



ECHO



Texas AgriLife's Community Horticultural Outreach

Earth-Kind Research Program, Myers Park

Earth-Kind Environmental Stewardship is an educational program focused on protecting the environment and conserving natural resources through research based gardening, landscaping, and agricultural production practices. As with any research based program, it is only as good as the science allows. Therefore, without additional research, this is as good as it gets. We can't move forward and improve our knowledge without trying something different. Earth-Kind is a unique and different way of gardening and landscaping. Our Earth-Kind research is designed to push the limits of gardening, landscaping, producing food, and crops while preserving and protecting the environment and our natural resources.



Research based information is important because the results from experiments give us great confidence that the results are true and repeatable. In Earth-Kind, since our recommendations are based on science, the public can have confidence that they will see the same results when they follow our Earth-kind principles and practices.

The Earth-Kind program has conducted state and nation wide trials on the testing of varieties of roses according to the Earth-Kind research protocol. The research protocol is simple, which excludes the use of synthetic, natural, or organic fertilizers and pesticides, and limits the use of supplemental irrigation. This ongoing effort has resulted in the designation of 23 rose cultivars as Earth-Kind. These roses do not require fertilizer or pesticides, and are drought tolerant. The success of this research effort relies on plants with strong genetics and the use of wood mulch. Most recently, the Monsieur Tillier and Mrs. Dudley Cross varieties were named Earth-Kind Roses for 2011 by a team of horticulturists with AgriLife Extension, led by Dr. Steve George. The National Earth-Kind Rose Research Trials at Farmers Branch is in its final year of research. In this study, 100 cultivars of roses replicated four times are being evaluated by scientists with the Extension Service. This year provides a great opportunity to see the performance of these roses before they are gone.

(Read more on page 2)

July/August 2011

Educational programs of Texas AgriLife Extension serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas cooperating.

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Mrs. Dudley Cross

Earth-Kind Research Program, Myers Park

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It was thought that the same concept with Earth-Kind Roses could be possible with other types of plants, so an effort is under way to evaluate additional types of plants at Myers Park and Event Center near McKinney, Texas. In 2010, the first Earth-Kind Perennial Research Garden was initiated with the planting of 69 herbaceous perennial plants. This year we have installed 24 additional plants in the second phase of testing. An additional 22 species of perennials will be added this spring. This major effort of evaluating 111 species or varieties of herbaceous perennials is the first of its kind in the world. The first year of testing has shown that the concepts of Earth-Kind have real merit not just for roses but for other types of plants too.

Our success with the Earth-Kind Perennial Research Garden has encouraged us to pursue other projects aimed at testing other types of ornamental plants, horticultural and agricultural crops. This May we completed the installation of the first Earth-Kind Crape Myrtle Research Garden at Myers Park. The research garden is evaluating 25 varieties of crape myrtles replicated four times; resulting in a beautiful garden of 100 crape myrtles in an outstanding landscape design. This garden was designed along with an Earth-Kind Roses Research Garden that is focused on evaluating 19 Kordez Rose varieties. The Kordez roses offer great potential as Earth-kind Roses because they were developed without the use of pesticides. In April 2011, we made the first steps toward developing an Earth-Kind Vegetable Research Garden. This garden is uniquely designed to compare the production of vegetables with and without the use of a hoop house (an unheated greenhouse). The hoop house offers the benefits of storm protection and season extension that result in increased production and risk management. All these research efforts follow the same princi-

ples of Earth-Kind Research, which excludes the use of synthetic, natural, organic fertilizers and pesticides, and limits the use of supplemental irrigation. Regularly scheduled tours of the gardens are available at Myers Park. Visit <http://ccmgatx.org> for more information or to schedule a group tour.

The goals of the Earth-Kind Environmental Stewardship program are to reduce the use of water, fertilizer, pesticides, energy, and reduce waste from entering landfills. You can find out more information about Earth-Kind Education and Research by visiting this link: <http://collincountygardening.tamu.edu>.



Dr. Greg Church, County Extension Agent for Horticulture



Of Gardeners

There are many tired gardeners, but I've seldom met old gardeners. I know many elderly gardeners, but the majority are young at heart. Gardening simply does not allow one to be mentally old, because too many hopes and dreams are yet to be realized. The one absolute of gardeners is faith. Regardless of how bad past gardens have been, every gardener believes that next year's will be better. It is easy to age when there is nothing to believe in, nothing to hope for; gardeners, however, simply refuse to grow up."

-Allan Armitage

Book Review

By Mary Means



Insects of Texas: A Practical Guide by David H. Kattes

There are a couple problems with this book. First, this reviewer likes to curl up in the evening with a good book and read for an hour or so. Then, when tired, the order of things is to pad off to bed and drift into sleep. If the chosen reading material is about insects, the drifting may not be easily accomplished. One's mind will possibly tend to scurry through an imagined invasion of crawly bugs before a coveted rest. For me, selecting an evening hour when insect reading wouldn't interfere with sleep was difficult.

The other problem is the title: ***Insects of Texas*** simply because the fourth chapter depicts a collection of ticks and spiders. For an already uneasy book reviewer (based solely on subject matter), this borders on discomfort. These aren't even insects! The first section of the book lays the groundwork: there are five classes of the phylum, Arthropoda. The first class is spiders and such. There's a class for sow bugs and one for millipedes. Insects are in the fifth class. So why isn't the book entitled, "Arthropoda of Texas"? Nowhere in the book does Dr. Kattes explain the discrepancy between the title and the content. The reader simply has to realize this and move on.

You may wonder why the book is being reviewed. The representative at Texas A&M University Press has said it is a good book. Containing excellent photography, the book will be a fine reference for Master Gardeners trying to identify a particular crawler. Each insect (or spider or otherwise) is defined in size, color, and type followed by information regarding its preferred habitat.

One discovers those dozen or so pages devoted to something other than Hexapoda, but the book is primarily about insects. And the additional information about spiders and sow bugs is helpful.

Insects of Texas was copyrighted in 2009 and published by Texas A&M University Press. Dr. David Kattes is a Professor of Agronomy and Horticulture at Tarleton State University in Stephenville, Texas. A copy can be found in our Master Gardener Library. Stamped as a reference book, it makes its home in the AgriLife Extension office; browse through it early in the day to ensure a restful sleep at night!

Getting Serious About Cereus *Hylocereus undatus*

By Mary Nell Jackson



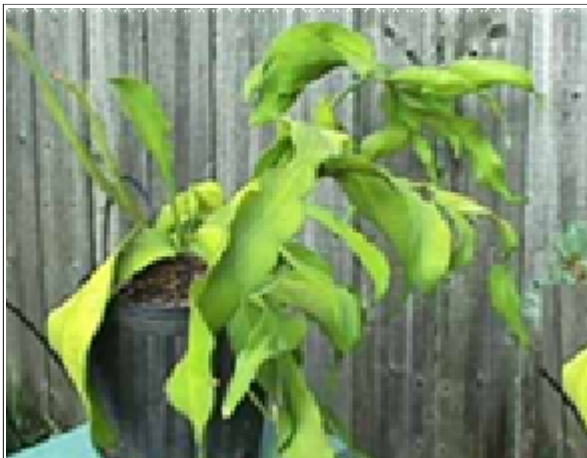
August is one of the hottest months in gardening zone 7. At sunset the nights are not much better, the breeze is silent and the monster mosquitoes come out to play. About mid-summer I begin to closely inspect one of the ugliest plants in my garden! I'm sure you are shocked to hear a dedicated gardener speak in such harsh terms about a plant but I kid you not this one is downright pitiful looking.

Most gardeners who know nothing about the cereus would never buy it or give it a second glance, but it would get their attention at bloom time. That is, if they were only awake to see it bloom. Its bloom time is its secret! It's called the Night Blooming Cereus or Queen of the Night, and it earns the title by its miracle bloom. Some gardeners use other common names such as: Princess of the Night, Honolulu Queen, or Reina de la Noche.

I confess I have lost lots of sleep over this plant. The first year it bloomed I stayed up all night photographing its transformation and smelling its intoxicating fragrance. The mosquitoes had a feast as I watched the bloom slowly unfurl, and if I held the flashlight just so, I could make out the slow movement of the bloom as it opened in the darkness.

The air was filled with the most fragrant perfume; impossible to describe but close to a mix of gardenias, magnolias, jasmine, and all the fragrant white tropical flowers of which I've ever caught a whiff.

The bloom process begins after the plant is mature, about five years, but some plants will surprise you and bloom sooner. Most gardeners



grow *Hylocereus undatus* as a house plant and bring it outdoors in the spring. It is a tropical cactus with wavy edged sturdy leaves. *Undatus* means wavy edge. The gangly stems grow in awkward directions and make this plant not easily used as a houseplant. It grows well in a hanging basket, but with age and multiple stems, it can become very heavy. When potting it up it is good to think of how you will grow it indoors before frost as it can get very big and unruly.

If the harsh winds of March and April don't twist its rangy leaves and the mealy bugs can be

kept at bay the plant really has few problems. If it is overwatered, it will suffer.

I received this plant as a pass-along from a generous Master Gardener. It carries the seal of a pass-along: easy to grow and prolific!

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*Getting Serious About Cereus (Hylocereus undatus)**(Continued from the previous page)*

It can be purchased from the trade, but is often hard to find. It is more fun to find someone that grows it and get a cutting. Cereus is very easy to root. Take a section (cutting) about two to four inches long, put it in potting soil, and moisten the soil. It usually takes about a month to root. Don't get discouraged if it doesn't bloom for at least three years. When it begins to bloom it should bloom every summer adding blooms annually. Buds appear along the wavy edges of succulent, leafless stems. It takes about a week for this process to be completed and the enlarged buds to open. The sepals begin to loosen early in the afternoon, showing just a hint of the white blossom. The blossoms will never open until after sunset and most probably about midnight. The blossoms are sturdy, magnolia-like, and dangle heavily from the green stems. They will continue to bloom even if a spot light is on them but for no more than 30 minutes. I have brought the plant inside, turned on the light in the room to photograph and inspect the bloom, and once the bloom process is taking place it will continue. The petals collapse at dawn and will not reopen. If the blossoms have been pollinated during the night, edible red fruits will appear about the end of the blossom season. Our warm season is too short



for this to happen but it is possible.

Some of the information on growing this plant suggests using cactus soil mix, but it will also grow well with a good potting soil mix.

The photo on the left shows the plant in a tropical setting. It is unusual to see a photo taken in daylight of the blooms but perhaps the temperature and tropical area would have an effect on the bloom time. Daylight Saving Time also confuses the plant as well as me at times!

Cereus' beauty and exotic growth habit doesn't escape cultural references; many books reference this lovely flower. Barbara Kingsolver's book, *The Bean Trees* features night blooming cereus. Newberry Medal award winner Karen Heese's book, *Out of the Dust* mentions it.

The plant produces a fruit in tropical area, but rarely would this happen in our climate. About 2000 the fruit was promoted as

'dragonfruit' as the old names sometimes referred to as 'hairy gooseberries' or 'kiwifruit' were not marketable names. Because of its protruding growths, the fruit inspired the dragon name. It is expensive during the tropical summer growing season and is still a specialty for most customers.

The fruit, like most fruit bearing plants, develops where the flower falls. It is green at first and turns red when it ripens.

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*Getting Serious About Cereus (Hylocereus undatus)**(Continued from the previous page)*

My research has taught me that even though the cereus may seem unruly, unattractive, and somewhat gangly it is not without redeeming value. It has a beautiful flower and a delicious fruit, but it also has medicinal qualities. Surprisingly, I read that it has potent heart medicine properties and a partial substitute for the plant-based digitalis. The Native American Shoshone tribe calls the night blooming cereus, 'pain in the heart', and uses it to treat the severe pains caused by angina pectoris. Homoeopaths prescribe it to treat heart problems and anxiety or panic attacks. A company called Vitality Works Inc. in Albuquerque, New Mexico pounds the tender stems and the flowers to make a milky white juice. Amazingly, this mixture is combined with alcohol to produce a tincture that is used as a heart medicine. A tiny one-ounce of night



blooming cereus sells for \$10.00. Please consult your physician for information on medicinal uses of this plant.

The plant was first discovered in the jungles of Central and South America; cuttings were taken to Europe. The first record of these plants is about 1753. The name 'Epiphyllum' was given to them, meaning 'upon the leaf'. Before 1900, seeds were sent to the United States. California, with its tropical climate, has become the epiphyllum capital of the world.

Last year the squirrels began to feast on my plant which had never happened before. In my research I found that the leaves taste good to them and they think the buds are a gourmet treat. This year I have not had that problem but will watch for my little hairy friends munching on my cereus and if they do so I will move the plants inside on my screened in porch to prevent it.

vent it.

About mid-August I will begin in earnest to watch for blooms. I fear I have been such a generous gardener, my plants have been compromised by my frequent sharing of cuttings. This year will be the test year. No matter, I have no regret for sharing my pass-along cuttings in the past.

If you find this little tale of night gardening unbelievable, drop by my garden in August for a look see. Perchance, we'll spot a bud about to open! Then we'll savor nature at its best, our opportunity to party all night long in pj's while surrounding ourselves in the sweet, albeit fleeting fragrance of the blooms."

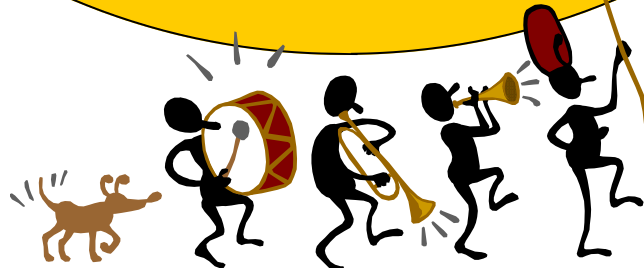


CCMGA 2011 Scholarship Awarded

Congratulations to Allee Page

Allee is the recipient of our CCMGA 2011 scholarship. A graduate of Prosper High School with a 3.86 GPA, she intends to pursue a degree in Horticulture with a business minor at Blinn College in Brenham, TX in the fall. Allee's hard work earned her a \$1000 scholarship from our organization. We wish her all the best and are sure she will excel in her future endeavors.

-Renee Ferguson, President, Collin County Master Gardener Association



A Progressive and Impressive Garden Tour

By Kathleen Rose Brooks



Garden is as individual as the gardener who creates it, as witnessed on a progressive garden tour. The tour, which was hosted by the Social Committee, was held June 7, 2011. Three Collin County Master Gardener's grounds were toured by thirty-seven of our members. All of these gardens contain many of the plants we have in the Myers Park Earth-Kind Perennial Research Garden: Turk's Cap and many Salvia species, to name a couple. The garden of Gigi Brookshire is a Certified Butterfly Habitat with The Texas Discovery Garden. Carrie Dubberley's garden is a Certified Wildlife Habitat with the National Wildlife Federation. Becky Cavender's garden is a Monarch Watch Station certified with The University of Kansas in Lawrence. While they share these features, each experience is one of a kind.

First stop on the tour was Gigi Brookshire's gardens. Most of the front lawn has been replaced by com-

posted, drip irrigated beds of native plants, but the focus of this location was the vegetable beds. Two raised vegetable beds were overflowing with tomatoes, peppers, cucumbers and many herbs. Drip irrigation has been installed by Gigi and her husband, Dan,



in the raised beds. Other features are composting, rain barrels, and a scare crow water sprinkler. The scare crow is a motion activated sprinkler head that will blast any stray animals entering the vegetable garden, effective yet non-violent!

Carrie Dubberley's garden is filled with native and adapted plants. One side of the front yard features a rain garden with a rock swale to channel the water falling from the roof into the garden. Starting up by the foundation of the house, the dry creek bed spills towards the sidewalk. It is planted with Texas Star Hibiscus and Fall Obedient Plant.

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A Progressive and Impressive Garden

(Continued from last page)

Carrie also has rain barrels and active composting in her work area. The private backyard has a patio surrounded plantings



that are lush and require very little water. Carrie reminded us to water only when needed and not on a schedule.

The final stop on the tour was Becky Cavender's butterfly and pollinator gardens. After attending classes at The Texas Discovery Garden, Becky has taken out ornamental plants and replaced them with butterfly



nectar and host plants. By growing milkweed in a Monarch Watch Way Station, Becky is encouraging Monarch butterfly propagation and has attracted many beneficial insects to her yard.

Some of her plants include: Gregg's Mistflower, Henry Duelberg sage, and several varieties of coneflower. This is another example of a front yard garden filled with native and adapted plants. Much more interesting and productive than a lawn!

Discover Earth-Kind Gardening

By Kathleen Rose Brooks



Imagine a beautiful park where people gather to learn about Earth-Kind gardening. A park where the classrooms are landscaped gardens of perennials, crape myrtles, and roses grown using the Earth-Kind principles. Vegetable gar-

dens provide a hands-on experience where the novice can learn from experienced gardeners. Throughout the seasons Earth-Kind Workshops are held for many groups: from local scouts and homeowners to state and national organizations. Master Gardeners host an educational garden show and thousands of people come to the park.

The Collin County Master Gardeners already have a beautiful park! Myers Park in McKinney has an Earth-Kind Research Program up and running. The gardens are planted and are growing using the Earth-Kind principles. Tours of the gardens have been scheduled with master gardener associations and garden clubs as far away as Houston coming for a visit. The hoop house is ready for a fall planting of vegetables and a workshop will be scheduled. The Garden Show 2012 is taking shape and thousands of people are expected to attend. Many volunteer and educational opportunities are opening up for Collin County Master Gardeners.

The educational opportunities at Myers Park are not just for the public. Soon, there will be a new Earth-Kind Research and Demonstration Garden Specialist training program for Collin County Master Gardeners. An Earth-Kind R&D Specialist will have hands-on training through their work on the gardens. Graduates of this upcoming training will be assets to the Earth-Kind Research Program and the gardens of Myers Park. The training is under development and will be free to our members. Gardening Wednesdays are being held every

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Discover Earth-Kind Gardening*(Continued from last page)*

Wednesday from 8am until noon. All volunteers are welcome to come as early and as long as you can. Volunteer hours can be earned for tasks such as measuring the trial perennials and gathering research information. Teams may be setup for specific tasks and gardens. Committees could consider adopting a Wednesday of the month as an opportunity to work together and socialize, much like the days of the research garden at Coit Road or CEMAP. Check the dashboard to view upcoming opportunities available for master gardeners.

Imagine yourself as a Collin County Master Gardener Earth-Kind Research and Demonstration Garden Specialist. We all have the basic training for this program, but with further hands-on training, our talents and skills will turn the Earth-Kind Research Program at Myers Park into the gardens of our dreams.

If you have not seen the gardens, join us on Wednesday, July 6 or August 3, from 10-12 for a tour. This tour earns two continuing education credits. Contact Kathleen Brooks kathleenrosebrooks@verizon.net for additional information.

Garden Checklist for July/August

By Dr. William C. Welch, Professor & Landscape Horticulturist, Texas A&M University, College Station, TX. The following information was compiled from the 2010 updates available at <http://aggie-horticulture.tamu.edu/extension/newsletters/hortupdate/>.

- **By the end of August** select potted plants of perennials such as Autumn Asters (*Aster oblongifolius*) or ornamental salvias for excellent fall color. These will become permanent occupants of the flower bed, capable of extended color for several years.
- By August many fall vegetable seeds and even small plants may be set out for later production. Be careful to give extra water, and a little shade, to these young plants while they are becoming established. The result will be excellent cool season garden produce.
- Trim off faded flowers on crape myrtles to encourage later re-bloom.
- Evaluate the volume of water delivered from lawn sprinklers to ensure healthy, stress-free grass during the heat of the summer. One thorough watering which will deliver one inch of water at a time is better than several more shallow sessions. The amount of water available through flower bed sprinklers may be checked by placing several shallow pans among shrubs or flowers
- Caladiums require plenty of water at this time of year if they are to remain lush and active until fall. Fertilize with 21-0-0 at the rate of one-third to one-half pound per 100 square feet of bed area, and water thoroughly.
- Prune out dead or diseased wood from trees and shrubs. Hold off on major pruning from now until midwinter. Severe pruning at this time will only stimulate tender new growth prior to frost.
- Sow seeds of snapdragons, dianthus, pansies, calendulas, and other cool-season flowers in flats, or in well-prepared areas of the garden, for planting outside during mid-to-late fall.
- Plant bluebonnet and other spring wildflowers. They must germinate in late summer or early fall, develop good root systems, and be ready to grow in spring when the weather warms. Plant seed in well-prepared soil, one-half inch deep, and water thoroughly.
- Picking flowers frequently encourages most annuals and perennials to flower even more abundantly.
- It is time to divide spring-flowering perennials, such as iris, Shasta daisy, oxeye, gaillardia, cannas, day lilies, violets, lirioppe, and ajuga.
- Make your selections and place orders for spring-flowering bulbs now so that they will arrive in time for planting in October and November.
- Don't allow plants with green fruit or berries to suffer from lack of moisture.
- A late-summer pruning of rosebushes can be beneficial. Prune out dead canes and any weak, brushy growth. Cut back tall, vigorous bushes to about 30 inches. After pruning, apply fertilizer, and water thoroughly. If a preventive disease-control program has been maintained, your rose bushes should be ready to provide an excellent crop of flowers this fall.
- It is not too late to set out another planting of many warm-season annuals, such as marigolds, zinnias, and periwinkles. They will require extra attention for the first few weeks, but should provide you with color during late September, October, and November.
- Establish a new compost pile to accommodate the fall leaf accumulation.



Thanks to ECHO Newsletter contributors:

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The submission deadline for the September/October issue of the ECHO Newsletter is August 10, 2011. Send submissions, comments, and suggestions to:

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