down and anchor it to the center of the garden bed. If you have multiple vertical support strings to accommodate multiple plants, they should be 36" apart. You can also drop a support string down from any high structure

or you can just train the hop plant to grow up the side of a vertical structure like you would with any vining plant. The poles, cables and support string should be strong enough to support a mature hop plant that may weigh up to 50 pounds.

- 3) **The Hop Plant's Irrigation System:** The hop plant may require watering daily. Avoid getting water on the leaves as this encourages fungal growth. Also avoid having the hop plant growing in standing water as this may cause the rhizome and roots to rot. Do not let the soil dry out. The ideal watering system for hops is a drip irrigation system on a timer.
- 4) **The Hop Plant:** The hop plant varieties that appear to do well in our area are "Cascade" and "Nugget." Other varieties may be successful, but the data on these varieties in our area is currently limited. Hop plants are typically sold as rhizomes and are usually available in the spring months of March thru April. The rhizome looks like a plant root about ¼" to ½" thick and 4"- 8" long. Some rhizomes may have emerging little white bud shoots. Try to purchase "certified" disease free hop plants. Only purchase female plants, as male plants do not produce viable cones. The rhizomes may be shipped to you in sealed plastic bags. Remove the rhizomes from the plastic bag, as they need oxygen. The rhizomes can be stored in the refrigerator until planted.
- 5) **Planting the Hop Plant:** You can plant the hop rhizome after the final frost, which is around late February in our area. Plant the rhizome horizontally at the base of a vertical support string in the garden bed with the white bud shoots facing up. Cover the rhizome with 1"-2" inches of soil. Then cover the garden bed with about 2"-3" of hardwood mulch. If planting multiple hop rhizomes they should be at least 36" apart. Make sure the rhizome is watered, but do not over-water it as this may cause the rhizome to rot.
- 6) **Training the Hop Plant:** After a couple of weeks, fresh green bines will emerge from the rhizome. The bines will naturally grow upward, adhering to and spiraling clockwise around any vertical support. The initial bines are fast growing "bull bines" that are hollow, rigid and snap easily. Some gardeners let the bull bines grow to about 2' and then snip the growth tip. This will stop further vertical growth development and allow the leaves to feed the roots. Then select 2 to 3 subsequent bines to train up the vertical string. These subsequent bines tend to be more productive. Most gardeners select and encourage the strongest and healthiest 3 bines to grow up the string (or other vertical structure). When the selected bines are observed to be successfully growing up the string, cut back any other bines that may be emerging from the rhizome. The bines may grow more than 6+" a day.
- 7) **Maintaining the Hop Plant:** Keep encouraging the hop bines to grow up the string. Initially consider using a liquid fertilizer high in nitrogen (N). When you see the first signs of cones forming, switch to a phosphorus (P) and potassium (K) based fertilizer, and/or side dress the plant with good quality compost or, even better, a fungal-dominant compost tea. When the bines reach about 8', remove the bottom 12" of leaves, but only remove 2 or 3 leaves at a time. This



helps reduce insect and fungal problems. Keep the area around the base of the plant weed-free. When the bines reach the top of the vertical structure, they will start to put out horizontal shoots that will produce the cones. From the moment the bines emerge from the rhizome you may observe insects that suck the bines and eat the leaves, and when the temperatures start to rise, you may observe fungus on the plant. If you can't tolerate the insect and fungus problems, consider using a mild fungicide or pesticide to address the issue. After you observe cones growing on the plant, do not use any non-organic fungicides or pesticides, as the cones are a food product. After a (warm) rain, it is not uncommon for the cones to be attacked by the ever-present fungus called *Botrytis*. This fungus will turn the cones dark brown or black. Remove and dispose of these cones.

- 8) **Harvesting the Hop Plant:** Around May through September, from the horizontal growing bines you will observe tiny bright-green buds forming called burrs that will transform into the hop's pinecone-shaped, papery flowers (cones). As soon as the cone gets to be about ½" to 1" inch long and feels dry and springy, harvest it by cutting it off the bine. You may be able to harvest mature cones from June to October. It typically takes a hop plant 3 years to reach its full productive potential. Some hop gardeners do not harvest the cones during the plant's first year to allow the plant to mature. It is suggested that in our area you may want to consider harvesting the cones during the first year because the hop plant is not a typical plant for our area and it may not live 3 years.
- 9) **Using the Hops (Cones):** The cones can be used fresh or stored for future use. If you do not intend to use the cones immediately, you will need to dry them, as they will attract mold. You can use a food dehydrator with a temperature around 120-140 degrees Fahrenheit for about 8 hours to dry the cones. One pound of fresh "wet cones" will dry to about 1/8th pound dry weight. After the cones are dried, place them in a zip lock freezer bag or vacuum seal them and freeze them.
- 10) **After the Hop Harvest:** If you must cut the bine, try to leave at least 36" as this will allow the plant to continue to build up reserves. The bine may eventually dry out by the end of the year.
- 11) **The Second/Third Year Hop Plant:** Leave the dried-out bines on the plant till after the last frost, which is around late February in our area. Before the new bines emerge, cut away the dead bines at ground level. Install new anchored, vertical support strings for the new bines to climb. Place a 2"-3" layer of fresh mulch on the hop garden bed and then watch daily for new bines to emerge from last year's rhizome. Below the ground the single hop rhizome will have grown into a mass of tangled rhizomes about the size of a basketball, called a crown, from which the new growth will emerge. You can harvest new rhizomes from this crown in early January before the new bines emerge. These harvested rhizomes can be used to start new hop plants of the same variety.



**Growing Hops in a Container.** Hop plants can be grown in a very large container or pot by applying the same gardening practices as growing a hop plant in a garden bed.

- 1) **The Hop Container (Pot):** The container must be at least 24" in diameter and height – the larger the better – and must have good drainage. Irrigation will need to be provided.
- 2) **The Container's Hop Trellis:** Use a large tomato cage, about 6' tall or taller, as a trellis. At the bottom of the trellis anchor 2 support strings on opposite sides of the pot. Spiral the support strings around the tomato cage, about 6" apart, to the top of the cage.
- 3) **Planting the Container Hop Plant:** Plant the hop rhizome in a slight mound located in the center of the container.
- 4) **Training the Container Hop Plant:** Select and train 2 bines to grow up along each of the 2 support strings that spiral around the tomato cage.
- 5) **The Second/Third Year Container Hop Plant:** The hop plant may have to be removed from the pot and the rhizomes/roots trimmed to prevent the plant from becoming root bound.

**Summary:** The challenge in growing hop plants in Galveston County is first selecting hop plant varieties that do well in our climate, followed by building a hop trellis and keeping the hop plant well-trained, relatively insect and disease free, and appropriately watered. If you follow local garden practices, use raised beds, have good quality, well-drained soil, you may harvest enough hops (cones) to flavor your home-brew and have a good-looking garden ornamental, too.

**Notes/References:**

- 1) The author of this article is a Galveston County Master Gardener and plant hybridizer. He is also a home-brewer and a Certified Beer Judge.
- 2) This information is based on growing hops in three test locations: Clear Lake (South), Harris County, and Dickinson, Galveston County, Texas along with input from home-brewers who have grown hops in the local area.
- 3) Local Gardening Info: AgriLife Extension.tamu.edu
- 4) Compost Tea info: "An Introduction to Compost Tea" - <https://www.youtube.com/watch?v=j7tOPJrtmTU>

# What WE learned in the Discovery Garden... Beneficials in the Garden and Landscape... *The Rest of the Story*



By Joanne  
Hardgrove  
MG 2016



By Tish Restle  
MG 2008



By Wendy Lemmel  
MG 2015



By Susan Creasy  
MG 2009



By Judy Anderson  
MG 2012

*This article prepared by Joanne Hardgrove (MG Class of 2016), Judy Anderson (MG Class of 2012), Tish Restle (MG Class of 2008), Wendy Lemmel (MG Class of 2015), and Susan Creasy (MG Class of 2009).*

*The sun comes up, the stars go by and we come to watch the monarchs fly by.* One fine day last year in August at the north end of the Discovery Garden our hopes were shattered. We began our weekly walk around the Butterfly Garden to check our milkweed and other host and nectar plants for butterflies. Where there is a Butterfly Garden, one would expect to see some butterflies or the caterpillar stages of butterflies. Our wondering eyes were then drawn to a precious monarch caterpillar being eaten by a paper wasp.

A predator in our garden! How can we stop this occurrence? Should there be any human intervention?

We were unexpectedly witnessing a National Geographic style scene upfront and in-person. A paper wasp had taken down a monarch caterpillar and it (to be precise: she) was prepping the caterpillar for transport back to her nest to feed the young (Fig. 1). We had many different opinions to protect our precious caterpillar, although none seemed appropriate.

Most Master Gardeners are aware that one of Dr. J's favorite PowerPoint programs to present to home gardeners (as well as Master Gardeners) is about beneficials commonly found in Texas Gulf Coast home landscapes and gardens. Most of us remember his remark that most gardeners have National Geographic-themed scenes that play out in our home landscapes and gardens that can be every bit as dramatic as those we see when tuning in to a television episode of National Geographic or NatGeo...*if we would only make the effort to stop and observe (and sometimes it also helps to listen).* His words now ring true.

What a moment! All of us were in amazement at this activity and those of us who are monarch lovers were aghast at the spectacle unfolding before our eyes. Judy sent a text message to Dr. J., our Master Gardener Program Coordinator. I captured a photo of her text message (Fig. 2) to Dr. J which read: We have insect questions in the back forty? ("The back forty" was in reference to the Serenity, Earth-Kind and Butterfly Gardens on the North End of the Discovery Garden). Dr. J joined us a few minutes later.

Most us belong to the Baby Boomer Generation and remember Paul Harvey's radio programs where he narrated intriguing stories. Paul Harvey, a venerable

radio broadcaster for over seven decades, was well-known for his five-minute "The Rest of the Story" broadcasts that were aired into the early 2000s. Near the end of each radio program, Paul Harvey would invoke his trademark comment of "Stay tuned for the rest of the story."

Well, we also feel this is where we should state "Read on for the rest of the story" for Dr. J passed out "assignments" for us to prepare articles for the lessons to be learned on that warm August day in 2017 (see our Nov./Dec. 2017 issue to read eight articles on a series entitled *What I Learned in the Discovery Garden*). We got the ninth (and rather challenging) writing assignment which you are now reading.

Milkweed plants produce bitter-tasting toxins called cardiac glycosides, and monarch caterpillars that feed on leaves of milkweed plants have evolved to use these to their advantage, sequestering the toxins in their bodies to protect themselves from many types of predators. The absorbed toxins render monarch caterpillars and adult butterflies quite distasteful to birds, lizards and other vertebrate predators and they quickly learn to avoid these caterpillars.

But invertebrate predators such as wasps lurking among the leaves are not deterred by the toxins. We watched in horror as the monarch caterpillar fell victim to the merciless food chain.

vSo, is a "good bug" always a good bug and is a bad bug always a "bad bug"? The good bug vs. bad bug philosophy can be subjective – sometimes the same bug can take on both roles. Take for instance paper wasps since they are not considered to be major predators of monarch caterpillars. The beneficial role that paper wasps play in feeding/controlling a wide variety of other caterpillars considered to be pests of cultivated crops and plants in home landscapes far exceeds their predation impacts on monarch caterpillars. Paper wasps in a typical size nest will capture/kill 2,000 to 4,000 caterpillars over a growing season to feed their young!

Consider also honeybees which are widely considered to be beneficial insects because they pollinate flowers (Fig. 3), produce honey, etc. But what would you call a honeybee if it (she) stung you? Honeybee stings can be deadly to humans who are hypersensitive to bee venom.

Another worthy example would be Red Imported Fire Ants. They feed on a very wide variety of insect pests including caterpillars, chiggers, cockroach eggs, flea larvae, and ticks. This makes them "good bugs" on occasion, but

few people are willing to consider Red Imported Fire Ants as beneficials in the general sense of the term.

While it might make for a catchy title for this article, “good bug” and “bad bug” are misnomers in some respects. Every insect and other organism has an important role to play in an ecosystem – supporting Mother Nature’s single goal of balance.

To follow Paul Harvey’s clever approach, we sub-titled our article as “The Rest of the Story” to emphasize that the insect world that is all around us in our Gulf Coast gardens and landscapes can be every bit as dramatic as the predator-prey scenarios that play out on the African savannahs. It just plays out at a slower pace and attention to detail can be needed to take it all in.

Be observant as you stroll or toil in your home landscape and garden, and be prepared to witness Mother Nature providing you your very own episode(s) for “The Rest of the Story.”



Photo by MG Judy Anderson

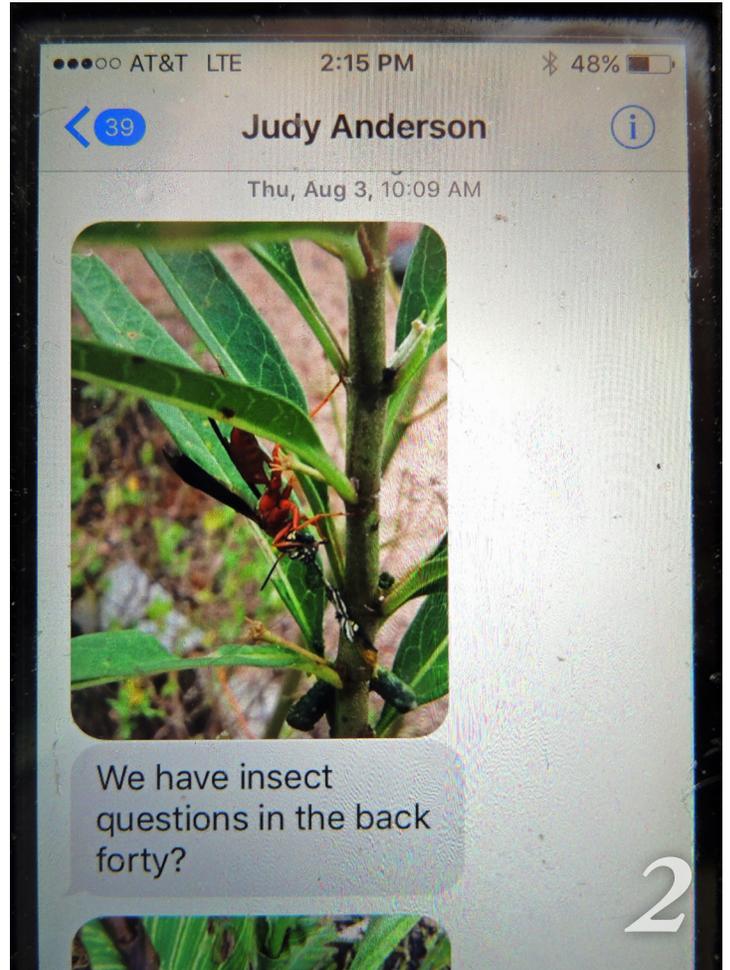


Photo by MG Joanne Hardgrove



Photo by Dr. William M. Johnson

# Master Gardener Association Meeting Minutes



By Mary Lou Kelso  
MG 2000

## November 14, 2017 Meeting

The meeting for the GCMGA meeting took place on Tuesday, November 14, 2017 at the Galveston County Extension Office. The meeting was called to order by GCMA President Ira Gervais. Master Gardeners then enjoyed a traditional potluck dinner. After the meal, the Annual Meeting and Election of Officers took place.

**Nominations for Officers of the Galveston County Master Gardener Association were as follows:**

**Member, Board of Directors, 1 position, 3-year term**

Term: January 1, 2018 through December 31, 2020

**Julie Cartmill**

**Secretary, 1 position, 2-year term**

Term: January 1, 2018 through December 31, 2019

**Mary Lou Kelso**

**TMGA State Association Delegate I, 1 position, 2-year term**

Term: January 1, 2018 through December 31, 2019

**Velda Cuclis**

**President, 1 position, 2-year term**

Term: January 1, 2018 through December 31, 2019

**Sharon Zaal**

**Treasurer, 1 position, 2-year term**

Term: January 1, 2018 through December 31, 2019

**Ed Klein**

**Assistant Treasurer, 1 position,**

Ed Klein's remaining term through December 31, 2018

**Debbie Brizendine**

**Member, Board of Directors, 1 positions, 3-year term**

Term: January 1, 2018 through December 31, 2020

**Tish Reustle**

The slate of officers were unanimously elected by elected by the members.

GCMA President Ira Gervais provided a PowerPoint Presentation on GCMGA goals that have been met over the calendar year along with a copy of the Association's financial reports for 2017. Ira also reported that in 2017, 20% of MGs participating in the MG online survey had 16 plus years of volunteer service while 42% had 0-4 years. Association membership consists of 161 females and 73 males. Discovery Garden projects accounted for 40% of volunteer hours reported while 8% went towards Outreach (Seminars, Libbie's Place, JMG, and Public Outreach) in the community. Seventy-five percent of Master Gardeners reside in Galveston County and 23% reside in Harris County.

Ira expanded on another highlight for the year. The State Master Gardener Conference and Luncheon took place May 1-2 at Moody Gardens Hotel with 285 MGS attending the luncheon on May 1. MG Mary Lou Kelso was recognized for her leadership in organizing the Conference luncheon and the Galveston Tours which was well-attended.



# MG Meeting Minutes *cont'd*

## December 12, 2017 Meeting

The December GCMGA Meeting was held at the home of Mikey and Allen Isbell on Galveston Island. Mikey and Allen's home was very festive for the meeting. Outgoing President Ira Gervais welcomed the MGS and thanked them for their volunteer service during the 2017 calendar year. Dr. Johnson conducted an office installation ceremony for new officers. Allen Isbell provided the grace before the Christmas potluck that the members provided. After the dinner, a small gift exchange took place for those that brought a gift.

Special guest was Mikey and Allen's son who travelled in from California that day for his dad's birthday which was to follow that week.

Respectfully submitted,  
Mary Lou Kelso

*NOTE FROM MARY LOU KELSO: It has been my honor to serve as the GCMGA Secretary for the past several years. I have decided to step down as Secretary. I appreciate the support that so many Master Gardeners have provided for all the outreach projects that I was involved in as a MG leader.*



Incoming GCMGA President Sharan Zaal is congratulated by outgoing GCMGA President Ira Gervais after the officer installation was conducted.

# Salsa Garden

## Edible theme gardening fun!

Graphic is republished with permission of *The Greer Education Foundation*



by Camille Goodwin  
MG 2008

The tomatillo plant, native to Mexico, is a type of ground cherry. It has a fresh, tangy flavor that is delicious in homemade salsas. Cilantro, peppers, and onions also add color, taste and texture to this popular dish.

Who doesn't love a great fresh salsa sauce? As recently as a generation or so ago, Americans had not heard of salsa. Now, whether smooth or chunky, salsa once used only as a dip for chips, has become one of the most popular condiments used to flavor or compliment all kinds of dishes today. You can have your own fresh salsa in a matter of minutes when you plant a salsa theme garden. The Salsa Garden featured here is only one of many ways to incorporate salsa ingredients into your square foot plan for fresh salsa whenever you desire it. Exchange any of the plants to meet your personal taste. When designing your garden consider what you like in your salsa, do you like it hot, mild, tangy or sweet? If you need a plant that's not on this design plan, research it to figure out how many you can plant per square. Your garden needs to be in a location that receives 6 to 8 hours of sun per day.

Salsa gardens have visual appeal with large plants heavy with tomatoes and brightly colored hot peppers standing tall while cilantro, shallots, garlic and onion nestle into the soil among them. A salsa garden is a great garden to grow with your kids and grandkids.

### Salsa Garden

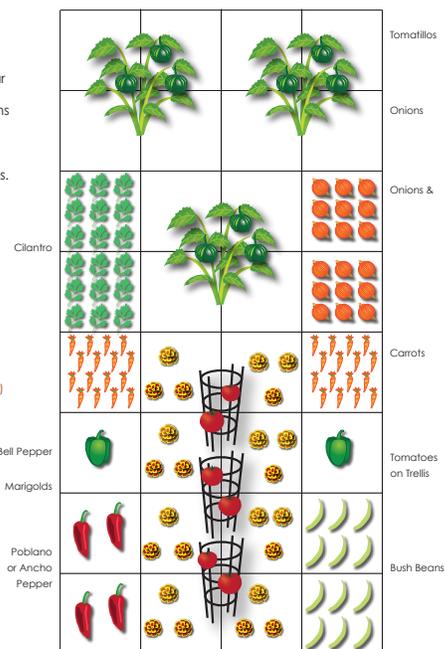
The tomatillo plant, native to Mexico, is a type of ground cherry. It has a fresh, tangy flavor that is delicious in homemade salsas. Cilantro, peppers, and onions also add color, taste and texture to this popular dish.

#### Gardening Tips:

Tomatillos have some similar needs as tomatoes - they require plenty of space, tons of sun and the support of tomato cages. Planting marigolds around these plants repels harmful insects. Including flowers among vegetable beds also encourages pollination.

#### Plant List:

- 3 tomatillo (transplant)
- 18 onion (seed)
- 18 cilantro (transplant)
- 32 carrot (seed)
- 1 bell pepper (transplant)
- 1 jalapeño pepper (transplant)
- 1 poblano or ancho pepper (transplant)
- 12 bush beans (seed)
- 2 celery (seed)
- 32 marigolds (transplant)
- 3 tomato (transplant)



Key: 1 inch square = 1 foot

# The Discovery Garden Update



By Tom Fountain  
MG 2008

What a whacky season it has been around Galveston County. Hurricane Harvey produced almost 50 inches of rain in late August, flooding the garden and many areas around southeast Texas. Just over two months later in December we had almost 2 inches of snow fall. The wonderful snow pictures on the right were taken by Briana Etie.

Despite December's cold start, the average temperature for the month was near normal, and rainfall was slightly above normal. The average temperature for 2017 ended a couple of degrees above normal, while the yearly rainfall was well above normal. The extended weather outlook indicates that the above normal temperatures will return and rainfall will drop below normal this spring.

As if the snow didn't do enough damage to the garden, January's freezing rain and temperatures in the 20's did a lot more damage. The snow caused freeze damage to many plants. The January freezing rain and temperatures in the 20's produced more plant loss and caused burst pipes that supported the greenhouse and aquaponics (Fig 3). Henry, Bobby, Gene, and Clarence are working on a fix for a broken pipe (Fig 4). Gene and Briana are refilling one of the tanks.

We have lots of outstanding Master Gardeners and one of these is Briana, who came out to the garden in the snow and freezing weather to check on the fish and the aquaponics facility. She added a backup water heater to the fish tank to protect the fish.

The aquaponics garden produced its first lettuce harvest before the cold weather. After the snow we were able to harvest some of the cabbage and turnips. Since then the plants have frozen again (Fig 5). Sue and another Master Gardener are shown harvesting turnips.

All areas of the garden show signs of freeze damage. So, it's going to be a more delicate than normal spring for our plants. Our challenge as Master Gardeners is going to be cleaning up, pampering plants, and getting back into production. So if you MGs have some time come on out to the Discovery Garden, there is plenty to do (Fig 6). Mary is pictured watering plants in the greenhouse.



Photos courtesy of Tom Fountain





**2018 TMGA CONFERENCE**  
CELEBRATING 40 YEARS

*Honor the Past, Celebrate the Present,  
Embrace the Future*

**The 2018 Texas Master Gardener Conference**

will be held in College Station

April 4-6, 2018 at

**TEXAS A&M UNIVERSITY CAMPUS**

Join us as we celebrate the 40th Anniversary of the Master Gardener Program in the state of Texas and view the Earth-Kind® Gardens within The Gardens at Texas A&M University.

**REGISTER NOW!**

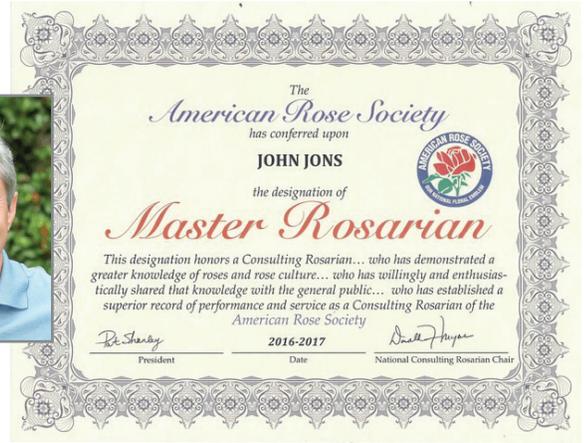
Visit the conference website to learn more

[2018tmgaconference.com](http://2018tmgaconference.com)

**WHEN** APRIL 4-6, 2018

**WHERE** TEXAS A&M UNIVERSITY CAMPUS

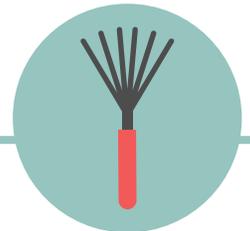
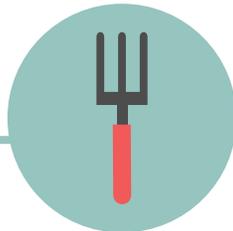
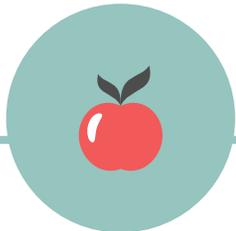
**PRICE** \$285



**Galveston County Master Gardener  
Recognized by the American Rose Society.**

John Jons, MG 2003, was awarded the designation of “Master Rosarian” by the American Rose Society (ARS), at the South-Central District Convention. To achieve this designation requires qualifying for and passing the ARS Consulting Rosarian exam. Then after ten years as a Consulting Rosarian “...who has demonstrated a greater knowledge of roses culture... who has willingly and enthusiastically shared that knowledge with the general public ... who has established a superior record of performance and service” ... you may be nominated for consideration for this designation.

*Congratulations John.*



**REMEMBER**

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 approved means. Contact MG Wayne Elliott at [gcmghours@gmail.com](mailto:gcmghours@gmail.com) for more information.

<i>Date</i>	<i>Name of Program</i>	<i>Speaker</i>	<i>MG CEU's</i>
1/6/18	Growing Avocado and Papaya	Jerry Hurlbert	2.75
1/6/18	Growing Peaches in Galveston County	Herman Auer	2.50
1/11/18	Collection and Storage of Budwood for Grafting	Sue Jeffco	1.25
1/13/18	Growing Great Tomatoes	Ira Gervais	2.00
1/13/18	Kitchen Gardening	Mary Demeny	2.00
1/18/18	Wedge Grafting	Sue Jeffco	1.00
1/20/18	Successful Spring Vegetable Gardening	Herman Auer	2.50
1/20/18	Small Yards, Small Trees	Sandra Devall	1.50

**2018 Recertification Hours for MG's**

Last Updated January 22, 2018

**Total CEU's (Hours)**

**15.5**



# A visit to a Yorkshire Garden - RHS's Harlow Carr, Harrogate, Yorkshire, England



By John Jons  
MG 2003

If you are visiting North Yorkshire, England, and you enjoy gardening, you might want to consider visiting the Royal Horticultural Societies' (RHS) Garden called "Harlow Carr" in Harrogate.

What is the RHS? (1) The RHS is a charitable organization that was founded in London (England) in 1804. It is now the world's largest gardening charity with 414,699 (2013) members (2) Its charitable purpose is "the encouragement and improvement of the science, art, and practice of horticulture in

all its branches."(1)

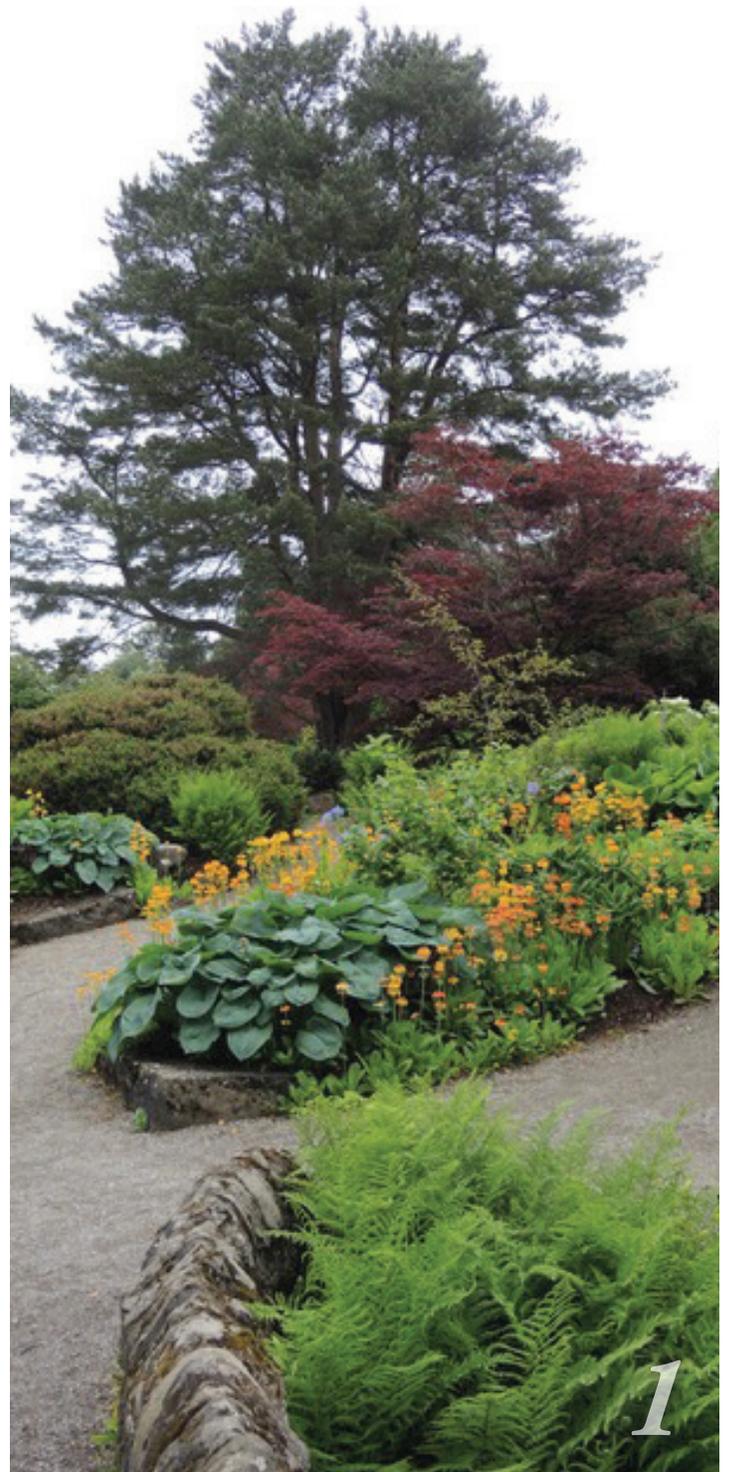
What is an RHS garden? These are gardens managed by the RHS. There are four major gardens in England. They are Wisley Garden near Wisley in Surrey, Rosemoor Garden in Devon, Hyde Hall in Essex and Harlow Carr in Harrogate, North Yorkshire. The gardens are free to the members of RHS.

What is "Harlow Carr"? It is one of the gardens managed by the RHS, and it consists of 68 acres of land. The primary intent of the garden is to set up a trial ground to test plants for growing in the northern parts of England. Depending on the season that you visit these gardens, you will find plants growing and in bloom consistent with the time of the year. In the spring there are daffodils, tulips, and woodland flowers. In the summer candelabra primulas (candelabra primroses) along the streams and bed borders are in abundance. In the fall (autumn) the focus will be on kitchen garden plants ready for harvest. In the winter winter-berries and winter-flowering heather are everywhere.

Like most large public "horticultural" gardens this garden consists of many small themed gardens. There is a sandstone rock garden, a streamside walk garden, kitchen garden, scented garden, alpine garden, foliage garden, a wild flower meadow and a teaching garden. Some of the gardens, like the winter garden, are seasonable. There are also lots of garden-themed walks around the gardens.

Typical of most English public gardens there is also a restaurant, tea room, library and garden shop. Plus, there is a full schedule of seasonable, weekly and weekend events that start in March with the Mothers' Day Weekend and finish in December with the Magic of Christmas. (3)

My visit was on a weekday in June just after the garden had opened at 9:30 a.m. As I walked along the garden paths, I was incredibly impressed by the number of flowers in bloom, the well-manicured beds, and the serenity of the gardens. It is really hard to describe the beauty of it all, so I took lots of pictures and made a YouTube video called "A Yorkshire Garden: RHS's Harlow Carr, Harrogate, Yorkshire, England" (<https://www.youtube.com/watch?v=u85Ns8Qre8o>.) This brief video illustrates the beauty of these gardens. This garden has over 400,000 visitors a year (4).



1



#### References

- 1) Royal Horticultural Society. Wikipedia
- 2) Harlow Carr Tourism Leaflet
- 3) "Blooming Marvelous," Yorkshire Living Magazine, Harrogate Edition. June/July 2017, p. 46.  
Photos: © J. Jons 2017

# Upcoming Events - February 2018

## Galveston County Master Gardener Educational Programs for Interested Gardeners

The following 2018 Master Gardener Programs are free to the public.

Location: Galveston County AgriLife Extension Office in Carbide Park • 4102 - B Main Street (FM 519), La Marque, Texas 77568

GPS location: 29.359705, -95.003591

For course reservations, call 281-309-5065 or email [galvcountymgs@gmail.com](mailto:galvcountymgs@gmail.com)

<http://aggie-horticulture.tamu.edu/galveston/index.html>

## FEBRUARY

### SIMPLY SUCCULENTS

Saturday, February 3  
9 – 11 a.m.

[galvcountymgs@gmail.com](mailto:galvcountymgs@gmail.com)  
to pre-register

Texas Master Gardener and Creative Director for North Haven Gardens in Dallas Paula Spletter will present an in-depth class touching on all facets of succulent care, propagation, disease, and planting. Learn the best ways to keep these great plants thriving. Gain the confidence to expand your collection. Paula Spletter is a popular presenter for both the Dallas County Master Gardener Association and the North Haven Gardens.

### GROWING BACKYARD CITRUS

Saturday, February 3  
1 – 3 p.m.

[galvcountymgs@gmail.com](mailto:galvcountymgs@gmail.com)  
to pre-register

Galveston County Master Gardener Robert Marshall's presentation will feature the following topics: variety selection of citrus trees that grow well in this area, root stocks, nutrients, disease (citrus canker and citrus greening), insect problems, control of birds and critters, and freeze protection. Marshall has years of experience in many facets of growing and propagating citrus trees in this area.

### PLANTING FRUIT TREES

Saturday, February 10  
9 – 10:30 a.m.

[galvcountymgs@gmail.com](mailto:galvcountymgs@gmail.com)  
to pre-register

Galveston County Master Gardener Specialist Herman Auer will present information to help you select the right fruit tree variety for your location, and then how to plant it for a long, productive life with a well-anchored root system. Auer has over 45 years of local fruit tree production experience.

### GALVESTON COUNTY MASTER GARDENERS ANNUAL SPRING FRUIT & CITRUS TREE, VEGETABLE, PERENNIALS, BULBS, AND CRAFTS SALE

February 17

8:00 a.m. – 8:50 a.m. – Pre-sale plant seminar  
9:00 a.m. – 1:00 p.m. – Sale

LOCATION: Jack Brooks Park Rodeo Arena, 10 Jack Brooks Rd and Hwy 6, Hitchcock, TX 77563 (Galveston County Fairgrounds)

Huge number of plant varieties adapted to the Texas Gulf Coast growing area offered; for a complete list of plants included in the Sale, visit the website: <http://aggie-horticulture.tamu.edu/galveston/index.html>

### HOW TO GROW NATIVE MILKWEED

Saturday, February 24  
1 – 3 p.m.

[galvcountymgs@gmail.com](mailto:galvcountymgs@gmail.com)  
to pre-register

Monarch Gateway Director Barbara Keller-Willy will present information about the significance of milkweed to Monarch butterflies, how to propagate native milkweed, and how to create a pollinator habitat/Monarch way station. Monarch Gateway is a Fort Bend County non-profit organization.

# 2018 ANNUAL SPRING PLANT SALE Seminar & Craft Sale

Saturday, February 17, 2018

Galveston County Fairgrounds | Hwy 6 | Hitchcock, TX | Galveston County Master Gardeners

8 am Educational Seminar Ed Pickett Hall

9 am Plant Sale Rodeo Arena

1 pm Close

# easy recipes

## Seasonal Bites



*“Baby, it’s cold outside...”*

That old song definitely fits Galveston County and the Houston area this week. And there’s nothing like being tucked inside for a few days to make us start thinking of good things to eat. So here are two good recipes for trying. One is a vegetable and is good for you. The other is a dessert that just tastes really good. See which one you like best.

By Sandra Gervais  
MG 2011

### Oven-Baked Cauliflower



#### Ingredients

7-8 cups of small cauliflower florets, washed and drained (That’s about one regular sized cauliflower.)  
1/4 cup olive oil  
2-5 cloves of chopped garlic  
(We like more but not everyone does.)  
1/2 teaspoon salt  
1/4 teaspoon black pepper or to taste

#### Directions

Toss the cauliflower with the oil, garlic, salt and pepper to taste on a rimmed baking sheet. Then get creative. Toss again with what pleases your taste buds: 2-3 chopped plum tomatoes, a finely sliced medium onion, chopped herbs such as a few teaspoons of fresh thyme or cilantro.

Do the same with spices such as 1 teaspoon cumin seeds, a pinch of cayenne pepper or more to taste, 1/4 teaspoon turmeric or your favorite Indian spice.

Since the cauliflower has such a mild flavor, simply add in your favorites.

Roast at 450 degrees for about 25 minutes, tossing occasionally, until cauliflower is tender and has a bit of color on it.

Top with lemon juice and cilantro for garnish

### Orange Bundt Cake



Kathy Maines used fresh orange juice when she made this cake for a monthly backyard meeting where it was a big hit. It’s adapted from an Ina Garten lemon cake recipe, so either citrus can be used happily.

Preheat oven to 350 degrees.  
Grease and flour bundt pan or two 8x4x2.5-inch loaf pans.  
(Use parchment paper on bottom if desired.)

#### Ingredients

1/2 pound unsalted butter (2 sticks) at room temperature  
2 cups sugar  
4 large eggs at room temperature  
1/3 cup grated lemon or orange zest  
3 cups plain flour  
1/2 teaspoon baking powder  
1/2 teaspoon baking soda  
1 teaspoon salt  
1/4 cup fresh lemon or orange juice  
3/4 cup buttermilk at room temperature  
1 teaspoon pure vanilla extract

#### Cake mixture

Cream butter and sugar with mixer until light and fluffy, about 5 minutes.  
With mixer on medium, add eggs one at a time.  
Add citrus zest.

In another bowl, sift together flour, baking powder, baking soda and salt.  
In third bowl, combine juice, buttermilk, and vanilla.

Add flour mixture and buttermilk mixtures alternately to the batter, starting and ending with the flour.

Pour batter into pan/pans, smooth and bake for 45 minutes to 1 hour.  
Cake is done when tester comes out clean.

#### Syrup mixture

Combine 1/2 cup sugar and 1/2 cup citrus juice in a small saucepan.  
Cook over low heat until sugar dissolves.

Cool cakes for 10 minutes and remove from pan.  
Set cake on rack or tray and spoon syrup over them.  
Allow the cakes to cool completely.

#### Glaze ingredients

Combine 2 cups of sifted icing sugar and 3-1/2 tablespoons of citrus juice in a bowl until smooth.  
Pour the glaze over cake and allow to drizzle down.



# bulletin board



## Volunteer Opportunities

- For the **Master Gardener Hotline** contact Ginger Benson by email at [galvcountrymgs@gmail.com](mailto:galvcountrymgs@gmail.com) or call the office at 281-309-5065.

## Volunteer Opportunities

- 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](mailto: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!**



## Volunteer Opportunities

- 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 <http://www.moody.org/libbie-s-place-senior-day>. 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](mailto: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.

**WeatherLink Network**  
GalvCity Master Gardener Discovery Garden

<b>88°</b>	<b>HIGH 89°F</b> at 2:29 PM
	<b>LOW 81°F</b> at 4:34 AM
<b>Wind</b>	<b>Calm</b> High Gust 15 Mph at 9:30 AM
<b>Humidity</b>	1% Feels Like 82°F
<b>Rain</b>	0.00" Seasonal Total 17.87"
<b>Barometer</b>	29.86" Steady

Current Conditions as of 3:07 PM Friday, June 25, 2017  
DAVIS

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

## SPECIALIST AND OTHER MG RELATED TRAINING

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

## Tarrant County Propagation Specialist

Class is scheduled for March 23-24, \$225, and limited to 2 Master Gardeners per county. Please note that participants must have Dr. J's approval. The registration deadline is February 26th. A link to the info page is below - <https://txmg.org/events/specialist-training-propagation-2/>

## VOLUNTEERS NEEDED

Tour Guides for "First-Thursday-in-a-Month" Public Access and Tour of our Discovery 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 9:00 -11:00 am. MGs are needed to serve as tour guides for our demonstration Garden. Contact MG Robert Marshall 281.993.5595, email [rbtm01@att.net](mailto:rbtm01@att.net) or MG Bobbie Ivey 713.748.8564, email [blivey@sbcglobal.net](mailto:blivey@sbcglobal.net) to volunteer.

Volunteers are needed to develop and deliver presentations on various horticulture topics of interest to the public in our surrounding communities and our Master Gardener's. Classes are given at the Extension Office on Tuesday Evenings and on Saturday. This is an excellent opportunity to contribute, develop and use skills from life experiences as well as contribute to one of the main GCMG missions of Education. We have experienced GCMG Mentors and Specialist available to guide and support. Please contact if you have any questions and so we can get you scheduled to present a class. Volunteers are also needed to help with the Saturday programs and the Tuesday evening programs. If you can help, please contact

Denny Noh @ 281-723-2830 or [dnoh@aol.com](mailto:dnoh@aol.com)  
Nancy Langston Noh @ 832-289-7087 or [nancylnoh@aol.com](mailto:nancylnoh@aol.com)

**AgriLife Extension Office Discovery Garden needs volunteers!**  
The gardens around the AgriLife Extension Office are maintained by Master Gardeners under the team leadership of MG Ginger Benson. 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 Ginger at 281-309-5065, email [galvcountrymgs@gmail.com](mailto:galvcountrymgs@gmail.com) to find out the schedule and join her team.



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](http://smile.amazon.com) - Choose Galveston County Master Gardener Association as your charity. Save [smile.amazon.com](http://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... Microclimates in the Landscape

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



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

A cold snap arrived as the new year started. Night-time temperatures in my home landscape dropped into the low 20s for a few hours.

After moving cold sensitive plants indoors, I decided to repeat an experiment with water-filled Solo cups that I first conducted one year ago on Jan. 7, 2017. As with my first experiment one year ago, I set out several 16-ounce-capacity Solo cups which I had filled to the brim with tap water.

Solo cup #1 was placed out in an open area in the back lawn. Solo cup #2 was placed on the ground

under the dense foliage of a red firecracker plant growing along the concrete slab foundation.

Solo cup #3 was placed on top of the soil about 18 inches away from the outer branches of my Meiwa kumquat citrus grown in a raised bed. Kumquats are the most cold hardy of all edible citrus and can survive temperatures down into the 16-18 degrees F range but their cold tolerance is dependent on a tree being properly conditioned or acclimatized well before the arrival of a cold snap.

I was not taking any chances with my Meiwa kumquat sustaining cold injury, so I draped two cotton sheets over the nearly 6-foot-tall tree. When television meteorologists later predicted a chance of rain, I placed a sheet of plastic over the bed sheets. My Meiwa kumquat was in full production and looked like a Christmas tree with its plethora of bright orange-yellow fruit against the dark green leaves.

Solo cup #4 was placed on the ground near the trunk and underneath the dense canopy of the Meiwa kumquat tree that I had placed two bed sheets plus a layer of plastic.

While I have no delusions about submitting experimental results from my rather rudimentary New Year's experiment to a revered scientific journal for publication, the findings nevertheless can provide some insights to home gardeners on what happens when a cold snap arrives.

So what were my findings? The surface of the water in the Solo cup #1 (in an open area of the back lawn) was frozen to a depth of nearly 1.5 inches by the following morning. The water in the Solo cup #2 (on the ground under the dense foliage of a red firecracker plant growing along the concrete slab foundation) remained in a liquid state.

The water in the Solo cup #3 (placed on top of the soil about 18 inches away from the outer branches of my Meiwa kumquat citrus) was frozen to a depth of nearly 1.5 inches by the following morning.

The water in the Solo cup #4 (placed on the ground near the trunk and underneath the dense canopy of the Meiwa kumquat tree protected by two bed sheets plus one layer of plastic) had a paper-thin layer of ice on the surface.



Photo courtesy of Dr. William Johnson  
Citrus are subtropical plants. Kumquats are the most cold hardy of all edible citrus (pictured above are Meiwa kumquats). Kumquats can survive cold temperatures down to the 16-18 degrees F range when trees are properly conditioned or acclimatized well before the arrival of a cold snap.

What are the implications of this study? There can be subtle microclimates in a given area. Microclimates are the little weather variations that can occur from one side of a hill to another, from one street to the next, and even within different sites in the same yard. Wind exposure, bodies of water (ranging from small water gardens to the Gulf of Mexico), etc., can influence a microclimate.

Even the brick walls of homes can create subtle microclimates. Brick walls with a southern exposure to the sun warm up earlier, reach higher temperatures and have greater variations in temperature than north facing brick walls. I observed that leaves on the lower branches of my blue plumbago plants growing next to a south facing brick did not sustain cold injury from last week's cold snap.

The interior-most leaves of a large blue plumbago growing near my office in Carbide Park also escaped cold injury. That's why I strongly recommend not pruning away dead foliage until late winter after the likelihood of cold weather is lessened.

The occasional colds snap made many gardeners scramble to protect their cold sensitive plants. Tropical and subtropical plants can be used effectively in the landscape, but they must be protected or replaced when necessary. The best approach is to plant a good balance of tropical and winter hardy plants, so that your landscape is not totally devastated in the event of extremely cold weather.

# 2018 GCMGA Monthly Meetings



By Judy Anderson  
MG 2012

February	Plant Sale Presentation
March	Pot Luck at Extension Office with presentation by Jerry Hamby, "The Trees of Exploration Green."
April	Backyard visit to the home of Karen and Tom Morris
May	Backyard visit to home of Raini and Bret Cunningham
June	Graduation and Recognition at home of Mikey and Allen Isbell
July	Extension Office, Pot Luck; "Historical Trees" presented by Leslye Mize
August	Moody Gardens
September	Backyard visit to the home of Melissa and Barry Terrell
October	Plant Sale Presentation
November	Annual Meeting at the Extension Office
December	Holiday Meeting at the home of Mikey and Allen Isbell

MG Judy Anderson thanks MGs for hosting backyard meetings. You may contact Judy at [jande10198@aol.com](mailto:jande10198@aol.com) for information.

## The Trees of Exploration Green

Please join the Galveston County Master Gardeners for the March meeting and pot luck. Jerry Hamby will present "The Trees of Exploration Green." Jerry has taught English and humanities at Lee College in Baytown for twenty-eight years. Since 2014 he has been a co-leader at the Exploration Green Tree Nursery, where he coordinates weekly maintenance and twice monthly workday events. He has a passion for sharing the good news about Exploration Green.

## April

Karen and Tom Morris will once again welcome the Galveston County Master Gardeners to their home overlooking the Houston Ship Channel. They invite us to enjoy a relaxing pot luck dinner on the patio. One could easily be lulled into watching the activity on the ship channel, but don't miss a walk with Karen if she leads the Master Gardeners through her fruit and vegetable garden.



## FEEDBACK

### We Want Your Feedback

We would love to hear from you. Send us your comments or suggestions for future articles, or just let us know how you are using our newsletter. To make sending feedback easy, just click on the button with your response

