November 4, 2016

Dear Friends,

Here is the 180th 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. 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!

JOIN OUR MAILING LIST!

Examples of, l to r, bromeliad, dracaena and spider (airplane) plant

NO QUESTION ABOUT IT: PLANTS CLEAN INDOOR AIR WE BREATHE -- IF WE COULD JUST KEEP THEM ALIVE!

By BRENDA BEUST SMITH

Houseplants can make our home and office air cleaner. This is a pretty well accepted fact now - thanks to numerous studies, including one NASA conducted to determine the most efficient way to purify air in space facilities.

We're all also now aware (or should be) of how many sources of air pollution exist in our homes and offices from everyday products. No need for additional lectures on that.

Houseplants that ranked highest in many different studies include bromeliad, dracaena, Caribbean tree cactus, golden pothos, j ade plant, snake plant and spider plant .

Also ranked high, l to r, Caribbean tree cactus, golden pothos ivy and jade plant

A research study paper presented at the 2016 American Chemical Society Convention, went one step further, getting specific on which plants worked best on which pollutants.

Bromeliads got the gold star, for cleaning up the highest percentage of pollutants. Others standouts were noted for specific assets. Dracaenas, for example, worked best in removing acetones (such as emitted by nail polish removers). Spider plants were touted for their speed in removing pollutants, according to the

So why aren't more of us growing plants inside our houses and offices? Probably because we've killed so many, we've given up!

They may be called "houseplants" but the truth is no plant enjoys growing indoors. Well, no desirable plants, anyway. Somewhere on Earth, commonly sold "houseplants" are native, growing outdoors, happily getting just the right amount of sun, water, air circulation, etc.

It's almost impossible to recreate such a prime growing environment indoors. Almost is the key word. Some folks, I do believe, have a green thumb.

I can just visualize folks I admire and adore, such as Dr. Bob Randall, shaking heads right now. (Sorry, Bob!) But we all know folks who can just poke a stick in dirt and it sprouts leaves!

I suspect we could ALL be in that category if we really tried. Probably it's just a perspective that needs altering or refining. But is that all?

Maybe as-yet-unidentified pheromones are involved. We know all living things emit scents that not only attract and repel, they also may send specific messages we've yet to learn how to decipher.

Maybe folks with green thumbs emit pheromones that appeal to plants, so they put up with more abuse from these special folks than they do from other folks?

Or it may be some folks possess an innate or learned awareness, a willingness to bend to the will of the plant, rather than expecting the plant to bend out our wills. Forcing a plant try and survive with too little or too much light, water, cold, heat, wind, etc., is - in a sense - saying, "Hey, it's my way or the highway!"

Maybe folks with "green thumbs" have deeply buried memories of parents or grandparents who did this or that with plants and it worked. Or they've taken the time to research their plants, know where they came from and what the conditions were like. Then they try to replicate those conditions in the new environment.

Most of us don't want to bother with any of this. We buy a plant, bring it home (or to office), stick it in a recommended spot, try to follow watering/fertilizing directions (at least for a while) and then expect it to thrive.

Some plants do. But most don't. Part of the problem is probably consistency. You expect to eat regular meals, to have lots of light during the day and none when you sleep, to get a drink whenever you're thirsty. Plants don't have that option.

They have to depend on people who generally put plants at the bottom of their priority lists, who probably never think about that plant's hypogeal activities.

Or, it could be the plant was mistreated and thus already on its way out before you bought it.

So the fact that it died isn't your fault at all!

Try again.

Three more thoughts:

- Most houseplants are killed by overwatering, underwatering and/or too little light. Even shade outside often received indirect light than inside. Indoor gro lights and self-watering containers do help a lot.
- Most "houseplants" on nursery shelves are marketed across the country. In the Upper Texas Gulf Coast, many if not most will also be root hardy in our subtropical climate. Try them outdoors too!
- To find the best bromeliads for this area, attend some of the Bromeliad Society Houston events: bromeliadsocietyhouston.org

**Brenda's column in the free, emailed LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER is based on her 45+ years as the Houston Chronicle's Lazy Gardener. To sign up: CLICK HERE*

LG&F GARDEN CALENDAR EVENTS submitted in our EXACT format will be copied & added to calendar right away. Any necessary re-typing/reformatting may take couple of weeks. See calendar for format. Always check the LG&F Newsletter Calendar to make sure your submitted event is listed! If not, let me know!*

JOHN'S CORNER

MINERALS - The Elements and What They Do

Part 2

Today we continue with our study of all the minerals, what they do, with a look at elements number 4, 5, and 6 on the Periodic table. See the October 21, 2016 Newsletter for a list of references and introduction.

4) Beryllium (Be) - Beryllium is the first or lightest of the elements known as the "alkaline earths" which include calcium, magnesium, strontium, etc. It is found in many minerals but most often found in the mineral beryl (beryllium aluminum silicate) which is a source of this element. It is a metal used in nuclear reactors, aerospace, and electronics. If we add a few atoms of chromium to the crystal structure of this mineral we get the gemstones we call emeralds. Change a few other atoms and we get the gemstone aquamarine. We find beryllium in igneous rocks at 2-8 ppm, shale at 3 ppm, and only 0.1 for sandstone or limestone. It accumulates in coal and can often reach 330 ppm with some levels as high as 2,000 ppm in some deposits.

Beryllium is found in fresh water at 0.001 ppm and seawater at 0.0000006 ppm. For land plants, it is less than 0.1 ppm and even less in land animals. If the human body has plenty of selenium then we rid ourselves of excess beryllium as too much would disrupt the calcium-magnesium relationships or cause berylliosis in our lungs. If beryllium is in a salt form like beryllium chloride ($BeCl_2$) or beryllium sulfate ($BeSO_4$), it is very soluble in water and toxic to plants.

Notice that beryllium is in the same column on the periodic table as calcium (Ca) and magnesium (Mg), which means it has similar chemical properties. Since it is chemically similar to magnesium and calcium, plants easily absorb beryllium. If there is too much in our soils, it will substitute for magnesium (Mg) and cause antagonistic interactions with several metabolic processes. It can also substitute for magnesium in human enzymes and cause them to malfunction. If levels in the soil reach 2-16 ppm it can prevent seed germination, inhibit the uptake of calcium (Ca), magnesium (Mg), and to some degree phosphorous (P) along with degrading some proteins and enzymes. In high amounts, it is toxic to many life forms. However,

in very small amounts beryllium has been found to stimulate the growth of certain microbes and plant species.

5) Boron (B) - Boron is an element that is known as a "metalloid" as it has properties of both metals and non-metals. Boron is found in igneous rocks at 30 ppm, 96 ppm in clays and 145 ppm in limestone, in seawater at 4,500 ppm and in fresh water 2-150 ppm. Boron is an anion, which means it has a negative electrical charge when ionized.

Boron is often found in nature as boric oxide (B_2O_3). It is also found in feldspars and micas, which are common minerals in clay soils or as the insoluble mineral tourmaline, a semi-precious gemstone. In tourmaline, the boron is chemically locked up and not in an available form until actions by microbes breaks the molecule apart and release the boron.

Boron is used in pesticides, cosmetics, and fertilizers. Combine boron with nitrogen and we get cubic nitride crystals that are almost as hard as diamonds and more heat resistant, hence, they are commonly used for abrasives in many industries. When boron is combined with iron and neodymium, it forms one of the strongest magnets known. Boron is found in household products from Silly Putty to Borax cleaning agents. As a result, boron is a major source of pollution in streams as it comes from the sewage sludge where all these chemicals are dumped and accumulate. Soil contamination with excess boron is now a worldwide problem.

Many forms of boron minerals or ions are readily absorbable by plants. Boron is an essential element for microbial and plant growth, however all the functions and relations are not fully understood. Mycorrhizal plants have a greater need for boron than non-mycorrhizal plants.

A shortage of boron in the soil is associated with increased insect and fungal damage, and stunting in some plant species while other species seem unaffected. Boron deficiency is often associated with the death of the terminal bud, light green coloring, splintering, or cracking of tubers. An adequate amount of available boron in the soil is a strong disease fighter since it helps the plants immune system become resistance to disease. It is associated with the prevention of many plant problems; cracked stems in celery, internal cork in apples, black heart in beets and turnips, yellowing of alfalfa leaves, etc. Other signs of boron deficiency are; tips of growing plant turns inward and dies, buds becomes light green, roots are brown in center, flowers do not form, leaves are small crinkled deformed with irregular areas of discoloration. Boron deficiency is most likely to occur on sandy soils, soils low in organic matter and in areas of high rainfall or frequent watering.

This element is involved with carbohydrate transportation, it is required for certain physiological processes such as enzyme and co-enzyme systems, it influences plant growth in many ways but not fully understood. It also helps plants use nitrogen efficiently. Studies have found that it is associated with the translocation of sugars in plants hence closely related to quality and taste of foods. Boron regulates flowering and fruiting, cell division, salt absorption, hormone movement and pollen germination, carbohydrate metabolism, water use, nitrogen assimilation and other aspects of plant growth.

Boron interacts in the uptake of other nutrients by plants as it influences membrane permeability and cell colloids. This element is associated with energy transformation reactions, carbohydrate transport, blossom retention, and critical for root elongation.

If there is low levels of zinc (Zn) in the soil, some plants absorb boron to toxic levels, especially in the roots. Boron has an antagonistic relation of silicate ions for absorption sites of boron. Too much calcium (lime) will

induce boron deficiency in acid soils. Too much phosphorus (P) ions will decrease boron mobility in the soil and absorption. Uptake and distribution of phosphorous in plants is dependent on the boron concentration in the soil as too much boron prevents the roots from absorbing phosphorous. However, adequate boron assists plants with potassium (K) uptake.

Boron is used as structural element in the cell walls of plants as it strengthens them, but elevated levels of boron hurt citrus plants like oranges and lemons. Using grey-water that has cleaning agents with boron in them can lead to a buildup of this element in the soil.

Olives will not set fruit if boron levels are too low, and plants grown in soils with insufficient levels are more susceptible to insects and disease. Some believe that boron may function as a natural insecticide since boric acid is toxic to many insects. Some plants like hyacinths require boron to produce their fragrance which contains a boron compound.

However, excess boron in the soil restricts growth, causes sickly green color often mistaken for nitrogen deficiency, associated with root deterioration and poor yields. One of the problems with using artificial fertilizers is that there is a very narrow range of boron in the soil that decides whether it is toxic or beneficial. Water-soluble artificial fertilizers just dump the boron into the soil even if it is not needed causing toxicity problems.

Watering with the affluent from septic systems can also be a source of excess boron in the soils as with grey-water mentioned above.

In humans, boron has an important role in mineral and hormone metabolism, cell membrane function, and enzymes function. Boron affects osteoporosis, heart trouble, diabetes, and senility. Its effects are more marked when vitamin D_3 and magnesium (Mg) are deficient. It protects men against deadly prostate cancer (it selectively kills prostate cancer cells while leaving healthy cells unharmed) as it lowers PSA (Prostate Specific Antigen), elevated PSA has been found to be causative factor in prostate cancer progression. Boron has been found to fight inflammation and decrease joint swelling as it inhibits lipoxygenase (LOX) an enzyme that triggers the inflammatory cascade to increase inflammatory leukotrienes. Boron is essential to promoting strong healthy bones. Most conventionally grown foods do not provide enough boron. Life Extension, November 2015 pp. 33-38.

Boron regulates the absorption of calcium, and it is used in making estrogen. A lack of boron leads to increased menopause symptoms in women and a lack of testosterone in men.

Apples, plums, grapes, avocados, most vegetables, nuts, and legumes are our major food sources of boron (if it is in the soil in sufficient quantities for plants to absorb).

6) Carbon (C) - "Carbon stands supreme as having the chemical properties on which all life depends", John Emsley. Carbon is found in many forms from pencil lead to the gemstones we call diamonds. Carbon is the main component of coal and hydrocarbons that our society depends on for energy. It is also a major component of natural gas in the form of methane (CH_4). Carbon can be found in igneous rocks at 200 ppm, shale's at 15,300 ppm, sandstones at 13,800 ppm, and limestone's at 113,500 ppm. In marine plants, carbon increases to 345,000 ppm and in land plants to 454,000 ppm.

When carbon is combined with oxygen (O_2), it forms carbon dioxide (CO_2) which is directly linked to global warming. When carbon dioxide freezes, it becomes dry ice and if dissolved in rainwater it forms carbonic acid with a pH of 5.7

Carbon is the element most used by plants as between 45-56% of a plants compounds are structured with carbon. Carbon is the basic building block for all organic materials and the key to life, as we know it.

Carbon is frequently referred to as the energy of the soil. For example, when we burn wood in our fireplace energy is released in the form of heat and light. The carbon in the wood is combined chemically with oxygen (O_2) in the air releasing energy. Alternatively, when carbon in gasoline is

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WEEKLY GARDENING EVENTS & ANNOUNCEMENTS CALENDAR

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

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

FRI.,-SUN., NOV. 4-6: 26TH ANNUAL FALL FESTIVAL OF ROSES, Antique Rose Emporium, Independence. antiqueroseemporium.com/events

SAT., NOV. 5: GARDEN TO VASE by LINDA GAY & PAT HERMES, 9am-noon, Houston School of Flowers, 4340-D Directors Row, $75. ,713-681-2400; agardenforcutting.com

SAT., NOV 5 : PECKERWOOD INSIDER'S TOUR, 10am & 6pm, 20559 FM 359 Road, Hempstead. Garden Conservancy event. $15. R egister: peckerwoodgarden.org . 979-826-3232; info@peckerwoodgarden.org

SAT., NOV. 5: GREETING, GIFTING GUESTS WITH BEAUTIFUL PLANTED CONTAINERS, 10am, Enchanted Forest, 10611 FM1750; 2pm, Enchanted Gardens, 6420 FM359, both Richmond. Free. myenchanted.com

SAT., NOV. 5: GROWING FRUIT TREES IN A SMALL SPACE, 9:30-11:30am, Houston Museum of Natural Science, Moran Hall, 5555 Hermann Park Dr. $45. Urban Harvest event. 713-880 5540; urbanharvest.org

SAT., NOV. 5: GROWING NATURALLY: LANDSCAPING WITH NATIVE PLANTS by GREG GRANT, 9-11am, AgriLife Extension Office, 9020 Airport Road, Conroe. $25/website; $30/door. Montgomery County Master Gardeners event. mcmga.com; 936-539-7824

SAT., NOV. 5: SOUTH TEXAS UNIT of THE HERB SOCIETY OF AMERICA 44th ANNUAL HERB FAIR. 9am-2pm, Judson Robinson Community Center, 2020 Hermann Dr. Free. herbsociety-stu.org/

MON., NOV. 7: NEW GARDEN DOCENT ORIENTATION, 9 am-noon, Mercer Botanic Garden , 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160

TUES., NOV. 8: COMMON PESTS ON PLANTS AND THEIR CONTROL, 9:30am,Texas A&M AgriLife, 9020 Airport Road, Conroe. Free. Register: 832-754-3827. The Woodlands Garden Club event. thewoodlandsgardenclub.org.

THURS., NOV. 10: SOILS, FERTILIZERS, ETC.-ORGANIC SOLUTIONS by Louis Bennett, 10am, Municipal Utility Bldg. #81, 805 Hidden Canyon Dr, Katy. Free, Nottingham Country Garden Club event ; nottinghamgardenclub.org

THURS., NOV. 10: SOILS, FERTILIZERS, ETC.-ORGANIC SOLUTIONS by Louis Bennett, 10am, Municipal Utility Bldg. #81, 805 Hidden Canyon Dr, Katy. Free, Nottingham Country Garden Club event. nottinghamgardenclub.org

THURS., NOV. 10: THE ARS AND YOU by LAURA SEABAUGH 7:30pm, Cherie Flores Garden Pavillon, 1500 Hermann Dr. Free. Houston Rose Society event. houstonrose.org

SAT., SEPT. 10: RAISING & CARING FOR BEES, 9-11am, AgriLife Extension Office, 9010 Airport Rd., Conroe. $5. Montgomery County Master Gardener event. 936-539-7824, mcmga.com

FRI., NOV. 11: FLOWER SHOW - JUDGING DEMYSTIFIED by SUZANNE MILSTEAD & NELL SHIMEK, 10am, & TRAFFIC FLOW, 1pm, White Oak Convention Center, 7603 Antoine. Free. Houston Federation of Garden Clubs event. houstonfederationgardenclubs.org

SAT., NOV 12: PECKERWOOD GARDEN OPEN DAY, 10am-2pm tours, 20559 FM 359 Road, Hempstead. $10. Garden Conservancy event. peckerwoodgarden.org 979-826-3232; info@peckerwoodgarden.org

TUES.-SUN., NOV. 8-12: MONTGOMERY COUNTY 2016 EARTH-KIND LANDSCAPE DESIGN SHORT COURSE, 6-9pm (1st. 4 classes), Weekly Community Center, 8440 Greenhouse Rd., Cypress. $195/household. Limited space: 713-274-0956, kimberly.figgs@ag.tamu.edu

WED., NOV. 9: THE MADALENE HILL PHARMACY GARDEN, noon-2pm, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

SAT., NOV. 12: HERBS THAT LIKE TO CHILL by HENRY FLOWERS, 10am, Enchanted Forest, 10611 FM1750 & 2pm, Enchanted Gardens, 6420 FM359, both Richmond. myenchanted.com

MON., NOV. 14: DOCENT TRAINING-REFRESH YOUR SKILLS, 9am-noon, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

WED., NOV. 16: SUCCULENTS OF THE RICHTERSVELDT PARK, SOUTH AFRICA by WALLACE WARD, 7:30pm, Metropolitan Multi-Services Center, 1475 West Gray. Free.
hcsstex.org/
SAT., NOV. 19: ANNUAL ENCHANTED OPEN HOUSE & EVENING, 2-8pm, Enchanted Gardens, 6420 FM359, Richmond. Free. myenchanted.com

MON., NOV. 21: STORYTIME IN THE GARDEN, 10:30 am- 11:30 am, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160

MON., NOV. 21: OPEN GARDEN DAY & PLANT SALE, 8:30-11am, Genoa Friendship Garden, 1202 Genoa Red Bluff Rd. Free. Harris County Master Gardeners at Precinct 2 event. hcmga.tamu.edu

SAT., NOV 26: PECKERWOOD GARDEN OPEN DAY, 10am-2pm tours, 20559 FM 359 Road, Hempstead. $10. Garden Conservancy event. peckerwoodgarden.org , 979-826-3232; info@peckerwoodgarden.org

SAT., NOV. 26: ANNUAL ENCHANTED OPEN HOUSE & EVENING, 2-8pm, Enchanted Forest, 10611 FM 2759, Richmond. Free. myenchanted.com

TUE., NOV 29: TOOL CARE by TIM JAHNKE and HENRY HARRISON, III, 6:30-8:30 pm. AgriLife Extension, Carbide Park, 4102 Main, La Marque. Galveston County Master Gardener event. Free, but pre-register: galvcountymgs@gmail.com,281-534-3413,

SAT. DEC. 3: THE ARBOR GATE CHRISTMAS OPEN HOUSE, 2-6pm, 15635 FM 2920, Tomball. 281-351-8851. Free; register: arborgate.com

SAT., DEC. 3: GROWING CITRUS IN HOUSTON & S.E. TEXAS, 9:30-11:30am, Houston Museum of Natural Science. $45. Urban Harvest event. 713-880-5540; urbanharvest.org

SAT., DEC 3: HOLIDAY OPEN HOUSE, 10am-4pm, Buchanan's Native Plants, 611 E 11th. Free. 713-861-5702; buchanansplants.com/events

SAT., DEC. 3: FRUIT TREES by SCOTT SNODGRASS, 10am, Enchanted Forest, 10611 FM1750; 2pm, Enchanted Gardens, 6420 FM359, both Richmond. Free. myenchanted.com

SAT., DEC 3: GROWING TOMATOES FROM SEEDS by IRA GERVAIS, 9-11:30 am, & SOIL HEALTH & EVALUATION by JIM GILLIAM, 1-2:30 pm, AgriLife Extension, Carbide Park, 4102 Main, La Marque. Galveston County Master Gardener events. Free, but pre-register: galvcountymgs@gmail.com; 281-534-3413; aggie-horticulture.tamu.edu/galveston

FRI., DEC. 9: HOLLY-JUJAH by JIM JOHNSON, 10am, White Oak Convention Center, 7603 Antoine. $25 advance sale only. Houston Federation of Garden Clubs eve nt. houstonfederationgardenclubs.org

SAT., DEC. 10: WINTER AT MERCER BOTANIC GARDEN, 9am-noon, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.
SAT., DEC. 10: CITRUS FEST & Q&A BY DR. BOB RANDALL, 8:30AM-NOON, URBAN HARVEST FARMER'S MARKET, 3000 RICHMOND AVE @ EASTSIDE. URBAN HARVEST EVENT. 713-880-5540, URBANHARVEST.ORG.

MON., DEC 12: CITRUS SEMINAR & TASTING by MONTE NESBITT, TX A&M Extension Specialist, 6-8 pm, AgriLife Extension, Carbide Park, 4102 Main, La Marque. Galveston County Master Gardener event. Free, but pre-register: galvcountymgs@gmail.com, 281-534-3413, www.aggie-horticulture.tamu.edu/galveston

WED. DEC. 14: CHRISTMAS CRAFTS USING NATURAL MATERIALS, noon-2pm, Mercer Botanic Gardens , 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

SAT., DEC 17: PECKERWOOD GARDEN OPEN DAY, 10am-2pm tours, 20559 FM 359 Road, Hempstead. $10. Garden Conservancy event. peckerwoodgarden.org , 979-826-3232; info@peckerwoodgarden.org

SAT., DEC. 17: CHRISTMAS BIRD COUNT, 8am, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: albbarr@comcast.net.

MON., DEC. 19: STORYTIME IN THE GARDDEN, 10:30 am- 11:30 am, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

MON., DEC. 19: WALLER COUNTY MASTER GARDENER TRAINING REGISTRATION DEADLINE. 9am-4pm Saturday classes starting Jan. 14. $160. Waller County Extension Office. txmg/org/wallermg; wallermgardener2013@gmail.com; 979-826-7651

WED., JAN. 11: EXPLORING THE PRIMEVAL FLORA OF NEW CALEDONIA, noon-2pm, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

FRI., JAN. 13: PENNY WISE / POUND FOOLISH: WHEN & WHY TO HIRE A LANDSCAPE PROFESSIONAL by RITA HODGE, 10am, White Oak Convention Center, 7603 Antoine. Free. Houston Federation of Garden Clubs event. houstonfederationgardenclubs.org

MON., JAN. 16: STORYTIME IN THE GARDEN, 10:30-11:30 am, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

MON., JAN 23-FEB. 27: TEXAS GULF COAST GARDENER TIER III: THE ART OF LANDSCAPE DESIGN, 9am-3pm with an hour lunch break, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. $250. Register: 713-274-4160.

WED., FEB. 8: MICROGREENS, noon - 2pm, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

FRI., FEB.10: FLORAL DESIGN INSPIRED BY ART by HOUSTON DESIGNING WOMEN, 10am, White Oak Convention Center, 7603 Antoine. Free. Houston Federation of Garden Clubs event. houstonfederationgardenclubs.org

SAT., FEB 18, 2017: GALVESTON COUNTY MASTER GARDENERS SPRING 2017 PLANT SALE, 9 am-1 pm with pre-sale seminar 8-8:50 am, Jack Brooks Park Rodeo Arena, 10 Jack Brooks Rd and Hwy 6, Hitchcock, TX 77563 (Galveston County Fairgrounds)

MON., FEB. 20: STORYTIME IN THE GARDEN, 10:30-11:30 am, Mercer Botanic Garden, 22306 Aldine-Westfield, Humble. Free. Register: 713-274-4160.

SAT., APR. 22: EARTH DAY PARTY FOR THE PLANET, Armand Bayou Nature Center, 8500 Bay Area Blvd., Pasadena. abnc.org

If we inspire you to attend any of these events, please let them know you heard about it in . . .
THE LAZY GARDENER & FRIENDS NEWSLETTER!

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

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

THIS NEWSLETTER IS MADE POSSIBLE BY THE FOLLOWING SPONSORS

ADOPTABLE DOG OF THE MONTH

DIESEL

Diesel was abandoned by his owners when they moved, and he ended up at Montgomery County Animal Shelter.

Diesel is a American Blue Pittbull Mix and is thought to be about 10 years old.

He knows basic commands- is housebroken and crate trained- loves everyone he meets... Loves bones, treats and squeaky toys- even likes a nice jog. He has a good amount of life to live and would love to have somewhere to spend it. If he has siblings- they have to be female.

Diesel loves to play and socialize and is so much fun to have around.

He is fixed and has all of his shots.

If interested in adopting Diesel, please reply to this newsletter and type "Diesel" in the subject line. Diesel is not at the shelter currently. He is in foster care.

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 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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