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JULY 28, 2017

Dear Friends,

Here is the 216TH issue of our weekly gardening newsletter for Houston, the Gulf Coast and beyond. We really appreciate all of our readers hanging in there with us, sharing stories and inspiring us in so many ways.

Thanks so much!

This newsletter is a project of The Lazy Gardener, Brenda Beust Smith, John Ferguson and Mark Bowen (John and Mark are with Nature's Way Resources). We also have a great supporting cast of contributing writers and technical specialists who will chime in and tweak away regularly. We would love to keep receiving your input on this newsletter . . . comments . . . suggestions . . . questions. . . E mail your thoughts to: [lazygardenerandfriends@gmail.com](mailto:lazygardenerandfriends@gmail.com). Thanks so much for your interest.

Please or sign yourself up to receive this newsletter by clicking the "Join Our Mailing List" link just below. We will never sell or share our mailing list to protect the privacy of our subscribers.

Enjoy!

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*Many of Houston's plain-jane traffic signal control cabinets, left, are now being decorated -- often with flowers -- such as these by area artists. L. to r, two by Anat Ronen (W. Belfort at Willowbend & 6800 block of S. Rice Ave.); one by Alex Arzu (Harrisburg at Irvington) and two by PilotFX (Beechnut at S. Kirkwood & Fulton at Crosstimbers)*

## TIP O' TROWEL TO MINI MURAL ARTISTS . . . NATIVES TAKE THE SPOTLIGHT IN OUR LANDSCAPING

By BRENDA BEUST SMITH

**WE APPRECIATE THE ART!** All across Houston, street-side traffic signal control cabinets (above) are becoming works of art, thanks to May Sylvester Turner's Mini Murals Project, in cooperation with UP Art Studio & private minority-owned businesses. Local artists will soon have covered around 200 such "boxes" across town. August 11 is the deadline for submitting artist applications. Details: [minimurals.org](http://minimurals.org) or [facebook.com/minimural](https://facebook.com/minimural).

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### EXPANDING OUR VIEW OF NATIVE PLANTS -- A TRILOGY OF HELPFUL ARTICLES!

One of the neat things about the Native Plant Society of Texas, especially the Houston Chapter, is the way members are constantly coming up new ways to look at home gardens, expanding our horizons beyond the same-old-same-old plants, helping to replace native habitat lost to urban sprawl while, at the same time, keeping us focused on protecting our environment.

Upcoming are three important topics related to NPSOT/HC's [2017 Wildscapes Workshop](#). We might call this our preview "trilogy."

- This week's Spotlight encourages us to consider "flora in pre-settlement times as a guide to planting a native gardens in Houston area." It combines the expertise of award-winning Texas writer, author and wine aficionado Russell Kane and geologists/historian Dan Worrall, author of ***"Pleasant Bend: Upper Buffalo Bayou and the San Felipe Trail in the Nineteenth Century."*** Their essay is a preview of Dan's 2017 Wildscapes Workshop presentation. Talk about giving your native plantings an added dimension! Wouldn't it be interesting to be able to point out to visitors that your Turk's Cap, for example, was documented growing wild in this area back in the 1800s?
- [Firefly.org](http://Firefly.org) founder Ben Pfeiffer's Spotlight article will appear in our August 11 issue: ***"Fireflies of Texas: Glowing, Glowing, Gone."***
- Sept. 1's issue will feature NPSOT's Margaret Gnewuch coming to the aid of Suzy, a reader who wrote asking for help in compiling a list of native plants to use near food gardens to encourage appropriate

pollinators with minimal seed spread into the food production bed. The wealth of natives that will be offered in the Wildscapes Plant Sale gives Margaret a great starting point.

Margaret's Spotlight article, ***"Natives Make Great Companion Plants to Control Problem Insects on Vegetables,"*** will hopefully be the start of a great new approach in vegetable gardening.

Stay tuned for more. If you want to get a head start on this, Margaret recommends Jessica Walliser's book: ***"Attracting Beneficial Bugs to Your Garden, a Natural Approach to Pest Control"***

Below, Russell and Dan get us started on a way of preserving our local plant culture from pre-settlement times, rather than allowing imported exotics to predominate.

Details on the 2017 Wildscapes Workshop:

<http://npsot.org/wp/houston/files/2014/08/2017-wildscapes-FINAL-6-1-2017.pdf>

**Brenda's column in the LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER**  
**Is based on her 40+ years as the Houston Chronicle's Lazy Gardener**  
**Email questions, comments to her at [lazygardener@sbcglobal.net](mailto:lazygardener@sbcglobal.net)**

\* \* \*



*L to r, green milkweed, Turk's cap, Gulf muhly and prairie blazing star have deep roots in Texas history.*

## HOUSTON'S EARLY-SETTLEMENT FLORA CAN GUIDE PLANTING OF YOUR NATIVE GARDEN

**By RUSSELL KANE**

Technical writer, naturalist at [VintageTexas.com](http://VintageTexas.com)

[\(vintagetexas.com\)](http://vintagetexas.com)

**& DAN WORRALL**

Author & Member, Harris County Historical Commission

[\(historicalcommission.harriscountytexas.gov\)](http://historicalcommission.harriscountytexas.gov)

Many people see the "wild and natural" disappearing around them and want to "grow native", but have problems finding their inspirational "seed" to get them started with native plant gardening.

One suggestion is to literally take pages out of history from the writings of early settlers, travelers and naturalists that documented their experiences in our prairies, forests and riparian bottomlands. You can



derive your inspiration from their observations.

In early-settlement times, most villages and other settlements on Buffalo, Braes and White Oak Bayou were in a forest wilderness. In 1840, early Houston-resident [George Bonnell](#) wrote about this area as being a virgin forest with "pine, oak, ash, hickory, mulberry, and cypress trees." If you need a tree for your "nativescape", what Bonnell saw can give you direction. A good start is to go with our hardy and wildlife-friendly native oaks like the Bur, Nuttall and Swamp Chestnut Oaks.

In the 1830s, naturalist [Thomas Drummond](#) traveled west from Galveston exploring riparian regions of the Texas river bottomlands. There, he found Turk's Cap, a highly versatile spreading shrub with bright-red, hibiscus-like flowers. It handles sun, shade, wet and dry, and can fit into your native landscape as a tall shrub, or shortened to a hedge of multiple plants, or trimmed down to a tall ground cover.

[Arthur Ikin](#) and [Ferdinand Roemer](#) came to our region in the 1840s and archived observations of native prairies and wildflowers. Ikin expressed, "In spring and summer, the whole country, hill, wood and prairie presents the appearance of a vast flower garden." Roemer wrote of the breathtaking vastness of the Texas prairies calling them "oceans of grass" with "tall grass covering the flat surface as far as the eye can see".

Unfortunately, less than 1 percent of the once nine million acres of coastal prairie from Ikin's and Roemer's day remains. However, a rare place like nearby 51-acre [Deer Park Prairie](#) offers local gardeners a palette of native gardening ideas. Over 300 varieties of native plants and grasses have grown there since settlement times. Some of these legacy species include: grassy plants like Little Blue Stem, Gulf Muhly and Cherokee Sedge; colorful forbs like Blue Mistflower, Prairie Blazing Star, Texas Coneflower, Missouri Ironweed, and Swamp Sunflower; Green Milkweed; and woody plants like Wax Myrtle. [Click here](#) for a list of native plant species in the Deer Park Prairie.

*You can speak further with Russ & Dan or at:*

- SAT., SEPT. 9: WILDSAPES WORKSHOP & NATIVE PLANT SALE, 8am-3:30pm, Houston Community College, 5601 West Loop South. Native Plant Society of Texas-Houston Chapter event. \$40 Aug. 26, \$50 after. Register: [npsot.org/wp/houston/wildscapes-workshop/](http://npsot.org/wp/houston/wildscapes-workshop/)

## JOHN'S CORNER

## MINERALS - The Elements and What They Do

### Part 32

#### 48) Cadmium (Cd):



Cadmium is a silvery metal that will tarnish in air (like silver). It will dissolve in acids but not in alkalis. It is a heavy metal that damages all cells in the human body.

It is found in igneous rocks at 0.2 ppm, shale at 0.3 ppm, sandstone at 0.05 ppm, and limestone at 0.035 ppm. It occurs in fresh water at 0.08 ppm and seawater at 0.00011 ppm (fresh water is slightly acidic and seawater is slightly alkaline). Coal can contain 0.05- 175 ppm.

In marine plants, we find 0.4 ppm and land plants at 0.6 ppm. However, in marine animals, the cadmium will bioaccumulate and ranges from 0.15 to 3.0 ppm, which is one of the reasons why there is little cadmium in seawater. In land animals, we see 0.5 ppm where it tends to accumulate in the kidneys. Cadmium has a +2 electrical or oxidation state, which is the same as zinc which cadmium mimics in nature as it is in the same column on the periodic table. Cadmium is rarely found in nature in a pure form but combines easily with many other elements.

Cadmium is used in batteries (Ni-Cd) to televisions and many other electrical devices. Cadmium telluride is used to make solar panels. Cadmium sulfide is used to make a yellow pigment. A lot of cadmium coated bolts and nuts are used on airplanes, as it is extremely resistant to corrosion.

Cadmium is found in the bodies of microorganisms that live in the soil. Some-microbes have the ability to hyper-accumulate cadmium. Some actinomycetes strains can have 1,120 ppm in their tissues. Cadmium is not required for the majority of life forms. However, a marine diatom *Thalassiosira weissflogii* produces a cadmium specific enzyme which catalyses the conversion of carbon dioxide and carbonic acid.

Cadmium is highly toxic if we have too much, where it will damage kidneys and other organs (in high levels it is also toxic to plant tissue). The human body tries to remove cadmium from our bodies by transporting it to our kidneys in an attempt for it to be eliminated. However, it binds tightly to many enzymes and can be stored for over 30 years! Cadmium replaces zinc and binds over 300 times tighter to the enzymes. This is why having sufficient zinc in our diets is very important as it prevents most cadmium from being absorbed. For a more detailed discussion, see page 90-91 in " Nature's Building Blocks - An A-Z Guide to the Elements, John Emsley, Oxford University Press, 2011, ISBN 978-0-19-960563-7".

All types of *artificial* fertilizers appear to increase cadmium levels in our soils. Phosphate rocks from which we get phosphorous for artificial fertilizers often has lots of cadmium in it. For example, a source of phosphate rock from Morocco can have over 50 grams per ton (an extremely high amount of cadmium).

Cadmium contamination is increasing in our soils from airborne deposition where the main sources are metal smelters, volcanic eruptions, burning of coal and burning of municipal waste (garbage).

If our soils contain the salt sodium chloride (NaCl), it stimulates the formation of cadmium-chloride complexes, which are very soluble and phytoavailable. One should not use high salt products (poultry manure fertilizers, cow manure, etc.) along the Gulf Coast, as many of our soils are already high in salt. Any food crop from vegetables to fruits will absorb more cadmium that we do not want in our bodies. Chlorine also comes from municipal water systems and becomes available to form cadmium-chloride molecules when we water our lawns and gardens if one has used artificial fertilizers.

Cadmium in our bodies interferes with the mechanisms responsible for DNA repair and it disrupts mitochondrial activity leading to many degenerative diseases. The World Health Organization recognized cadmium as a carcinogen.

The book " Chemical Exposure and Human Health, Cynthia Wilson, McFarland Publishers, 1993, ISBN: 0-89950-819-3" lists hundreds of health issues associated with excess cadmium in our bodies.

### Gardening and Landscaping Problems Associated with Cadmium (Cd)

Cadmium content in plants is directly related to the amount in our soils and as little as 3 ppm will depress growth in many species of plants.

Symptoms of cadmium toxicity are leaf chlorosis and necrosis. This is followed by leaf abscission as cadmium interferes with photosynthetic processes and the uptake and absorption of other required nutrients.

Some plants like turnips and leafy vegetables like spinach will absorb enough cadmium to be a health risk. Cadmium contamination is much higher in vegetables grown with artificial fertilizers. Many of the synthetic nitrogen sources are strong acidifiers (why farmers have to lime their fields) which causes the plant to absorb more cadmium. In addition, cadmium stimulates the growth and hatching of nematodes (cysts) in the soil.

Some mushrooms (fungi) can have 30 ppm in their tissues even when growing on soils with only 0.3 ppm cadmium. Tobacco plants tend to absorb larger amounts of cadmium and is one of the reasons smoking causes cancer.

If you notice that cadmium is directly below zinc in the periodic table, hence it has similar chemical properties. Thus, a zinc deficiency in the soil can lead plants to absorb more cadmium. Lettuce grown on agricultural fields where Biosolids (sewage sludge), where once applied, can have over 30 ppm of cadmium.

Coal can have very high levels of cadmium, which become concentrated in the ash when coal is burned for fuel. Many companies use the extreme alkalinity of coal ash to chemically burn the mulch made from raw wood black. Coal as is also used to burn pine bark black to mimic aged (partially composted) pine bark.

Sources: rubber tire mulch, sewage sludge (Biosolids) and compost made from Biosolids, black mulch treated with coal ash, some artificial fertilizers

49) Indium (In) - Indium was named for the strong indigo-blue spectral emission line produced when heated. Indium is soft and silvery, a good conductor of electricity and a fun metal. When bars or rods of indium are bent, they "cry" producing a crackling sound.

Indium is found in igneous rocks at 0.5-1.0 ppm, shale at 0.1 ppm, sandstone and limestone at 0.05 ppm. In land animals, indium averages 0.016 ppm.

The electrical or oxidation states of Indium range from +1 to +3 with +3 being the most common. Indium often forms compounds with iron (Fe) and manganese (Mn) hydroxides. Indium is often found in nature in association with sulfide minerals hence indium is often recovered from the mining of other minerals. Indium is also found in coal and in some crude oil.

Indium is used alloys, solders, many types of electronics, coatings of high-speed bearings, transistors, and photoconductors. A common usage is in making touch screens. Indium oxide is used to make LCD televisions and computer monitors as it bonds to glass, is transparent and conducts electricity. Indium is a super conductor and many of its alloys with other metals are used to make super conducting materials. My research in graduate school on superconductivity was published as a small book titled "Magnetization Studies of Superconducting Ternary Alloys of Lead, Indium, and Tin".

Indium is not known to have any biological function in humans. However, its salts in small doses, stimulates metabolism. If even a few milligrams are consumed it will cause a toxic reaction in our kidneys, heart and liver. In high amounts, it causes focal necrosis in the liver.

However, indium compounds have been found to be an effective treatment for the disease called "sleeping sickness".

**Gardening and Landscaping Problems Associated with Indium (In)**

Indium occurs in soils in a form that could readily be absorbed by plants, however, that does not occur. Most plants have only 1-2 ppm of indium in their tissues.

If indium levels are 5-9 ppm in soils, it inhibits the activity of nitrogen fixing bacteria to fix nitrogen. Indium toxicity in plants can occur in acidic soils where the symptoms are similar to aluminum (Al) as both are in the same column on the periodic table with similar properties.

Indium has been found to stimulate growth of plants in laboratory cell cultures. Beets grown in soils amended with sewage sludge have 80-300 micrograms per kilogram. Sources: sewage sludge, compost from sewage sludge (Biosolids)

50) Tin (Sn) - Tin is a silvery white metal that is soft and pliable. It becomes unreactive in air and water as a thin film of oxide forms preventing additional reactions, however tin will dissolve in acids and bases.

Tin is found in igneous rocks at 2 ppm, shale at 6 ppm, sandstone and limestone at 0.05 ppm and very little in fresh or seawater. In soils, tin ranges from 2-200 ppm as it is strongly absorbed by humus.

Most land plants have 0.3 ppm and marine plants at 1 ppm. Marine animals have 0.2-20 ppm tin and land animals only 0.15 ppm. The mobility of tin is directly related to the pH of the soil.

Tin is complexed by organic matter hence it can accumulate in some soils. Tin is absorbed by plants where it accumulates in the roots but very little is translocated to above ground parts of a plant. Tin was first used to harden copper to form bronze, over 5,000 years ago which led to the development of civilizations called "The Bronze Age". Glass when applied to molten tin would not stick thus providing a way to make perfectly smooth glass for windows. Tin is used to make cans and as a coating on metal cans since it is non-corrosive (which is the major source of tin in humans). Tin compounds are used in ceramics and to make dyes. Tin is the main component in lead free solder as tin melts easily.

Tin is not used to make coins or jewelry since at winter temperatures the atoms slowly change from a metal crystal arrangement to a cubic crystal arrangement or structure where the tin becomes a dark grey powder.

Tin is an essential trace element in small amounts. Studies where rats were fed a diet with zero tin caused rats to not grow properly. However, very small amounts of tin caused accelerated growth in rats. Too much tin in the rodent studies showed poor growth, reduced feeding efficiency, hearing loss, and hair loss.

Tin has been shown to exhibit a strong effect on the enzyme heme oxygenase, enhancing heme breakdown in the kidneys. There is evidence that tin has cancer prevention properties. Tin deficiencies have been linked to male pattern baldness and deafness in humans. Tin is also known to affect the metabolism of other metals like copper, zinc, and iron.

In animals and humans tin is required but too much can be toxic. When tin is complexed with organic compounds it is easily absorbed. Inorganic compounds of tin are not easily absorbed. Very little of the tin ingested is absorbed (less than 3%) and most of what is absorbed is excreted in our urine.

Tin is found in the bodies of many microorganisms that live in the soil. In soils contaminated with excess tin, it was discovered that some bacteria are immune to the toxic effects of tin, and will concentrate tin up to 7,700 ppm in their tissues. High levels of tin in the soil are toxic to some species of fungi.

Triphenyl-tin is used as a fungicide for agricultural crops. Research in 2002 showed that it suppressed the human body's production of natural killer cells, which are the first line of defense against cancer. This compound also damaged the nervous system of tadpoles and frogs.

Tin fluoride ( $\text{SnF}_2$ ) and tin chloride ( $\text{SnCl}_2$ ) are known to inhibit the functions of our liver. Additionally, too much tin will compete with the required nutrient zinc preventing its absorption. Tin is commonly used in dentistry under the name stannous fluoride.

Tin tartrate was found to cause a decrease in the antioxidant glutathione leading to liver damage in animal studies.

## Gardening and Landscaping Problems Associated with Tin (Sn)

There is no evidence that tin is required or used by plants, however tin is easily absorbed by plants where it accumulates in the roots and very little is translocated to above ground parts of a plant. The amount of tin in plants varies between 1-300 ppm but 5-10 ppm is the most common. Sedges and mosses tend to be high accumulators of tin.

Whole grains can have 7 ppm and corn 3 ppm of tin. Measurements have shown that sugar beets grown on contaminated soil can have 1,000 ppm of tin.

There is no evidence of toxicity to plants unless there is extremely high levels in the soil.  
Sources: coal, coal ash, smelters, mine tailings

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&

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## **LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER CALENDAR EVENTS & ANNOUNCEMENTS**

### **PLEASE READ BEFORE SUBMITTING AN EVENT TO THIS CALENDAR.**

Events **NOT** submitted in the **EXACT** written format below may take two weeks or longer to be reformatted/retyped.  
After that point, if your event does not appear, please email us. Sorry, no children's programs.  
Submit to: [lazygardener@sbcglobal.net](mailto:lazygardener@sbcglobal.net)

**IF WE INSPIRE YOU TO ATTEND ANY OF THESE EVENTS, PLEASE TELL SPONSORS YOU HEARD ABOUT IT IN  
THE LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER**

TUE., AUG 1: GARDENING BY THE SQUARE FOOT by GALVESTON COUNTY MASTER GARDENER, 6:30-8pm, AgriLife Extension Bldg., Carbide Park, 4102 Main (Hwy 519), La Marque. Free. Register: [galvcountrymgs@gmail.com](mailto:galvcountrymgs@gmail.com), 281-534-3413, [aggie-horticulture.tamu.edu/galveston/index.html](http://aggie-horticulture.tamu.edu/galveston/index.html)

TUES., AUG. 1: TANZANIA BUTTERFLY MIGRATION & SPECIES by FARRAR STOCKTON, 7:30pm, Cockrell Butterfly Center, 5555 Hermann Dr. Free., BEST (Butterfly Enthusiasts of Southeast Texas) event. [org/chapters/nababest/](http://org/chapters/nababest/)

WED., AUG. 2: MERCER STUDENT RESEARCH & EDUCATION SYMPOSIUM, 5:30 pm-8pm, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

THURS., AUG. 3: STROLLER STROLLS, 9-10am, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

FRI., AUG. 4: PROJECT LEARNING TREE, 9am-4pm, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: [plttexas.org](http://plttexas.org)

WED., AUG. 9: MERCER STUDENT RESEARCH & EDUCATION SYMPOSIUM ENCORE noon-2pm, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

THURS., AUG. 10: THE GREATER ATLANTA POLLINATOR PARTNERSHIP: A MODEL OF URBAN POLLINATOR CONSERVATION by JENNY CRUSE SANDERS, 7pm, Ina Brundrett Conservation Education Building, Pineywoods Native Plant Center, 2900 Raguet St, Nacogdoches. 936-468-4404 or [sullivanfa@sfasu.edu](mailto:sullivanfa@sfasu.edu)

THURS., Aug. 10: RAINWATER HARVESTING AND WATER CONSERVATION by SKIP RICHTER, 7:30pm, Cherie Flores Garden Pavillon, 1500 Hermann Dr. Houston Rose Society event. Free. [houstonrose.org](http://houstonrose.org)

THURS., AUG. 10: FALL VEGETABLES, 6:30 pm, Barbara Bush Memorial Library, 6817 Cypresswood Drive Spring. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

SAT., AUG 12: BEES: LOVE 'EM and RAISE 'EM! 9-11am, AgriLife Extension Office, 9020 Airport Road, Conroe. Montgomery County Master Gardener event. \$5. 936-539-7824; [mcmga.com](http://mcmga.com)

TUES., AUG. 15: FALL VEGETABLES, 6:30pm, Spring Branch Memorial Library, 930 Corbindale. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

TUE., AUG 15: A HOMEOWNER'S GUIDE TO WEED CONTROL by GALVESTON COUNTY MASTER GARDENER, 6:30-8:00 pm, AgriLife Extension Bldg., Carbide Park, 4102 Main (Hwy 519), La Marque. Free. Register: [galvcountymgs@gmail.com](mailto:galvcountymgs@gmail.com), 281-534-3413, [aggie-horticulture.tamu.edu/galveston/index.html](http://aggie-horticulture.tamu.edu/galveston/index.html)

THURS., AUG. 17: FALL VEGETABLES, 6:30pm, Freeman Branch Library, 16616 Diana Lane. Harris County Master Gardener event. Free [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

SAT., AUG. 19: FALL VEGETABLES, 10am, Maud Smith Marks Library, 1815 Westgreen Blvd. Katy. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

TUES., AUG. 22, HARRIS COUNTY MASTER GARDENERS OPEN GARDEN DAY AND SEMINAR: FALL VEGETABLES, 9:00-11:30 am, 3033 Bear Creek Drive. Free. Register: [ogd.harrishort@gmail.com](mailto:ogd.harrishort@gmail.com)

TUES., AUG. 22: GROWING FRUIT TREES IN CONTAINERS, 1pm. The Sugarland Branch Library, 550 Eldridge, Sugarland. Free. A Sugarland Garden Club event. [beatles11@peoplepc.com](mailto:beatles11@peoplepc.com), 281-778-5844

SAT., AUG. 26: GARDEN TO VASE - HANDS-ON WORKSHOP, 10am-noon, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. \$40. Register: 713-274-4166.

THURS., SEP. 6: SMALL ORNAMENTAL TREES FOR THE HOUSTON AREA by LINDA GAY, 10 am, MUD Building, 805 Hidden Canyon Dr, Katy. Free, Nottingham Country Garden Club event. [ncgctx.org](http://ncgctx.org)

THURS., SEPT. 7: STROLLER STROLLS, 9-10am, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

SAT., SEPT. 9: WILDSCAPES WORKSHOP & NATIVE PLANT SALE, 8am-3:30pm, Houston Community College, 5601 West Loop South. Native Plant Society of Texas-Houston Chapter event. \$40 Aug. 26, \$50 after. Register: [npsot.org/wp/houston/wildscapes-workshop/](http://npsot.org/wp/houston/wildscapes-workshop/)

WED., SEPT. 13: THE MERCER SOCIETY'S OPEN GREENHOUSE, 10am-noon, and YOUR GARDEN & CLIMATE CHANGE, noon, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free.

THURS., SEPT. 14: FROM OVER THE TOP TO DOWN UNDER, ADVENTURES IN HORTICULTURE by GEORGE HULL, 7pm, Ina Brundrett Conservation Education Building, Pineywoods Native Plant Center, 2900 Raguet St, Nacogdoches. 936-468-4404 or [sullivanfa@sfasu.edu](mailto:sullivanfa@sfasu.edu)

THURS., SEPT. 14: GARDENING WITH CHILDREN & GRANDCHILDREN, 6:30 pm, Barbara Bush Memorial Library, 6817 Cypresswood Drive Spring. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

SAT., SEPT. 16: GARDENING WITH CHILDREN & GRANDCHILDREN, 10am, Maud Smith Marks Library, 1815 Westgreen Blvd. Katy. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

TUES., SEPT. 19: GARDENING WITH CHILDREN & GRANDCHILDREN, 6:30pm, Spring Branch Memorial Library, 930 Corbindale. Harris County Master Gardener event. Free. Register: [ogd.harrishort@gmail.com](mailto:ogd.harrishort@gmail.com)

THURS., SEPT. 21: GARDENING WITH CHILDREN & GRANDCHILDREN, 6:30pm, Freeman Branch Library, 16616 Diana Lane. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

THURS., SEPT. 21-24: MASTER COMPOSTER TRAINING, Green Building Resource Center, 1002 Washington Ave. \$40. Green Building Resource Center. Register: 832-394-9050; [steve.stelzer@houston.tx.gov](mailto:steve.stelzer@houston.tx.gov); [codegreenhouston.org](http://codegreenhouston.org)

SAT., SEPT. 23: UNDER THE MAJESTIC OAKS - 7<sup>th</sup> ANNUAL LEAGUE CITY GARDEN CLUB GARDEN WALK, 10am-4pm; \$15 advance ticket, Nana's Attic, 501 E. Main, League City. [leaguecitygardenclub.org](http://leaguecitygardenclub.org); 281-535-0777.

TUES., SEPT. 26, HARRIS COUNTY MASTER GARDENERS OPEN GARDEN DAY AND SEMINAR: GARDENING WITH CHILDREN & GRANDCHILDREN, 9-11:30 am, 3033 Bear Creek Dr. Free. Register: [ogd.harrishort@gmail.com](mailto:ogd.harrishort@gmail.com)

SAT., OCT. 7: HARRIS COUNTY MASTER GARDENER FALL PLANT SALE, Bear Creek Garden, 3033 Bear Creek Dr. 281-855-5600

SAT.-SUN., OCT. 7-8: SPRING BRANCH AFRICAN VIOLET CLUB ANNUAL FALL SALE, 10-4 Sat., 10-3 Sun. Judson Robinson Jr. Community Center, 2020 Hermann Dr. Free. 281-748-8417, [kjwross@yahoo.com](mailto:kjwross@yahoo.com)

TUES., OCT. 10: GROWING PLUMERIAS, 7:30pm, Cherie Flores Garden Pavillion, 1500 Hermann Dr. Free. Plumeria Society of America event. [theplumeriasociety.org](http://theplumeriasociety.org); 281-438-3653

THURS., OCT. 12: MOORE FARMS BOTANICAL GARDEN: A GERMINATING SUCCESS by REBECCA TURK, 7pm, Ina Brundrett Conservation Education Building, Pinewoods Native Plant Center, 2900 Raguet St, Nacogdoches. 936-468-4404 or [sullivanfa@sfasu.edu](mailto:sullivanfa@sfasu.edu)

THURS.-SAT., OCT. 12-14: 2017 BULB & PLANT MART. Garden Club of Houston event.

THURS., OCT. 12: TREES: PLANTING AND CARE (INCLUDES FRUIT TREES), 6:30 pm, Barbara Bush Memorial Library, 6817 Cypresswood Drive Spring. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

SAT., OCT. 14: GALVESTON COUNTY MASTER GARDENER ANNUAL FALL PLANT SALE, 9 am-1pm. Galveston County Fair Grounds, Jack Brooks Park - Rodeo Arena, Hwy. 6 @ Jack Brooks Rd., Hitchcock.

TUES., OCT. 17: TREES: PLANTING AND CARE (INCLUDES FRUIT TREES), 6:30pm, Spring Branch Memorial Library, 930 Corbindale. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

THURS., OCT. 19: TREES: PLANTING AND CARE (INCLUDES FRUIT TREES), 6:30pm, Freeman Branch Library, 16616 Diana Lane. Harris County Master Gardener event. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

SAT., OCT. 21: TREES: PLANTING AND CARE (INCLUDES FRUIT TREES), 10am, Maud Smith Marks Library, 1815 Westgreen Blvd. Katy. Free. [hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf](http://hcmga.tamu.edu/Public/docs/2017-green-thumb.pdf); 281-855-5600

TUES., OCT. 24, HARRIS COUNTY MASTER GARDENERS OPEN GARDEN DAY & SEMINAR: GARDENING WITH CHILDREN & GRANDCHILDREN, 9:00-11:30 am, 3033 Bear Creek Drive. Free. Register: [ogd.harrishort@gmail.com](mailto:ogd.harrishort@gmail.com)

THURS., NOV. 9: MAGNOLIAS: QUEEN OF THE GARDEN by ANDREW BUNTING, 7pm, Ina Brundrett Conservation Education Building, Pinewoods Native Plant Center, 2900 Raguet St, Nacogdoches. 936-468-4404 or [sullivanfa@sfasu.edu](mailto:sullivanfa@sfasu.edu)

THURS., DEC. 14: THE YEAR IN REVIEW by DAVID CREECH, 7pm, Ina Brundrett Conservation Education Building, Pinewoods Native Plant Center, 2900 Raguet St, Nacogdoches. 936-468-4404 or [sullivanfa@sfasu.edu](mailto:sullivanfa@sfasu.edu)

**If we inspire you to attend any of these, please let them know you heard about it in . . .**

**THE LAZY GARDENER & FRIENDS NEWSLETTER!**

**& please patronize our Newsletter & Calendar sponsors below!**

**PLEASE READ BEFORE**

**SUBMITTING AN EVENT FOR THIS CALENDAR.**

Events **NOT** submitted in the **EXACT** written format below may take two weeks or longer to be reformatted/retyped. After that point, if your event does not appear, please email us.

Sorry, no children's programs. - Submit to: [lazygardener@sbcglobal.net](mailto:lazygardener@sbcglobal.net)

**IF WE INSPIRE YOU TO ATTEND ANY OF THESE EVENTS, PLEASE TELL SPONSORS YOU HEARD ABOUT IT IN  
THE LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER**

## THIS NEWSLETTER IS MADE POSSIBLE BY THE FOLLOWING SPONSORS



## ABOUT US



## BRENDA BEUST SMITH

WE KNOW HER BEST AS THE LAZY GARDENER . . .

. . . but Brenda Beust Smith is also:

- \* a national award-winning writer & editor
- \* a nationally-published writer & photographer
- \* a national horticultural speaker
- \* a former Houston Chronicle reporter

When the Chronicle discontinued Brenda 's 45-year-old "Lazy Gardener" print column a couple of years ago, it ranked as the longest-running, continuously-published local newspaper column in the Greater Houston area.

Brenda 's gradual sideways step from Chronicle reporter into gardening writing led first to an 18-year series of when-to-do-what Lazy Gardener Calendars, then to her *Lazy Gardener's Guide* book and now to her *Lazy Gardener's Guide* on CD (which retails for \$20. However, \$5 of every sale is returned to the sponsoring group at her speaking engagements).

A Harris County Master Gardener, Brenda has served on the boards of many Greater Houston area horticulture organizations and has hosted local radio and TV shows, most notably a 10+-year Lazy Gardener run on HoustonPBS (Ch. 8) and her call-in "EcoGardening" show on KPFT-FM.

Brenda recently ended her decades-long stint as Production Manager of the Garden Club of America's **BULLETIN** magazine. Although still an active horticulture lecturer and broad-based freelance writer, Brenda's main focus now is **THE LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER** with John Ferguson and Mark Bowen of Nature's Way Resources.

A native of New Orleans and graduate of St. Agnes Academy and the University of Houston, Brenda lives in Aldine and is married to the now retired Aldine High School Coach Bill Smith. They have one son, Blake.

Regarding this newsletter, Brenda is the lead writer, originator of it and the daily inspiration for it. We so appreciate the way she has made gardening such a fun way to celebrate life together for such a long time.

## JOHN FERGUSON

John is a native Houstonian and has over 27 years of business experience. He owns Nature's Way Resources, a composting company that specializes in high quality compost, mulch, and soil mixes. He holds a MS degree in Physics and Geology and is a licensed Soil Scientist in Texas.

John has won many awards in horticulture and environmental issues. He represents the composting industry on the Houston-Galveston Area Council for solid waste. His personal garden has been featured in several horticultural books and "Better Homes and Gardens" magazine. His business has been recognized in the Wall Street Journal for the quality and value of their products. He is a member of the Physics Honor Society and many other professional societies. John is the co-author of the book *Organic Management for the Professional*.

For this newsletter, John contributes articles regularly and is responsible for publishing it.

## MARK BOWEN

Mark is a native Houstonian, a horticulturist, certified permaculturist and organic specialist with a background in garden design, land restoration and organic project management. He is currently the general manager of Nature's Way Resources. Mark is also the co-author of the book *Habitat Gardening for Houston*

and Southeast Texas, the author of the book *Naturalistic Landscaping for the Gulf Coast*, co-author of the *Bayou Planting Guide* and contributing landscape designer for the book *Landscaping Homes: Texas*.

With respect to this newsletter, Mark serves as a co-editor and periodic article contributor.

## PABLO HERNANDEZ

Pablo Hernandez is the special projects coordinator for Nature's Way Resources. His realm of responsibilities include: serving as a webmaster, IT support, technical problem solving/troubleshooting, metrics management, quality control, and he is a certified compost facility operator.

Pablo helps this newsletter happen from a technical support standpoint.



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