

# Tarrant County Master Gardeners



TEXAS A & M AGRILIFE EXTENSION SERVICE

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## Bear's Breeches

Margaret Shuping says, "I've looked for the bear and I've looked for the bear's britches in my Bear's Breeches (britches) plant. No luck at all! Anyone know how this plant got it's funny name?"



Also from  
Margaret's garden, Night  
Blooming  
Cereus.

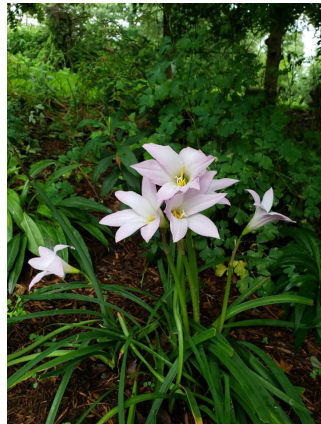


# Tarrant County Master Gardeners

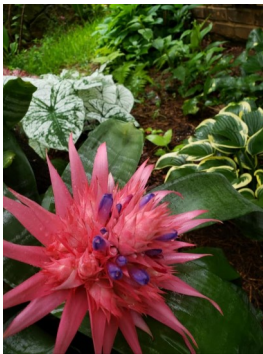
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**Wanda Stutzman**

What is pink and blooming in your yard? 6.5 inches of rain in 4 days. My plants are happy but saturated.



Above left to right: Pink Jacobina, Large Pink Rain Lilies, Carolyn Whorton Fancy Leaf Caladium.



Above left to right: Unknown Bromeliad, Smaller Pink Rain Lilies, Purple Coneflowers.

### A Gift from a Gardener

Friday, June 26 was a bittersweet day for many Master Gardeners. One of our own, Chris Senerote, Class of 2012, had invited us to her home to purchase her cherished plants and gardening tools. Chris had entered hospice and wanted to be sure that her treasures had good homes. Master Gardeners Margaret Shuping and Jeanie Browning worked with Chris's friend and neighbor to organize the sale. That morning many of us gathered in her garden and shared memories as we shopped. We then had the surprise of finding out that Chris and her husband said that all cash and checks of the sale were to go to Tarrant County Master Gardener Association. What beautiful generosity. Chris passed away while napping that afternoon. Rest in peace, Chris.



### A Note from Patsy Miller

This year's "Dig Deep Conference for Growers," sponsored by the Tarrant Area Food Bank, is going VIRTUAL on July 24th and 25th. There will be a lineup of live and pre-recorded session planned on a wide variety of gardening and farming topics.

Along with the traditional conference sessions, there will be ways for attendees to interact in a more personal way. There will be a virtual lunch, and breakout sessions for further conversation on popular topics, a section with suggestions for further reading, and a virtual vendor table section.

More information and registration can be found at <https://tafb.org/tafb-events/dig-deep-conference/>

### A Note from the Editor

I have heard from so many of you that you are enjoying seeing pictures and stories from our Master Gardeners own lives. Please keep them coming! You can email me word documents and jpegs. [lgrandclair@gmail.com](mailto:lgrandclair@gmail.com)

As always, I'm very grateful to Theresa Thomas who digs into old Newsletters to re-publish information that is still relevant and provides us with educational information on a monthly plant. This month she provided the content from page 6 on.

Lorie Grandclair-Diaz

# Tarrant County Master Gardeners

## Tuck's Bug Nuggets

Even though we have studied insects and spiders for years, we continue to learn new things:

Did you realize that we humans are outnumbered by Insects at a rate of 200 million to one?

Scorpions have been around at least 440 million years--they didn't just occur in new houses!

For the car enthusiasts: if a cockroach were as large as automobiles, they could sprint at speeds of 150 mph.

Only the male cricket sings and he does so by rubbing his wings against teeth like structures on the sides of his body.

The original purpose of the paper band around the neck of the ketchup (catsup) bottle was to conceal carcasses of bugs accidentally processed with the tomatoes. Makes salsa sound better?

There may be as many as 56 insect parts in a peanut butter and jelly sandwich, and this is an acceptable standard of the U.S. Food & Drug Administration!! Who says Big Brother is looking out for us?

But the good news: Insects are high in protein, calcium and iron. And, yes, in fat and carbohydrates.

Ex: Protein (g)	Fat (g)	Carb (mg)	Calcium (mg)	Iron
Small grasshopper 20.6	6.1	3.9	35.2	5.
Crickets 12.9	5.5	5.1	75.8	9.5
Termites 14.2	N/A	N/A	.050	35.5

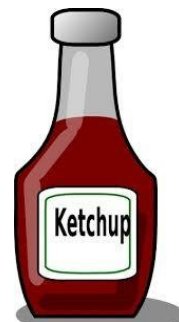
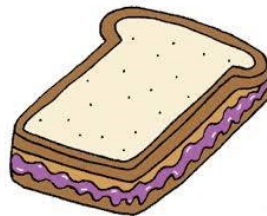
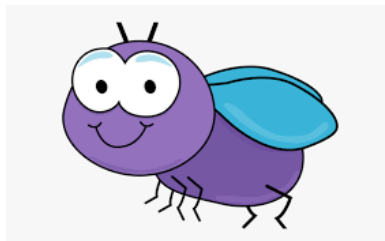
Compare:

Lean ground Beef 24.0	18.30	0.0	9.0	2.09
Fish (broiled cod) 22.95	.86	0.0	.031	1.

Muscle comparison:

Insects have 1,647 muscles to our 656. It takes 43 human muscles to frown and only 17 human muscles to smile!

Above has been compiled over several years of collecting interesting tidbits from the newspapers and magazines and brought to you with a smile, of course! ET





### **A Note From Debby Stevenson**

Since the Covid-19 has prevented person to person classes we are proceeding with educational classes and presentations through virtual live events mostly through Facebook and some You Tube. We are continuing to get the Master Gardener and Water Conservation message out. These classes may be found in the E-Blast and on the Facebook page.

As of the end of May we have billed TRWD \$16,488 for educational activities that fulfill our contract. TCMGA income is not as great as in previous years but Covid has forced us to use new methods for getting our message out without having "in person classes".

Our contract calls for a certain number of activities in several different categories as follows:

For TRWD City requests we are paid \$100 and have completed 8.

For Core Presentations having to do with water conservation we are paid \$50 and are required to do 40. At the end of May we have completed 17, so we are close to half way there.

For Core Workshops we are paid \$12.50 per participant and are committed to do 12. At the end of May we had completed only 4 so we will have to complete 8 more of these before the end of the year.

For General Presentations we agreed to do 50 per year. At the end of May we have completed only 15 with 35 remaining.

As you can see, we still have some work to do to meet our contract obligations. Progress is continuing to complete these through Virtual and Recorded Events.. If you would like to be speaker for these virtual events, please contact Dorothy Hildebrand, Speakers Bureau or Debby Stevenson, TRWD Coordinator for additional information. This is a great opportunity to learn something new, share your passion and contribute to TCMGA. Power Points are also available on many, many topics for you to use in your presentation if you want to use them. Again contact Dorothy Hildebrand or Debby Stevenson for more information. Yes you do get hours for not only the presentation but also the time spent on research or preparing the program. We look forward to hearing from you.

# Tarrant County Master Gardeners

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## Swallowtail Butterflies

by Derald Freeman **From** Sharecropper – August 2007

Class - Insecta

Order: Lepidoptera

Family: Papilionidae - Swallowtails and Parnassians There are 23 families in the order for our area.

Swallowtail Scientific Name: *Papilio polyxenes asterius* Stoll

### Caterpillar habits



Caterpillars appear during the last few weeks of spring. They are found clinging to fennel, dill, parsley, carrot and other host specific plants. Within days or even hours, they can decimate most of the foliage on these succulent plants. You are not despondent as the plants are reduced to stems because you grew them for the benefit of the caterpillars anyway. Caterpillars have chewing mouthparts. Butterflies, however, develop with a proboscis for sucking. Caterpillars do not move very quickly, can't see very well (they only have a few simple eyes), and are pretty defenseless. Full grown caterpillars can reach 2 inches in length and are smooth and green, marked with black bands and yellow spots. The only defense for the caterpillar is that it is bad tasting to birds and other predators because of the toxins absorbed from the host plants.

The foliage attracts the butterflies. When the eggs hatch, they turn into striped caterpillars. Host plants of the caterpillar include members of the parsley family (Umbelliferae) including fennel, dill, parsley, carrot, and Queen Anne's lace and some members of the Rutaceae (*Ruta graveolens*).

The Pipevine Swallowtail caterpillars desire Pipevines. The Black caterpillars want the parsley family, including Queen Anne's lace (wild carrot), celery and dill. The Giant caterpillars favor the citrus family, prickly ash, and hop tree.

Monarchs have different habits and lay eggs on Milkweed.

### Butterfly habits

The swallowtail spends the winter in the pupal stage but may be seen flying as early as the end of April and as late as the end of October.

Swallowtail pupa can blend very well with twigs and bark. This is especially important during the winter when leaves are gone, and they must blend in to avoid being eaten by birds. The butterflies feed on leaves of host plants, among them bronze fennel, honey- suckle, azalea, goldenrod, butterfly bush, pentas, alyssum, black-eyed Susan, Purple cone flower, and Rue (an ancient herb, but the oil can cause blisters and rashes).



Pipevine Swallowtail *Battus philenor* love plants like thistles, lilac, azaleas, phlox, lantanas, petunias, lupines, verbenas, yellow star thistle, butterfly bush and buckeye.

Butterflies will readily bask in the sun when it is warm out, but few are seen on cloudy days. Butterflies also like puddles. Several species can be seen congregating at small rain pools, forming puddle clubs.

### Swallowtail Butterflies



The Black Swallowtail *Papilio polyxenes* favors nectar from flowers like red clover, milkweed, and thistles.

The black swallowtail is a black butterfly with yellow markings near the margins of the forewings and hindwings and more limited blue and red markings on the hindwings. Its wingspan can reach 4 1/2 inches.



The Giant Swallowtail *Papilio cresphontes* goes for lantana, azalea, goldenrod, Japanese honeysuckle, and swamp milkweed.

#### **The life cycle of the butterfly**

The life cycle, known as the complete metamorphosis, has to be one of the most fascinating reproductive processes that nature has to offer and is a delight to witness. From the egg comes the hatching of a caterpillar (larva) with a voracious appetite, devouring more vegetation than one would imagine. This supports its rapid growth that causes it to quickly outgrow its non-expanding skin.

It will shed this skin for a new one several times before it reaches its last stage or instars as these stages are called. At the end of its last instars the caterpillar will fasten itself to a stem or branch to begin its transformation into the pupa or chrysalis.



It is in the chrysalis that the most fascinating part of the process occurs. Over a period of time that varies by species, the thing that was a caterpillar metamorphoses into the completely different structure as the butterfly. When the time is right, it splits the skin of the chrysalis and emerges. The butterfly then pumps up its wings with fluid from its body. When the wings dry out it then takes wing as an adult butterfly.

The butterfly can survive well without humans, but we can help make the going easier. Water sources and nectar from specific type plants can be provided by us to keep them hanging around and healthy. Avoiding pesticides where possible will help as well. If you see a gardener applauding and excited amid a flutter of colorful wings just consider that a part of nature's beauty has just put on a show for someone who cares.

# Tarrant County Master Gardeners

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## Understanding Natural Fertilizers

***By Steve Chaney, Texas AgriLife Extension, Tarrant County  
Sharecropper, July 2012***

If you want to have a healthy, productive garden the first key step is to build great soil. Many gardeners make the mistake of looking first to fertilizers, tonics, or a multitude of miracle working concoctions to produce great plants. There is no long-term substitute for proper soil building. If your soil is poorly drained, too acidic or alkaline, compacted, low in organic matter or has poor structural characteristics, it doesn't matter how much fertilizer you add, the results will be disappointing.

Build your soil first and then fertilizers can play their proper role in promoting plant health and production. Fertilizers are most effective when used to fine tune a soil situation that is already working relatively well. Healthy soil grows healthy, productive plants and is the place where any great garden begins.

Start by adding compost to improve the soil's structure, internal drainage and water holding ability. It stimulates soil microbes and breaks down to feed plants gradually over time. If drainage is at all in question, build raised planting beds to ensure that plant roots don't sit in soggy wet conditions. Have your soil tested to determine the pH and nutrient levels. This provides the basis for correcting deficiencies and preventing nutrient excesses or imbalances. When you get the soil right, plants will naturally thrive. Once the soil has been properly prepared it is time for planting and any fertilizer additions. I just want to stress that fertilizer is a wonderful thing for fine tuning plant health and stimulating maximum production but is not a fix-all for poor soil conditions.

Compost and manure are soil conditioners that build the soil. While they contain nutrients, their nutrient content is fairly low and as such they are generally not considered fertilizer. Some animal manures (such as poultry manure) are more potent and as such are sometimes formulated into fertilizer blends, but most should be viewed more as a soil amendment.

**Natural vs. Organic** The focus of this article is on natural fertilizers as opposed to synthetic products. Sometimes the words natural and organic are used interchangeably but this is not correct. Not everything of natural origin can legally be called organic. Some fertilizers are officially designated as organic, a term reserved for those products that meet strict requirements, originally specified by the Texas Department of Agriculture and now superseded by the USDA's organic regulations. As a result, many natural products are not officially certified as organic.

Rather than get tied up in official laws and regulations, I will simply focus on products that are natural in origin to distinguish these fertilizers from "synthetic" or "chemical" products. Growers wanting to produce vegetables and fruits organically will need to verify a particular fertilizer's status before using it on their crops.

**Why Use Natural Fertilizers** Natural fertilizers are typically lower in nutrients than their synthetic counterparts. They also tend to be more expensive per unit of nutrient. Additionally, plants take up nutrients in their basic form, not in a synthetic or organic form. Thus, whatever type of fertilizer you use, it will have to break down into the same basic elements for plants to be able to take those elements up. So why use a natural fertilizer? One reason for gardeners wanting to grow things naturally is simply the fact that they are natural as opposed to synthetic. Gardening is a hobby and source of enjoyment and fulfillment. It is generally not a means to survival and so a few dollars on a natural fertilizer is not



### Understanding Natural Fertilizers

significant when you consider that gardening is really a quite inexpensive hobby...or at least it can be, right?

Synthetic fertilizers release nutrients rapidly in most cases and are often salt based. Thus, they can burn plants, something very few natural products will do. The natural fertilizers release their nutrients gradually as they break down by microbial action. This extends the nutrient release to gradually provide plants nutrition over time. It also helps to reduce water pollution through runoff and leaching. In recent greenhouse turf studies at Texas A&M University, several natural fertilizers produced a top-quality turf and had much lower rates of runoff and leaching than several synthetic blends tested.

Natural products stimulate soil microbial activity and in a small way add organic matter to the soil. They contribute to the process of building soil. They are not just 3 major elements in a bag of filler but being derived from once living materials contribute micronutrients and often other plant growth stimulating substances.

**Types of Natural Fertilizers** Natural fertilizers may be divided into three basic categories based on their origins: plant based, animal based and minerals. Plant based fertilizers include alfalfa meal, corn gluten meal, cottonseed meal, and kelp meal. Animal based fertilizers are primarily a byproduct of the meat processing industry and the commercial fishing industry. Common animal based fertilizers include blood meal, bone meal, feather meal, fish meal and fish emulsion. Mineral fertilizers are mined from the earth. They include greensand, gypsum, lime, soft rock phosphate, and potassium magnesium sulfate. Let's take a look at these natural fertilizers individually.

**Alfalfa Meal** is used for animal feed. It contains about 3% nitrogen and makes a good low concentration fertilizer. I have even used pelletized rabbit feed in the garden as it is much the same as alfalfa meal.

**Blood Meal** is a byproduct of slaughterhouses. The blood is collected, dried and powdered. It is very rich in nitrogen (about 12%) and in fact is a top choice among natural products when only nitrogen is needed. It also contains trace elements including iron. This however is one natural product that can burn plants if used in excess, so take care to not over apply it.

**Bone Meal** comes from the slaughterhouses and is one of the better known natural fertilizers. It contains about 12% phosphate, most of which is available. This makes it a good choice for a fairly quick fix. Many soils already contain high levels of phosphorus, which leads to iron tie up and subsequent iron deficiency of the plants. Take care not to overuse this "middle number" on the fertilizer label and base any phosphorus additions on soil test results.

**Corn Gluten Meal** is derived from grain corn. It is high in nitrogen, containing about 10% and as such makes a great supplement for many garden and lawn uses. It also has some weed deterrent qualities, so you should take care when using this product in a garden where seeds may be planted within a couple of months.

**Cottonseed Meal** is a byproduct of the cotton industry. It is used in producing livestock feed but also makes a great fertilizer. It tends to be somewhat acidifying, a very positive trait for gardeners in the western 2/3's of the state or for east Texas gardeners growing azaleas, camellias, and blueberries. It is a good source of nitrogen and generally has a nutrient content of about 6-2-2.

**Feather Meal** is acquired from the poultry industry. The ground material is high in nitrogen (approximately 12%) but is in a form that is very slowly available. Therefore, it is more effectively used for long term nitrogen supplementation rather than as a quick fix for a growing crop of vegetables.

# Tarrant County Master Gardeners

## Understanding Natural Fertilizers

**Fish Meal** contains about 10% nitrogen. It is very useful in giving plants a boost of this primary nutrient. I like to mix some into the soil prior to planting and also use it to side dress plants when they need a little extra vigor.

**Fish Emulsion** is made up of finely ground fish parts that have been partially decomposed. It is high in nitrogen and trace elements. Specific nutrient content is about 5-1-1 but varies considerably among various manufacturers and depending on how it is processed. This product is a favorite for both soil application and foliar feeding when diluted properly. The older types had an odor that let the neighborhood know you had fertilized and would most likely have every cat in town salivating big time. The odor dissipates in a couple of days, but you would not want to use it on indoor plants for sure! Newer formulations are available which have been pretty much deodorized.

**Greensand** is a clay type mineral, also known as glauconite, which contains about 5% potash. The nutrient is tightly bound up in the compound and is only very slowly available. It is much better suited to long term soil building than quick fix results.

**Kelp Meal** is basically seaweed that has been dried and ground. It is low in nutrients, containing about 1% nitrogen and 2% potash, but it also contains magnesium, sulfur and many trace elements. There are also many seaweed extracts that are popular as a foliar applied product.

**Gypsum** "fix" tight clay soils. However, it works only on clays that have high levels of sodium which destroys soil structure resulting in tight, poorly drained soils. Gypsum knocks the sodium off the soil particles replacing it with magnesium and thus leading to better structure. Gypsum will not help just any clay. It provides the nutrients calcium and sulfur and is a good way to supplement these nutrients when they are lacking.

**Lime** is basically a source of calcium and a way to raise pH in an acid soil. It is mined from the earth and is primarily needed in the east Texas areas where acidic soils prevail. Dolomitic lime also contains magnesium, another element often lacking in the acid sands of east Texas.

**Soft Rock Phosphate** is mined from ancient marine deposits. It contains about 30% phosphate, but most is unavailable to plants at any given time. In fact, only 1 to 2% is available. Very slowly over time this phosphate is released to the soil solution where plants can receive the nutrients. This is a good long-term solution in soils where phosphorus is lacking.

**Potassium Magnesium Sulfate** is also known as langbeinite. It is mined from the earth and ground for sale as a fertilizer. This fertilizer contains 22% potash as well as 18% Mg and 27% sulfur. Companies often process this material into various forms, which are thus a bit less "natural" perhaps than the mined form. Sul Po Mag and K Mag are two common brand names of potassium magnesium sulfate fertilizer.

Blends are combinations of ingredients formulated into fertilizers with popular ratios of nitrogen, phosphorus and potassium. For most purposes in most areas of the state, in the absence of a soil test a good rule of thumb is to apply a 4-1-2 or 3-1-2 blend of nutrients. This avoids adding too much phosphorus, while provides nitrogen, which is almost always needed and potassium, which is also often needed.

Many of these natural fertilizer products are available in local garden centers. Others may not be locally available. Buying them by mail order can be expensive. In such cases it is often best to make do with locally available products. Plant nutrition is not an exact science and although it is easy to get lost in the numbers just remember that well-built soil is very forgiving and exact blends are not essential.

**Conclusion** Natural fertilizers can be an integral part of a good soil building program for your garden and landscape. Along with compost additions and soil testing they provide the basis for a healthy productive garden. Remember to start with a soil test to determine your soil's current nutrient status and needs. Build soil prior to planting and continue to improve it by amendments and proper fertilizing each time you transition from one

### Understanding Natural Fertilizers

crop to another.

While some natural fertilizers provide a quick fix, similar to the way synthetic products can, most are part of a long-term solution. The goal is to build soil that need few additional inputs rather than soil dependent on a continual series of “quick fixes”. Gardeners who want to garden naturally are willing to build their gardens over time recognize the value in such an approach. They will enjoy the benefits for years to come in terms of great soil, healthy plants, and productive gardens.

#### False Nettle

*Boehmeria cylindrica*

Synonym(s): *Boehmeria austrina*, *Boehmeria cylindrica* var. *drummondiana*, *Boehmeria cylindrica* var. *scabra*, *Boehmeria decurrens*, *Boehmeria drummondiana*, *Boehmeria scabra*, *Urtica cylindrica*

Tiny greenish flowers are in small, head-like clusters, arranged in continuous or interrupted spikes in the axils of opposite leaves. Plant lacks stinging hairs.

This species differs from Clearweed (*Pilea pumila*), the other member of the Nettle Family lacking stinging hairs, in that it does not have a translucent stem and is taller.

Grows about 24". It is a perennial. Does well in moist and shady areas. Blooms yellow, green and brown from July to October.

Attracts: Butterflies

Larval Host: Eastern Comma, Red Admiral .



Above far right: Eastern Comma.

Right: Red Admiral.

# Tarrant County Master Gardeners

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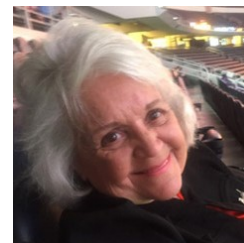
## WANT TO BE GREEN?

Sharecropper July 2008

Try one new thing a day and in ten days you will be surprised at what you accomplished.

- A dripping faucet can waste 20 gallons of water a day.
- Washing dishes by hand takes 2-3 gallons of water. A dishwasher on full cycle uses 16 gallons.
- Turn off the sprinkler system's automatic setting. Water as needed.
- A compact fluorescent 16-watt bulb gives 60 watts of light. In a lamp you don't know the difference.
- Turn off lights and other devices when they're not needed.
- Fed up with the constant stream of catalogues in the mailbox? Call the mail order company and say NO to the mailing list. Think of the trees you will save.
- Love to BBQ? Need to replace your grill? Propane burns much cleaner than either wood or charcoal briquettes.
- Buy food locally. Farmers markets ensure that the veggies you're eating hot off the grill or mixed in a salad haven't traveled thousands of miles and burned tons of fossil fuels just to reach your plate.
- Buy plants that stay green all year so as they grow, they absorb carbon dioxide, one of the most prevalent greenhouse gases.
- Learn what carbon offsets and carbon footprints are.





### President's Message

Well, off the top of my head when I think about gardening at this minute, I am thinking the TEXAS HEAT has finally arrived. Most of us can't work later than maybe 10:30 in the morning before we need to retreat to the house and figure out what to do next. We have already got the house and our garden spotless and weedless. Thank goodness we have a lot of virtual educational gardening programs we can view, learn something new and realize "we need to add this to our own garden" so back outside we go. Some of these virtual classes count as certified hours if they meet our MG mission statement. Yippee. And we are venturing into a new exciting era of learning how to educate and communicate virtually.

This coming week TCMGA is doing it's first Monthly Virtual Meeting. So, bear with us. I can say it is a learning experience. Any advice afterward will be very helpful. There are some talented tech interns and members that are helping us put the meeting together. – Lance Heiskell, Andrea Curreri, Claire Alford and Nancy Curl. We will have information on how to join the meeting in our Monday eblast. If you want help let me know. We can practice how Zoom works and how you can be a part of the meetings if you have not done it before. **We do need a quorum so please try to sign in and be a part of the meeting.**

For everyone that has worked at the Demo Garden in the past months, boy you have got it in top shape. Thank you! Thank you! If you haven't worked, you can work throughout the week. Just give Randy Walker a call and he will put you in the right spot.

The Education Team has been filming different areas in the garden so TCMGA can provide education virtual sessions about the different types of gardens and how to maintain them. Yes, we have a new part of the education Committee, "A Video and Editing Crew." The leads of each of the gardens that they have videoed so far have done such a grand job.

**Exciting news!!!** On July 10, Channel 11 will be filming the Orchard, Herb and Perennial Gardens. Channel 11 will broadcast 3 10-minute segments in the month of July. The garden leads of each garden will give out information on how to maintain the gardens in the summer. We don't know when and what time, but we will let you know so you can watch them on the local TV channel. **How great is that!!!!!!**

I want to thank Lorie Grandclair-Diaz for our wonderful newsletter. She works so hard to get to us each month. Laurin McLaurin our webmaster for all his time on the website.

*On a very sad note. - One of our own Master Gardeners, Chris Senerote, Class Of 2012, passed away on June 26. She will be missed by our members that knew her and worked alongside Chris. Take a minute to remember her family. If you would like to send her family a card her address is 2425 Nottingham Pl., Grand Prairie, TX 75050.*

Please take care of yourself. Remember to wear your mask, 5 or less for in-person groups for Master Gardeners and keep the 6 ft distance wherever you are. I miss not seeing everyone face to face and the hugs.

Theresa

*Gardening is a matter of your enthusiasm holding up until your back gets used to it. Unknown*