The Fort Bend Gardener

Horticulture in Fort Bend County Summer 2016

Texas A&M AgriLife Extension

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Contributions from:

Texas Master Gardener — Texas A&M AgriLife Extension Service

Fort Bend County Master Gardeners

Aggie Horticulture

Fort Bend Beekeepers Assoc.

Texas Master Naturalist

Contributing Editor

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Coral Drift Roses Survive Memorial Day Flood

By Peggy d'Hemecourt
President & Earth-Kind Specialist, Fort Bend Master Gardeners

As the saying goes, "When the going gets tough, the tough get going". Unless you're talking about a plant, in which case you might say "…, the tough keep growing". That's what we gardeners hope for when we landscape with tough plants. We expect them to be heat and drought tolerant and resistant to insects and disease. But seldom do we expect tough plants to be flood survivors. That's exactly what happened though, to many of the Coral Drift Roses growing around the gazebo at Richmond's Wessendorff Park, planted and cared for by city staff and members of Keep Richmond Beautiful.

On May 28th, as the Brazos River was rising and creeping ever closer to Wessendorff Park, the roses were putting on quite a show and their caregivers wondered how they would fare, and even if a pre-emptive rescue might be in order. But with more important matters to be addressed, nature was allowed to take its course. And nature didn't waste any time.

The next day, on May 29th, at 11:00 am, the river at Richmond was at moderate flood stage and flood waters began lapping up around the gazebo and encroaching on the rose beds. By 5:00 that afternoon, only the tops of the plants could be seen above the flood waters.

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The Walnut Caterpillar, Round 4

By Boone Holladay
County Extension Agent-Horticulture

As of early July, we are seeing the hatch of the second generation of Walnut Caterpillars feeding on pecan foliage. It is critical for tree health that we address these leaf feeders the best way we can. With the spring floods and now hot and dry conditions, trees are very prone to stress. Leaf loss right now would be devastating to the ongoing health of the trees. For quality control of these pests, you may have to turn to an insecticide product, though many specialized and safe options are on the table.

For commercial orchards, products such as Intrepid and Confirm have minimal to no impact on non-target insects such as beneficials or bees. These are insect growth regulators and would need to be sprayed into the canopy for them to work effectively. What we have recently observed is that orchards that were treated for Pecan Nut Casebearer in spring are not showing significant populations of Walnut Caterpillar now. That's a good thing!

The safest products for homeowner situations is Bt (Dipel, Thuricide, Caterpillar Killer) and products with Spinosad (such as Green Light Lawn and Garden with Spinosad). These products need to be applied to the leaves where caterpillars are actively feeding. One of the safest contact insecticides is wetable Sevin (Carbaryl). Apply with soap or a surfactant to get better pest contact.

If you cannot reach the top of the tree where the caterpillars are feeding, you may be able to catch them when they move down the tree and cluster to molt. This is usually about 6 to 15 feet up the tree and easy to spot with a little inspection. If you can catch them then, you can

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Blame It All On Our Roots

By Deborah Volkers
Fort Bend Master Gardener

Recently, the Fall 2015 Master Gardener training class for Fort Bend County graduated. The theme for our graduation was "Blame It All On Our Roots". Each of us has someone in our past who gave us our "roots" in gardening, the joy of gardens and patience to care for them.

Just like our emotional roots, plant roots depend on the soil for water, oxygen and physical support. The soil should be moist but not too wet or too dry. Below ground, water is pulled through the plant by the evaporation of water from its leaves. Leaves use water from the soil, sunlight and carbon dioxide from the air for photosynthesis. Photosynthesis allows a plant to produce carbohydrates which are stored internally. On days when sunlight is limited, a plant will use stored carbohydrates.

When soil is too wet, the spaces in the soil that hold oxygen are filled with water. Oxygen is needed by the roots to help move water from the soil upward to the leaves. Without water, photosynthesis will stop. Over time, plants subjected to long periods of living in waterlogged soils may show signs of stress. Symptoms for waterlogged plants include wilt, root die-back, leaf yellowing, leaf drop, decreased growth of branches and absence of fruit. A stressed plant is also more susceptible to insects, leaf spots, root and stem rot.

When soil is too dry, there is not enough water in the soil to replace the moisture the plant is losing through evaporation. Sometimes plants wilt on a hot day because moisture is evaporating from the leaves faster than the roots can take up water from the soil. When there is adequate soil moisture; plants will typically recover in the evening. Extended periods of hot dry days and lack of available water in the soil will cause leaf drop, stunted growth, leaf yellowing, browning of flower buds and blooms and fruit drop.

Unfortunately, too much or too little water in the soil are equally undesirable for plants. While we are unable to control the weather, we can improve our soil structure by adding organic matter such as compost or manure. Organic matter is an excellent soil enhancer for both sandy and clay soil. In sandy soil, organic material increases the water-holding capacity. For clay soil, organic material enables excess water to drain so that oxygen is able to move back into the soil.

So, the next time you pull on your favorite garden gloves, hat or even your rain boots, take time to reflect on your gardening "roots".

The Zika Virus

by Lisa Rogers
Fort Bend Master Gardener

By now you have heard of the Zika virus that could potentially be a problem in the United States by the end of summer. A mosquito-transmitted virus identified in the Zika Forest of Uganda in 1947, it was known as a relatively harmless virus causing rashes, inflammation of the eyes and flu-like symptoms. In 2007 during an outbreak in the Pacific Islands, the Zika virus was associated with an increased incidence of Guillain-Barre syndrome—a neurological disease that can cause varying degrees of severe disability for unpredictable amounts of time. In the summer of 2015, it spread to Brazil and was associated with an increased incidence of microcephaly (smaller than expected head size with underdeveloped brains) in babies born to mothers infected with the Zika virus during pregnancy. There have also been rare cases confirmed of infected men transmitting the virus sexually.

Health officials in the US are very concerned about this virus because it is transmitted by a bite from an infected *Aedes aegypti* or *Aedes albopictus* mosquito. Both species are considered urban mosquitoes and both are abundant in Fort Bend County . They are usually considered daytime biting mosquitoes but may be active day and night. The legs of both of these mosquitoes appear black and white striped upon close observation. The thorax of the *A. aegypti*, also known as the Yellow Fever mosquito, has lyre shaped markings whereas the thorax of the *A. albopictus*, also known as the Asian Tiger mosquito, has a white line down the middle of the thorax.

Because of the risk of a Zika outbreak in the continental US, it is important to protect against these mosquitoes. Eliminating the habitat of the mosquito is the first line of defense. *Aedes aegypti* and *Aedes albopictus* typically breed in small debris and water filled containers–as small as a bottle cap. Remove or empty water weekly from anything that can hold water including, bird baths, flowerpots, buckets, tires, etc. Tightly close containers that hold water. If mesh is used on water containers make sure the mesh is small enough to keep adult mosquitoes out. Repair gaps and cracks in septic tanks and cover vent pipes with mesh. Mosquito dunks or pellets can be used in standing water that cannot be eliminated. These dunks/pellets contain a natural bacterial larvicide, BTI *bacillus thuringiensis israelensis.* The BTI kill the larvae before they grow into adult mosquitoes. Fill holes in trees with expanding foam. Keep doors, windows and screens in good repair. Use air conditioning when possible.

Prevent mosquito bites by not being outside when mosquitoes are most actively biting at dusk and dawn. When outside, wear loose fitting long pants and long sleeved shirts. For extended periods of time outside, consider treating clothing with permethrin to make it insect repellent or purchase clothing that is pretreated. Mosquitoes are attracted to smells and dark colors. Avoid smelly lotions, perfumes, colognes and dark colored clothing. When outside wear insect repellent on exposed skin. Insect repellents should be EPA approved to insure safety and effectiveness. Approved active ingredients are DEET, Picaridin, Oil of lemon eucalyptus and IR3535. Refer to http://www.epa.gov/ for more information on concentrations and effectiveness of approved repellents, including product names. When using both sunscreen and repellent, apply sunscreen first. Allow it to dry then apply insect repellent. And, always follow directions listed on the repellent that you use!

Fort Bend County has had two cases of Zika virus confirmed to date. Both cases were acquired while traveling internationally. It is possible for that number to rise as the mosquito season progresses this year. By taking precautions, you're less likely to be a part of the number. You'll also be better protected against other mosquito borne diseases that have already been documented in our area!

Walnut Caterpillar Con't from page 2

spray the cluster with dish soap and water (10 drops to 24 oz. of water), insecticidal soaps, horticultural oils, or approved contact insecticides.

Be aware of the potential for acute poisoning to pets and wildlife if you use some chemical pesticides on these insects. With the large populations of these, ingestion of treated insects by birds and other beneficial organisms may prove harmful.

We ask that if you scout any young populations of the Walnut Caterpillar in your area, that you contact our office at http://fortbend.agrilife.org. We will then visit the area to confirm the outbreak and if confirmed, will add it to our mapping. Thanks in advance for your help.

Soil

by Karen Zurawski, Fort Bend Master Gardener

Rain is usually a welcome gift for gardeners. But the excessive water that has plagued local communities can be a killer. "Saturation of the pores with water limits the movement of oxygen into and carbon dioxide out of the soil," according to V.A. Haby, Marvin L. Baker and Sam Feagley in "Soils and Fertilizers" at Aggie-horticulture.tamu.edu. "A waterlogged condition can severely damage or kill the roots of plants. It is not the water that inflicts the injury, but the lack of oxygen."

"The reduced oxygen will cause the death of many microbes in the soil," says John Ferguson of Nature's Way. "Microbes create soil structure and allow aeration, cycle nutrients, etc."

To once-flooded beds, he suggests applying microbial stimulants such as Medina, seaweed or fish emulsion products. "Agricultural molasses also works well. This would be followed by a dusting of a good quality compost to provided the seed microbes to replace the ones that may have been lost. With the microbial stimulants they will reproduce quickly and return to normal levels in a few days. Beneficial fungi will take longer to recover."

Loss of oxygen in the soil can create anaerobic conditions, according to "Teaming with Microbes" by Jeff Lowenfels and Wayne Lewis. "Organisms that can live in such conditions often produce alcohols and other substances that kill plant root cells."

Compact soils

Flooding also can compact soils as can we when walking in the wet garden and damage the soil network.

Ferguson says core aeration, especially with a heavy clay soil, will speed up the recovery process.

"Applying a quality compost after aeration is very effective. The compost fills the holes produced by the coring and prevents them from closing back up," Ferguson says. "Do no harm," he adds. "Do not apply synthetic fertilizers, pesticides, fungicides, etc. for a few weeks. Organic fertilizers are fine as they feed the microbes. Microlife 6-2-4 is an excellent brand for this purpose."

Raised beds may minimize the damage caused by high water. "Raised beds allow water to be drawn away from plant roots, provide furrow for irrigation, allow air to enter the soil and help plants through periods of high rainfall," according to "Easy Gardening" on the AgriLife Extension website.

Rain gardens

Or, perhaps, gardeners could go the other way and build rain gardens with plants accustomed to having wet feet.

"A conventional way to mitigate local flooding problems is to install subsurface drains that can remove the water," says Russell Kane of the Native Plant Society of Texas – Houston. "An alternative, creative and more ecologically sustainable way to deal with this situation is to add local native plants to these periodically wet areas. Literally, over tens of thousands of years, many of our local native plants have adapted to our region's yin-yang battle with rainwater. A well-designed rain garden that utilizes our native plants can be both functional and beautiful, while also and more importantly sustain our local pollinators, birds and wildlife."

First on his list is the bald cypress, a native water-loving tree. "It was reportedly found by our region's first settlers lining the local bayous. While loving water-saturated soils, it will grow into a large canopy tree if the space is available. It offers both seeds and shelter for our bird population," says Kane.

Drift Roses Con't from page 1

The Brazos kept rising, and on June 2nd, it crested at over 54 feet. Flood water was three to four feet deep under the gazebo. Needless to say, the casual observer would never know that roses had been blooming around the gazebo only days earlier.

The roses remained submerged for ten days. When they emerged from the flood waters they were covered in mud, their leaves brown and hanging on to stems that, surprisingly, were showing some green. A week and a day later, green, leafless stems were observed on most of the plants and one of the roses had sprouted new leaves. By June 22nd, new growth was observed on many of the roses.

While it may still be too soon to say with certainty, many of the Coral Drift Roses that adorned the gazebo at Wessendorff Park in Richmond before the flood may return to their former beauty. Tough, as pertains to plants, has taken on a whole new significance. Nature can be resilient. We gardeners may need to be patient following natural disasters and let her take her course.

Seasonal Garden Checklist: July/August

By Dr. William Welch,
Professor & Texas A&M AgriLife Extension Service

- Evaluate the volume of water delivered from lawn sprinklers to ensure healthy, stress-free grass during the heat of the summer. One thorough watering which will deliver one inch of water at a time is better than several more shallow sessions. The amount of water available through flower bed sprinklers may be checked by placing several shallow pans among shrubs or flowers.
- Caladiums require plenty of water at this time of year if they are to remain lush and active until fall. Fertilize with 21-0-0 at the rate of one-third to one-half pound per 100 square feet of bed area, and water thoroughly.
- Prune out dead or diseased wood from trees and shrubs. Hold off on major pruning from now until midwinter. Severe pruning at this time will only stimulate tender new growth prior to frost.
- Sow seeds of snapdragons, dianthus, pansies, calendulas, and other cool-season flowers in flats, or in well-prepared areas of the garden, for planting outside during mid-to-late fall.
- Plant bluebonnet and other spring wildflowers. They must germinate in late summer or early fall, develop good root systems, and be ready to grow in spring when the weather warms. Plant seed in well-prepared soil, one-half inch deep, and water thoroughly. Picking flowers frequently encourages most annuals and perennials to flower even more abundantly.
- It is time to divide spring-flowering perennials, such as iris, shasta daisy, oxeye, gaillardia, cannas, day lilies, violets, liriope, and ajuga.
- Select and place orders for spring-flowering bulbs now so that they will arrive in time for fall planting.
- Don't allow plants with green fruit or berries to suffer from lack of moisture.
- A late-summer pruning of rosebushes can be beneficial. Prune out dead canes and any weak, brushy growth. Cut back tall, vigorous bushes to about 30 inches. After pruning, apply fertilizer, and water thoroughly.

A Consolation Prize, at it's Best. By Boone Holladay

One of the many families dramatically affected by our historic spring floods, Liz and Joe Stegint have been long-time supporters and volunteers with Extension in Fort Bend County. They own a small farm in Simonton, not but a stones-throw from the Brazos. Their farm consists of cattle, chickens, fruits & vegetables, but most notably, a top notch pecan orchard. Wisely, they originally build their home up 10 feet above their slab. My co-worker and I visited them by boat in the midst of the floods, strangely watching 8 feet of flood waters rushing beneath the porch. Since then, these two have been the face of resilience, having shoveled the silt off the drive and cleaned up the property. At the time all this clean-up is happening, the Texas State Pecan Show and Conference was underway in San Marcos. Joe had entered several pecan samples that qualified for the State Show at our regional pecan show back in December. Of these, his Forkert variety just placed 2nd at the State Show. Simply put, concerning pecan growers, this is quite the prize. We are very proud of Joe and Liz in this accomplishment. Back home, the water has moved away and the pecan trees, taking advantage of the surplus water, are looking great. Despite the hardships that Mother Nature has brought upon us this year, we move on. The date hasn't been set for our 2016 County Pecan Show, but plan for it in late November. Come meet Liz and Joe, and all the other great people growing pecans in Fort Bend County.

Become A Master Gardener
Join the Fall Training Class

Class size is limited;
be sure to register early!

Have you been gardening for years and want to increase your gardening skills? Have you just moved here and you can't seem to figure out this dirt we have? Do you know which vegetables to plant when in Fort Bend County?

Do you have young children and feel gardening could be a family project, but you want to teach yourself and your family the best way to achieve your gardening goals? Then perhaps you should consider taking the Master Gardener program! The Fort Bend County Master Gardeners are an award-winning organization whose main purpose is to help Texas A&M AgriLife Extension Service reach the local community through education.

First, AgriLife Extension trains you! With the assistance of AgriLife Extension Specialists who teach our classes along with many Master Gardeners, residents like you will be amazed at the quality of our training. Classes always begin with an Orientation. Additional classes are Botany, Vegetables, Fruits & Nuts, Soils, Landscape Design, Trees, Propagation, and more. Classes begin on Thursday, October 6 2016 at 9 a.m.–3:30 p.m. (2 classes plus lunch) and will continue every Tuesday and Thursday through November 3, 2016.

For the second half of training, 50 hours of volunteer time is required. This is volunteer time that is already laid-out and planned ahead of time. It is spent in various areas of our program so you receive a well-rounded understanding of how our program works.

Applications are now being accepted for the Fall 2016 class. Applications are on www.fbmg.org/ under "Become a Master Gardener", or you can visit the office for an application.

Please send your application and payment to Margo "Mac" McDowell, Program Coordinator, Texas A&M AgriLife Extension, 1402 Band Road, Suite 100, Rosenberg, TX 77471. If you have any questions, please call 281-633-7033 or the main office at 281-342-3034.

Soil, **con't from pg 4**

Going down in size, he talks about smaller understory trees and large shrubs. His list includes magnolia, fringe tree, parley hawthorn, Virginia sweetspire or button bush. "They provide a wonderful display of spring and summer blooms, fall foliage color, and seeds while also being host plants for butterflies like the Tiger Swallowtail," says Kane. His ground-level examples include cardinal flower, turk's cap, iris, scarlet sage, white and blue mist flowers, and Gulf Coast penstemon, and native grasses, lilies and ferns like inland sea oats, Cherokee sedge, spider lily and wood fern. These plants not only attract a variety of wildlife but also use or store rainwater through their deep root systems, he adds.

"When planning a rain garden, it is best to start with plants that are best for the lighting (sun, part shade, shade) for the specific location and then place the plants in the rain garden in wettest to driest locations relative to their ability to handle rainwater. Some of this can be found online, but mostly it comes from experience," Kane says. "Don't be afraid to experiment and try different approaches until you find something that works."

Erosion

Heavy rains can erode soil and expose roots, which need to be protected. Mercer Botanic Gardens experienced erosion and silt buildup after days of standing water, leading to loss of plants.

Ferguson suggests mulching flowerbeds with a good quality native mulch. "If it has been aged (composted) it is more effective," he says. "Research funded by Canada's Department of Forestry for 30 years (done by Laval University in Quebec) at sites all over the world has found that native mulch improves all soils (sand or clay) faster, cheaper and better than any other amendment. They call it RCW (Ramial Chipped Wood) made from the branches and limbs of mixed tree species." He said as this type of mulch breaks down, it feeds the microbes and earthworms that create good soil structure.

What you shouldn't do is water with municipal water for a few weeks. Ferguson explains the chemicals in the water supply (chlorine, fluoride, chloramine) are in it to kill microbes, especially bacteria.

Prolonged flooding also may kill earthworms. "One can collect earthworms from a non-flooded area and then seed them into the lawns and flowerbeds after the waters have receded," Ferguson says. "In a few months they will repopulate the area.

"The mucus produced by the worms in their castings and in their tunnels feeds the good microbes and helps glue the soil particles together that resists erosion and creates the crumb structure that plants need," he says.

And above all, Ferguson says, "Do not be impatient, as it will take nature time to heal and recover."

Do You Need A Program Speaker?

Fort Bend Master Gardeners Speaker's Bureau is the answer . The Speaker's Bureau is a group of Master Gardeners who enjoy providing programs to clubs, schools, and groups who are interested in learning about a variety of topics related to horticulture/gardening.
Visit www.fbmg.org/speakersbureau/ for information and a list of available topics.

"Gardening is simply doing pictures with plants.....it's like walking through an outdoor art gallery."

Emily Whaley

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DATES TO REMEMBER

Fort Bend Beekeepers Meeting
Second Tuesday of each month, 7:00 p.m.

Coastal Prairie Master Naturalist
Programs, First Thursday of the month

For full information on events call (281) 342-3034 or visit
http://fortbend.agrilife.org
http://www.fbmg.org
http://txmn.org/coastal/
http://fortbendbeekeepers.org/