

Urban Dirt

Gardening Events and Information for Texans

Fruits of Their Labor

by Terri Simon, Master Gardener

Located in the National Agricultural Library in Beltsville, Maryland is an enormous collection of 7,500 watercolors, line drawings and lithographs painted and drawn from 1886 to 1942 by a group of 65 artists. The USDA Pomological Watercolor Collection features fruits and nuts from throughout the U.S. and its territories and 29 countries. One third of the artists were women. The bulk of the work was generated by nine artists; six of them were women. Half of the collection was painted by three women: Deborah Griscom Passmore, Mary Daisy Arnold and Amanda Almira Newton. Only 21 of the artists have their art in the archives. The others are lost or owned by collectors. Thirty eight plant families were drawn and painted. Many of the watercolors were featured in USDA bulletins and in the USDA's yearbook.

The watercolors show the whole fruit and a cross-section of the fruit.



Pilot Apple

Photo courtesy <https://usdawatercolors.nal.usda.gov>

Occasionally the leaves were also painted. Decayed and blemished fruit are also shown to demonstrate post-harvest stability. Until the passage of the Plant Patent Act in 1930, no living organisms could be patented. The collection provides an overview of agriculture for the late 19th and early 20th centuries.

During this time period the American fruit trade was rapidly growing. Photography was not commonly used yet so paintings and drawings were the preferred medium. Some photographs were used. Half of the paintings are apple cultivars. At the time artists drew and painted 3,807 apple varieties. Many of those varieties no longer exist. Today about 100 apple varieties are grown commercially.

Plant explorer David Fairchild visited over 50 countries to add to the collection. Americans enjoy avocados, quinoa and kale because of his efforts. Fairchild is also known for helping Eliza Scidmore bring the Japanese cherry blossom trees to Washington, D.C. in 1912. Scidmore worked for 24 years to import those trees. First lady Helen Taft helped. More than 3,000 cherry blossom trees were donated as a gift from the Japanese. One hundred of the original trees donated still exist but now nearly 4,000 cherry blossom trees have been planted. Today tourists travel to D.C. to view the beautiful trees in the West and East Potomac Parks.

Today there is a resurgence of interest in the collection. Parker Higgins from the Freedom of the Press Foundation discovered in

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Upcoming Events

September 2019

Green Thumb Gardening Series - Open Forum: Bring Your Questions

Sept. 12, Barbara Bush Library, 6:30 - 8:30 p.m.

Sept. 17, Spring Branch Memorial Library, 6:30 - 8:30 p.m.

Sept. 19, Freeman Branch Library, 6:30 - 8:30 p.m.

Sept. 21, Maude Smith Marks Library, 10:30 a.m. - 12:30 p.m..

Open Garden Day

Sept. 16, 8:30 - 11:00 a.m., Genoa Friendship Garden, 1202 Genoa Red Bluff Rd. *Plants for sale in the Greenhouse*

Sept. 24, 10:00 - 11:15 a.m., Weekley Community Center, **Registration required by Sunday, Sept. 22nd to:**

ogd.harrishort@gmail.com. Weekley Community Center, 8440 Greenhouse Rd., Cypress, TX 77433

Master Gardener Lecture Series

Sept. 12, GFG Second Thursday 10:00 - 11:30 a.m. *Fall Vegetable Gardening* by Mary Demeny, Galveston Master Gardener. Genoa Friendship Gardens Education Center building, 1202 Genoa Red Bluff Rd.

Greater Houston Plant Conference

Sept. 6, 8:30 a.m. – 4:00 p.m., Richard & Meg Weekley Community Center, 8440 Greenhouse Road, Cypress, TX 77433

Register at: <https://www.eventbrite.com/e/greater-houston-plant-conference-tickets-66346214313?aff=erelexpmlt> Tickets: \$35.00

October 2019

Green Thumb Gardening Series - Trees: Planting and Care (includes fruit trees)

Oct. 10, Barbara Bush Library, 6:30 - 8:30 p.m.

Oct. 15, Spring Branch Memorial Library, 6:30 - 8:30 p.m.

Oct. 17, Freeman Branch Library, 6:30 - 8:30 p.m.

Oct. 19, Maude Smith Marks Library, 10:30 a.m. - 12:30 p.m.

Open Garden Day

Oct. 21, 8:30 - 11:00 a.m., Genoa Friendship Garden, 1202 Genoa Red Bluff Rd., Houston, 77034 *Plants for sale in the greenhouse.*

Date TBD, 10:00 - 11:15 a.m., Weekley Community Center, **Registration required: ogd.harrishort@gmail.com.**

Weekley Community Center, 8440 Greenhouse Rd., Cypress, TX 77433

Master Gardener Lecture Series

Oct. 10, GFG Second Thursday 10:00 - 11:30 a.m. *Planting Fruit Trees* by Herman Auer, Galveston Master Gardener. Genoa Friendship Gardens Education Center, 1202 Genoa Red Bluff Rd., Houston, 77034

Have Garden Questions?

Email your questions and photos to: phone hcmga@gmail.com or

Call us Monday – Friday 9:00 am to Noon at 713-274-0950

Visit txmg.org or contact the Harris County Extension Office, 713-274-0950, coordinator.harrishort@gmail.com for information.



It's that time of year!

As you all know, we are in hurricane season until November 30th. Hopefully, storms will bypass our area this year. But, to make sure you and your families are prepared for an event, check out <https://www.nhc.noaa.gov/prepare/ready.php>.

Herb of the Month - Echinacea or “Coneflower”

(*Echinacea purpurea*)

by Karen McGowan, Master Gardener

A beautiful pop of color and charm for the fall garden, cone-flower (*Echinacea purpurea*) is September’s featured herb. This perennial magnet for pollinators, hummingbirds, and butterflies offers nine species and upwards to one hundred varieties, presenting a daisy-like flower in a variety of splendid colors.

Echinacea is within a group of native American wildflowers. Arguably one of the most beautiful of herbs, it has cycled in and out of popularity, beginning with Native Americans’ use for medicinal purposes. Its earliest documented use by them dates to the 1600s and suggests that the herb had been used by the indigenous people for thousands of years. In the early days of European colonization of the North American continent, native people were known to share their considerable herbal skills with the Europeans, who were generally in dire need of medicines, due to the difficulty of transporting drugs across the Atlantic. According to sources, of all the indigenous remedies introduced to the Europeans by Native Americans, echinacea may be the most important. One early documentation offers, “(e)chinacea seems to have been used as a remedy for more ailments than any other plant.”

H.C.F. Meyer, the German lay physician who first introduced echinacea to the medical profession, learned of its healing attributes from Native Americans, probably the Pawnee or Omaha Indians, while living in Nebraska. According to the United States Department of Agriculture, specifically purple coneflower was tapped by the settling Europeans: “...purple coneflower was the only native prairie plant popularized as a medicine by folk practitioners and doctors. It was used extensively as a folk remedy (Kindscher 1992). Purple coneflower root was used by early

settlers as an aid in nearly every kind of sickness. If a cow or a horse did not eat well, people administered Echinacea in its feed.”

While echinacea has reemerged in recent years in tandem with the rising interest in immune system health, this beautiful herb is often planted for purely ornamental purposes, and with good reason. Grown in rocky prairie sites in open, wooded regions, echinacea’s range extends eastward through the Great Plains

bioregion from southeast Texas, Missouri, and Michigan. A highly adaptable plant, echinacea is drought-tolerant and will thrive in light conditions ranging from full sun to afternoon shade, in a variety of soil types. Growing to heights upwards of three feet, according to Dennis Carey and Tony Avent of “The Coneflower Chronicles”, “(e)chinacea plants may be propagated by seed or division, but (some) hybrid cultivars will not come true from seed. All of the

species are self-infertile to some degree.”

Echinacea’s natural enemies include only occasional ones: wildlife and a handful of insects and diseases. In the garden, deer and other grazing animals will eat young plants but normally avoid mature ones, unless they are desperate. Echinacea can occasionally be infested by Japanese beetles, root borers, aphids, cutworms, eriophyid mites, or tent caterpillars. The insects can be controlled with commercial lures, traps, or pesticides.

Bacteria, phytoplasma, fungal, and viral diseases are rare but do occur. Occasionally, plants will get a fungal leaf spot (cercospora) that is ugly but will not kill the plant. Treat by removing affected leaves and disposing remotely (do not compost them). Some echinacea cultivars are susceptible to powdery mildew (erysiphe), a white fungus present on the leaves that detracts from the overall appearance of the plant but is not fatal. Similarly, the plant may be infected with the fungus botrytis, which is also not fatal. Fungus diseases can usually be managed by growing the plants where they receive good aeration.

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References:

<http://counties.agrilife.org/harris/files/2011/05/herbs.pdf>
<https://www.avogel.ca/en/save-the-bees/why-pollinators-love-echinacea.php>
https://plants.usda.gov/plantguide/pdf/cs_ecpu.pdf

Plant of the Month - Candlestick Plant, Candle Bush, Candelabra Bush, Golden Candlestick

Senna alata (formerly *Cassia alata*)

SEN-nuh - Latin form of an Arabic word meaning thorny bush¹
a-LAY-tuh - winged¹

by Beth Braun, Master Gardener

If you were to make up a whimsical-looking plant to illustrate a children's book, you might come up with something like the candlestick plant. Everything about it—from its big leaves to the bright yellow stack of flowers, and even its propensity to re-seed—is exaggerated. During our hot months when other garden plants are looking faint, the candlestick plant keeps on going. And, it doesn't just offer tropical good looks; it plays host to sulfur butterfly caterpillars and attracts bees. And, ants. More on that later.

A member of the legume family, it's a fast growing tropical shrub or small tree that produces seeds in abundance, making it an invasive weed in some untended areas. Remember, *a weed is a plant out of place*. In frost free climates the candlestick plant can reach 25 feet in height, but in our area it's typically a 10- to 15-foot tall rounded shrub. Our occasional freezes will kill the top growth. Some gardeners recommend cutting it down to the ground, mulching and watering generously before a freeze.

Thought to be native to the Amazon Rainforest, it has been grown around the world as an ornamental plant and has naturalized in many tropical regions of Africa, Asia, Australia, Mexico, the Caribbean, Polynesia, and in the U.S. In Texas, it can be found naturalized in Harris, Jeff Davis, and Travis counties.¹

With 3-inch long, soft green oval leaves arranged neatly along stems that can reach 3 feet in length, this plant makes a

beautiful screen or backdrop for a tropical or pollinator garden. The individual yellow “popcorn” flowers bloom from the bottom of the erect candlestick and work their way up. Consider planting it with Pride of Barbados, with its vibrant yellow, orange and red hues. Other full sun companion plants in this color scheme are New Gold and Dallas Red lantanas, a red or yellow hibiscus, and Tecomas (Esperanzas) like Yellow Bells and Bells on Fire. All are pollinator friendly.



Photo courtesy txmg.org

Now back to sulfur butterfly caterpillars. Some gardeners report happily sacrificing their candlestick plants to hungry caterpillars, but according to retired Extension Horticulturist Gerald Klingaman of the University of Arkansas, the candlestick plant enlists ants as a defense mechanism. While nectary glands are usually located in flowers to attract pollinators, the

candlestick plant has them near the base of its leaves. Ants feed on the honey water, and add protein to their diet by eating the butterfly eggs on the leaves.²

While we grow candlestick plants as a pollinator-friendly ornamental, it's a valuable medicinal plant elsewhere. It has known fungicidal properties (thus one of the common names Ringworm Bush), as well as laxative, antibacterial, anti-inflammatory and diuretic properties.

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¹ Dave's Garden website, <https://davesgarden.com>

² <https://www.uaex.edu/yard-garden/resource-library/plant-week/candlestick-plant-9-14-12.aspx>

Fruits of Their Labor, *cont'd from pg. 1*



Cross-section of a Bael (quince-like fruit from India)

Photo courtesy <https://usdawatercolors.nal.usda.gov>

2015 that digitizing the collection in 2011 had cost the USDA \$290,000 but generated less than \$600 in revenue in four years. The USDA made high-resolution images of the collection available at his request. Higgins now has them on Wikimedia and there is also a Twitterbot that sends a watercolor every few hours. In 2016 the seven volume *Illustrated History of Apples in the United States and Canada* by Dan Bussey was published with 3,500 photos of apples. Bussey is the orchard manager at Seed Savers Exchange. My favorite quote from the weblink <https://www.atlasobscura.com/articles/usda-watercolors> is “This herculean enterprise on botanical history took its author, Dan Bussey, 30 years to bring to fruition.” Who says gardeners don’t have a sense of humor?

If you believe you have an heirloom fruit but can’t identify it or you simply want to view the artwork, visit the website at <https://data.nal.usda.gov/dataset/us-department-agriculture-usda-pomological-watercolor-collection/resource/ed56de38-a94d-4880>. There is a small chance your heirloom plant could be featured.

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Friday
September 6, 2019
8:30 a.m. – 4:00 p.m.

Richard & Meg Weekley
Community Center
8440 Greenhouse Road
Cypress, TX 77433

Tickets: 35.00

The 2019 Greater Houston Plant Conference

This conference provides a great opportunity to learn about the latest new plants coming to market. Spend the day with industry experts learning about the newest landscape plants for the Gulf Coast.

REGISTER



Fruits of Their Labor, *cont'd from pg. 5*

Apple Facts



- The crab apple is the only apple native to North America.
- Apples come in all shades of reds, greens, and yellows.
- Two pounds of apples make one 9-inch pie.
- Apple blossom is the state flower of Michigan.
- 2,500 varieties of apples are grown in the United States.
- 7,500 varieties of apples are grown throughout the world.
- 100 varieties of apples are grown commercially in the United States.
- Apples are grown commercially in 36 states.
- Apples are grown in all 50 states.
- Apples are fat, sodium, and cholesterol free.
- A medium apple is about 80 calories.
- Apples are a great source of the fiber pectin. One apple has five grams of fiber.
- The pilgrims planted the first United States apple trees in the Massachusetts Bay Colony.
- The science of apple growing is called pomology.
- Apple trees take four to five years to produce their first fruit.
- Most apples are still picked by hand in the fall.
- Apple varieties range in size from a little larger than a cherry to as large as a grapefruit.
- Apples are propagated by two methods: grafting or budding.
- The apple tree originated in an area between the Caspian and the Black Sea.
- Apples were the favorite fruit of ancient Greeks and Romans.
- Apples are a member of the rose family.
- Apples harvested from an average tree can fill 20 boxes that weigh 42 pounds each.
- The largest apple picked weighed three pounds.
- Europeans eat about 46 pounds of apples annually.
- The average size of a United States orchard is 50 acres.
- Many growers use dwarf apple trees.
- Charred apples have been found in prehistoric dwellings in Switzerland.
- Most apple blossoms are pink when they open but gradually fade to white.
- Some apple trees will grow over 40 feet high and live over 100 years.
- Most apples can be grown farther north than most other fruits, because they blossom late in spring, minimizing frost damage.
- It takes the energy from 50 leaves to produce one apple.
- Apples are the second most valuable fruit grown in the United States. Oranges are first.
- In colonial time, apples were called winter banana or melt-in-the-mouth.
- The largest U. S. apple crop was 277.3 million cartons in 1998.
- Apples have five seed pockets or carpels. Each pocket contains seeds. The number of seeds per carpel is determined by the vigor and health of the plant. Different varieties of apples will have different number of seeds.
- World's top apple producers are China, United States, Turkey, Poland and Italy.
- The Lady or Api apple is one of the oldest varieties in existence.
- Newton Pippin apples were the first apples exported from America in 1768; some were sent to Benjamin Franklin in London.
- In 1730, the first apple nursery was opened in Flushing, New York.
- One of George Washington's hobbies was pruning his apple trees.
- America's longest-lived apple tree was reportedly planted in 1647 by Peter Stuyvesant in his Manhattan orchard and was still bearing fruit when a derailed train struck it in 1866.
- Apples ripen six to ten times faster at room temperature than if they were refrigerated.
- A peck of apples weighs 10.5 pounds.
- A bushel of apples weighs about 42 pounds and will yield 20-24 quarts of applesauce.



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Fruits of Their Labor, *cont'd from pg. 6*

Apple Facts

- Archeologists have found evidence that humans have been enjoying apples since at least 6500 B.C.
- The world's largest apple peel was created by Kathy Wafler Madison on October 16, 1976, in Rochester, NY. It was 172 feet, 4 inches long. (She was 16 years old at the time and grew up to be a sales manager for an apple tree nursery.)
- It takes about 36 apples to create one gallon of apple cider.
- Apples account for 50 percent of the world's deciduous fruit tree production.
- The old saying, "An apple a day, keeps the doctor away," comes from an old English adage, "To eat an apple before going to bed, will make the doctor beg his bread."
- Don't peel your apple. Two-thirds of the fiber and lots of antioxidants are found in the peel. Antioxidants help to reduce damage to cells, which can trigger some diseases.
- In 2005, United States consumers ate an average of 46.1 pounds of fresh apples and processed apple products. That's a lot of applesauce!
- Sixty-three percent of the 2005 U.S. apple crop was eaten as fresh fruit.
- In 2005, 36 percent of apples were processed into apple products; 18.6 percent of this is for juice and cider, 2 percent was dried, 2.5 percent was frozen, 12.2 percent was canned and 0.7 percent was fresh slices. Other uses were the making of baby food, apple butter or jelly and vinegar.
- The top apple producing states are Washington, New York, Michigan, Pennsylvania, California and Virginia.
- In 2006, 58% of apples produced in the United States were produced in Washington, 11% in New York, 8% in Michigan, 5% in Pennsylvania, 4% in California and 2% in Virginia.
- In 2005, there were 7,500 apple growers with orchards covering 379,000 acres.
- In 1998-99 the U.S. per capita fresh apple consumption was around 21 pounds.
- In 2005, the average United States consumer ate an estimated 16.9 pounds of fresh market apples
- Total apple production in the United States in 2005 was 234.9 million cartons valued at \$1.9 billion.
- In 2006/2007, the People's Republic of China led the world in commercial apple production with 24,480,000 metric tons followed by the United States with 4,460,544 metric tons.
- In 2006/2007, commercial world production of apples was at 44,119,244 metric tons.
- Almost one out of every four apples harvested in the United States is exported.
- 35.7 million bushels of fresh market apples in 2005 were exported. That was 24 percent of the total U.S. fresh-market crop.
- The apple variety 'Red Delicious' is the most widely grown in the United States, with 62 million bushels harvested in 2005.
- Many apples after harvesting and cleaning have commercial grade wax applied. Waxes are made from natural ingredients.
- National Apple Month is the only national, generic apple promotion conducted in the United States. Originally founded in 1904 as National Apple Week, it was expanded in 1996 to a three-month promotional window from September through November.
- On August 21, 2007 the Gold Rush apple was designated as the official Illinois' state fruit. Gold Rush is a sweet-tart yellow apple with a long shelf life. The apple is also the state fruit of Minnesota, New York, Vermont, Washington and West Virginia.



Source Apple Statistics:

<https://web.extension.illinois.edu/apples/facts.cfm>
 USDA National Agricultural Statistics Service
 United States Apple Association

Seed Propagation by Reptiles

by Terri Simon, Harris County Master Gardener

Seeds can be propagated in a variety of ways. They can hitch a ride on fur or feathers or they can be tucked into the pouch of a bird. If they are swallowed whole they can pass through an intestinal tract and still be viable. Rodents stuff their cheeks with seeds and these rodents may then be consumed by predators. A recent study from Cornell University has found that snakes can scatter seeds in this manner. Three types of rattlesnakes that had eaten prey were used. The snakes were museum taxonomy specimens. Inside 45 of 50 snakes 971 seeds were recovered. In some the seeds had germinated in the reptiles' colons. The seeds can be preserved because snakes swallow their prey whole. Apparently snake poop is a rich environment for germinating seeds. A rattlesnake can eat up to 20 rodent dinners during its active season. Snakes travel as far as two kilometers in a short period of time,

which is farther than a rodent can travel in the same amount of time. There are at least 3,500 snake species and all are capable of propagating seeds. Researchers suggest more investigation is necessary.



Snake eating a mouse

Photo courtesy whitepython.com

Herb of the Month - Echinacea, *cont'd from pg. 3*

Wilt, blight, and root rot from fusarium or sclerotinia may also occur if the soils are kept too wet and the bacteria pseudomonas may cause brown leaf spots. Plants with any of these three diseases need to be removed and discarded as they can spread to other plants and are ultimately fatal.

On the other hand, virus and phytoplasma are generally spread by insects and, short of keeping your plants unstressed, are hard to prevent. The most fascinating is a phytoplasma (first cousin to a virus) disease called "aster-yellows" that causes the central cones to mutate and sprout leaves and green flowers. The disease results in bizarre plants that everyone wants to patent as a new cultivar when they should be pulling them up and throwing them away. Aster yellows eventually kills the plant. This disease has a large

host range, so gardeners should be vigilant about removing sick plants.

Echinacea is equally at home in an herb, medicinal, or ornamental garden, emerging as pops of color evocative of a pastoral meadow, yet somehow simultaneously blending equally well within the most refined cottage garden. Welcome this herb into your 2019 fall garden today!



Plant of the Month - Candlestick Plant, *cont'd from pg. 4*

To propagate candlestick plants from seed, soak them overnight and direct sow in the spring when the likelihood of frost has passed and the soil has warmed. Chances are you'll have volunteers coming up the following spring. Some gardeners remove the green-winged samaras (seed pods) to avoid a bumper crop. You can always pull the unwanted seedlings when you learn to recognize them.

General Information

- Full Sun
- Water: Considered drought-tolerant, but keep them watered and mulched for best performance
- Attracts bees and butterflies (and ants)
- Zones 8 – 11
- 6 – 25 feet tall, 15 feet wide or more

The Mite-y Ones

by Terri Simon, Harris County Master Gardener

Mite problems? Most of us gardeners have had to deal with that headache at one time or another. Mites are the mosquitoes of the plant world and can wreak havoc. Left alone they can suck your plants dry and kill them. Indoor plants and greenhouse plants are not immune to infestation.

The most common and detested mites are **spider mites** (*Tetranychus urticae*). They are in the arachnid family and are



Spider mites

Photo courtesy sciencephoto.com

tiny. If you see spider webbing on your plants you may have a problem. To confirm this, wipe the backside of your plant leaves with a tissue. If you see small traces of blood, then you have a mite problem. Magnifica-

tion using a hand held magnifying glass can also spot them, but you should use a magnifying glass with 20x power. Adults are tiny and have a yellow-greenish body and usually have darker spots on their back. They have eight legs. Did you know they are parachutists? When they have sucked most of the life out of your plant, they will spin silk threads and catch a ride with the wind to move on to new territory. Another spider mite is the two-spotted

spider mites which can overwinter in mild climates. The southern red mite resembles the two-spotted mite and there are also false spider mites (*Tenuipalpidae*).

The length of a generation is 5 to 20 days; therefore, many generations can be reproduced within a year. Adequate watering is important to control spider mites. Spider mites like dry conditions. Plants are stressed by underwatering and this alters the plant's chemistry and makes them tasty morsels for spider mites. Keep in mind that some insecticides can kill the spider mites' enemies and allow them to proliferate. Destroying the mites' webbing may



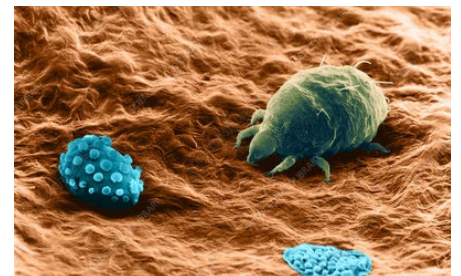
Oak leaf flecking from spider mites

Photo courtesy John A. Weidhass, Virginia Polytechnic Institute and State University, Bugwood.org

check egg production until new webbing is erected. Strong jets of water to the top and bottom of plants may also hinder the mites. If miticides are used, remember they do not affect eggs so repeat the application in 10-14 day intervals.

Even with the use of a microscope, **broad mites** (*Polyphagotarsonemus latus*) are hard to detect. Eggs hatch in two to three days. Broad mites

inoculate a growth hormone into the plant which warps growth. Leaves that are heat stressed can display turned up edges, but another cause may be broad mites. The mites usually eat new



Broad mite larva and egg

Photo courtesy sciencephoto.com



Broad mite damage

Photo courtesy entomology.ifas.ufl.edu

growth. Their trademark is stunted cup shaped leaves. The mites' saliva is toxic to plants and can still cause twisted and deformed growth even after death. They can be transferred to new plants by white flies, aphids and other insects. Their

life cycle is from 5 to 13 days. The mites can infest a variety of flowering plants.

Cyclamen mites (*Stenotarsonemus pallidus*) are also tiny and require 20x magnification to be viewed. Their life cycle is approximately three weeks. A plant infested with cyclamen mites will have stunted, withered leaves and small fruit with protruding seeds. A heavy infestation can cause a compact leaf mass in the middle of the plant. If these symptoms appear, it is too late to save the plant. The focus on these mites should be prevention.



Cyclamen mite

Photo courtesy
www.advancednutrients.com

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The Mite-y Ones, *cont'd from pg. 9*

Early detection is the key for fighting mites. If something is wrong with your plants it may be a bug problem. If webs are present, suspect spider mites, and try the “wiping with a tissue method”. If any of the above symptoms are present, use a magnifying glass to check the top and bottom of your plant leaves. Don’t forget to look at the stalk as well.

Some suggestions to deter plant mites include: grow plants hydroponically (not practical for me) or add a quarantine station before entering your plant room. Remove shoes before entering,



Rough patches on peppers due to cyclamen mites

Photo courtesy <https://extension.umd.edu>

use clean tools that remain in the greenhouse and clean them frequently. How many of you have a plant “ICU” for new or sick plants? New plants should be placed separately in an area away from other plants in case they are contaminated. If you suspect a plant in your garden is diseased or infested, remove it away from your other plants for diagnosis and/or treatment. If a plant is too far gone, get rid of it. Remember that soil can be contaminated as well. Dispose of plants in a sealed plastic bag. If you do treat the plant, it is up to you whether you try organic or other chemical means. Refer to the pesticide list included in this issue to determine which miticide is appropriate for you. Early detection and treatment is critical if you wish to save your precious plants. With proper preventive methods and vigilance it is possible to eradicate mite issues.

Table 1: Pesticides useful to control spider mites in yards and gardens.

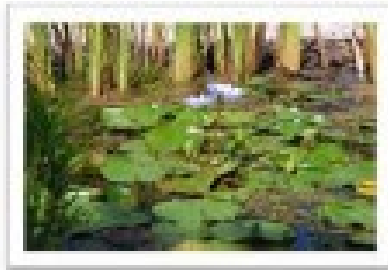
| Active Ingredient | Trade Name(s) | Comments |
|--------------------|--------------------------------------|---|
| acephate | Orthene, certain Isotox formulations | Insecticide with some effectiveness against spider mites. Systemic. |
| abamectin | Avid | For commercial use only on ornamental plants. Primarily effective against two-spotted spider mite; less effective against mites on conifers. Limited systemic movement. |
| bifenthrin | Talstar, others | Insecticide with good miticide activity. |
| hexythiazox | Hexygon | For commercial use only on ornamental plants. Selective miticide that affects developing stages and eggs only. One application per season label restriction. |
| horticultural oils | Sunspray, others | Used at the “summer oil” rate (2 percent), oils are perhaps the most effective miticide available for home use. |
| insecticidal soap | several | Marginally effective against two-spotted spider mite and where webbing prevents penetration. Broadly labeled. |
| spiromesifan | Forbid | For commercial use only on ornamental plants. Selective against mites and conserves natural enemies. |
| sulfur | various | Generally sold in dust formulation for control of various fungal diseases and some mites on some ornamental and vegetable crops. |

Source: <https://extension.colostate.edu/topic-areas/insects/spider-mites-5-507/>

Open Garden Days at Genoa Friendship Gardens



The Perennial Trial



The Water Garden



The Greenhouse

The Texas A&M AgriLife Extension Service and Harris County Master Gardeners
invite you to join us for

Open Garden Days

on the 3rd Monday of the month, March through October, 8:30 a.m. – 11:00 a.m.
Admission to the Exhibit Gardens is free, and register at the Welcome Table
to receive additional monthly notices for children and family events.

The Genoa Friendship Gardens

is located at
1202 Genoa Red Bluff Road
Houston, Texas 77034

*To schedule a special event for your garden club, school or professional
organization please contact us to make your arrangements.*

- Tour the variety of exhibits to inspire you with vegetable, perennial, rose, tropical and native gardens.
- Meet and talk with a Master Gardener about planting citrus, fruit or berries for your home orchard.
- Contemplate the joy in the Serenity Garden and catch a view of the Water Garden.
- Don't leave the GFG until you have shopped the Greenhouse where seasonal herbs, vegetables and perennials are available for sale until September.

2019 Monthly Open Garden Days & Special Events

| | | | |
|--------------------|--------------------------|--------------|-----------------|
| February 23 | Fruit Tree Sale | June 17 | Open Garden Day |
| March 18 | Open Garden Day | July 15 | Open Garden Day |
| March 30 | Spring Plant Sale | August 19 | Open Garden Day |
| April 15 | Open Garden Day | September 16 | Open Garden Day |
| May 20 | Open Garden Day | October 21 | Open Garden Day |

Second Chance Sale bargains can be found in the Greenhouse after our February and March plant sales.

Open Garden Days at The Weekley Community Center

Texas A&M AgriLife Extension Service and Harris County Master Gardeners
invite you to join us for

Open Garden Days

one Tuesday each month, January through November, 10:00 –11:00 a.m.

Open Garden Day Activities

are located at 8440 Greenhouse Road, Houston, Texas 77433

For information about upcoming topics, dates and registration, please email us at ogd.harrishort@gmail.com. Registration is required before each program.

Children and their parents looking for hands-on ways to learn, create, and have fun inspire our Open Garden Day volunteers to offer programs that do just that.

This FREE monthly children's event includes a variety of activities:

- Planting seeds, veggies or ornamentals into pots so children can continue to grow them at home.
- Creating a "nature theme" craft project with materials that are provided.
- 30-40 minute hands-on lesson that focuses on a single topic each month.

Previous lessons have included making a worm farm, putting together a compost bin, learning about the importance of butterflies, and making a feeder to attract pollinators.

Past projects



Seed Pod mobile



Fantasy Garden



Recycled soda bottle

2019 Monthly Open Garden Days

| | | | |
|--------------------|---|---|---|
| February 26 | <i>Registration required by Sun. Feb. 24</i> | July (TBD) | <i>Registration required</i> |
| March 26 | <i>Registration required by Sun. Mar. 24.</i> | August 27 | <i>Registration required by Sun. Aug. 25</i> |
| April 16 | <i>Registration required by Sat. Apr. 13</i> | Sept. 24 | <i>Registration required by Sun. Sept. 22</i> |
| May 28 | <i>Registration required by Sun. May 26</i> | October, November and December dates are TBA | |
| June 25 | <i>Registration required by Sat. June 22</i> | at this time. | |

Ask a Master Gardener

Ask a Master Gardener is a volunteer program offered by Texas A&M AgriLife Extension Service. Volunteers staff booths and tables to provide free, research-based horticulture education to the public throughout Harris County.

In September we are going to be in the following locations!

- Sept. 7** **Urban Harvest** - *1st Saturday*, 7:30 a.m.-12:00 p.m.
3401 Westheimer Rd. (corner of Buffalo Spdwy. & Westheimer), Houston
- Garden Oaks/Heights** - *1st Saturday*, 8:30 a.m. - 11 a.m. at The Farmstand,
938 Wakefield, Houston
- Sept. 8** **Bridgeland** - *2nd Sunday*, 12:30 - 3:30 p.m. at 16902 Bridgeland Lakes Pkwy,
Cypress,
- Sept. 14** **Tomball** - *2nd Saturday*, 8:30 a.m. - 1 p.m. at 205 W. Main Street, Tomball
- Sept. 28** **Towne Lake** - *4th Sunday*, 2:30 a.m. - 7 p.m. at 9955 Barker Cypress Rd.,
Cypress
- Sept. 19** **Westchase** - *3rd Thursday*, 3 - 7 p.m. at 10503 Westheimer Rd., Houston
- Sept. 28** **Memorial Villages** - *4th Saturday*, 8:30 a.m. - 1 p.m. at 10840 Beinhorn Rd.,
Houston

*Visit the Harris County Master Gardeners
Facebook page for event details!*

www.facebook.com/HarrisCountyMasterGardeners



Texas A&M AgriLife Extension

in partnership with

Hermann Park Conservancy

are pleased to present

Master Gardeners in the City at McGovern Centennial Gardens

Saturday, September 14th & 28th

McGovern Centennial Gardens at Hermann Park

1500 Hermann Drive

Houston, Texas 77004

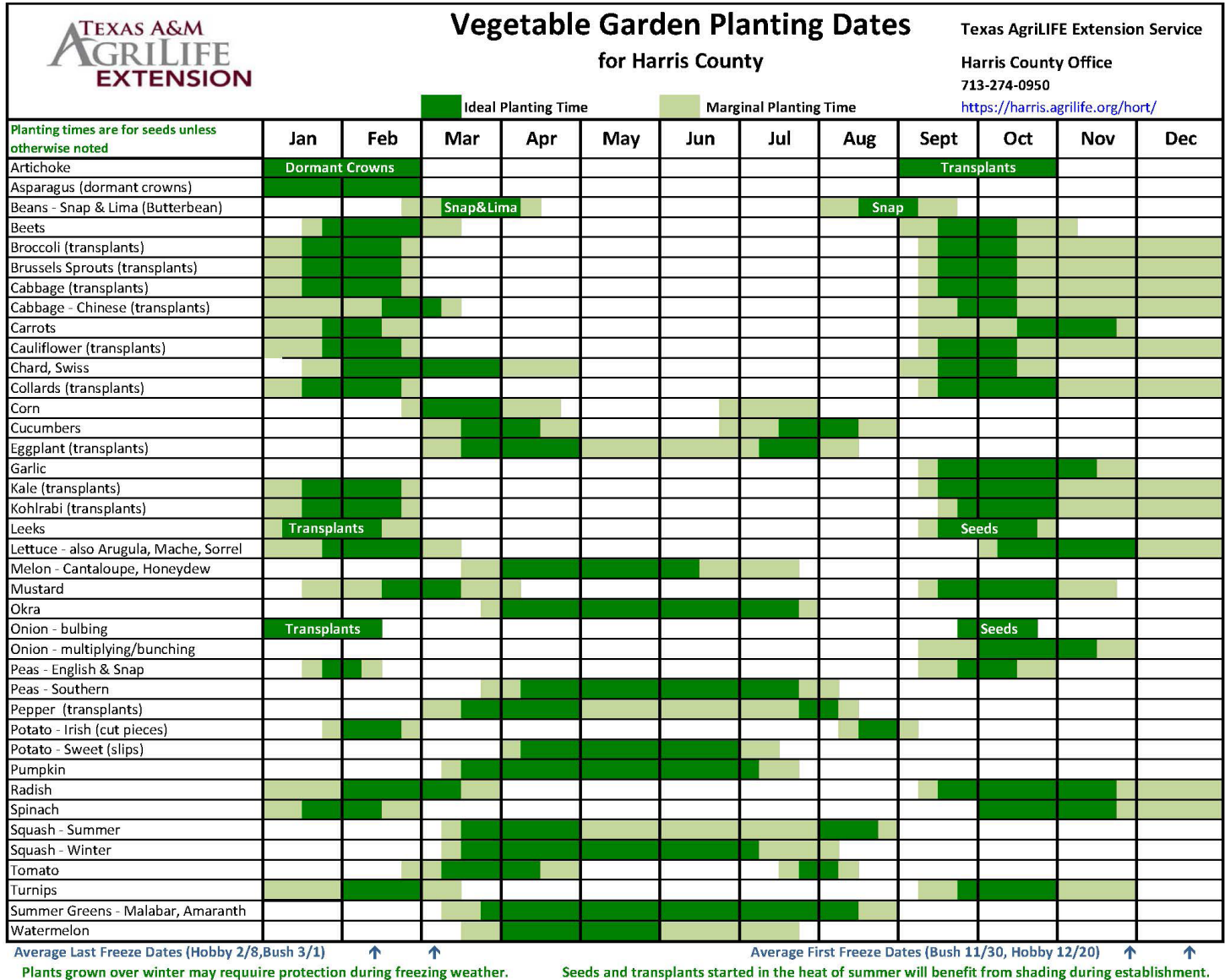
Events include garden tours and children's activities.

These educational programs are FREE and OPEN TO THE PUBLIC.

Extension programs 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.

Gardening Tools

This chart is a handy guide for knowing the best times to plant in Harris County.



Download the
Vegetable Garden
Planting Guide here!

TEXAS A&M AGRI LIFE EXTENSION

TEXAS A&M AGRI LIFE EXTENSION SERVICE

3033 BEAR CREEK DR.

HOUSTON, TX 77084

713-274-0950

harris.agrilife.org/program-areas/hort/

hcmga.tamu.edu

Follow Us On Facebook, Twitter & Instagram

The Harris County Master Gardeners as well as Texas A&M AgriLife Extension - Harris County Horticulture are actively participating on Facebook, Twitter and Instagram offering tips, lists, news and plant advice almost daily. The best part, instead of locating planting guides or insect documents, and sale dates for individuals, you can add the HCMG site to your account and easily share information with others. This is a definitely a timesaver for these busy garden days and helps promote our organization.



www.facebook.com/HarrisCountyMasterGardeners

www.facebook.com/HarrisCountyHorticulture



<https://twitter.com/pharrishort>



<https://www.instagram.com/harriscountymastergardeners>



Green Thumb Gardening Series

Open Forum: Bring Your Questions

September 12

Barbara Bush Library

6:30 – 8:30 p.m.

September 19

Freeman Branch Library

6:30 – 8:30 p.m.

September 17

Spring Branch Memorial Library

6:30 – 8:30 p.m.

September 21

Maude Smith Marks Library

10:30 a.m. – 12:30 p.m.