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<u>Nature's Way Resources</u> owner John Ferguson, "The Lazy Gardener" Brenda Beust Smith and Pablo Hernandez welcome your feedback and are so grateful to the many horticulturists who contribute their expertise

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IT IS WHAT IT IS. MOVE ON! (PLANT SOCIETIES & PLUMERIAS)

"I think this is what hooks one to gardening: it is the closest one can come to being present at creation."

"A Gardener Heeds the Call of the Soil," by Phyllis Theroux, New York Times (July 27, 1978).

By BRENDA BEUST SMITH

If this summer's taught us nothing else, it's that no matter how well one plans, man proposes, God disposes. And . . . Mother Nature ALWAYS bats last.

Fortunately, we're home to many local specialty plant societies whose members face the exact challenges we are. All their websites (and some Facebook pages) have convenient online advice tailored specifically to helping their favorite plants cope with our inevitable weather extremes. And routes for you to speak personally with experienced members.

Check websites below for best possible advice. They're not out to sell you anything . . . just encourage success with their favorite plants. Their fabulous plant sales (usually listed in our calendar below) feature plants never sold in

nurseries. Although you can bet many will be after being "trialed" and approved by local societies!

If I've missed any active specialty-plant groups, pleased send in your info. I'll followup! I love to promote local group events, I owe such groups for being major resources for me over the years. (Some may have become inactive during Covid.)

- Spring Branch AFRICAN VIOLET Club africanvioletsocietyofamerica.org/event/spring-branch
- Astro Branch American BEGONIA SOCIETY begoniahouston.org/program.htm
- Houston BONSAI SOCIETY <u>facebook.com/Houston-Bonsai-Society</u>
- BROMELIAD SOCIETY/Houston <u>bromeliadsocietyhouston.org/</u>
- Houston CACTUS & SUCCULENT SOCIETY <u>hcsstex.org/</u>
- Coushatta CAMELLIA SOCIETY coushattacamelliasociety.com/
- Greater Houston CHRYSANTHEMUM SOCIETY Houston@mums.org
- Cypress Creek DAYLILY CLUB ahsregion6.com/cypress_creek.htm
- Houston Hemerocallis (DAYLILY) SOCIETY ofts.com/hhs/
- Texas Gulf Coast FERN SOCIETY— tgcfernsoc.org/fern.html
- HERB SOCIETY of America / South Texas Unit— herbsociety-stu.org/
- American HIBISCUS SOCIETY/ Lone Star Chapter— lonestarahs.org
- Lone Star KOI AND POND CLUB(planting around water) <u>houstonkoiandpondsociety.org</u>
- NATIVE PLANT SOCIETY of Texas/Houston Chapter —npsot.org/Houston
- NATIVE PLANT SOCIETY of Texas/Clear Lake Chapter—facebook.com/NPSOTClearLake/
- NATIVE PLANT SOCIETY of Texas/Pines and Prairie Chapter facebook.com/Pines-and-Prairies-Chapter-of-the-Native-Plant-Society
- International OLEANDER SOCIETY (home base) oleander.org
- Houston ORCHID SOCIETY <u>houstonorchidsociety.org</u>
- PALM SOCIETY of South Texas facebook.com/PalmSocietyOfSouthTexasPsst/
- PLUMERIA SOCIETY OF AMERICA (Nat'l headquarters) theplumeriasociety.org/
- HOUSTON ROSE SOCIETY (nation's largest rose society <u>houstonrose.org/</u>
- TEXAS ROSE RUSTLERS (antique roses) <u>texasroserustlers.org</u>
- Many groups above also have Facebook pages. Do a FB search. Houston has literally hundreds of neighborhood garden clubs. To find one near you, log on: <u>Houston Federation of Garden Clubs</u>

NOT TO WORRY! Plumeria Society of America's **PAULA FURTWANGLER** responds to readers **JOYCE MAJOR** in Clear Lake and **WENDY O"CONNELL** in South Houston. Both wrote such sad notes about their non-blooming, heat-stressed plumerias.

Paula reassures: "In extremely hot weather, we tend to water more frequently, which can cause faster growth. Try not to overwater if you like to keep growth on the slower side. My goal in my plumeria garden is to water just enough to keep them hydrated. A moisture meter can tell you just how dry they are. I water if it reads 1-2. A reading of over 2 means wait to water."

More of Paula's plumeria tips:

• During extra hot weather, Epsom salts will benefit leaves scorched by sun. Use at the first sign of extended periods of heat. "You don't need to be precise with measuring; I use a handful in each pot, then water in well. If you have too many leaves, it is wiser to prune the lower leaves so the branch is not too heavy, which can lead to breakage," she wrote, warning the extra nitrogen encourages taller, lankier plants. Better, she says, is to fertilize with a more balanced product like Osmocote Plus.

Two upcoming chances to speak with Plumeria Society experts at PSA events are:

- TUES., JULY 12: GROWING PLUMERIAS, (Zoom & in-person), 7pm, Cherie Flores Garden Pavillion, 1500 Hermann Dr. Free.
- SAT., JULY 23: PSA SHOW & SALE, 5002 NASA Pkwy, 9am-1pm, Bay Area Community Center, Seabrook. <u>theplumeriasociety.org</u>, 281-796-7185

Most speciality plant groups listed above have long histories in Houston — members are internationally-recognized specialists. For example Worldwide plumeria collectors attend sales and other events sponsored by Plumeria Society of America, founded in 1979 by **ELIZABETH THORNTON, NADINE BARR** and **NANCY AMES**)

At the upcoming July 23 PSA sale, for example, these varieties below are expected to wow knowledgeable visitors. GO EARLY! What are these experts seeing in these choices we might not see? Paula shares insider views:









L to R above:

- #1 is **Mardi Gras**, PSA logo flower, a great fruity-fragrant cultivar by cofounder Elizabeth Thornton. It flowers easily and generously.
- #2 **Lemon Drop**, the most perfect and floriferous of all yellow plumeria. Named by Elizabeth Thornton, It is compact and flowers easily. Fragrance is not lemony, however, but it's very pleasant, and fresh.
- #3 California Sally, named by famed plumarian, Bud Guillot, who passed recently at age 99. He only favored large, bold, gaudy flowers. California Sally can reach 6" in diameter, wonderfully sweet fragrance.
- #4, Jeannie Moragne, aka Jean Moragne Jr., was was selected by Bill Moragne (named for family member). Huge, 5+" flowers with bold coloration. One of the most desirable of the Moragne cultivars and a favorite of PSA hybridizers extraordinaire Bud Guillot and Emerson Willis.









And four more — L to R above:

• #5 — Mary Moragne, also named by Bill Moragne to honor Mary

- Moragne Cooke. Most compact Moragne cultivar; huge pink bouquets.
- #6 **My Valentine** is prized for its huge blooms that can cover your hand. It smells very sweet, too.
- #7 Nancy Ames, named for PSA co-founder and, yes, the famous singer! Prized for the Pepto Bismal pink coloration with orange center. Beautiful sweet, floral fragrance.
- #8 Shimmering, a sought-after cultivar from Thailand, a hot orange flower that does better in part shade than in full sun. Fragrance is like sweet nectarine.

These and many more will be available at the SAT., JULY 23: PLUMERIA SOCIETY SHOW & SALE, 5002 NASA Parkway, 9am-1pm, Bay Area Community Center, Seabrook. theplumeriasociety.org, 281-796-7185

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Brenda Beust Smith's column in the LAZY GARDENER & FRIENDS HOUSTO N GARDEN NEWSLETTER is based on her 40+ years as Houston Chronicle's Lazy Gardener Email: lazygardenerbrenda@gmail.com

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John's Corner



NEWS FROM THE WONDERFUL WORLD OF SOIL AND PLANTS # 203

Bio-Solids or Sewage Sludge Revealed Part 3 of 4

In Part 2 we talked about PFAS (Perfluoroalkyl and Polyfluoroalkyl Substances), these are the 'forever chemicals' found in 99% of Americans". This past week the Wall Street Journal (April 5, 2022) had a report on this issue.

Dairy farms in Maine were shut down and had to have their meat, milk and cheese destroyed due to PFAS contamination. They did not use sewage sludge (biosolids) on their farm; however, they had purchased hay from a neighbor that used biosolids as fertilizer where the chemicals were absorbed from the soil. When the cows ate the hay, these toxic chemicals became concentrated in the meat, milk, cheese, etc.

The state of Maine found these dangerous chemicals in milk, eggs, beef, fish, and even venison (deer). There are now over 700 sites in just Maine under investigation. So far 33 farms in Maine have been found to have high levels of these toxic chemicals and three have been shut down.

As a result, the state of Maine has Banned the spreading of biosolids (and compost made from this sewage sludge) on pastures and fields in the state of Maine. Due to the extreme toxicity of these PFAS chemicals the EPA reduced the amount in drinking water to only 0.02 parts per trillion this past June!

So how did we get into this mess? One of the ways is the Water Environment Federation (WEF) which is one of the largest lobbying and public relation organizations promoting the sale of biosolids for U.S. sewage treatment plants. Members include the U.S. composting Council, corporations like Synagro and publications like Biocycle.

Research papers are coming out almost daily on the danger of biosolids.

For example, a study in the Journal Genome Research (2019) has found drug resistant pathogens in the waste water from sewage treatment plants. These drug resistant strains were being released into the environment from the waste water discharge or when used for irrigation (purple pipe). The counts of these pathogens were higher if there is hospitals sewage going to the treatment plant. Using ultra violet light as an additional treatment significantly reduced these pathogens but is seldom used. This is another reason for gardeners to avoid products made from biosolids (sewage sludge cake).

The consumer group Center for Media and Democracy has many informative papers on issues that society is facing: https://www.sourcewatch.org/index.php?title=SourceWatch

For more examples, the link below, is on the dangers of sewage sludge also known as biosolids and the effect they have on health and the environment. https://www.sourcewatch.org/index.php?title=Sewage_sludge

Many new research papers have been recently published on the effect's sewage sludge has on soil life, such as contamination by radioactive elements from chemotherapy, etc.

Something to think about, I know I did not. I was reading a research article published in the journal Environment International (May, 2020) by the University of Stirling in the U.K., that may affect some gardeners.

They found that the COVID19 virus can be spread by sewage sludge (also called biosolids for marketing purposes). This virus has been found in human feces or sewage up to 33 days after a patient has tested negative. Other Coronaviruses have been found viable even after 14 days.

The researchers also believe that the virus could be transmitted in the waste water from sewage treatment plants. This wastewater is sometimes used to water gardens, golf courses, sports fields, etc. and is commonly referred to as "purple pipe water".

As we discussed in previous articles, many companies that handle sewage sludge and handle waste water from sewage treatment plants, often want to dispose of this toxic waste on gardeners. For local gardeners, several compost (soil) companies in our area use sewage sludge in their products and sell biosolid compost to smaller soil yards.

One of the contaminates of this waste is painkillers like aspirin and ibuprofen which interferes with a plants growth and immune system. One of the things recently discovered is that these painkillers interfere with the flow of auxins which are a plants major growth hormone. They also interfered with the whole endomembrane system that resulted in disrupted cellular systems.

These changes lead to faulty plant growth, an example is that roots grew up rather than down. Journal Cell Reports (2020)

A lot of our food supply is grown with sewage sludge (biosolids) as a fertilizer or the fields are watered with the waste water. No wonder we see so many reports on the news about health problems from our conventional food supply. Another reason to buy organically grown food whenever possible or better yet grow your own organically.

For example, below is an excerpt from a recent public health research paper:

Isolation of Toxigenic Clostridium difficile from Animal Manure and Composts Being Used as Biological Soil Amendments
Muthu Dharmasena,a Xiuping Jianga, Department of Food, Nutrition, and Packaging Sciences, Clemson University, Clemson, South Carolina, USA "IMPORTANCE Clostridium difficile infection (CDI) is a leading cause of antibiotic-

associated diarrhea in health care facilities in developed countries. Extended hospital stays and recurrences severely increase the cost of treatments and the high mortality rate that is observed among the elderly. Community-associated CDI cases that occur without any recent contact with the hospital environment are increasing. Studies have reported the isolation of virulent C. difficile strains from water, soil, meat, vegetables, pets, livestock animals, and animal manure. The objective of this study was to isolate and characterize C. difficile strains from animal manure and commercially available compost products. Our results demonstrate that not only unprocessed animal manure but also finished composts made of different feedstocks can serve as a reservoir for C. difficile as well. Most importantly, our study revealed that properly processed compost is a potential source of toxigenic and clindamycin-resistant C. difficile isolates."

Journal of Applied Environmental Microbiology (2018)

Hospitals with infected patients dump their sewage with the pathogens above into the public sewer systems where the pathogens are in the biosolids produced.

The most recent toxic contamination being found in sewage sludge is microplastics. Microplastics have been found to change the properties of the soil, altering bulk density, water-holding capacity and microbial activity. Which in turn hurts our plants.

A paper in the Journal Environmental Science & Technology found that during the sewage treatment process the microfibers become concentrated in the sewage sludge. Levels over 15,000 per kilogram have been measured. These microplastic act like a paper towel absorbing contaminants including PCB's and pathogens.

Another recent toxic in sewage sludge is the antimicrobials triclosan and

triclocarban which have greatly increased in recent years. Millions of pounds of these chemicals are in everything from toothpaste to plastics and they are both major pollutants. These chemicals accumulate in sewage sludge and persist in the soil for a long time.

Another issue the media is not covering is that over 20 states have approved the dissolving of dead human bodies and flushing them down the sewer. As the Food Babe stated, "human goo and human sewage is being spread on farms to grow foods that can be labeled "non-GMO" on farms across America". The documentary "Biosludged" mentioned in Part 2, goes into more detail.

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LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER CALENDAR EVENTS

SUBMITTING EVENTS? PLEASE READ!

- Only events submitted specifically to LG&F calendar are used
- Use our exact format, type into email, no pdfs/jpgs/flyers
- 3 lines max per entry. We will edit down if you don't.
- Too long links activated by word "Details."
- Submit: <u>lazygardenerbrenda@gmail.com</u>. Check your published entry! EVENTS ARE ON-SITE UNLESS OTHERWISE NOTED

SAT., JULY 9: LOW VOLUME IRRIGATION (Zoom) by ANGELA CHANDLER, 9:30-11:30am. Urban Harvest event. urbanharvest.org/education/classes/

SAT., JULY 9: POLLINATORS & THEIR FAVORITE PLANTS by MONTGOMERY COUNTY MASTER GARDENERS, 9-11am, Texas AgriLife Extension Office 9020 Airport Rd. Conroe. 936-539-7824, <u>MCMGA.com</u>

MON., JULY 11, FALL VEGETABLE GARDENING (virtual) by HARRIS COUNTY MASTER GARDENERS, 10-11:30am. Free. Houston Community College event. Register: https://doi.org/10.2016/journal.org/

TUES., JULY 12: GROWING PLUMERIAS, (Zoom & in-person), 7pm, Cherie Flores Garden Pavillion, 1500 Hermann Dr. Free. Plumeria Society of America

event. theplumeriasociety.org; 281-796-7185

TUES., JULY 12: INTEGRATED PEST MANAGEMENT FOR URBAN GARDENERS (Zoom) by NATHAN HERMOND, 7-8pm. Urban Harvest event. urbanharvest.org/education/classes/

THURS., JULY 12: CHASING A DREAM by **STEVE ROUSSELL** (virtual & in person), 7-8:30pm, St. Andrews Episcopal Church, 1819 Heights Blvd. Houston Rose Society event. Free. (Virtual: <u>meet.goto.com/917509069</u>)

SAT., JULY 16: STARTING FALL TOMATOES, ALL YOU NEED TO KNOW! by MEG TAPP, 10-11:30am, UHI Patio Garden at Headquarters. Urban Harvest event. <u>urbanharvest.org/education/classes/</u>

MON., JULY 18: GENOA FRIENDSHIP GARDEN DAY & PLANT SALE, 8:30-11am, 1210 Genoa Red Bluff Rd. Harris County Master Gardener event.

TUES., JULY 19: POLLINATOR GARDENING: HOW TO CREATE A BUTTERFLY GARDEN (Zoom) by SHERRY CRUSE, 7-8:30pm. Urban Harvest event. urbanharvest.org/education/classes/

TUES., JULY 19, FALL VEGETABLE GARDENING (virtual) by HARRIS COUNTY MASTER GARDENERS, 11am-noon, free. Harris County Public Library event via Facebook Live: facebook.com/harriscountypl/events/

THURS., JULY 21: BASIC ORCHID CULTURE by MONTGOMERY COUNTY MASTER GARDENERS, 6:30 – 8pm, Texas AgriLife Extension Office 9020 Airport Rd. Conroe. MCMGA.com

SAT., JULY 23: PLUMERIA SOCIETY SHOW & SALE, 5002 NASA Parkway, 9am-1pm, Bay Area Community Center, Seabrook. *theplumeriasociety.org*, 281-796-7185

SAT., JULY 23: FALL ORGANIC GARDENING (Zoom) by BOB RANDALL & CAROL BURTON, 9:30-12:30pm. Urban Harvest event. urbanharvest.org/education/classes/

TUES., AUG. 2: GROWING GREAT TOMATOES FOR FALL (Zoom) by SHERRY CRUSE, 7-8:30pm. Urban Harvest event. urbanharvest.org/education/classes/

TUES., AUG. 9: A RETURN TO WELLNESS (Zoom) by TAMIKA CASTON-MILLER, 6-7:30pm. Urban Harvest event. <u>urbanharvest.org/education/classes/</u>

SAT., AUG. 13: FALL WORKSHOP: FRUIT TREE CARE(Zoom) by ANGELA CHANDLER, 9:30am-11:30am. Urban Harvest event. urbanharvest.org/education/classes/

SAT., AUG. 13, PREPARING TURF FOR FALL & WINTER. 9amnoon, Montgomery County Texas AgriLife Extension, *9020* Airport Road Conroe.

936-539-7824. Register: <u>MCMGA.com</u>

TUES., AUG. 16: GARDENING FOR SOIL, COMPOST AND MULCH by SHERRY CRUSE, 7-8:30pm, Urban Harvest event. urbanharvest.org/education/classes/

THURS., AUG. 25: HOW TO GROW MINI GREENS. 6:30-

8:00pm, Montgomery County Texas AgriLife Extension, 9020 Airport Road Conroe.

936-539-7824. Register: <u>MCMGA.com</u>

SAT., SEPT.17, MONTGOMERY COUNTY MASTER GARDNERS FALL FLORAL SALE. 9am-noon, County Texas AgriLife Extension, 9020 Airport Road Conroe.936-539-7824. Register: MCMGA.com

SAT., OCT. 8, INDOOR & CONTAINER GARDENING, 9-11am, Montgomery County Texas AgriLife Extension, *9020* Airport Road Conroe. 936-539-7824. Register: <u>MCMGA.com</u>

TUES., OCT. 11: GROWING PLUMERIAS, (Zoom & in-person), 7pm, Cherie Flores Garden Pavillion, 1500 Hermann Dr. Free. Plumeria Society of America event. *theplumeriasociety.org*; 281-796-7185

SAT., OCT. 15, MONTGOMERY COUNTY MASTER GARDENERS FALL VEGGIES, HERBS & SUCCCULENTS SALE. 9am-Noon, *Texas AgriLife Extension*, 9020 Airport Road Conroe. 936-539-7824; MCMGA.com

SAT., OCT. 15, MONTGOMERY COUNTY MASTER GARDENERS OPEN GARDEN DAYS. 9am-noon, Texas AgriLife Extension, 9020 Airport Road, Conroe. 936-539-7824. MCMGA.com



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

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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 -- started in the early '70s as a fun side-project to reporting, it then ranked as the longest-running, continuously-published local newspaper column in the Greater Houston area. The name, she says, is not just fun, it's true.

Brenda's gradual sideways step from 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 which morphed into her *Lazy Gardener's Guide* on *CD*, which she now

emails free upon request.

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

For over three decades, Brenda served as Assistant Production Manager of the **GARDEN CLUB OF AMERICA'S** "BULLETIN" magazine. Although still an active broad-based freelance writer, Brenda's main focus now is **THE LAZY GARDENER & FRIENDS HOUSTON GARDEN NEWSLETTER** with John Ferguson and Pablo Hernandez of Nature's Way Resources.

A native of New Orleans and graduate of St. Agnes Academy and the University of Houston, Brenda lives in Humble, TX, and is married to the 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.

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 and quality control.

Pablo helps this newsletter happen from a technical support standpoint.





