



DECEMBER 2009 — JANUARY 2010

CONTENTS

Climate	1
Get Ready for Winter	2
Inquiring Gardener	3
Plants of the Month	5
Prez Sez	6
Announcements	6

Soils, Part 2 in February issue

COMING UP

- ⇒ **FREE December Seminar**
Sat, 12/12/09
10:00 am—11:30 am
Lake Jackson Public Library
"Holiday Plants"
- ⇒ **BCMGA BOARD MEETING**
Tues, 12/08/09
5:30 pm AgriLIFE Office
All members welcome!
- ⇒ **BCMGA MEETING**
Tues, 12/08/09
6:30 pm AgriLIFE Office
Holiday Celebration
- ⇒ **BCMGA BOARD MEETING**
Tues, 01/12/10
5:30 pm AgriLIFE Office
All members welcome!
- ⇒ **BCMGA MEETING**
Tues, 01/12/10
6:30 pm AgriLIFE Office
- ⇒ **Fruit Seminar/
Citrus Tasting**
Sat, 01/30/10
9:00 am — noon
BEES, Angleton



Here it comes...the possibility of temperatures below freezing. Angleton's average 1st freeze is December 8th. Last year it came on December 12th, with snow no less. Tropicals aren't happy, young trees and shrubs don't know enough to stop growing so they can harden off a bit, and it always catches gardeners by surprise (probably because it was 70° the day before).

There are some hints on protecting plants on Page 2. Be prepared.

ARE YOU IN A COLD SPOT?

There's an ongoing info exchange at BEES about how daily low temperatures can be so different in various parts of the county. The first chill on November 13 saw the Lake Jackson/Angleton official airport reading at 36°. That's 7° lower than in Lake Jackson (not even 7 miles away) and Alvin/Pearland, and the coldest reading in the entire Houston/Galveston forecast area. So what gives? The National Weather Service Houston/Galveston climatologist, **Charles Roeseler**, provided answers.

Why is there sometimes a big difference between the "official" Lake Jackson/Angleton airport reading and those of us in Lake Jackson or even Alvin? We don't have any valleys.

Actually, the Lake Jackson/Angleton airport IS in a valley — it's 6' below the surrounding area. On a clear night without wind, even a 1'-2' elevation change can make a difference. The cold air pools in those depressions. You won't notice as much of a difference on overcast or windy nights.

The area from north of Lake Jackson to Alvin and west to at least West Columbia seems to be colder than the rest of the county? Is that true?

Yes, there is a cool line that runs from at least Angleton to Bay City. We don't know how far east of Angleton the line runs because there aren't reporting stations to the east.

Why would that line stop at Alvin though and get warmer there? Is it historical or just recently because of the development of the Alvin/Pearland area?

There's no doubt that the more concrete and development, the warmer it will be. We have records for Alvin, downtown Angleton and the Lake Jackson/Angleton airport. The historical November average for Alvin is 62.2° and Angleton is 63.1°. The Angleton station is right downtown though and

the Alvin Station isn't — that might account for some of the difference. The airport only has a 15 year history so it's not a good comparison. I think it's a combination of development and natural causes.

What natural factors might cause the "cool" spots?

The topography--where there's a slight decrease from surrounding elevations, often from old river valleys; open land; absence of trees; no bodies of water nearby. All those can cause colder nights.

There are only three official NWS reporting sites in the county, correct? Do you use personal weather station data?

Yes, the only three in Brazoria County are the ones I've mentioned: Alvin, Angleton Co-op, and the Lake Jackson/Angleton airport.

We can't rely on the accuracy of personal weather stations. There's a full-time technician just to service official ones - checking accuracy, making sure the rain gauges aren't clogged, general maintenance. We do occasionally use data from personal stations for rainfall, to get an idea of coverage.

Several people have mentioned that we're growing things now that wouldn't have made it 20 years ago. What are your thoughts?

It's been 20 years since the last major freeze in '89. The '80s had a number of freezes which haven't occurred since. People are even growing citrus in the northern Houston suburbs now. There were devastating freezes in the '20s/'30s that ended commercial citrus production in your area. Whether the warming is part of a years-long cycle or a lasting trend isn't known.

Any prediction for this winter?

We'll have an El Niño winter. It will be wetter with cooler day temps, but warmer night temps.

GET READY FOR WINTER

What to do this month? It's time to work out your cold-protection strategy. How far are you willing to go to keep your plants alive through the winter?

On the first chilly night of the season, we usually can get away with doing nothing at all. All those potted plants on the driveway are usually safe enough, because concrete holds a lot of heat - the pavement is still losing the heat it gained this past summer. The soil is still warm, too, and when it's also wet, a little chilly air doesn't do much damage. But the real thing is coming, and it will be much easier to get your preparations ready now. Remember how, in other years, you were out there fighting with sheets of plastic after the ten o'clock news, in a dark and windy night when the temperature was already dropping through the thirties? Plan ahead.

NO WORRIES - HARDY

Many of the things we grow here need no protection at all. Don't waste effort on:

Winter vegetables Coles and lettuces will be all the better for some cold weather. If you still have some warm season crops, such as tomatoes, still producing, you should wrap them in something to keep them going.

Cool season bedding plants Calendula, pansies, stock, alyssum, and so on will be fine. If it gets really cold, petunias and snapdragons may be knocked back.

Hardy garden flowers and shrubs, such as salvias, roses, daylilies, gardenias and most "foundation"-type plantings will be fine. Even some tropical-looking shrubs, such as Fatsia, do not need protection.

Native plants. Well, duh - if they're from here, a little bad weather isn't going to hurt.

NO WORRIES - ROOT HARDY

Other favorites will be knocked back close to the ground if we have a cold winter. You could

avoid this damage by covering them, but why bother? Weren't you going to cut those hamelias and blue butterfly clerodendrums back in the spring, anyway? They are root hardy, and you won't lose them unless we have a prolonged period well below freezing.

Most gingers (but not the big shell ginger that blooms in spring) Even if you protect your favorite spiral ginger, it will look ratty in the spring and the new shoots will replace the old, so why bother?

Hamelia
Cannas
Some Clerodendrums
Angel trumpets
Russelia - the fountain fern
Ixora
Copper plant
Sky vine

WORRY - TENDER TREASURES

And then there are the tender treasures. Some of these will not come back at all once the frost has bitten them, or they will be so damaged they won't be worth rehabilitating. Now the question is: how much trouble is too much?

Newly planted tropicals This might include some of those root hardy things mentioned above. If they went into the ground late in the season, they may not be ready to look out for themselves this year.

Some citrus Meyer lemon is said to be the most hardy, while limes are the most likely to suffer frost-damage. Here, too, recently planted and very young plants may be more susceptible.

Other exotic fruits Things like mango and papaya aren't really hardy here, but in a protected spot they may eventually become hardy enough for most winters. Growing these may require a commitment to frost protection, at least for awhile. Bananas and papayas can have several layers of newspaper wrapped around the stem and then a layer of burlap

tied over it. The tops will probably freeze out but the inner part will stay protected.

Tender ornamentals, such as hibiscus, plumeria, allamanda, orchids, fancy leaf begonias, special coleus, crotons (they will survive in ground, but take a long time to get going again).

Potted ornamentals. Things growing in pots tend to be less hardy than the same plant grown in the ground. On the other hand, they're easier to move to protection when needed.

The hard-to-find, the expensive, the sentimental favorites. If in doubt, wrap it up.

WINTER PROTECTION

Gardeners, especially your BCMGA colleagues, are ingenious when it comes to freeze protection.

Move potted tender plants under the eaves - this can go along way to prevent freeze damage. Or move them into the garage, a traditional protection for hibiscus and plumeria. Plumeria, which should be completely leafless, stays in for the winter. Hibiscus can come back out during warm spells.

Cover the unmoveables. If you use plastic, you must keep it from touching the foliage. Many of us use "frost cloth", which is like floating row cover, but heavier. This will not transmit cold to foliage quickly, so it can rest on the plant. Users recommend weighing it down with bricks or clipping it to stakes or other structures with clothespins. Some of us use flannel-backed tablecloths, picked up on sale. The cloth backing protects the foliage from freezing while the plastic top keeps cold rain out and warm air in.

Many gardeners are now experimenting with planting plumeria in the ground. These unmoveable plumeria can be covered, or wrap the trunk with plumber's pipe insulation or sealed insulation batts. You may lose the top, but

the base and trunk should survive.

Build individual mini-greenhouses for big, precious things. Good materials for light weight frames are PVC pipe or metal conduit. The cover could be frost cloth or the heavy greenhouse weight plastic. Greenhouse supply companies carry marvelous plastic clamps to easily attach the plastic to a PVC frame. If needed, add a little extra heat: string Christmas lights on the plant, or hang a trouble light inside the cover. If you use plastic, make sure there's a way to ventilate it so plants don't cook when warm weather returns.

Test a New Product—No Guarantees The product FreezePruf first mentioned in the February 2009 What's Growin' On is now available. It supposedly protects plants an extra 2°-9° by reducing the freeze point of water in plant cells and mitigating ice crystal damage. We'll be testing it this winter in the Tropical Garden to see if it really makes any difference in winter protection.

Do Nothing

If you decide on the "you're on your own" strategy, you can improve the odds by making sure plants are well watered going into the freeze event. A generous layer of mulch will help, too.

If freeze damage does occur, leave it on the plant until the weather warms up in the spring. It may give some protection to the live wood under it. In spring you can prune back to green wood.

Some plants are just too big to protect. Many gardeners choose to play the odds with these and enjoy them until we have another year with a prolonged freeze. At the BEES Tropical Garden, the attitude is that when something freezes out, it opens an opportunity to plant something new. Very few plants are in pots, to be moved under cover; the rest are on their own. "If it doesn't make it, it wasn't meant to be here!"

ANN McLAIN, THE INQUIRING GARDENER: CROP ROTATION

When I was growing up in Ohio, most farmers in our region practiced crop rotation almost as if it was an obligation to the land. They all did mixed farming, with hay, corn, wheat, oats and soybeans alternating through the fields in a steady progression. Those were the days when most farmers didn't use any chemical pesticides or herbicides, and the only fertilizer that made it into the fields came by way of the manure spreader. So it makes sense that a crop rotation system intended to balance out macronutrients and to reduce the weed burden would be thought to be something every responsible farmer should do.

That basic idea of rotation, centuries old, alternated row crops like corn with grassy crops such as wheat. The row crops were plowed several times during the season, eliminating more weeds than in the wheat field which wasn't plowed after sowing. Soy beans (or maybe alfalfa) alternated with heavy feeders like corn, because the legumes would restore nitrogen to the soil.

In modern agriculture, chemicals balance nutrient levels and control pests, and specialized farming practices may make crop rotation less practical. But organic farmers still use it for all the same old reasons, plus some new ones. And Texas A&M, along with other horticultural experts, are telling us that our veggie gardens will benefit from rotation, too.

The new reasons to try it are these. Not only do crops differ in how much of the big three nutrients (nitrogen, phosphorus, and potassium) they suck out of the soil, but they also have different needs for the micronutrients. Those are elements like iron and copper and magnesium. Different vegetables also differ in the pests and diseases they are susceptible to. Crop rotation can help with both these situations.

The differences in nutrient uptake among plants are a result of several factors. For all plants, uptake of the basic N-P-K varies as the plant grows from seedling to maturity. Rapid growth of shoots needs a lot of nitrogen, while later development of extensive roots or development of flowers and fruit require different proportions of the macronutrients. It makes sense, then, that the veggie crops that we have developed to produce enormous roots may need more of one nutrient than something bred to produce lots of leaves. And a crop trying to push out multiple fruits may take up relatively more of something else.

When it comes to the micronutrients, plant physiologists can be even less specific about what plant needs which. Deficiencies of the micronutrients are often hard to recognize, except as the plant just doesn't do well. But it is true that different plants can be limited in growth by different micronutrients, and plants that are more closely related are more likely to respond in the same way.

Plant relationships may matter even more when it comes to diseases and insect pests. Most of the insects that chew, suck, and mine their way through the leaves of our veggies, have definite preferences on what they want to eat. Most commonly, feeding preferences limit the pest to plants in a particular plant family. There are tomato hornworms and tobacco hornworms, but both are quite willing to demolish either tomatoes or tobacco, as well as all the other plants in the nightshade family. The beautiful black swallowtail butterfly lays her eggs on any plant in the parsley family, but usually not on other things.

It's not just about feeding or egg-laying preferences either. The serious pests of some veggie crops have overwintering forms that lie in wait in the soil where the crop was last grown. When warm weather comes, the insect emerges and - voila! - there's food close at hand. Or there would be, if we didn't move our crops around. Of course, other terrors lurk in the soil as well. Pathogens such as viruses and fungal spores can live sometimes for several years in the soil waiting for a return of their host plant. So that rotation scheme may need to be a long one. The coles (cabbages, etc.) are particularly susceptible to some of these soil lurking problems, but other plant families have them as well.

So, how to get started with a crop rotation scheme that will solve these problems? In the vegetable garden we have complications that never arose for farmers like my grandpa. One big difference between 40 acre fields and a 20 x 30 foot garden is the sun/shade problem. The positions of corn and wheat relative to the sun simply didn't matter on the farm. The corn won't shade out the wheat field, especially if there's a lane between the fields. But in a backyard sized garden, it's important not to plant corn on the sunward side of shorter crops.

Another difference is that where my grandpa and his neighbors grew at most five different crops, veggie gardeners may have twenty or

more different things growing. Further, we are very unlikely to leave part of our "farm" lying fallow for more than a month. Putting a whole field to rest for a year as pasture was a common part of the old fashioned rotation. Modern organic farmers know that when they grow multiple crops, and do it intensively, crop rotation becomes very difficult, so they turn to something they call "crop sequencing". Veggie gardening is nothing if not intensive growing of multiple crops, so maybe sequencing is for us.

Those old ideas about light and heavy feeders are still recommended by some. On the Rodale Institute's web site I found information about that. This veggie rotation depends on lists of plants divided into "heavy feeders", "light feeders", and "soil builders". I think you will need to refer to the lists frequently as you rotate, because the distinction between light and heavy feeders isn't all that obvious, at least not to me. Who would have guessed that lettuce is a heavy feeder and chard a light feeder? Or that carrots and potatoes deplete the soil less than beets and radishes? However, these lists have been relied on for years, and if it works for you, have at it.

A reference book I checked into (Edward C. Smith: *The Vegetable Gardener's Bible*, 2000) suggested a different approach. The author recommended two separate rotation patterns, one for tall plants and one for short. This takes care of the tall/short problem. You divide the garden into two sections, one for tall stuff at the back of the plot, and the rest for short stuff. In the tall rotation, you plant caged indeterminate tomatoes, followed by corn, followed by pole beans, followed by cucurbits (cucumbers or melons or such) on trellises. The short rotation starts with the nightshade vegs, followed by the cole crops, followed by carrots and their relations, and finally an "everything else" category. This doesn't seem to follow either the light/heavy feeder plan or the growth form plan especially well, but it's easy to understand.

Danny Lipford, the Weather Channel handy person, offers a straightforward rotation on his website (<http://www.dannylipford.com/diy-home-improvement/lawn-and-gardening/vegetable-garden-crop-rotation-made-easy/>). This one is based on the growth form idea. Group 1 is the plants grown for leaves or flowers, including the leafy greens, spinach, and

ANN McLAIN, THE INQUIRING GARDENER: CROP ROTATION

the coles. Group 2 contains all the nightshade crops, plus squash, cucumber, and corn. These are the plants grown for fruit. Group 3 is what we grow for roots, to include carrots, turnips, onions, and beets. Finally, Group 4 feeds the soil, and is all legumes such as beans and peas. Root crops loosen up the soil, so they are followed by legumes, which prefer loose soil. Legumes fix nitrogen, so they are followed by the leaf crops, which need extra nitrogen. Sounds good.

But there may be a problem with this plan. As we already mentioned, the coles have a particular problem with accumulated pests and disease. In this rotation, cole crops occur in both Groups 1 and 3, which might be separated by only 12 months in our climate. We could follow a winter crop of Brussels sprouts (Group 1) with a summer crop of cucumbers (Group 2), and then be back to turnips (Group 3) the next fall. That's probably not enough time to help with plant pests.

This brings up one of the big problems with veggie rotation: how do we manage the added complexity of alternating warm and cool crops? Our rotation steps come much closer together in time than they do in climates with only one crop per year. The concept offered by Mel Bartholomew, the square foot gardening guy, is basically great, but it does suffer from this same drawback. In a square foot garden, as crops finish and come out, others are put in. Bartholomew's idea is that you're very unlikely to be putting in the same thing you're taking out. But with our year round gardens, it's probably not good enough to rely on chance to keep you from following a tomato with a cool crop and then going back to a tomato, all within one year. It may be that record keeping, an important part of rotation everywhere, is absolutely essential in our climate. Stretching out the rotation will help, too. Our rotation schemes may need to have as many as eight steps; eight steps equaling eight growing seasons, which may take only four years.

So here's a challenge. Take this list of fourteen crop families, divide it into warm and cool categories, and see if you can create as many as eight groups to rotate through your garden. You may need to cheat: some crops, like lettuce, can probably return to the same spot sooner than can cabbages. Exercise your brain - work out a rotation scheme.

GARDEN CROP FAMILIES		
FAMILY	SCIENTIFIC NAME	CROP
Amaryllis	Amaryllidaceae	Onion Garlic Shallot Leek Bunch onions (scallions) Chives
Lambs-quarter	Chenopodiaceae	Spinach Beet Swiss chard
Daisy	Compositae	Lettuce Artichoke Sunflower
Morning Glory	Convolvulaceae	Sweet Potato
Cole	Cruciferae (believe it or not, these are all the same species!)	Cabbage Kale Brussels sprout Collards Broccoli Cauliflower Kohlrabi Radish Turnip Cress, Horseradish, Mustard
Gourd	Cucurbitaceae	Cucumber Squash Pumpkin Muskmelon Watermelon
Grass	Gramineae	Corn
Mint	Lamiaceae	Basil, Rosemary, Oregano, Thyme, Mint
Legume	Leguminosae	Peas: English, Field, Sugar Beans: Snap, Lima, Dry
Lily	Liliaceae	Asparagus
Mallow	Malvaceae	Okra
Rose	Rosaceae	Strawberry Blackberry
Nightshade	Solanaceae	Tomato Potato Eggplant Pepper
Parsley	Umbelliferae	Carrot Celery Cilantro, Dill, Fennel, Parsley

PLANTS OF THE MONTH

WINTER ANNUAL: *Brassica oleracea* var. *acephala* (Ornamental Kales)

Size: 1'-3' H x 1'-3' W
(depending on variety)

Shapes: Cabbage-y or upright
(depending on variety)

Foliage: Rounded leaf edges; feathery leaf edges; crinkled leaf edges. Colors from steely gray-green, burgundy, red or rose, shades of green. Again, it all depends on the variety.

Light: Full sun to part sun

Water: Consistent

Flowers: Yellow 4-petaled panicles in 2nd year (sometimes in spring)

Fertilize: Moderate; best colors when not over-fertilized

Propagation: Seeds

Pests: Every one that attacks cabbages, and there are many, will happily munch on kale.

Seeds available: many sources
Plants available: common ones at most nurseries; the more unusual at Houston Heights nurseries.

A KALE FOR EVERY GARDEN CORNER

Kale is a form of cabbage that doesn't make a head. Its inner leaves remain "open". Like cabbage it does best in cooler temperatures — just right for our winters. Ornamental kale has come a long way from the years of the "ornamental cabbage" with green edges and red, rose or white



centers. To be sure, that variety is still the most commonly available, but make space for some of the newer varieties, as well as an heirloom knock-out.

"Dinosaur" kale should appeal to kids, and under its other name 'Tuscan Black', to sophisticated adults. By either name this heirloom (1885) carries outstanding tall, deep gray-green plumes.



Or, how about ornamental cabbage on a stick? Called "Crane" kale, the lower leaves are removed so the small 6" wide head (one per plant) sits atop the 1+ tall stem. It comes in several colors.

Then, there are the "-bors": 'Winterbor', 'Redbor' and 'Starbor'. All have crinkled edges. 'Winterbor' is green to 3'; 'Redbor' [my favorite] has burgundy leaves with pink mid-ribs to 5'; 'Starbor' is a blue-green leaved compact selection.



Finally, another fairly common variety is named the "Peacock" Kale for its highly dissected colorful leaves. In pink or white, it grows to about 2'. Oddly enough, one of these survived the summer in the editor's garden and continues to flourish.



NATIVE VINE: *Smilax smallii* (Bamboo Vine, Jackson Vine, Lanceleaf Greenbrier)

Size: 10'+ H, 2' spread

Shape: Loose vine

Light: Part sun to shade

Soil: Silty to loam, acidic

Water: Moist

Flowers: Insignificant

Berries: Green turning black on female plants

Fertilize: Low

Propagation: Stem cuttings; seeds

CHRISTMAS SMILAX

Yes, really, a **thornless** smilax, right here in Brazoria County. Actually, it's rare here but very common throughout the southeastern coastal U.S. It's typically found in moist, alluvial, acidic soil as an understory vine.



Its long lasting, shiny, evergreen foliage makes it very popular for Christmas decorating in the coastal SE.

Like all the smilax species, it grows from a large potato-like tuber. In its preferred habitat it can grow 25' a year, but that's unlikely in this area. The basic need is for acidic soil—less than 6.8 if possible.

It climbs by tendrils so needs support to grow as a vine. Some references mention that this smilax can have thorns at the base of the plant, but never above the base.

Available: Only 2 online nurseries; one person in Lake Jackson has it—may be able to get cuttings



Sally & Andy Wasowski
Lady Bird Johnson Wildflower Center

Smilax around door frame in Mobile, AL
Mike Kittrell, Press/Register

BCMGA

Brazoria County Agri-Life Extension
21017 CR171
Angleton, TX 77515

Phone: 979.864.1558
Phone: 979.388.1558
Phone: 281.756.1558



Editor: Monica Krancevic
bcmga-newsletter@att.net

BCMGA Website:
<http://grovesite.com/mg/bmg>

Educational programs of Texas AgriLife Extension Service are open to all people without regard to race, color, sex, disability, religion, age, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating

ED BARRIOS, THE PREZ, SEZ...

"It was the best of times, it was the worst of times..." Charles Dickens, *A Tale of Two Cities*.

The worst: As I think about this year it was challenging with the almost historic lack of rain. Many of our plants did very poorly and blooming and growth were impacted. When the rains finally came, most plants just exploded with growth and blooms. Several of the gardeners were saying the natural rain had a more pronounced effect than the well water that was used all summer. Well I didn't believe it, heck water is water. But after seeing the difference the rain made, I think there maybe something to it.

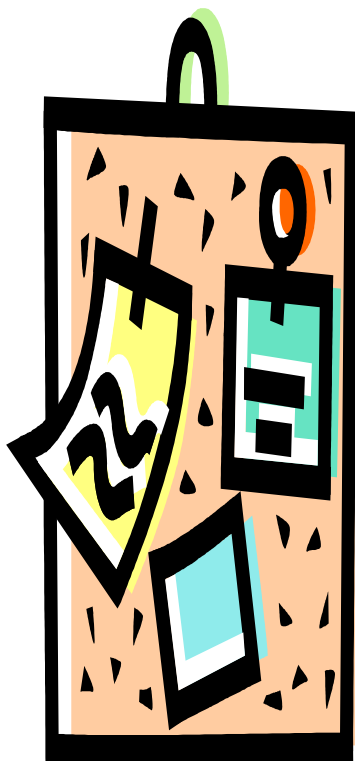
The best: Progress continues to be made on the enabling gardens. The site is almost ready for the main construction of the gardens to begin. Jen is going to get volunteers from MS to help put the garden beds together as soon as all the site prep

work is completed. Also Lee was successful in getting a H-GAC grant for restoring the horse barn, expanding the compost area and installing a recycle cemetery. The Grannies Garden and the main garden have also become a major effort at BEES. Many of our members have been growing some nice and sometimes exotic vegetables. And the good news is most of them share the produce - so get out to BEES and maybe get some nice fresh veggies from the growers.

The future: Lets hope next year is more "normal" in terms of temperature and rainfall so our gardens can become a showcase for our county. I've only visited 2 other Master Gardener gardens and we have them beat hands down. We have more gardens and more beautiful gardens than either of them.

Looking forward to a great gardening year in 2010!

ANNOUNCEMENTS AND VOLUNTEER OPPORTUNITIES



Brazosport Daylily Society: Bill Maryott, California Daylily Supplier & Hybridizer, Sunday, January 10, 2:30 pm—4:30 pm, Lake Jackson Civic Center, 333 E Hwy 332 (corner of This Way & Hwy 332), Lake Jackson, FREE

Nationally recognized, Mr Maryott will speak about Daylilies and Hybridizing
Qualifies as Advanced Training for Master Gardeners

Garden Club of Houston Nancy Stallworth Thomas Horticulture Lecture: Tony Avent, Plant Delights Nursery Owner Tuesday, January 12, 9:30—noon, St Martin's Episcopal Church, 717 Sage, Houston, FREE

Tony Avent is both nursery owner in North Carolina and plant explorer. He should be a very entertaining speaker.
Qualifies as Advanced Training for Master Gardeners

Harris County Extension Green Thumb Series: Fruits & Nuts, Tuesday, January 12, 6:30 pm—9:30 pm, 100 Basspro Drive (288 & Beltway 8), Pearland, FREE

Urban Harvest: Tropical Fruits, Tuesday, January 19, 6:30 pm—9:00 pm, Location TBA, \$33

Best varieties and successful growing of Avocados, Sugar Apples, Jaboticaba, Cherry of the Rio Grande, Miracle Fruit, Lychee and Grumichama

Urban Harvest conducts a variety of classes and seminars on all aspects of gardening. Check out their website for their upcoming classes: <https://www.store.urbanharvest.org/Classes.aspx>

All classes qualify as Advanced Training for Master Gardeners

Volunteers Always Needed: B.E.E.S. (the gardens), every Tuesday and Friday, 7:30am—12:00pm

Harris County Extension Master Gardener Lecture Series: Raspberry Crazy Ants, Wednesday, January 20, 10 am —?, 5001 Nasa Road 1, Seabrook, FREE

Dr Paul Nester, IPM Extension Agent, is the speaker on this new menace
Qualifies as Advanced Training for Master Gardeners