

Ellis County Master Gardener's E-Gardening Newsletter



Volume IX, Issue Five

Official E-Newsletter of the Ellis County Master Gardeners Association, Waxahachie, Texas

May, 2016

Welcome to the Ellis County Master Gardener's **E-Gardening** Newsletter. The purpose of this newsletter is to give you a month-by-month agenda of what you should be doing with your landscape. We will feature horticultural articles that we hope you will find interesting, and important dates where you can find the Master Gardeners speaking, demonstrating, and passing out information relative to your garden. If you would like to receive this newsletter monthly via your email address, log onto our website www.ECMGA.com and click on subscribe. It will be sent around the first of every month. Best of all; it's FREE! Susan Clark, Editor

What's Happening in May?

Every Saturday from April to October from 8am-1pm.



410 S. Rogers (across from City Hall in the old lumberyard building) Visit the Master Gardeners' Booth!

- Useful gardening tips
- Plants and herbs for sale
- ® Free handouts...Some items for a fee
- Tell a friend to sign up for the E-Garden Newsletter... it's FREE!

The Waxahachie farmers market is off to a wonderful start thanks to all of you who have come out to support its 14th season. If you haven't been yet, be sure to visit. There's new produce arriving weekly plus there are several new sellers and products. Stop by and get to know the sellers and support the local community. The market is located at 410 S Rogers St and is open Saturdays from 8am to 1pm.

Announcing a New Feature at the Farmers Market: Master Gardener Pop-Up Classes!

"Pop-up Horticulture" is a new endeavor sponsored by the Ellis County Master Gardeners and will provide timely gardening information on topics of local interest to market visitors.



The Pop-Up Horticulture topic for May is Container Gardening and will be presented by Micki Roark on this Saturday, May 21 from 8am-1pm.

As the name implies, this event will take place under the pop-up tent located on the north side of the Market grounds.



May 21th—Come meet our crafters. Some of the sellers make their own products including jewelry and wallets, fun kids trinkets and outdoor as well as indoor decor items. Come out to browse the many items made by our talented group of vendors.

May 28th—Experience our monthly Taste of Market with samplings of pasta. There will be a variety of pesto using market ingredients. Stop by for a tasting and take home the recipe along with many of the ingredients.

Coming in June!

June 4th—Gingerbread & Sweet Treats

June 11—Kid's Krafts

June 18—Master Gardeners Grill Fest

June 25th—Taste of Market: Tomato Tapas

Indian Trail Master Naturalists Events Join the Indian Trail Master Naturalists at their monthly mee May 23. The program for the evening is entitled "The

Join the Indian Trail Master Naturalists at their monthly meeting on Monday, May 23. The program for the evening is entitled "The Importance of Scientific Vouchers in Botanical Research". A preserved specimen, or voucher, that is deposited in a natural history collection, such as a herbarium,

may serve as the basis for scientific research for hundreds of years to come. These vouchers





Listen to KBEC

Saturday mornings at 9:00 a.m. on 1390 AM.

The Ellis County Master Gardeners have a five minute segment every week, offering you helpful information on what you need to be doing in your landscape, as well as "happenings" around the county. Be sure to listen in!

Melinda Kocian

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Prairie Verbena (Verbena bipinnatifida)
Prairie verbena is one of the most abundant wildflowers of Texas, growing throughout the state. It is an erect to sprawling plant six to sixteen inches tall. The lower branches take root forming dense colonies. The bluishpurple flower clusters grow at the ends of the stems. This perennial makes an excellent garden flower. Blooms April to October.

It's May....What Needs To Be Done?

Planting

- ⊕ It is time to plant sweet potatoes. And it is not too late to plant okra
 and southern peas.
- ® Sow directly into the soil seeds of sunflower, zinnia, morning glory, portulaca, marigold, cosmos, periwinkles and gourds. Achimenes, cannas, dahlias and other summer flowering bulbs can also be planted in May.
- Plant heat-loving annuals including lantana, gomphrena, copper plants, firebush, purple fountain grass, sweet potato vine and pentas in sunny areas.
 - ® In shady spots, plant caladium tubers and elephant ear bulbs, begonias, impatiens, nicotiana and torenias.
 - ® Establish new lawns before summer heat sets in. Sow seeded varieties of Bermudagrass from seed early in the month; or sod Bermuda or St. Augustine. Water daily for first few weeks to develop a good root system.

Fertilizing and Pruning

- Manually thin the fruit on peaches, pears, plums and apples to five to six inches apart early in the month
- Fertilize tomatoes and most other vegetables every other week for productive and vigorous plants.
- Trune spring-blooming shrubs and vines. Deadhead roses and other re-blooming plants.
- The Feed fruit trees, perennials, annuals, ground covers and vines with a lawn fertilizer.
- Allow foliage of spring-flowering bulbs to mature and yellow before removing.

Garden Watch

chemical pesticides.

- Allow bluebonnets and other reseeding annual wildflowers to die and the seeds to dry before mowing the stubble. Mow at least four inches high so as not to damage perennials. But delay mowing until the end of the growing season if other wildflowers are growing in the area.
- Maintain a two to three inch layer of mulch around all plants and beds. Use shredded hardwood or another wood mulch.
- Make initial application of Image and Sledgehammer to control nutsedge.
- © Check tomatoes for signs of early blight (yellow blotches on lower leaves). Apply a labeled fungicide if needed. Keep soil adequately moist to prevent blossom-end rot (browned tissue on bloom end of fruit).
- Squash bugs tend to be a problem. Destroy the eggs found on the underside of the leaves by hand or a stream of water. Many vegetable pests can often be controlled by mechanical, biological or organic means rather than
- ★ Keep an eye out for bagworms on cedars, junipers, cypress and other conifers. Apply Bt (Bacillus thuringiensis) or general insecticide at first sign of larvae feeding. Remember that once the bag has formed, your only option is to manually pull them off.

Evening Primrose (Oenothera rhombipetala) Annual or biennial flower that grows from a taproot with erect stems two feet tall. Four-petaled yellow flowers are diamond shaped and one to two inches in diameter, clustered at the top of the stem forming numerous bright flowers that bloom in the evening, remaining open the following day. Blooms May to September.



Featured Texas Wild Flower of the Month

Submitted by Melinda Kocian Ellis County Master Gardener





Wild Petunia Low Ruellia

Acanthaceae Family (Acanthaceae)

Ruellia humilis Nutt.

Region: 1-9 (Ellis County is Region 4)

Size: 8 - 30 inches

Blooms: April through October, Perennial

As the name *humilis* implies, wild petunia is usually a small plant. Conspicuously hairy, it is upright to sprawling, with several square stems forming a clump. Its flowers have five lobes and are two inches or more long. The lavender to light bluish purple trumpets have red or dark purple lines in the throat. Flowers grow singly or a few at a time, in the axils of leaves. They open in the morning and last only one day.

Opposite leaves are crowded, elliptic or ovate and up to over two inches long. Low ruellia grows in full sun or part shade, in dry sandy or clayey soils. It is attractive in wildflower plantings. The many species of wild petunia in Texas are similar, but vary in color. Also similar in appearance, cultivated petunias are actually in another family, *Sikabaceae*, genus *Petunia*.

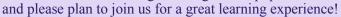
Lighthouse for Learning Ellis County Master Gardeners Series—Irrigation Efficiency Class

Submitted by Jim Derstler, Ellis County Master Gardener (on the left in the first picture)

On April 18th and 25th, Allan Paxton with a little help from me, conducted the first Irrigation Efficiency class that included both classroom and hands-on instruction. We had thirteen people show up for the class including several husband and wife teams. Allan did a great job and every one of the class members I talked to was very pleased with the instructions they received and the knowledge they gained. The instructions were presented in two separate sessions, one consisting of classroom work at the Waxahachie High School and the second being hands on at the ECMGA Learning Gardens in Getzendaner Park.

Many thanks to John Smith with the Waxahachie Parks and Recreation Department for providing the water supply, and to Lowe's Home Improvement Center in

Waxahachie for donating the irrigation equipment. Watch for future classes













News Release—Mid Spring Turf Considerations

From Mark Arnold, County Ext Agent, Agriculture & Natural Resources, Ellis County After our relatively mild winter, we haven't seen or heard of very much St. Augustine winterkill compared to last spring. There has been, however, plenty of fungal disease activity. We have been experiencing above normal rainfall and abundant spring showers giving no reason to turn our irrigation system "on", but I've seen plenty of irrigation systems running for no reason.





This practice not only wastes one of our most valuable resources, but creates disease problems in turf and landscape areas. Homeowners who are seeing brown patch or take-all patch areas in their lawn may benefit from a fungicide application, and warm weather and sunlight should help some of these dam-

aged and disease areas.

Other turf problems homeowners may start to see are crabgrass and other weeds in their lawns. Even if homeowners put down a pre-emergent herbicide, these may not last all season with the weather patterns we have been experiencing. We are encouraging homeowners to scout and inspect areas where turfgrass may be thin, as post-emergent or a mechanical control measure may need to be administered.

Homeowners are encouraged to read and follow the label when making any pesticide applications whether it is a fungicide, herbicide or insecticide product. For more information on specific products for home turf use, contact the Ellis County office, Texas A&M AgriLife Extension Service, Mark Arnold, County Extension Agent-Agriculture/Natural Resources, 701 South I-35 E, Waxahachie, call (972) 825-5175 or email: wmarnold@ag.tamu.edu.

In the Vegetable Garden: Sweet Potatoes

By Jane Slone Ellis County Master Gardener



SWEET POTATOES—A nutritious vegetable with colorful flowers and trailing vines.

In the Farmer's Almanac, the sweet potato (*Ipomoea batatas*) is described as, "...a warm-season, spreading vegetable of tropical origin. It is a good choice for a garden because it is easy to grow, is drought-/heat-tolerant and has few pests or diseases. The sweet potato is also very nutritious and low in calories."

I was recently asked, "Where do I get sweet potato seeds?" The sweet potato does not produce seeds. They are grown from the potato itself. They are not planted the same way you plant a golden Yukon potato. Sweet potatoes are grown from slips, which are sprouts that are grown from stored sweet potatoes. You can buy slips from garden centers, nurseries or local farmers. Slips should be planted in early May. The recommended varieties for Texas are: Beauregard, Jewell, Centennial, and Vardaman.



If you would like to try producing your own slips, Texas A&M suggests, "To produce slips, sweet potato roots should be laid on their sides in hotbeds about a month before the nighttime temperatures stay above 60 degrees F. Cover the sweet potato roots with two inches of moist sand and keep the hotbed between 75 and 80 degrees F. When the sprouts develop, remove them with a twisting tug. Additional transplants (slips) will form from the bedded sweet potatoes if left in place."

A second option is to suspend the sweet potato in a jar over water. Slips can then be transplanted to your prepared beds. Plant the slips 12 to 18 inches apart in the bed, after the last spring frost date. Plant the slips deep enough to cover the roots and about ½ inch of the stem. Water the slips with a starter solution that is high in phosphorous, then water generously for a few days to make sure that the plants root well.

It is suggested that you plant in soil that is loose (preferably sandy) and will allow for growth of the sweet potato underground. The soil should be slightly on the acidic side - 5.8 pH is the best choice. If your soil is not on the acidic side, you can

add amendments to adjust the pH. If available, pine needles are a good choice.

Grind and apply to soil.

Sweet potato vines (slips) are adaptable and easily grown if planted and protected from the hot sun, until they take root. Once they root the plants will become established and grow well in the hot sun of Texas. Come fall they should be ready for digging.

The sweet potato is often called a poor soil plant. Why? Because it will grow in soil where most vegetables would not grow. That said, it will do best with fertilizer once established. After two weeks you can scratch the soil around the plants and add balanced organic or timed-release fertilizer that contains potassium (the third number on the fertilizer label), such as 5-10-10. Use about two cups per 30 square feet (a 10-foot row).

It takes about 90 to 100 days for the sweet potato to mature and reach harvest time. Look for the yellowing of the vine. This is an indication that the vine has produced its crop.

To get the best crop, you should take a device such as a digging fork and loosen the soil around each vine. Be careful not to dig into the sweet potato. Handle carefully as they bruise easily. The fork will allow you to grab the vine and pull it from the soil. For home gardeners, the best time to harvest sweet potatoes is immediately before or just after the first fall frost.

Store the sweet potatoes in a cool dry area until used. They should last for several months.

For further info: A PDF on sweet potatoes (EHT-026) can be found at AgriLifeBookstore.org.



In the Herb Garden: Mexican Mint Marigold

By Bea Rocha Fllis County Master Gardener



A favorite herb in my garden is Mexican Mint Marigold. When The leaves have a tarragon-like flavor, which is why it can be out in the garden, I like to gently brush the leaves with my hand used in any dish that calls for French tarragon. I like to chop the to release the lovely anise aroma. I find it can quickly lift my fresh leaves and use them to season chicken and fish towards spirits just as a tea made from the dried flowers can help

melt away the stress of a hectic day.

Mexican Mint Marigold is known by various common names, including: Mint marigold, Texas tarragon, sweet marigold, winter tarragon, cloud plant, sweet mace and in Mexico and South America: yerbanis, hierba anís, coronilla, pericón and hierba de las nubes. Its botanical name is Tagetes lucida. The specific name, lucida, means "bright"

or "shining", probably referring to the bright yellow-gold flowers.

Native to the mountains of Mexico and Guatemala, this herb was first documented in Mexico in the sixteenth century by Spanish explorers. However, historic studies of the preconquest Aztec civilization indicate that in addition to being great astronomers and artists, they were also great horticulturists who had a high-

ly sophisticated system of identifying plants (not unlike the Lin- ly easy to grow. Young seedlings can be planted in early spring, naean binomial Latin nomenclature used universally today). Basic knowledge of herbal medicine was common in all families.

Yerbanis leaves have been used medicinally in folk remedies for malaria, colic and colds. A poultice of the leaves was said to be the traditional treatment for rattlesnake bite

Like my ancestors, I have been using yerbanis for medicinal and culinary purposes for years. Both the flowers and the leaves With so much to offer, Yerbanis/Mexican Mint Marigold will a mild natural diuretic. The flowers can be used to make a wonderfully relaxing tea that can be sweetened with honey, if de- References: Infusions of Healing; Joie Davidson, The Herb Garsired; although yerbanis is known for its pleasant taste and needs no additional sweetener.

the end of the cook cycle. This is because Mint Marigold breaks down quickly with heat.

The dried leaves and flowers retain their fragrance well if kept in a sealed glass container and are protected from extreme heat and bright light. A small jar of dried leaves with a layer of the beautiful yellow flowers on top, make an excellent gift for a special

person in your life. They also make a lovely potpourri.

This neat upright, mounding herb grows between one to three feet tall and has narrow, sharply-toothed dark green leaves. In fall, the tips of the stems bear clusters of 3/8-inch golden yellow flowers. The plant is relative-

once the danger of frost is over.

While almost any well-drained soil is recommended, mine has done great in our slightly amended black clay. It has no special fertilization needs, and although it appreciates regular watering, it can withstand short droughts. For a full, well-formed plant with many blossoms, place it in full sun. The flowers attract bees and butterflies.

have anti-fungal, antibacterial and antioxidant properties. Mint continue to be a staple in my garden. If you don't already have Marigold can help promote good digestion, lower fevers and is it in yours, I hope you will consider planting at least one in your own garden.

> den Cookbook: Lucinda Hudson, Mother Earth Living-By the Herb Companion staff/April/May 1993

What's Happening Indian Trail Master Naturalists (Continued from page 1)

represent verifiable documentation of the existence of a species in space and time if they are properly collected and preserved. The program will be presented by Tiana Rehman, Herbarium Collections Manager, Botanical Research Institute of Texas in Fort Worth.

The program is free and follows the 6 p.m. Master Naturalist meeting that is also open to the public. Meeting location: First United Methodist Church, Family Life Center 505 W. Marvin Ave., Waxahachie. For more info, call (972) 825-5175 or email ellistx@tamu.edu

Saturday, May 21, 9am, Wildflower Walk. Members will be leading a walk at Mockingbird Nature Park. Join in this ½ mile stroll along the trails to identify wildflowers. Free to the public. Participants should bring drinking water and binoculars. The walk will be canceled if raining. Info at: http://txmn.org/indiantrail/ or email: Information@itmnc.com

To Build Greenhouse or Not, That's the Question With Pat Cooper, Ellis County Master Gardener Ellis County Master Gardener



My wife, Andee and I worked for the same organization for over 30 years. After we both retired, we moved to the Ellis County area to settle down and begin living out that proverbial second chapter of our lives together in some semblance of peace and quiet, far different from the corporate community we served for so long. That was a year ago.

As a part of our move to Ellis County, one of my plans was to build a greenhouse that would be tied into a larger woodworking shed I was constructing. What could be so tough about building a greenhouse? Put a couple of walls here and there,

make sure there's available water, put in lots of windows, maybe a light or two, and voila! It wasn't until I was introduced to Ray Pouliot, Ellis County Master Gardener greenhouse (ECMG) manager, and began working with him and other Master Gardeners at the Waxahachie

High School/ECMG greenhouse, that I quickly realized how much I didn't know.

Sunshine Matters! The main function of a greenhouse is to create a micro-habitat and provide a controlled growing atmosphere for plants and vegetables to grow. Unlike my original greenhouse plans, where I didn't make any provisions for overhead sun, allowing for a great deal of controlled natural sun light is critical to the success of any greenhouse.

In addition to sunlight, the ideal heat and humidity factors should run somewhere in the vicinity of 72-75 degrees and 55% to

65% degrees, respectively. But let me add this caveat, temperature and humidity can vary depending on what you're growing, the outside climate at the time and where your greenhouse is located geographically. Many Master Gardeners that I know also run small heating pads and overhead grow lights in their otherwise darkened garages or sheds as an alternative to sunlight, but would agree that they are no replacement for the real thing.

120 Volts Please. What does growing plants and vegetables in a greenhouse have to do with electricity? Plenty. There are a number of ground fault interceptor (GFI) electrical nice-to-have and mandatory requirements that are essential to a successful greenhouse. These items are driven by budget constraints and necessity. Nice to have electrical requirements could include timed misting systems, overhead lighting, mo-

torized shade louvers, humidity and temperature meters, evaporative coolers and various solar products. Mandatory electrical requirements could include HVAC systems, circulation fans, grow lights, and heating pads. So many choices, all driven by budget constraints.

Structure Counts. Living in the country has its challenges, straight-line winds being one of them. Within weeks after moving into our house, the neighbor across the street lost his metal shed to 35 MPH winds. His shed was decimated within minutes because it wasn't properly tied down or well con-

structed. BYO online greenhouses are a great and inexpensive idea, but they can have drawbacks if they're not designed for the local area.

Where glass was once the preferred light intake medium, plastic polyethylene sheeting and fiberglass are gaining in popularity, although they lack durability. PVC tubing may work for small venture infrastructures, such as a 5' x 10' unit, but a building of any reputable size would do well to be framed out with either metal or

wood, if budget allows. Popular nowadays is a quonset frame that has a domed ceiling which can be made with steel supports or heavy duty PVC tubing. The other consideration to remember is that your greenhouse will need to be built to weather all four seasons.

Size Can Be an Issue. Green-houses tend to perform better and produce more heat and humidity when they are larger because of their ability to capture more of the sun's rays. In hindsight, my 10' x 17' green-

house addition to the shed is way under-scoped. I could have easily doubled it. Additionally, I didn't take into initial consideration the need for work spaces, insulation, storage or electrical requirements. The one thing I did do correctly was position it so that it captures the southwestern sun. If you are building a stand-alone greenhouse be careful not to let large trees, power lines or other structures block out direct sunlight.

Air Circulation and Ventilation. Just like any HVAC system needs makeup air to properly function, a greenhouse must be able to effectively breath and expel air. Air circulation does a number of things. Besides maintaining a uniform temperature throughout, air circulation can also help maintain uniform humidity and create a balance between CO2 and oxygen. Proper ventilation also stimulates healthy plants by strengthening





Landscape Gardening

From: Gail Haynes, Ellis County Master Gardener

Ellis County Master Gardeners have a website at www.ecmga.com. Check it for information on gardening in Ellis County, sign up for this monthly newsletter, or access other websites, including the Texas A&M Horticulture website. Questions for Master Gardeners will be answered with a return email or telephone call when you leave a message at (972) 825-5175.

Columbines-Striking Blossoms for Shady Areas

Columbines are a favorite spring wildflower for Texas gardeners. They have the ability to grow in both sun and light shade, and under good growing circumstances will survive for several years. Flower types range from the dainty bloom with "spurs" projecting to fully double bells composed of many petals in contrasting colors.

Not all varieties of columbines are suitable for Texas gardens. Two of the best are the hybrid 'Texas Gold' and the native species *Aquilegia canadensis*. 'Texas Gold' is a very heat-resistant

plant with golden-yellow flowers that was bred from the rare *Aquilegia hinckley-ana*, a wildflower found in moist, shady areas only along a few remote streams and waterfalls in the Big Bend area of West Texas.

'Texas Gold' Columbine, Aquilegia chrysantha hinck-leyana is a cool season perennial that has great heat tolerance. Its tough qualities and many large, showy flowers have earned it the right to be called one of the Texas Superstars. Years of field

testing by horticulture specialists with the Texas A&M Agricultural Extension Service have shown 'Texas Gold' to be a truly superior performer.

Across much of the state, many commercially available columbines weaken or die the very first summer! 'Texas Gold', however, has the native toughness and ability to tolerate the heat of Texas summers, thus it is truly perennial and will give you years of enjoyment without the expense and hassle of

replanting...a true Texas value from a true Texas native.

Its elegant, stately beauty is truly something to behold. Butter yellow blossoms, highlighted by graceful cups and long, dramatic spurs, are held well above the attractive foliage for maximum impact. Occurring on long, branching stems, these flowers also make good cut flower specimens. As an added bonus, the blossoms have a pleasing honeysuckle–like fragrance and are attractive to hummingbirds.

Long blooming for a perennial, 'Texas Gold' rewards the homeowner with bounteous blossoms from late March through early May. A grouping of several such plants can be breathtaking. Proper site selection and soil preparation are crucial factors in making 'Texas Gold' plants happy in your landscape.

Site selection in this case means partial shade. An ideal site would be under a canopy of a deciduous tree (i.e. drops its leaves in the fall) as the columbine would then receive what it truly loves: sun–dappled or partial shade in the summer for heat protection; more sunlight in the winter when the plant is actively growing. Avoid areas of dense, heavy, continual shade.

Provide well drained soils high in organic matter. It will not tolerate wet feet or standing water! If your soil is a sticky, poorly

drained clay, raised beds are highly recommended.



Prior to planting, incorporate an Earth–Kind® slow–release fertilizer, one in which at least 50% of the nitrogen is in the slowly available form, at the rate of two pounds per 100 square feet of planting area. Each year, reapply a slow–release fertilizer high in nitrogen at this same rate in October, December and February to help stimulate foliage production.

Set out plants in the spring to early summer. Space plants two feet apart at planting. At maturity, the

foliar portion will reach a height of 18 to 24 inches. Also, 'Texas Gold' needs one inch of water every seven to ten days, either from a soaking rain or through irrigation.

The native Columbine, *A. Canadensis*, produces a mound of foliage and delicate red-and-gold flowers several feet in height over a long period in the spring. It is found in nature from Canada through the U.S. into Texas. These two columbines often will cross with each other, creating a range of softly colored hybrids.

During the blooming season, the mounds of finely cut, soft green foliage with flowers may reach as much as three feet in

(Continued on page 10)

Landscape Gardening (Continued from page 9)

height. Trim off spent flower stalks before the capsules shatter to release seed, or leave them to provide fresh plants for a later season. In times of drought, the plants may go dormant for a time in the midst of the summer. When temperatures cool in the fall, new leaves should be produced and the plants will come on like gangbusters.

To maximize its landscape performance, arrange in easy, natural drifts, avoiding the regimentation of straight lines. Mass them in the perennial border, or tucked into unused corners of flower beds or almost anywhere you need bold spring color.

Low-growing shrub roses, perennial coreopsis, penstemons or ferns make good growing companions to the columbine.

Garden Checklist for May

by Dr. William C. Welch, Professor & Landscape Horticulturist Texas AgriLife Extension Service, Texas A&M University

- ♦ Now is a good time to create summer containers exhibiting succulents such as echeverias, sedums or house leeks (sempervivums). The larger rosettes of the echeverias and sempervivums may be situated in the container with edgings of smaller-leaved sedums.
- Succulents are easy to re-do and invigorate at almost any time of the year. Trim off the heads leaving about one inch of bare stem below, then situate into a pot in good soil media and press firmly in place. Do not overwater until new growth has become established.
- Cut off old blossoms on spring flowering annuals, such as pansies, snapdragons, stock and calendulas, to prolong the flowering season.
- Continue to fertilize roses every four to six weeks with small amounts of a balanced fertilizer.
- Set out plants of hybrid portulaca (purslane) in sunny areas. Make rooted cuttings of your favorite colors by placing three to four inch stems in moist, sandy soils.
- Pinch back the terminal growth on newly planted annual and perennial plants. This will result in



shorter, more compact, better branched plants with more flowers.

- Make cuttings of your favorite chrysanthemums and root them in a mixture of sand and peat moss. Cover cutting box with plastic and place in shaded area for five to six days to prevent wilting.
- Replace or replenish mulch materials in flower beds and shrub borders to conserve moisture and reduce weed growth.



Interested in becoming a 2017 Expo Sponsor Or Expo Exhibitor?

Contact James Kocian at expo.ecmga@yahoo.com

Reserve the date: March 25, 2017!

To Build Greenhouse or Not...(Continued from page 8)

their cell walls and stems which directly impacts plant growth integrity.

The generally accepted ventilation rate in cubic feet per minute (CFM) is one air change per minute. That means for example, if your greenhouse measures 20' long x 20' wide x 10' high, the greenhouse's ventilation volume fan rating would need to equal or exceed 4,000 cubic feet (20 x 20 x 10). Because heat rises, it's advisable to place exhaust fans towards the top of the greenhouse. In a greenhouse that large, the recommended fan placement would be two fans, with a combined rating of 4,000 cubic feet or greater, at either end of the building.

So, back to my original question. To build greenhouse or not? Building a greenhouse requires that it be capable of maintaining

a contained and life-sustaining, dynamic ecosystem. Whether it's a lean-to, detached, ridge and furrow or gutter connected

greenhouse, certain essential principles as discussed here remain the same. Other greenhouse building issues that need to be taken into consideration include budget limitations, time requirements, accessories and ongoing maintenance.

Did I mention that once your greenhouse is fully functioning, the next question is what plants, trees, flowers and herbs are you going to place in it, and how do you take care of them? That will be the subject of my next article.

In the meantime, I've got some sunshine holes to drill in my greenhouse roof ...

Thank You All!

Thanks to the sponsors, exhibitors and visitors for making the 2016 Ellis County Master Gardener's Lawn & Garden Expo a great success!

Gold













Cutting Edge Curbing

Bronze







Green

AmeriGrafix * Boyce Feed & Grain * CNB of Texas Holcim * Renewal by Andersen Roland's Nursery & Landscape * Tex-Scapes Greenery

Exhibitors

Advantage Academy ARK Country Store Artisan Outdoor Lighting Backyard Magicians Best Bug Bait Betha's Best **Bluemoon Soaps Boyce Feed & Grain Brazos Valley Equipment Brim Seed Bug Bouncer** C & J Farms Central Kubota **CKB Designs Cocos Discount Windows** Concrete and More

Creative Quilters Guild, Ellis

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Imagine That Indian Trail Master Naturalists Invisible Fence of Texas Jams, Jellies and More Jim's Produce **Just Nuts** Kaitlyn's Styles of Pasta KA-Ranch Landmark Equipment Living Magazine **Mower Depot Neil Sperry** Ovilla Garden Club Pastamore Gourmet Foods **Prairielands Groundwater GCD R&E Plants** Renewal by Andersen

Roland's Nursery & Landscape

Rolen's Honey Bee Removal

S & S Sandblasting Arts **Splash Away Pools Stone Cre8tions Sweet Sister Enterprises Texas Bluebird Society Texas Toffee Texas Tree Farms Tex-Scapes Greenery** The Greenery **Tommy's Bird Houses Tommy's Hot Dog Travis Equipment Waxahachie Care** Waxahachie Chautauqua **Preservation Society** Waxahachie Daily Light Waxahachie Equipment Co. **WHS Project Graduation** Wimbish Tree Farm

We couldn't do it without your support!