

The Blooming Bell

September 2020



INSIDE THIS EDITION

Calendar	2
President's Corner	3
Plant Damage	4
Wayne's Page	7
"Little Edie Tidbit"	9
What's Happening	10-14
The Sunflower Dilemma	16
Honey Bees	18
Lady Bugs	20
Sharing Is Caring	23
What's Coming Up!	30
Announcements	33
Upcoming Events	36

Flowers of the Month Aster and Morning Glory







Submitted by
Terrie Hahn



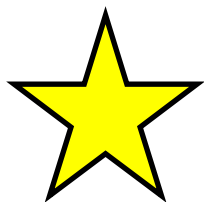
Submitted by Jan Upchurch



September 2020

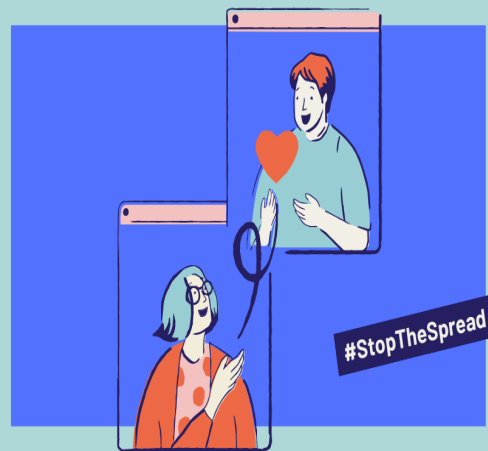
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5 
	National Honey Month					
6	7 LABOR DAY	8	9 National Wiener Schnitzel Day General Membership Online Business Meeting	10	11 Patriot Day	12
13 Grandparents Day 	14	15	16 General Membership Online Educational Session	17	18	19
20 Pepperoni Pizza Day! 	21	22 Fall is Here. 	23 Board of Directors Mtg via Telecon 9 AM	24	25	26
27	28	29 National Coffee Day	30			

To help prevent the spread of COVID-19, please continue to practice social distancing, wear a mask, and as much as possible **STAY AT HOME!** We will see you all soon.



Remember to record volunteer service hours and education hours each month.

VIRTUAL HUGS



STOP THE BUGS

President's Corner

Glenn Melton



I hope everyone is doing well and staying safe. Unfortunately, we are now in the Dog Days of Summer and probably will not get any rain or relief from this heat for several weeks. Nothing new to any of us, however.

I would like to take this opportunity to say Thanks to all who have been attending our virtual monthly General Membership and Educational sessions. The number of participants continues to increase, and I would like your input regarding any topics you would like to discuss either at the General Membership meetings or the Educational sessions. These meetings are, after all, for and about our members and our organization. Please feel free to contact me or Jan Upchurch with any suggestions you might have that would be of interest to everyone. And, by the time you read this article we will have seventeen new Master Gardeners in our family. Please do everything you can to ensure these newly certified members feel welcome and included. Our class of 2020 faced some unique challenges and they proved that not even a pandemic can impede progress. I am sure everyone feels much the same as I and we all look forward to working with our newest members in the coming years.

At our last General Membership meeting I provided highlights of the State Directors meeting held online on August 3rd. Some points everyone should take away from this meeting:

- ◆ The annual requirement to earn 6 educational and 12 service hours remains in effect
- ◆ State Directors Meetings will continue to be held online
- ◆ Face-to-face meetings are restricted to 10 participants or less, social distancing guidelines must be observed, and all such meetings must be approved by the County Extension Agent
- ◆ Term in office for all elected officials of the State Master Gardener Assoc have been extended for one year
- ◆ A pilot online program for Master Gardener will be instituted next month
- ◆ There are no plans for a 2021 State Master Gardener Conference

The question has been raised whether we will have our annual Christmas Party this year, and I must report that it does not look promising. Keep in mind the “no more than 10 people in a meeting and 6ft apart must be observed” guidance is still in effect. I will get with Lyle next week to discuss this issue and let you know when a final decision can be made. Hopefully, we will have an answer no later than the September BOD meeting.

Now, on a personal note, I want to say Thanks for the 50th Wedding Anniversary card Gisela and I received just recently. Gisela and I appreciate so much the thoughtfulness expressed by everyone in our Master Gardener family. Just goes to show that we are all in this together.

Once again, I would like to express my Thanks to everyone for their patience, understanding, and support over these past troublesome and challenging months. Hang in there; we will come out on the other side of this....Glenn

Plant Damage

by Wizzie Brown

When you are perusing your garden and come across a plant that isn't quite as pristine as you would like, what do you do? Do you keep walking, go into panic mode and run to get a pesticide, or do you look around to collect a bit more information? Hopefully, you went with option three.

If you fail to inspect plants in your garden, then you may miss problems when they first begin and are easier to manage. Conversely, if you treat with a pesticide right away, then you may be applying unwarranted pesticide for insects that are no longer there. If you continue your inspection to gather more information, then you can make an educated decision on how to proceed.

Chewing pests include insects such as grasshoppers and katydids in both adult and immature stages, caterpillars, sawfly larvae, termites, and some adult and immature beetles.



If you discover chewing damage, you need to determine if damage is new or old. New damage has green edges and can mean the insect that caused the damage is still nearby. Old damage has brown edges where the plant was chewed and insects that did the chewing are most likely no longer on the plant.

If you have new chewing damage but cannot locate insects, then you need to determine the possible size of the insects to figure out possible methods of management.

Non-chemical and less-toxic options work best on smaller stages of insects and you also need to consider if the pest can fly away from your treatment.

Smaller chewing insects consume softer parts of plants- new growth or leaf surfaces- but not veins; and their damage can have a lacy or windowpane appearance. Medium sized chewing insects consume more parts of the plant including surface of leaves and smaller veins, leaving small ratty-looking holes or chewing along edges. Large chewing insects consume much of the leaf or fruiting bodies and may sometimes eat everything or only leave behind major leaf veins.

Plant Damage

by Wizzie Brown



Non-chemical management for chewing pests include preemptive tactics such as plant collars, row cover, and removing eggs before they hatch. Less-toxic pesticide options are active ingredients such as *Bacillus thuringiensis* var. *kurstaki* (targets caterpillars only), spinosad (targets chewing insects), kaolin clay (coats the plant with a whitish-gray clay substance, gums up mouthparts, and needs to be reapplied when it washes off), and pyrethrins or azadirachtin (which are plant derived, but broad spectrum so kill any insects that come into contact).

Plant feeding insects with piercing-sucking mouthparts include insects such as stink bugs, leaffooted bugs, chinch bugs, lace bugs, aphids, hoppers, mealybugs, scale insects and whiteflies.



Piercing-sucking mouthparts form a long tube that is tucked between the legs of the insect on the underside of the body. The mouthparts consist of a hardened outer layer used to puncture plant tissue and a middle softer tube-like structure that is used to suck up plant juices.

Plant Damage

by Wizzie Brown

Damage from piercing-sucking mouthparts causes yellowing, curling, deformation, and stunting of plant foliage or fruiting bodies. Feeding by these insects can transmit viruses and causes puncture wounds that can lead to secondary infection by fungus, bacteria, etc. and scarring. Since there is a wide range of insects with this type of mouthpart, damage can manifest in other ways too.



A subset of insects with piercing-sucking mouthparts (e.g. aphids, whiteflies, scale insects) exude waste material called honeydew. Honeydew is a sticky sweet substance that can drop onto the host plant and surrounding areas, causing stickiness and a shiny appearance. A dark fungus called sooty mold grows on honeydew which can lead to secondary plant damage by blocking sunlight and reducing photosynthesis. If you discover sooty mold on your plants, you need to look for insects exuding honeydew.

Non-chemical management for pests with piercing-sucking mouthparts include preemptive tactics such as row cover, reflective mulch, and removing eggs before they hatch. High pressure water sprays can be used to remove small, soft-bodied insects such as aphids and scale insects. Less-toxic pesticide options use active ingredients such as insecticidal soap, horticultural oils, or plant-based pesticides like pyrethrins, azadirachtin, limonene, and others. Remember, less-toxic methods tend to work better on smaller stages of insects because of their size and often many of them are wingless and cannot escape the treatment area easily.

For more information or help with identification, contact Wizzie Brown, Texas A&M AgriLife Extension Service Program Specialist at 512.854.9600. Check out my blog at www.urban-ipm.blogspot.com

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Wayne's Page



Environmental Issues and Tomatoes

By Wayne Schirner

Living in Texas provides many benefits, especially for the vegetable gardener. The biggest benefit is that we have two distinct growing seasons, and we are entering the second one for this year. September and October are two of the busiest planting months for the year. Growing a fall garden does require more advance planning because many of the plants available for spring planting aren't as widely available for fall gardening. That means you have to start some things yourself. For example, tomatoes for the fall garden need to be planted in the hottest part of the summer between mid-July and mid-August. Since tomato plants need 6-8 weeks from seed to a plant ready for transplant, that means planting tomato seeds in early June. Hopefully you remembered to do that.

In this month's article, I want to talk in more detail about some tomato problems, specifically those not related to insect or disease pests. These fall into a category that I will call environmental issues.

The first environmental issue I want to talk about is sunscald. It is a common problem caused by intense direct sunlight for extended periods during very hot weather. It is irreversible once it has started, but its progression can be slowed by covering the fruit with lightweight shade cloth or harvesting and allowing affected tomatoes to finish ripening indoors. Tomatoes affected by sunscald can be eaten as long as black mold hasn't set in. Sunscald can be prevented by selecting heat-tolerant varieties, so read the seed packets. In addition, don't over-prune the leaves of tomato plants that shade the fruit and support plants with cages or trellises. This will not only reduce the need to do extensive pruning, but it will also keep the plants above the soil which helps reduce diseases. Keeping your plants healthy by treating diseases as soon as possible will reduce foliage losses.

Blossom End Rot (BER) is a condition where the fruit develops a sunken, leathery dark brown or black spot on the bottom (blossom) side of the fruit. It is related to a calcium imbalance in the developing fruit. BER is rarely related to a calcium deficiency in the soil, nor is it related to a magnesium or sulfur deficiency. The only way to know if there is a deficiency of any of these elements is to do a soil test. In the absence of a deficiency, adding calcium in any form by any method doesn't help. Eggshells won't help; Tums or Rolaids won't help; foliar sprays with calcium won't help. Large amounts of salts in the soil lowers the availability of calcium, and magnesium negatively affects how calcium is taken up by the plant, so adding Epsom salts is of no benefit and can actually increase the risk of BER.

There is currently a debate about whether the calcium imbalance in the fruit is the CAUSE of BER or if it is a RESULT of BER, and that debate is ongoing. Current best evidence indicates that BER is a result of various environmental stresses on the plant that affect calcium transport to the fruit. Various studies suggest that inconsistent watering is the primary issue impacting how calcium travels from the roots to the plant and then to the fruit. Spring rainfall can be unpredictable, which is probably why BER is more common in spring planted tomatoes than in fall tomatoes. Excess nitrogen in the soil can lower calcium uptake in the plant, so avoid excess nitrogen fertilization.

Cold temperatures and cold soil are also thought to be related to BER, so those who try to plant as early as possible in the spring increase their risk of having tomatoes with BER. Markedly acidic or alkaline soils can also affect how calcium is absorbed from the soil. Prevention is the best control since BER cannot be reversed once it has set in.

Wayne's Page



Environmental Issues and Tomatoes

By Wayne Schirner

Pick affected fruit to allow the plant to direct its energy to other tomatoes. BER does not make the rest of the tomato inedible as long as it hasn't been infected by fungi or mold. Allow the soil to warm before transplanting into your garden. Keep your tomatoes' water supply even throughout the season. Mulch plants to help maintain moisture levels and moderate soil temperatures. Avoid overfertilizing, especially with a high nitrogen fertilizer. BER can also affect eggplant, peppers, squash, and watermelon.

Tomato cracks are another problem associated with growing conditions. Dry weather gives way to excessive watering or a rainy period and that leads to cracking. Cracks usually occur at the stem end of the fruit and can be concentric or radial. Pick a cracked tomato as soon as possible because it can get infected. Cracked tomatoes won't keep as long as unaffected ones, so cut the affected parts off and eat the rest. There are varieties that are resistant to cracking, so that is a good option if you've had problems with this in your garden. Mulch plants after they are established to help retain moisture in the soil. Irrigate your tomato plants regularly to make sure that they get 1-3" of water a week. Don't over fertilize. Excess nutrients can cause growth spurts and the tomatoes may not be able to compensate, resulting in cracking.

Normally, a healthy tomato plant will develop flowers that are pollinated, and then fruit develops. Blossom drop (BD) occurs when the tomatoes produce flowers, but no fruit develops. There are at least five conditions that increase the risk of BD:

1. Extreme temperatures are one reason for BD. Cool nights, consistently below 55 F, or hot spells, consistently above 85-90F during the day and above 70-75F during the night, force the tomato plant to abandon fruit production and focus on just surviving. It is also thought that the hot temperatures cause the pollen to deteriorate so it can't pollinate the flowers. Optimum daytime temperatures for setting fruit range from 70F – 85F. There are heat-tolerant varieties available that can set fruit in temperatures as high as 105F, so those are good options for growing in Bell County.
2. When temperatures are too hot or too cold, insects aren't as active in the garden, so fewer blossoms are pollinated. Gently shaking the tomato plant when blossoms are present increases the chances of self-pollination. It is also believed that without proper humidity in the 40-70% range, pollen has difficulty releasing or sticking.
3. Shallow watering causes shallow roots to develop, which can weaken tomato plants. Water deeply and use mulch to reduce evaporation from the soil surface.
4. Tomatoes are heavy feeders. Too much nitrogen without accompanying phosphorus and potassium can result in the plant developing more leaves than fruit. Avoid excess N in proportion to P and K.
5. When a healthy tomato plant has many blossoms, they compete for food. Some won't survive, but that's ok. It's survival of the fittest.

The last environmental issue that I want to write about affecting tomatoes is particularly critical for the fall crop. Tomatoes are very sensitive to cold weather and when the temperature approaches freezing, plant damage is common, maybe even fatal. Pick those green tomatoes and you will discover that many of them will produce tasty ripe tomatoes. I found this interesting post about ripening tomatoes that I thought worth sharing. Not every green tomato needs to be fried.

<https://www.gardenmyths.com/myths-ripening-tomatoes/>

That's it for this month. If you have a topic that you would like for me to research and write about, send me an email.

A "Little Edie Tidbit" August 15, 2020

Submitted by Randy Brown

"This is a little blog Edie Campbell put together on the half row of heirloom okra that was planted at the KMCCG. It is producing like crazy and is weeks ahead of the regular okra." Randy



Photo submitted by
Edie Campbell

"The Heirloom Okra, that was donated to the garden and planted on the same day as the commercial seeds, has been producing for over a week and the pods are much longer and a lighter color. The commercial are still about a week out from blooming. I took the bag home with me to see what would be a good length to cut in an acceptable size for using. As most know when the regular okra gets too large it becomes too fibrous and unable to cook in any way to consume as a food source. Two are 10 inches (not edible) and two are 6-8 inches (excellent). I have never cooked okra that large before." *Edie Campbell*

What's Happening...

Killeen Municipal Court Community Garden

Photos and reporting by Randy Brown

Aug 15, 2020: "Harvested 23 lbs of vegetables. Bob Gordon brought over his tractor to help in clearing out low water garden."

Aug 29, 2020: "We had a banner week harvesting 263 lbs of which 69 lbs were from Okra. David Carpenter completed his long term project of limestone rock borders for the pecan trees on the south side of the garden which greatly improves the garden appearance."



What's Happening...

Killeen Municipal Court Community Garden September 1, 2020

Sampling of photos by Randy Brown taken during filming for BCMGA website.



What's Happening...

Killeen Municipal Court Community Garden

September 1, 2020

Sampling of photos by Randy Brown taken during filming for BCMGA website.



What's Happening...

August Education Program

By Jan Upchurch

(photos by Randy Brown of online presentation)

On August 19, 2020 **Principles of Earth-Kind Landscaping** was presented by **Timothy Hartmann, PhD**, from Texas A&M University and Texas A&M AgriLife Extension Service in College Station.

After his undergraduate degree in Horticulture and Masters's degree in Plant Breeding, Dr. Hartmann completed his PhD in Horticulture from TAMU in May 2020. He also serves as the state Earth-Kind Program Specialist. Dr. Hartmann continues to conduct research in Earth-Kind principles and processes.

Dr. Hartmann states, "Earth-Kind is an environmental stewardship that was developed by the Texas A&M AgriLife Extension Service. Its researched-based principles are derived from both organic and conventional practices and provide for maximum quality landscape and fruit and vegetable plantings, while minimizing inputs." *Jan*



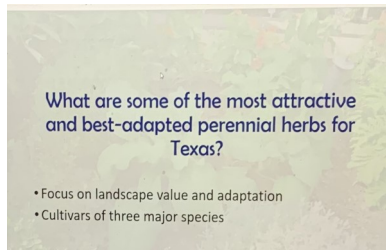
Monthly Educational Meeting
August 19 at 10:00am
One Hour Education Time

Topic:
EarthKind

This program will cover the seven principles of Earth-Kind Landscape Management while highlighting key research areas of planting trialing

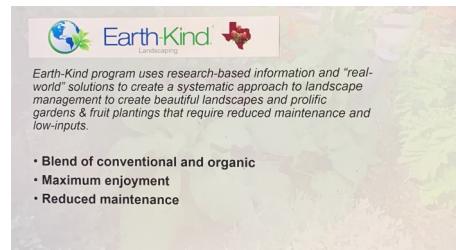
This will include Earth-Kind herb research; guava and Kiwi research;

Speaker:
Timothy Hartmann, PhD



What are some of the most attractive and best-adapted perennial herbs for Texas?

- Focus on landscape value and adaptation
- Cultivars of three major species



Earth-Kind Landscaping

Earth-Kind program uses research-based information and "real-world" solutions to create a systematic approach to landscape management to create beautiful landscapes and prolific gardens & fruit plantings that require reduced maintenance and low-inputs.

- Blend of conventional and organic
- Maximum enjoyment
- Reduced maintenance



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Earth-Kind Landscaping
<http://earthkind.tamu.edu>

Introduction

Earth-Kind Landscaping uses research-based information to create a systematic approach to landscape management to create beautiful landscapes and prolific gardens & fruit plantings that require reduced maintenance and low-inputs.

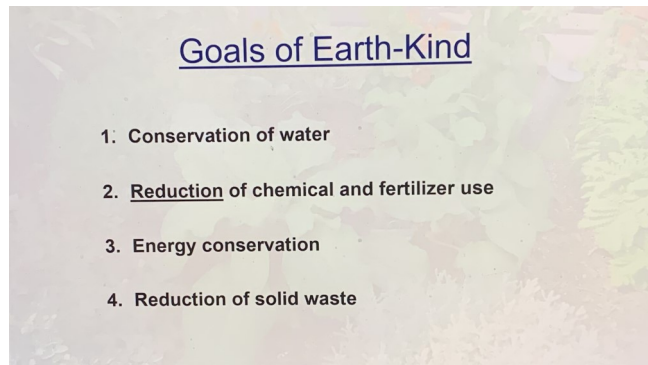
- Landscape design consultation
- Installation of landscape plantings
- Landscaping for energy conservation
- Installation of landscape irrigation systems

Individuals using Earth-Kind Landscaping practices and principles receive beautiful, easy-care landscapes, water conserving and protecting natural resources and the environment.

Ask an Expert

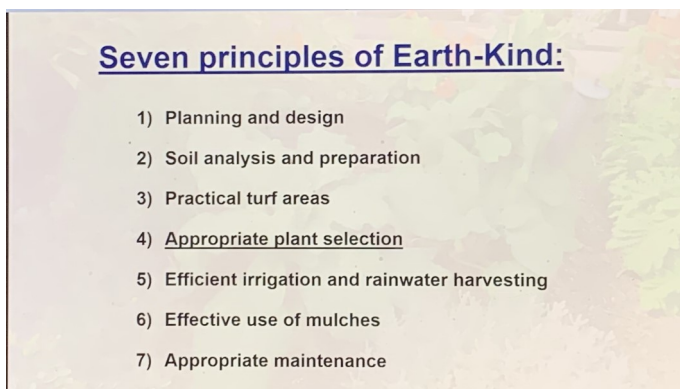
Earth-Kind Home

- 10 Steps to Make Your Landscape Earth-Kind®
- Join the Earth-Kind® Challenge
- Planning the Home Landscape - Earth-Kind® Edition
- Earth-Kind® Plant Selector
- Search the Earth-Kind® Plant Selector
- Earth-Kind® Publications
- Landscape Publications
- Master Gardener On-Line Training
- Additional Earth-Kind® Resources
- Earth-Kind® Design Proposals



Goals of Earth-Kind

1. Conservation of water
2. Reduction of chemical and fertilizer use
3. Energy conservation
4. Reduction of solid waste



Seven principles of Earth-Kind:

- 1) Planning and design
- 2) Soil analysis and preparation
- 3) Practical turf areas
- 4) Appropriate plant selection
- 5) Efficient irrigation and rainwater harvesting
- 6) Effective use of mulches
- 7) Appropriate maintenance

This program covered the seven principles of Earth-Kind Landscape Management while highlighting key research areas of planting trialing.

What's Happening...

Propagation Demonstration

August 27, 2020 photos by Randy Brown of Carol Morisset's propagation demonstration.



What's Happening...

Salado Demonstration Gardens Opportunity to learn about native plants while you earn hours

Photos and reporting by Susan Terry

Salado has 11 Pocket Gardens, and is currently designing one for the Historic Vickrey House on Main Street. The First Monday Gardeners, a group of BCMG, CTMN, and Salado gardeners maintain four of these as demonstration gardens: Salado Museum, Sirena, Sculpture Garden, and The Green Bridge. The others are maintained privately and by schools, Churches, and the Library.



We invite all Bell County Master Gardeners to mark your calendar for the First Monday of the month, 7:30 am in the summer, and 8:00 am in the cooler months. Join us at the Salado Museum on Main Street, across from the Stagecoach Inn. Follow Keep Salado Beautiful on Facebook for details and updates, and check the KSB website, keepsaladobeautiful.com for more information. Sign up in VMS under projects, "Salado Gardens" to be included in our email list.

We have recently upgraded our plant markers in the demonstration gardens.

Signs and Banners in Belton printed the label with plant name and photo on vinyl and applied it to a ¼ inch piece of PVC sheeting that fits into our plant markers. These new markers are much more vibrant and durable.



Salado's Main Street transformation should be complete as you read this newsletter! The **Green Bridge Garden** was nearly destroyed as the curb and gutter work was completed, but thanks to the generosity of our community, we will restore the Garden, better than ever. **WE WILL NEED LOTS OF VOLUNTEERS AT EACH STAGE OF THIS PROJECT.** For those that were around in 2009 when the Green Bridge Garden was renovated and became our first Pocket Garden, you will recall that it took many man hours to clear the debris and prep for planting. The prep work this time will be a bit different, there is construction debris to remove along with plant material.

The timeline is dependent on two variables: TXDOT completion of Main Street (should be the end of August) and the installation of the irrigation system. We anticipate that prep work will be mid-September and we hope we will be ready to plant by the end of September. We will post calls for volunteers on BCMG, CTMN, and KSB Facebook pages, and articles in the local papers.



The Sunflower Dilemma

Photos and reporting by Terrie Hahn

I love Sunflowers! Common Sunflowers, *Helianthus annuus L.* reseed and come up in many of my flower beds. Who wouldn't love these beautiful flowers that attract bees and birds to the yard. For several years, I tried growing the fancy Sunflower varieties with the bigger heads, but rabbits usually got them. This year, my husband Werner (former BCMG) decided to get Fredericksburg's Wildseed Farm's Sunflower Collection with 10 different varieties of seed and plant them in pots first. He put them in the ground when they were about 6-8" high. We've had a fox family in the yard for several years, and they have finally dealt with most of the rabbits, so that was no longer an issue.



It was so exciting to see all these different varieties of Sunflowers blooming. They attracted Bumble Bees like crazy! And then...

The Squirrels found them! They would jump onto the stems and knock them down so that they could nibble off the flower head! Usually they just took them off and left them 6 feet away! What was a beautiful stand of sunflowers is now a stand of stems. Some of them are getting secondary flowers, but the squirrels are finding them too!

I had wanted to collect some seeds from our favorites, Lemon Queen, Gray Stripe, Maya, Autumn Harvest mix and Chocolate Cherry. We put some airy cloth that a mattress had been wrapped in (We never throw anything out) and covered a few of the remaining heads once the bees were done with them, so that maybe we'll be able to harvest some.

Friends had told me what pests squirrels were, but we had never experienced this. We had a dog and several neighbors had dogs. Our dog has passed away, and the neighbors have moved. It took a couple of years before the squirrels noticed the absence of dogs, and now they're here in full force. Unfortunately, the foxes aren't quite fast enough to catch them.



The Sunflower Dilemma

Photos and reporting by Terrie Hahn



Thirsty Foxes



We'll have to come up with a plan for next year. For those of you who would like to try growing Sunflowers, you need to wait until late spring or early summer once temperatures are in the 70's or higher. You can plant directly in the ground if you don't have rabbits or in pots and plant seedlings. You can fertilize once plants are 1 foot tall if needed. The soil for the fancy sunflowers should be well draining and amended with some compost. Water as you would other annuals in the full sun.

They are prone to aphids on the leaves. You can pick those leaves off or spray them off with the hose. You don't want to use pesticides when trying to attract bees. To attract birds, you need to leave the seed heads to dry-they'll be kind of ugly, but the birds will love them!

Now my question to you: To grow, or not to grow sunflowers...



Honey Bees

By Sherry Oermann

By the time you read this, it will most likely be September. It's easy to see Bees buzzing around in the spring and early summer, but what about now? I don't know about you, but I haven't seen many bees flying by me, except for an occasional Bumblebee. So, where are they? And more importantly, what are they doing?

Before I answer that question, let me take you back to springtime and give you a little insight. Dandelions are the Bees first food. They have been clustered in their hives all winter long, subsisting on honey from the previous year. And Viola' There is something colorful in the landscape! It's yellow and it certainly looks delicious! If the Bees have been careful in consuming their stored supplies throughout the winter, spring offers new hope for a bountiful harvest. Dandelions provide nectar – the carbohydrate and pollen – the protein they need to begin yet again, another season of laying eggs, harvesting pollen and nectar, and making honey.



The Bees continue this life cycle throughout spring, but then the flowers begin to fade, dry up and virtually disappear from the landscape. So, where are the Bees and what are they doing, if not flitting from flower to flower? Like us, they're trying to stay cool! They still forage throughout the day, keep their house clean, and beat those little wings of theirs to keep cool.



However, if most of the flowers are gone by August/ September – where do the Bees get their food? Interesting question. By now, the Bees are not so much into reproductive activities. The hive doesn't want to have to feed 30,000 mouths over the winter months. Bees only live for about 6 weeks during the spring and summer. By fall and winter, the bees live a little longer. The Queen is not laying eggs much anymore. Large numbers of Drones are useless during the fall and winter because the Queen won't be mating. So, kick 90% of those bad boys out of the hive! Long story short, the hive is reduced substantially by the time fall comes around.

Less Bees to feed, but still, the ones that remain must eat.

Honey Bees

By Sherry Oermann

The Bees eat pollen during the spring for their protein source. But during the winter, they need carbohydrates too. Beating their wings to move the air around the hive to stay warm uses up a lot of energy. They're getting those carbohydrates from the nectar of plants and from the stored honey in the hive. But if the stored resources are dwindling, where will the bees go to replenish their cupboards?

In February of 2018, we were invited to participate in a research study being conducted by Texas A&M that was studying pollen. We supplied the Bee Lab with a couple of ounces of our honey. The biggest pollen sources were: 1) Rhus/Toxicodendron or Sumac and Poison Ivy at 23%. 2) HS Aster or Daisy and weeds at 17.5% and 3) Rubus or Blackberry, Dewberry at 17%. There were 33,046 pollen grains per 10 grams of honey. Who knew??? I always thought that Bees only collected pollen from flowers! I never thought the bees would get pollen from Poison Ivy! I guess there is a reason for every plant.

So, while the flowers might be gone, there are PLENTY of sources of pollen and nectar for our Bees to forage from. We just need to have a variety of plants, bushes, and trees for them. Let's keep gardening on for the sake of our beautiful landscapes and the health and wellbeing of our Bees.



Bees on flowering shallots



Beeswax

Lady Bugs

By Sylvia Maedgen

Common Name: Lady Beetle

Other Common Names: Ladybug, Lady Bird and Lady Bird Beetle

Order: Coleoptera

Family: Coccinelladae

Genus/Species: 450 native and introduced species in North America; three species occur in Texas: *Chilocorus cacti*, *Chilocorus stigma*, and *Olla v-nigrum*

Type of Beneficial: Insect predator

Type of Metamorphosis: Immature stages appear different from adults

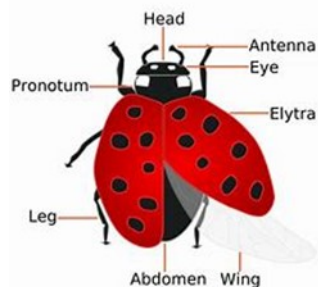
Beneficial Stages: Both adults and larvae are predators

Prey: Wide range including small caterpillars, aphids, thrips and other soft-bodied insects

The name "ladybug" was coined by European farmers who prayed to the Virgin Mary when pests began eating their crops. After ladybugs came and wiped out the invading insects, the farmers named them "beetle of Our Lady." This eventually was shortened to "lady beetle" and "ladybug." I've heard that they bring good luck and there is reason to believe that ladybugs became a widespread symbol of good luck because they help farmers. As many gardeners know, ladybugs feast on pests like aphids that eat crop plants. When ladybugs were present that was a good sign other pests weren't crawling all over the crops. Folklore says if you find a ladybug in your home, count the number of spots on her back and that is how many dollars you will find. Killing a ladybug will bring you sadness and misfortune. Cultures all over the world associate a ladybug with good fortune and good luck. What is it about Lady Bugs that make them so cute? Well let's find out a little more about this beneficial insect.

The term Lady Beetle is the technically correct reference and is actually recognized as the official common name by the Entomological Society of America. Lady Beetles are voracious predators of destructive plant-eating insects such as aphids and scales. Their habitat is determined by what they eat. Lady Beetles can be found on any crop that is susceptible to aphids: vegetables, grains, legumes, strawberries and tree crops. Females even lay their eggs as close as possible to aphid colonies. Lady Beetles will also consume mites, moth and beetle eggs, thrips, pollen and nectar.

Typically, the lady bug is colored bright orange to red with black spots and white markings on the thorax, but may also be black or black with red spots or even gray with black spots. They are broadly oval to nearly spherical, strongly convex dorsally, nearly flat ventrally. The head is partly or completely concealed by the pronotum. Antennae are short, club 3-to-6 segmented. Their red and black coloring may be an example of aposematosis, in which the bright colors warn predators of toxicity and/or bad taste. Also, female adults can reflex bleed from leg joints. The blood (hemolymph) has a repulsive smell that can fend off predators such as small birds and lizards.



Anatomy of the Lady Beetle

Lady Bugs

By Sylvia Maedgen

Mother Nature cursed Lady Bugs in another way...gave her ugly children. The adult and larvae use chewing mouthparts to feed on aphids with the larvae eating their weight in aphids and the adults eating about 50 a day and other small insects that plague your garden. It is best to learn her markings and not confuse her with the Mexican Bean Beetle or the Squash Beetle. These two species are considered destructive because the adults and larvae feed on crop plants. Both species are yellowish-orange with black spots.

The following lady bugs are red, yellow, white, orange, black, and tan.



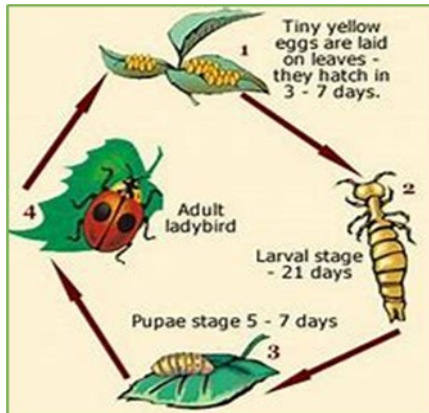
The adults congregate in the fall to hibernate. They sometimes form great masses on plants. In freezing weather they crawl under boards, leaves, and into cracks and crevices and overwinter in the adult stage. When spring and warmer weather arrive, they emerge, breed, and lay eggs. The lady bug can produce 4-5 generations of offspring in one summer under ideal moisture conditions.

Various species of Coccinellidae share many characteristics. Most are dome-shaped and quite small (1mm to 10mm or 0.63/16 to 6.30/16 inch). The life cycles are quite similar, too. Most Lady Beetles begin life as one of a small cluster of tiny (1mm or 0.63/16 inch) spindle-shaped cream, yellow, or orange eggs laid in protected sites on stems and leaves near infestations of aphids or other pests. In about a week, the eggs hatch into alligator-like larvae with 3 pairs of prominent legs.

The larvae are often gray or black with yellow or orange bands or spots. The larvae are soft-bodied and typically covered in small 'spikes', however, for some species of lady beetles, the larvae are covered in a white wax, appearing much like a mealybug. After 20-30 days, the larvae pupate, then emerge as adults in another 3-12 days, depending on temperatures and species. Adults may live only a few months to more than one year. The life cycle is a complete metamorphosis (egg, larva, pupa, adult). All larvae are predacious and highly mobile, so they start feeding immediately on each other, if other prey is not readily available.

Lady Bugs

By Sylvia Maedgen



Life cycle of a lady bug/lady beetle



Larvae

Chilocorus cacti is a relatively recent immigrant to Texas via New Mexico. It is especially welcomed here because it feeds predominantly on scale insects, but also feeds on aphids, caterpillar eggs, mites, and other soft-bodied insects. *Chilocorus stigma* is native to the United States and occurs throughout the country, except in California. Adults are 3.75 to 5 mm in length and favor arboreal habitats such as orchards, tree plantations, and forests.

It may be difficult to control and keep these beneficials in your garden as they do fly. They are always looking for food, so they may leave for better pastures. Having alternate food sources such as nectar and pollen producing plants may encourage some species to stay put. Provide a continuous food supply by choosing a variety of plants that bloom at different times during the growing season. They are also attracted to high humidity and to shelter during unfavorable weather and for overwintering. Also, water your crawlers and fliers along with your vegetation. During extended periods of dry weather, place a sufficient amount of small rocks or gravel in a bird bath to provide them a foot pad from which to "drink" safely.

Our lady bug friends are susceptible to broad-spectrum insecticides as are the pests. A better means of control may be a good cultivation practice and selecting less susceptible varieties of plants. Mulch properly, avoid improper fertilization by having your soil tested and finding out what and how much amendments are really needed. Keep your plants healthy by providing appropriate moisture, drainage, and air circulation. Remove severely diseased plants immediately by putting them in a plastic bag and placing in your garbage, not your compost bin. Use non-chemical controls when possible, including pruning, hand-picking, covering plants with netting, etc.

Resources:

Guide to Insects, by Dr. Ross H. Arnett, Jr. and Dr. Richard L. Jacques, Jr.

A Field Guide to Insects, by Donald J. Borror and Richard E. White

A Field Guide to Texas Critters-Common Household & Garden Pests, by Bill Zak

1001 All-Natural Secrets to a Pest-Free Property, by Dr. Myles H. Bader

Beneficials article on Lady Beetles-an Overview, by Betty Gray, Galveston County MG

Beneficials article on Twice-stabbed Lady Beetle, by Betty Gray, Galveston County MG

Attracting Beneficials article, by Donya Camp, Galveston County MG

Invasive Ladybugs article, by Wizzie Brown, AgriLife Extension, found in The Compost Bin, January 2014

Lady Beetle article, by Erfan Vafaie

Ladybugs article, found in National Geographic

Ladybugs article, by Ric Bessin, Extension Specialist, Kentucky

Sharing is Caring... 😊 😊

McLane Children's Hospital Healing Garden—August 4, 2020

Photos and text by Claudette Hawkins



“McLane’s Healing Garden is beautiful, especially in early morning. While watering, deadheading and weeding, I saw butterflies and hummingbirds! Enjoying God’s creation - what a way to earn service hours!” *Claudette*



Sharing is Caring... 😊 😊

Submitted by Terrie Hahn



Duranta erecta (Golden Dewdrop)

“The first time we tried growing it, it froze and didn't come back. Now, we make sure to pile leaves at its base to keep it warm and cozy during the winter. It dies back, but always comes back. It's a really pretty bloomer in the fall and good pollinator plant.”

Terrie

ASTERS



ASTERS

Sharing is Caring... 😊😊

Ant Lions Waiting For A Meal August 15, 2020

Text and photos by Crystal Fisher

Okra is self pollinating. With the formation of blooms, ants are drawn to their slight fragrance and moisture, as ants need water during our very dry weather. Okra has a very slight covering of moisture. A budding bloom probably has more.



Ants are drawn to okra because of the fragrant bloom that many times has moisture. Earlier today, ants were all over this okra pod having made a hole.

I went back a few hours later with the intent of cutting it off the stem and bisecting it. Upon disturbing the pod, the ants all came out. I just couldn't shoot it fast enough as they as they were stinging me.



Ants need water. The ants traverse between okra plants, so the ant lions make their traps nearby.

With ants climbing the okra, their predator, the Ant Lion awaits them by making their own traps. Fortunately, I've never seen one. Here, their traps are under a nearby buddleia.

Sharing is Caring... 😊😊

Ant Lions Waiting For A Meal August 15, 2020

Text and photos from [Beneficial insects in the garden: #32 Ant lion \(Myrmeleon sp.\)](#)

'Have you ever heard of a "doodlebug"? It is actually the larvae of an insect commonly known as an Ant Lion (also spelled as ant-lion and antlion). Ant Lions are a group of insects in the Order Neuroptera. Within this order, they are further classified into Family Myrmeleontidae, which is of Greek origin from *myrmex*, meaning "ant", and *leon*, meaning "lion". The Ant Lion larva waits at the bottom of its pit for an ant or other insect to slip on the loose sand and fall in. The unsuspecting prey falls to the center of the pit and into the waiting jaws of the Ant Lion larva, mealtime is underway!



Prey will oftentimes attempt to scramble up the steeply inclined walls of the pit. Such desperate efforts to escape its circumstance are typically to no avail. An Ant Lion larva quickly thwarts such escape attempts by rapidly flicking showers of loose sand, which further destabilizes the wall of a pit and thereby draws the prey downwards.

The larva is a fearsome-appearing creature and its head bears a very impressive and sizable pair of sicklelike jaws (known as mandibles) that are armed with numerous sharp, hollow projections. The mandibles have a piercing-sucking function. After seizing its prey, the larva paralyzes it with poison injected at the first bite. Additional digestive

enzymes are injected to breakdown the internal tissues of its prey and the larva then sucks out its vital juices. After consuming the liquefied contents of the prey's body, an Ant Lion larva rather unceremoniously flicks the lifeless, drained carcass out of the pit. Thereafter, the larva repairs the pit once again for the next unsuspecting victim.'



'The larval stages are beneficial to man because of their diet. Larvae are well-known for feeding on ants. Moreover, as Ant Lion larvae increase in size, they become quite capable of capturing and killing a variety of other insects that enter their sand traps. Ant Lion larvae have also been reported to feed on the dreaded red imported fire ant. Ant Lion larvae also feed on small spiders.

Adults resemble dragonflies and damselflies except the Ant Lion folds its wings back in a tent-like fashion while resting. Adults are rarely encountered in the wild because they are primarily active in the evening. During the day, Ant Lions rest and are usually motionless and quite well-camouflaged

by its transparent wings and brownish body. Also in contrast to dragonflies and damselflies, the antennae of ant-lion adults are quite prominent and club-shaped at the end.'

To learn more about this interesting creature, follow this link [Beneficial insects in the garden: #32 Ant lion \(Myrmeleon sp.\)](#).

Sharing is Caring... 😊😊

Photos submitted by Crystal Fisher



Bumble bees on Coral Vine



Bumble bees on Yellow Bird of Paradise



Honey bee on chocolate daisy

Sharing is Caring... 😊😊

Photos submitted by Crystal Fisher



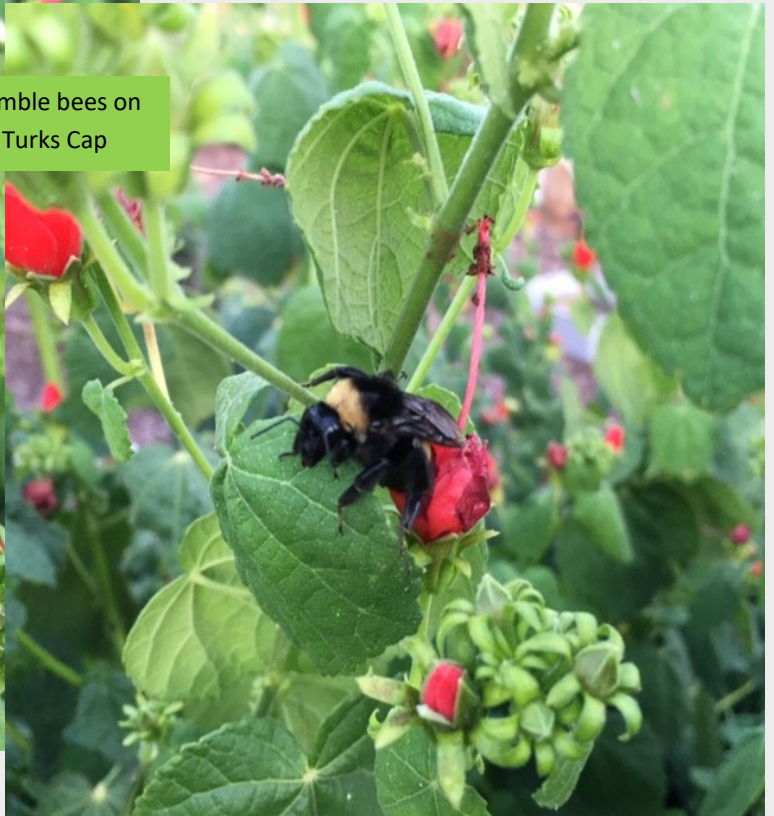
Honey bee on Yellow Bird of Paradise



Bumble Bee on Shrimp Plant



Bumble bees on Turks Cap



Sharing is Caring... 😊 😊

Photos submitted by Janice Smith



Hardy Hibiscus



Swallowtail on
Pride of Barbados



Water Lily

What's Coming Up!

Educational Videos

[New YouTube shorts](#) is the link to the Master Gardener YouTube channel.

This channel is connected to the BCMGA gmail account and will include short videos as well as some longer educational videos which are being worked on.

These are considered educational videos and can be used towards your education hours. If you have any questions about how to log these hours to VMS, please contact Teri Marceau at terimmarceau@gmail.com.

Soil Notification

Everyone, we recently replenished our stock of soils, compost, and chicken manure. The procedure for purchase has not changed but some of the pricing has. You may pickup on Wednesday mornings during grounds maintenance or use the honor system and pickup at your convenience.

If you pickup in person you may use cash or check; if you pickup using the honor system only checks are acceptable.

Effective 8/16/2020 there will be a lockbox installed in the shed so that you may leave payment without going into the building. Prices are as follows:

Garden Soil: \$19.00

Vermiculite: \$25.00

Mushroom Compost: \$5.00

Composed Chicken Manure: \$5.00

If you have any questions, please contact Paul Carter 254-247-4855 or Karen Colwick 254-913-4459

What's Coming Up!

9th Annual Texas Fruit Conference September 21st and 22nd

The 9th Annual Texas Fruit Conference will be held **on-line** on September 21st and 22nd.

Registration Fee:

Monday (9/21) Only: Intro to Fruit Growing Workshop: \$50

Tuesday (9/22) Only: Texas' Fruit Future, Virtual Fruit Tree Nursery Field Trip, and Panel Discussion (3 sessions)-\$35

Combined Package Price (Both Days) - \$70

Registration site: <http://agriliferegister.tamu.edu/fruit>

Registration begins 8/14/2020.

Registration Deadline: 9/19/2020

Educational Program Schedule:

Monday, Sept. 21

1:00 pm—Texas Commercial Fruit Production and Marketing Options, Monte Nesbitt

1:20 pm—Perennial Orchard Site Selection, Jim Kamas

1:45 pm—Orchard Irrigation Basics, Larry Stein

2:10 pm—Orchard Site Preparation, Stephen Janak

2:45 pm—Spacing & Planting, Monte Nesbitt

3:05 pm—Protected Culture Strategies, Jacy Lewis

3:30 pm—Orchard Establishment Practices, Larry Stein

4:15 pm—Training and Pruning, Jim Kamas

4:35 pm—Food Safety Laws, Juan Anciso

What's Coming Up!

9th Annual Texas Fruit Conference September 21st and 22nd

The 9th Annual Texas Fruit Conference will be held **on-line** on September 21st and 22nd.

Educational Program Schedule continued:

Tuesday, Sept. 22

Session 1-Texas' Fruit Future-Exploring new growing practices, new crops and new marketing opportunities

9:00 am—Low Maintenance/High Value Fruit Crops, Jim Kamas

9:30 am—Sustaining & Expanding Strawberry Production Across Texas, Russ Wallace

10:00 am—Golden Kiwifruit Challenges & Opportunities, Tim Hartmann

10:30 am—Muscadine Grapes, Anyone? Justin Scheiner

11:00 am—Texas' Peach Dreams, Monte Nesbitt

Session 2: A Virtual Field Trip to Fruit Tree Nurseries in Texas: Gain insight into how fruit trees are commercially propagated in Texas

1:30 pm, Womack Nursery, De Leon, Texas

2:15 pm, Texas Pecan Nursery, Chandler, Texas

Session 3: Hard Questions—Good Answers—Live panel discussion with Texas A&M AgriLife Extension Fruit Team; Opportunities for participants to present questions and get our best expert opinions.

3:30 to 5:00 pm; Participants—Monte Nesbitt, Jim Kamas, Larry Stein, Justin Scheiner, Tim Hartmann, Jacy Lewis, Stephen Janak

Announcement...



After a lot of discussion and consideration, due to the uncertain times surrounding the COVID-19 virus, and State and County guidelines, it is with heavy hearts the BELL COUNTY MASTER GARDENERS ASSOCIATION has decided to cancel our fall plant sale.

We have put together a list of local nurseries and feed stores for all your fall gardening needs. Should you have any questions or concerns about what and when to plant please do not hesitate to contact us via phone: 254-933-5304; email: bell.mg@agnet.tamu.edu; website: txmg.org/bell or send a message on Facebook. Finally, for specific plant selection and protocols please give the nursery or feed store a call directly.

NURSERIES IN BELL COUNTY

- Eldreds, 254-913-4474, 1220 N. Main, Belton
- Grizzly's Hidden falls, 254-699-4600, 1101 U.S. Hwy 190, Nolanville
- Earthscapes Garden and Home, 254-773-4668, 5317 Loop 205, 2 acres, Temple
- Temple Feed, 254-778-7975, 305 S. 2nd St., Temple
- Belton Feed, 254-939-3636, 410 E. 2nd Ave., Belton
- Lonesome Pine Nursery, 254-791-0884, 3120 E. Adams Ave., Temple
- Steglich Feed & Farm Supply, 254-527-4433, 142 S. Dalton, Bartlett
- Garden City Nursery, 254-831-5100, 1315 W. Avenue O, Belton

A LITTLE FURTHER AFIELD

- Wrights Nursery, 512-489-2239, 6040 FM 2657, Briggs. By appt. only. (Burnet County)
- Coryell Feed & Supply, 254-865-6315, 213 E. Main St., Gatesville (Coryell County)
- Bonnie's Greenhouse, 254-799-7909, 5198 Orchard Ln, Waco (McLennan County)
- Westview, 254-772-7890, 1136 N. Valley Mills dr., Waco (McLennan County)
- Green Life Nursery, 254-776-2400, 1312 N. New Rd., Waco (McLennan County)
- Robinson Greenhouse, 254-662-0311, 628 N. Robinson Dr., Robinson (McLennan County)
- Wildseed Farms, 830-990-1393, 100 Legacy Dr., Fredericksburg

Announcement...



Cont'd...

Nurseries in WILLIAMSON COUNTY

McIntires, 512-863-8243, 303 Leander Rd., Georgetown
Red Barn, 512-335-8093, 690A N. Bagdad Rd, Leander
Farmers Nursery, 512-259-4111, 1305 Leander Dr, Leander
Joss Growers, 512-863-4950, 900 CR 130, Georgetown

THE FOLLOWING NURSERIES ARE LIMITING THEIR PARKING TO KEEP NUMBER OF SHOPPERS SMALLER. LESS PERSONEL. CREDIT/DEBIT ONLY. CURBSIDE AVAILABLE.

Hill Country Water Gardens, 512-260-5050, 1407 N. Bell Blvd (hwy 183), Cedar Park
Green `n Growing, 512-251-3262, 601 W. Pecan, Pflugerville
Great Outdoors, 512-448-2992, 2730 S. Congress, Austin
Barton Springs, 512-872-6390, 3601 Bee Caves, Westlake
Natural Gardener, 512-288-6113, 8648 Old Bee Caves Rd., Austin

TIME FOR A ROADTRIP!

Backbone Valley Nursery, 830-693-9348, 4201 FM 1980, Marble Falls
Wildseed Farms, 830-990-1393, 100 Legacy Dr., Fredericksburg

Announcements...

September General Membership Business Meeting

When: September 9, 2020

Where: [Via Online Meeting](#)

Time: 10:00 AM

General Membership Educational Session

When: September 16, 2020

Where: [Via Online Meeting](#)

Time: 10:00 AM

Topic: Will be announced when confirmed

Board of Directors Meeting

The Board of Directors Meeting will be held on **Wednesday, September 23 at 9 a.m. via teleconference.**

Members are welcome to join the call.

Please submit your agenda items to Sylvia Maedgen, Recording Secretary, by **Wednesday, September 16.**

Grounds Work Days

Karen Colwick and Paul Carter

We are all advised to make any day a work day. Karen has posted a list of "to dos" on the Annex gate. Please check the list before "digging in".



In the event of rain, there will be no work day.

Communications

While restrictions are in place, please send photos of your garden with a note about your photos to TeriMMarceau@gmail.com or to [Bell.mg@agnet.tamu.edu](mailto:bell.mg@agnet.tamu.edu) and Teri will post them on Facebook.

If you know of someone in our organization who is ill, scheduled to have surgery, or has lost a loved one (including fur babies) please email Teri Marceau at bell.mg@agnet.tamu.edu, or our correspondence secretary, Debbi Harris, at dcharris99@yahoo.com.

An appropriate card will be sent.

~~Refreshment Committee General Membership Meeting~~

~~A minimum of 7 volunteers are needed for each meeting. Future meetings are on hold until further notice.~~



Upcoming Events

Advanced Training

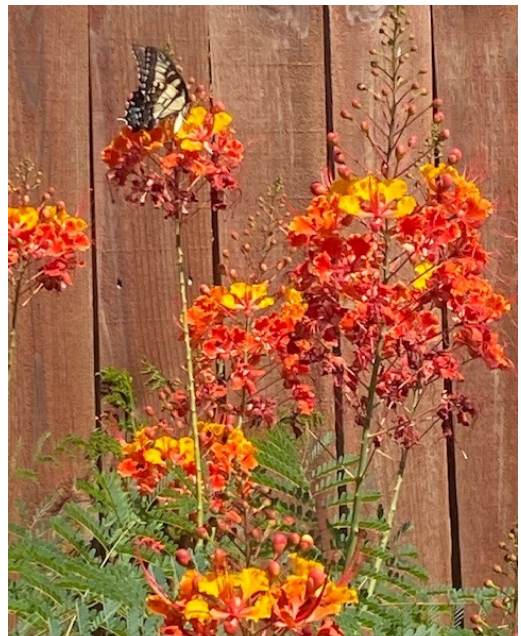
Online Courses

Sep 11, 18, 25	Rainwater Harvesting	Fort Worth
Oct 16, 23, 30	Greenhouse Management	Fort Worth
Ongoing	Earth-Kind® On-Line Master Gardener Training modules	https://aggie-horticulture.tamu.edu/earthkind/training/

Extension Events



There are no upcoming Bell County Extension events at this time.
Stay tuned!



Directors

Communications	Teri Marceau	2020-2021
Facilities	Paul Carter & Karen Colwick	2019-2020
Membership	Sherry Oermann	2020-2021
KMCCG	Edie Campbell	2019-2020
Outreach	Christy Reese & Carol Morisset	2019-2020
New Class	Gary Slanga	2019-2020
Projects	Barbara Ishikawa & Stacye Parry	2019-2020
Youth	Janice Smith	2020-2021

Executive Board

President	Glenn Melton	2019-2020
1 st Vice President	Jan Upchurch	2020-2021
2 nd Vice President	Bill Walker	2019-2020
Recording Secretary	Sylvia Maedgen	2020
Treasurer	Barbara Ishikawa	2020-2021

AgriLife Agent Lyle Zoeller

Contributing Writers and Photographers

Glenn Melton	Terrie Hahn	Jan Upchurch
Wizzie Brown	Teri Marceau	
Wayne Schirner	Crystal Fisher	
Randy Brown	Susan Terry	
Sherry Oermann	Janice Smith	
Sylvia Maedgen	Paul Carter	
Claudette Hawkins		

Editor: Virginia Bargas

Please submit articles of less than 500 words as Word documents. Photos should be sent separately in a folder through a link using OneDrive, Dropbox, Google Photos, or in a zipped file. **Photos must be in the JPEG format.** Do not text your photos. *(If texting is preferred, please let me know in advance.)* Email your documents and pictures to Virginia at bargasv@hotmail.com.

***Please do not send PDF documents.
I will send them back to you!***

BCMGA Webmaster: Rachel Glass - glass.rachel@gmail.com

Please send your updates for the BCMG website to Rachel.

CHECK OUT BCMGA FACEBOOK PAGE! GO TO

<https://www.facebook.com/BCMGA>

Texas Master Gardener website

<https://txmg.org>

Bell County Master Gardener website

<https://txmg.org/bell/>

Texas Master Gardener Volunteer Management System

<https://texas.volunteersystem.org/UniversalLogin.cfm?logout=1>



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