

Urban Dirt

Garden and landscape recovery and renewal

Gardening Events and Information for Texans

The Road to Recovery

By Terri Simon, Master Gardener

It was my first visit to The Arbor Gate nursery in Tomball, Texas and it was memorable. A unique nursery with a beautiful layout,



a wide variety of plants, eclectic garden accessories and useful garden supplies, the Arbor Gate schedules guest speakers on a regular basis. Many of the lectures are free. I went to hear three speakers on Thursday, September 14th. The Gate featured a series based on recovery after Hurricane Harvey: Angela Chandler spoke on “Caring for Your Garden after the Flood”, Ed Dolphin’s topic was “How to Care for My Trees after Harvey” and Cynthia Graham covered “Disaster Restoration and Preparedness-Workshop—a Natural Approach”. It was a day full of useful information and well spent.

Many of you remember Angela Chandler. She is a retired Master Gardener and Angela has forgotten more about gardening than

I will ever know. She is a walking garden resource. Her website is www.thegardenacademy.com/ and she covers a variety of topics for gardening along the upper Gulf Coast. Ed Dolphin is a USA Certified Arborist who works for Bartlett Tree Experts in Houston, Texas. He was an informative speaker who knew his topic well. To reach Ed, his email address is edolphin@bartlett.com. The last speaker was Cynthia Graham. Cynthia wears many hats. She is an RN who has several titles now: speaker, private consultant, educator, certified aroma therapist and certified Qi Gong instructor. Her lecture will come in handy. She spoke of how to clean up after a flood or disaster and also how to prepare

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Angela Chandler

Upcoming Events

Due to extensive flooding at the Texas A&M AgriLife Extension Office in Bear Creek Park, the Fall Plant Sale has been cancelled. All other events scheduled to be held at the Extension Office have been put on hold. We are in the process of looking for alternate locations to hold upcoming events.

Our satellite location Pasadena was not impacted greatly by the hurricane and the Demonstration Gardens are still open. Visit us at 1202 Genoa Red Bluff Rd. 77034.

The Master Garden Hotline is down temporarily, but we hope to have it back up and running soon. You may continue to email your gardening questions to us at phonehcmga@gmail.com

Check back at <https://hcmga.tamu.edu/Public/> for future event updates or visit us on our Facebook Page.

October 2017

Open Garden Day: Meet the Master Gardeners!

Oct. 16, 8:30 -11a.m., Genoa Friendship Garden, 1202 Genoa Red Bluff Rd., Houston, 77034

Oct. 24, Workshops & children's activities, *Fall Vegetables*, 10:00 - 10:45 a.m. TBA - check our Facebook page or our website for location information

Educational Program

Oct. 12, 10:00 - 11:30 a.m., *Indoor Plant Purifiers*, Linda Gay, former director of Mercer Botanic Gardens. Genoa Friendship Garden Education Building, 1202 Genoa Red Bluff Rd. 77034

Plant Sale

Cancelled due to Hurricane Harvey

November 2017

Open Garden Day: Meet the Master Gardeners!

Nov. 20, 8:30-11:00 a.m., Genoa Friendship Garden, Plants for sale in the Greenhouse. 1202 Genoa Red Bluff Rd. 77034

Have Garden Questions?
Email your questions to: phonehcmga@gmail.com

Road to Recovery, *cont'd from pg. 1*

next catastrophe. Cynthia's website is www.nursenaturalpath.com if you want to learn more about her holistic approach or schedule her as a speaker.

Angela's talk covered the effect of standing water (both long term and short term) on our garden. She discussed what to do if the storm water covering your garden was contaminated. Water from the hurricane could be mixed with raw sewage, chemicals or hydrocarbons. One important point she stressed was checking if the contaminated water had a sheen on it. If this is the case at your home, you should consult an expert. Post-storm, everything should be hosed down. Next apply a foliar application using EM-1 or a similar product. This will help replace microbes in your plants. Under no circumstances should you harvest or eat fruits, vegetables or herbs that are in the flooded garden. Delay pruning and do not work wet soil. Allow it to dry thoroughly. Shove a hand trowel in the soil and make a "V". If it is damp or glossy at the sides of the hole or you hear a sucking soil, the soil is still too wet. Avoid tilling when the soil is finally dry. A hand tool is better. Postpone fall gardening and if you must plant, add compost or dried molasses to amend the soil. The rain can also remove soil nutrients. A mild fertilizer may be added. It is better to feed lightly several times than stress the plants. Organic, slow-release fertilizers are preferred. Stressed plants are susceptible to attack. Be on the lookout for fungal diseases and deal with them quickly. Fire ants may be a problem. Use organic methods to deal with them. Rake mulch back from your plants to allow the soil to dry. Take inventory in the garden. Look for low spots that take longer to dry. Take photos or record the low spots in a gardening journal. Now is the time to address problem areas. Record which plants survived and which did not. Adding expanded shale can help in low spots or spots that seem to hold water longer. Sadly, many of the Mediterranean herbs will not make it if they were in standing water. Rosemary, oregano, thyme, lavender and others may need to be replaced. The annuals such as vegetables and herbs suffer the most. Native trees fare well under wet conditions but smaller ornamental trees may be affected. Some shrubs may survive and woody plants seem to do better. If you feel lost without plants to care for, give yourself a gardening "fix". Add a few container plants to tide you over. Remember, spring is not far away!

According to Ed Dolphin, long term flooding can have a disastrous effect on trees. Ed is a certified arborist who works at



Ed Dolphin

Bartlett Tree Experts. Founded by Francis A. Bartlett in 1907, Bartlett Tree Experts has more than 100 offices worldwide. They strive to help residential and commercial clients care for their trees. They are also a government contractor. In a paper written by Glynn Percival, PhD, Luke Hailey and E. Thomas Smiley, PhD, flood recovery for trees is discussed. The paper, titled "Flood Recovery Program", covers five main topics for caring for trees after flooding. The topics are root stimulation, drainage, managing soil and nutrients, mulching and finally, controlling insects and diseases. Ed covered these topics in his lecture.

Hurricane Harvey flooded many properties and as a result many trees and plants could not receive the necessary oxygen. Anaerobic conditions existed. Root invigoration involves using air pressure to decompact the soil. An air spade can be rented, bought or hired to accomplish this. It blows compressed air into the ground to provide oxygen for tree roots. The average gardener can also use a drill auger to drill down 12 inches and let oxygen get in the ground. This can be done every two feet. Backfill with a good fertilizer such as seaweed fertilizer. Stimulating the roots can also help deter root decay fungi and other pathogens. While implementing root invigoration, now is the time to amend the soil by adding organic matter or biochar to boost porosity. Do not add more than 5% volume. This will help aeration and allow for speedy drainage. Excessive water in the landscape dilutes nutrients and lowers the pH. Adding nitrogen to the soil can help. Mulching around trees and plants is also helpful. Two to four

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Plant of the Month - Halberdleaf rosemallow, Halberdleaf hibiscus, Scarlet rose mallow, Halberd-leaved hibiscus, Halberd-leaved rose-mallow *Hibiscus laevis* – *Malvaceae* (Mallow Family)

By Beth Braun, Master Gardener

Many of you readers experienced the widespread and devastating flooding and wind damage caused by Hurricane Harvey and its aftermath. Elsewhere in this edition of the *Urban Dirt*, you'll read tips on caring for your landscape post-flood. Here I want to share my own experience.



Two years ago, my Meyerland home took on nearly 3 feet of water during the Memorial Day flood. It took hours for the water to subside, and some plants in my landscaping withered and died right away; others hung on. After the house was demolished, the lot and much of Meyerland flooded again in the Tax Day flood of 2016, and again during Harvey. It's too soon to know which of

the remaining plants on my lot will survive this third flood and two years of general neglect, but it's been a constant source of surprise. This spring the two overgrown Brunfelsias (Yesterday, Today and Tomorrow) put on a full, glorious display that took my breath away. Then a neighbor sent pictures of beautiful blooms on the three antique roses. Post-Harvey, crape myrtles, Mexican orchid (*Bauhinia*), *Thryallis* (Rain of Gold), red and pink Turk's cap and other plants are carrying on.

My hope is that your garden will surprise you too, even if it was hit hard by the fury of Harvey. If the damage is too extensive to salvage the landscaping, tend to yourself and those you love and to the business at hand. The inspiration and energy to tackle the garden will be restored to you when the time is right.

Resilience. Renewal. Rebirth.

The first thing that caught my eye as I pulled up to my lot after the most recent flood was the vibrant color at the back fence.

This was a mallow of some sort that I picked up from a giveaway pile at a local nursery a few years ago. It was unmarked and unremarkable, but who of us gardening enthusiasts can resist the allure of a freebie and something unfamiliar? Aside from cutting the stems nearly to the ground in the spring, it was given no care whatsoever. And here it was, blooming its beautiful heart out a week after Harvey.

It took a trip back to the nursery and a show-and-tell of cell phone photos to find out what it might be. The nursery owner noted the jagged three-pronged leaves and declared it a Halberdleaf hibiscus: "You know, halberd, as in a weapon". Not a clue, but an online image search of halberds—a weapon that looks like a cross between a spear and an ax—explained its name.



Three-pronged leaves

I went down a deep and enjoyable rabbit hole trying to match the leaves and flowers of my mystery plant to online images. Most describe the Halberdleaf hibiscus as white to pink, but I remembered that the nurseryman said they grow in swaths of various colors in areas north of Houston. Some areas host white flowers, some have pinks, and elsewhere are found darker rose-colored flowers like the one pictured here. The Lady Bird Johnson Wildflower Center describes the blossoms as cup-shaped, about 3 inches long, with five overlapping petals that open by day and close at night. The showy blossoms attract butterflies and gardeners alike.

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Road to Recovery, *cont'd from pg. 3*

inches is the recommended amount of mulch to add. Stressed plants and trees are susceptible to pests and disease. Phytophthora and pythium are types of fungi that may infect trees. Good drainage, mulch, and chemical treatment will help trees recover. Vigilance is necessary. Act as early as possible if infection is suspected. If necessary, call in the experts. Trees are an expensive investment and are certainly worth saving if possible.

Cynthia Graham was the final speaker and her topics involved flood cleanup and disaster preparation in addition to tips to lessen the psychological impact that catastrophes have on us spiritually and mentally. She stresses the importance of cleaning a flooded home without jeopardizing your safety and health. She covered what to wear, how to assess damage, and how to prioritize and record the damage. One thing that piqued my interest was Cynthia's Bug-in, Bug-out Bag. It was a survival duffel bag that had a two week supply of necessities in case of an emergency. That included first aid supplies, clothing changes (in vacuum bags), a blanket, eating utensils, water pouches, foil camp food pouches, a knife, folding shovel, flashlight, etc. You name it, Cynthia's Bug-in, Bug-out bag had it. As an aroma therapist she offered tips on scents and oils to use for energy, relaxation, to promote sleep and relieve stress. Her emergency worksheet was well thought out. It included places to list local resources such as water sources, local flora and fauna to consider. There were spaces to include family members and their roles as members



Cynthia Graham shows us her Bug-In, Bug-Out bag with 2 weeks of emergency supplies.

of the survival teams (primary members), secondary members such as neighbors, local friends, etc. and also the talents that each member might have. The Emergency Worksheet had a survival location to record, the location of critical documents, emergency rations, medical supplies, currency (cash, gold, silver, jewelry). She left no stone unturned. For a complete listing of her worksheets and suggestions contact her at www.nursenaturalpath.com.

Overall, all three speakers made valuable contributions to my storm recovery and preparation knowledge. I hope you can benefit as well.

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

The Halberdleaf hibiscus is native to the Lower 48. It's found in moist, low-lying areas and marshes, and prefers sun to part shade. On my property it's growing in a raised bed enriched with compost, with no irrigation beyond what nature serves. A deciduous perennial that typically grows to 4-6 feet tall, the Halberdleaf hibiscus has an erect—rather than sprawling—growth habit.

Typical of mallows, the Halberdleaf hibiscus produces pouched seed pods that gradually turn a papery brown. Allow the flowers to fall off on their own for the seed pods to develop. Left alone, the pods will split open and drop



Halberdleaf hibiscus produce pouched seed pods.

their small seeds on the ground where, if conditions are right, they will sprout the following spring. To save them for propagation, collect the brown pods, shake out the seeds, and store them in a paper envelope or some other dry media. Plant the seeds 1/4" deep in moist soil in flats or individual peat pots in a warm environment (80 - 85°F); transplant in the spring when the weather has warmed and the seedlings are well established.

Be well, dear readers.

Fall Vegetable Gardening

By Charlotte Gogola, Master Gardener

Herman Auer, Galveston County Master Gardener, gave a talk on Fall Vegetables at the Genoa Friendship Gardens last month. The following article is an informative summation of his presentation.

It's important to keep good records when gardening. Record all activity, including spraying, insects, and production. That way you can base this year's gardening on what worked in a previous season.

Freeze dates should be considered when planning fall vegetables. Freezes are most likely in December (50%), January (90%), and February (50%), although in some cases we have 365 days a year gardening. Micro climates in the garden affect how susceptible plants will be to freezes. When a freeze is imminent, you can cover (e.g., with Frost Guard products) or you can harvest.

Selecting a garden site depends on the amount of time and effort you'll be able to put into gardening and the amount of food your family can dispose of. You should also consider whether good quality vegetables of a certain kind can be bought at the store for less than it costs to grow them at home.

Sun requirements also drive the location of a vegetable garden. Vegetables that require "full sun" need 10 hours per day of direct sunlight. Cloudy days can diminish the amount of sun being received by plants.

Immature vegetable plants can have quite lengthy roots. Buying the plants is not as effective as planting vegetables from seed, where they can be allowed to grow roots to their desired length.

Raised garden beds provide the needed drainage for many vegetables. Consider sunlight, air circulation, and water when designing beds. A basic garden can be built with wood timbers or cinder blocks, 12" to 18" high. Another popular design uses 2 x 12" planks of treated timber 14' long, supported by 30" lengths of 5/8" rebar every few feet. The soil pressure supports the walls. If developing multiple beds, leave room for a lawn mower between them.



Soil supports and anchors the vegetable's roots and is a storehouse for nutrients, organic matter, air and water. A mixture of garden mix and wood chips is often used for vegetable beds.

Nitrogen (46-0-0) will need to be added to these plantings because the nitrogen in the mixture is tied up in the organic matter. Be prepared for the mixture to lose volume as the wood chips decompose.

If planting in existing soil, have a soil test done and follow their recommendations. pH is important: plants may grow best in acidic or alkaline soil. Also consider the texture of the soil; sandy soil will wick water downward, whereas gumbo (like many of us have) will spread the water horizontally but not deeply.

Rain water collection provides a source of chlorine- and salt-free water for the garden. A 55-gallon drum can cover an 8' x 10' bed. Cover the drum to keep out leaves and other impurities. A good design will allow gravity to dispense the water.

Plantings should consider the maturity rate of vegetables, so that you can plan a second planting after an early crop. Plants may mature in 30-60 days, 60-80 days,

or 80 days plus. Also consider the mature size of the vegetable when planting. When planting from seed, keep in mind the soil temperature required for germination. For example, beans germinate between 60 and 85 degrees, with 80 degrees being optimum.

Follow the directions on the seed pack when planting seeds. For large seeds, use a hole that's 2 to 3 times the seed width. Drop the seeds, cover them, pack them and water them. If you plant the rows horizontally with respect to the bed boundaries, it is easier to get between the rows and do your gardening.

The Rupp 2017 vegetable catalog has fall cucumbers that are parthenocarpic. This means that they do not need a pollinator. In fact, pollination reduces the quality of the crop. This cucumber tolerates and produces at lower temperatures.

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Fall vegetable gardening, *cont'd from pg. 6*

You can start seeds in a specific starter seed bed, which can be a container rather than an actual garden bed. When the plants have produced first cotyledons and then their true first leaves, transplant them. Planting should be done late in the day so that the seedlings have all night to recover and plump up with water. They may look wilted the first evening or two, but eventually they will strengthen and stay erect.

Cutworms are a nemesis of vegetable gardeners. One way to deter them from cutting seedlings off at the base is to install a pair of toothpicks right next to the stem. This makes the “bite” too big for the cutworm. There are 14 named cutworms. They are night-time feeders who live underground. The cutworm scourge can be battled with *Bacillus thuringiensis* (Bt).

Fertilizing vegetable beds is done as a side dressing (i.e., between the rows.) Nitrogen 21-0-0 or 46-0-0 is best. Don't add sulfur unless you like your vegetables hot and spicy (e.g., onions will be sweet without sulfur and hot with sulfur.) Spread the fertilizer on top of the soil and water in. Inspect everything daily to see what might be needed. Other amendments depend on the soil test results. Obviously never add lime to alkaline soil.

Root knot nematodes can infect vegetable crops. Plants with a nematode infection, which comes from the soil, are more prone to succumb to other diseases. Crop rotation is one way to control this problem. The groups of plants that are rotated include goose-foot, mustard, legume, parsley, mallow, grass, allium, nightshade, gourd, and composite. There also are nematode-resistant varieties of vegetables. And finally, there are chemical treatments for this problem which are applied to the soil before planting.

Carrots need deep, well drained, fine media with no rocks or sticks to achieve their desired shape. They can be container grown if desired.

When setting out small plants, use chicken wire as a “cat guard” to keep your garden from becoming a litter box.

Broccoli is an example of a plant that is allelopathic. That means that it leaves a growth inhibitor in the soil that affects growth of the next crop of cruciferous vegetables (arugula, bok choy, broccoli, Brussels sprouts, cabbage, cauliflower, collard greens.) Crop rotation mitigates this problem.

Black rot is a disease that affects cruciferous vegetables. It infects both plants and seeds. Plant no cruciferous vegetables for three years, and be sure to clean up rather than bury the infected plant material. Look for black rot resistant varieties to prevent this problem.

When it comes to pests, Bt “gives excellent control of leaf-eating caterpillars.” It targets Lepidopterous (caterpillar) insects. Since sunlight degrades Bt, spray it at dark. It will be active for about three days after spraying. If you add a teaspoon of liquid dish soap per gallon of spray, it will help the Bt bind to the plant. There should be a sheen to the leaves if this has been accomplished. The shelf life of Bt is 2-3 years.

Integrated Pest Management (IPM) is good gardening practice. It utilizes many methods of pest control starting with resistant varieties and including removal of infected plant waste, use of helpful insects, physical removal of pests, the selective use of pesticides (including Bt), companion planting (plants that deter pests), and crop rotation. You should identify the threshold at which you are unwilling to accept damage before resorting to chemical methods of control.

Vegetable crops should be harvested at peak quality. Cucumbers in today's supermarkets are too large, with thick skins and huge seeds. You can harvest earlier at home and have nicer cucumbers. Once picked, refrigerate your vegetables to retain quality.

[This presentation was developed by Dr. William M. Johnson, County Extension Agent-Horticulture, and the Texas AgriLife Extension Service Galveston County Office. He can be reached at GALV3@wt.net.]

For more information about planting schedules, refer to the *Vegetable Garden Planting Chart* on the next page or visit <https://agrilifeextension.tamu.edu/solutions/easy-vegetables-to-grow/>.

Gardening Tools

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

	Vegetable Garden Planting Dates for Harris County											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ASPARAGUS, Crowns												
BEANS, Lima & Snap Bush												
BEANS, Lima & Snap Pole												
BEETS												
BROCCOLI, Plants												
CABBAGE, Plants												
CAULIFLOWER, Plants												
CARROTS												
CHARD, Swiss												
CHINESE CABBAGE												
COLLARDS												
CORN												
CUCUMBER												
EGGPLANTS, Plants												
KOHLRABI, Plants												
LETTUCE												
MUSKMELON, Cantalope												
MUSTARD												
OKRA												
ONION, Bulb-type sets												
ONION, Transplant for scallions												
ONION, Multipliers												
PARSLEY												
PEAS, English & Snap												
PEAS, Southern												
PEPPER, Plants												
POTATO, Irish												
POTATO, Sweet												
PUMPKIN												
RADISH												
SPINACH												
SQUASH, Summer												
SQUASH, Winter												
TOMATO, Plants												
TURNIP												
WATERMELON												

Open Garden Days at Genoa Friendship Gardens



The Orchard



The Water Garden



The Greenhouse

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

Open Garden Days

on the 3rd Monday of every month, 8:30 a.m. - 11:00 a.m., January through December, and the 1st Monday of every month, June through August.

Admission to the Exhibit Gardens is free, and register at the Welcome Table to receive additional monthly notices for children and family events.

The Genoa Friendship Gardens

is located at

1202 Genoa Red Bluff Road

Houston, Texas 77034

Email: phoneHCMGA@gmail.com **Phone:** 713.274.0950

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

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

2017 Monthly Open Garden Days & Special Events

January 16	Open Garden Day	June 5 & 19	Open Garden Day
February 18	Fruit Tree & Tomato Sale	July 3 & 17	Open Garden Day
February 20	Open Garden Day	August 7 & 21	Open Garden Day
March 18	Perennial, Herb & Pepper Sale	September 18	Open Garden Day
March 20	Open Garden Day	October 16	Open Garden Day
April 17	Open Garden Day	November 20	Open Garden Day
May 15	Open Garden Day		

TEXAS A&M AGRI LIFE EXTENSION

TEXAS A&M AGRILIFE EXTENSION SERVICE

3033 BEAR CREEK DR.

HOUSTON, TX 77084

713-790-7215

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

hcmga.tamu.edu

Like Us On Facebook

The Harris County Master Gardeners as well as Texas A&M Agrilife Extension - Harris County Horticulture are actively participating on Facebook offering tips, lists, news and plant advice almost daily. The best part, instead of locating planting guides or insect documents, and sale dates for individuals, you can add the HCMG site



your account and easily share information with others. This is a definite timesaving device for these busy garden days and helps promote our organization.

www.facebook.com/HarrisCountyMasterGardeners

www.facebook.com/HarrisCountyHorticulture

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