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**Monarchs are BUSY** by Terry DeValle

Monarch butterflies have been prolific and their offspring are busily eating as much milkweed as they can find. If you have milkweed, keep an eye on the plants to see if these eating machines are running out of food. We have been transferring ours to other plants as they run out of food.



If you purchase additional plants from nurseries, ask if plants have been sprayed with any insecticides. If there are aphids or caterpillars on the plants you are purchasing, they should be safe. Once the caterpillar pupates, keep an eye out for the chrysalis, which is a bright emerald green color (right photo). The caterpillar will find another place to pupate so will no longer be on the plant but may be under the eave of your home or on an adjacent plant. If you really want to observe the process, you may need to collect the caterpillars and place them in a netted enclosure to see the transformation. Include some of the milkweed plant and a stick inserted in a pot. The caterpillar will likely move to the stick when ready to pupate. When the chrysalis turns a dark color, the timing is near. Release the butterfly outside after a few hours of emergence. Enjoy the show!



**Upcoming September/October Classes**

**CANNING CLASSES—Pre-registration and pre-payment required.**

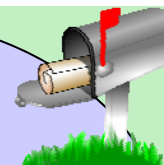
**\$20 per class**, per person. Call 255-7450 to register.  
 Saturday, September 16 — Pressure Canning (Carrots) 9 am—1 pm  
 Monday, September 18—Cowford Pear Relish, 9 am—noon  
 Saturday, October 14—Spiced Apple Butter, 9 am—noon

**Friday, September 22 - 10 am-noon, Make and Take Rain Barrel Workshop.** Learn the advantages of collecting rainwater and how to use it efficiently. Plus, learn how this helps prevent stormwater runoff. Total cost is \$50 (\$5 to attend plus \$45 for each barrel). The deadline for payment and registration is September 15. Limit 25 barrels. To register, call 255-7450.

**Thursday, September 28 - 10 am-1 pm, Fall Landscape Workshop.** Topics include theme landscapes, edibles to enhance your landscape, and small trees for home landscapes. Hands-on activity includes edible seedling to take home. Cost is \$10 to attend. Registration required: call 255-7450.

**Friday, October 6 - 10 am-noon, Landscape Design Basics with “Right Plant-Right Place”.** Learn the elements and principles for designing your landscape. Find out how to be successful with the plants you choose. Cost is \$10 to attend. Call 255-7450 to register.

If you receive a hard copy of this newsletter, our annual survey is attached. If you receive the newsletter electronically, expect a Qualtrics survey within the next week. The information gathered helps us to improve our newsletter plus helps with funding. Please respond promptly so we can determine if this newsletter was helpful.



# Things to do in September/October by Terry DeValle

## Flowers



- **Divide perennial plants** like this amaryllis that are overcrowded to improve flowering and plant quality.
- **Start ten weeks** of short-day treatment for Christmas cactus in mid-October to enjoy blooms at Christmas.

• **Scout for insect and disease problems.** Aphids, mealy bugs, whiteflies and other insect populations can build up quickly.

## Fruits and Nuts

- **Harvest** season for grapes comes to a close as other fruits like Persimmons and Pecans begin their season. Satsumas ripen around late October, especially if we start getting cooler weather.
- ♦ **Fertilize fruit trees/shrubs** in September as a final application. Wait to fertilize Persimmons because they may drop fruit if fertilized now.
- ♦ **Check grafted plants** to make sure no growth develops below the graft union. Graft unions are usually 6" above the soil level and a swollen area is usually noticeable.

## Lawns

- **Keep up with lawn mowing** - Sharpen those mower blades and remove no more than 1/3 the height at each mowing. Leave the clippings on the grass unless you are bagging to collect weed seed heads or the lawn has disease problems. Keep grass clippings out of drainage ditches, off hard surfaces, and out of water bodies.
- ♦ **Fertilize lawns going into the winter** using a product with equal amounts of nitrogen and potassium and no more than 2% phosphorous (15-0-15 or 18-2-18). Check the label to determine the appropriate amount to apply or go to <http://edis.ifas.ufl.edu/ep236>. Apply 1/4" water following application. Do not apply fertilizer prior to a heavy rainfall or potential storm.



- ♦ **Got weeds?** Now's the time to spot treat for perennial weeds. Hand-pulling is still the best option if a weed is setting seed like this chamberbitter in this photo. If cool season weeds were a problem last year, treat area with a preemergence herbicide when air temperatures reach 65 to 70°F for 4 to 5 consecutive days (early October).

For more info on weed control, go to <http://edis.ifas.ufl.edu/EP141>.

- ♦ **Scout lawns for pest problems.** Chinch bugs and lawn caterpillars are still active. Go to <http://edis.ifas.ufl.edu/in383> for info on chinch bugs and <http://edis.ifas.ufl.edu/in968> for sod webworms.

## Trees & Shrubs

- **Do not prune** spring blooming shrubs or trees now or there will be no flowers next spring.
- **Scout ornamental plants** for scale, grasshoppers, caterpillars, whiteflies, and leaf beetles. If treatment is needed, treat only the affected area and use a Florida-Friendly insecticide (soaps, oils, neem, BT) to protect beneficial insects. Grasshoppers are laying eggs so to avoid higher numbers next year, kill them manually because insecticides are not effective.
- **Fertilize trees and shrubs**, if needed, in September. If trees have been in the landscape for over three years and are surrounded by lawn and/or shrub beds, no additional fertilizer is needed if those areas are fertilized. If plants look healthy and growth is adequate, skip this application.
- **Avoid over-pruning palm trees.** Repeated overpruning of palms will lead to a smaller trunk diameter. See other negative effects from over-pruning in this publication: <http://edis.ifas.ufl.edu/ep443>.
- **Put new plants in landscape now.** Cooler weather will make it easier to get roots established. Make sure to call 811 before you DIG and don't plant too deep!



## Vegetable Garden

- **Start cool season transplants** for fall gardens. This is one of the best times to garden in north Florida. If you don't have a traditional garden, consider planting a few edibles in landscape beds or try growing in a container.
- **Clean out fading plants** ASAP. Don't leave old vegetable plants in the garden as they will lead to future problems for the next crop (especially nematodes and diseases). Get them out of there and add organic matter to the soil so it's ready for the fall garden.



## What to Plant in September/October by Terry DeValle

For instant color now plant coleus, marigolds and garden chrysanthemums or wait until October to plant cool season flowers like dianthus, lobelia, pansy, petunia, phlox, shasta daisy, snapdragon, viola, statice, flowering kale and cabbage. Marigolds are an inexpensive alternative to chrysanthemums and will frequently provide fall color for a longer period. Wait until the heat subsides in late October to plant pansies and violas.



Several perennials will begin their flowering process as the days get shorter. This Mexican sage is one of the saliva types that flower in response to short days.

Bulbs or bulb-types to plant include amaryllis, Aztec lily, calla, grape hyacinth, iris, lachenalia (leopard lily), narcissus, snowflake, watsonia, and zephyr lily (rain lily). In October add to the list African lily (Agapanthus), daffodil, gladiolus, kaffir lily, lily, marica (walking iris), moraea, society garlic, spider lily,

anemone, hyacinth, pineapple lily and Star-of-Bethlehem. It will pop up with beautiful flowers in response to rain. If wet soil becomes the norm this fall, pull up caladium tubers to prevent the tubers from rotting, and store in a cool dry area.

For northern type bulbs (tulips and hyacinths), buy in October and store in the refrigerator for about 60 days. Plant bulbs immediately upon removal. Keep them away from ripening fruit during storage. Many

are available pre-chilled, but make sure to check before purchasing. In September, plant bush beans, pole beans, cucumbers, summer squash, tomatoes, beets,\* broccoli,\* Brussels sprouts,\* cabbage,\* carrots,\*

cauliflower,\* collards,\* endive, kale,\* kohlrabi,\* leek,\* lettuce,\* mustard,\* onions,\* parsley,\* radish,\* and turnips.\* Add to the list for October those with an asterisk listed above, plus Chinese cabbage and spinach. For more information on vegetables, go to <http://edis.ifas.ufl.edu/vh021>.



Pallet garden using lettuce

## Snakes are on the Move by Terry DeValle



Note the thick body and large triangular head

Snakes are on the move and may show up more often than normal because of the hot weather and recent rains. There are 46 snake species that are native to Florida, and only six of these are venomous. The five venomous types of snakes in our area include the coral snake, cottonmouth, timber rattlesnake, Eastern diamondback rattlesnake, and pygmy rattlesnake. Copperhead is the sixth venomous snake in Florida but

only occurs in a small area just west of Tallahassee in the Florida panhandle. Of these, the most common in our area are the cottonmouth (left photo) and the pygmy rattlesnake (right photo). For great pictures and descriptions, go to <http://edis.ifas.ufl.edu/UW229>.

All of these are pit vipers with the exception of the coral snake. Pit vipers have vertical (cat-like) pupils and a blocky triangular head that is broader than the body.

The eastern coral snake is very distinctive but can be confused with the scarlet king and scarlet snake. Just remember the jingle "red touches yellow--kill a fellow; red touches black--friend of Jack." The coral snake has a black snout whereas the look-alikes have a red snout. Coral snakes have a narrow head and round pupils, characteristic of non-venomous snakes.



If a snake bite occurs, don't attempt to catch the snake but remember as many details as possible including what time the bite occurred. Call 911 and remove jewelry and tight clothing to avoid complications from swelling. Keep the victim warm and calm, and place the bite area lower than the heart. Wash the bite with warm soapy water. Call the Poison Control Hotline at 1-800-222-1222 and they will communicate with the ER physician.

# Release of Beneficial Insect by Terry DeValle



Asian citrus psyllid: insect responsible for spreading Citrus greening disease

Photo credit: Jeffrey Lotz, FDACS

attacks the insect that spreads this disease.

Citrus greening is spread by an insect called an Asian citrus psyllid, *Diaphorina citri*. This species is adapted to our warm humid climate and has been found throughout our state. Adults are about the size of an aphid, three to four millimeters long, and are mottled brown in color. When disturbed, they jump so they should not be confused with aphids. They have wings and are weak fliers, but can move long distances via the wind and on infected plants. Nymphs are very small and green to yellow-orange in color. If present, psyllids can be found along stems and the underside of leaves. They position themselves upside down with their heads touching the plant at a 45-degree angle and their rear ends (abdomens) in the air. Psyllids feed on leaves and cause leaf cupping and curling, similar to aphid damage. Like aphids, soft scale, whiteflies and mealybugs, psyllids excrete honeydew that causes sooty mold to occur on leaves. In order for psyllids to become infected with HLB, they must feed on an infected tree. The bacteria then multiply in the psyllid which can then transfer the bacteria to a new host plant in 8 to 12 days.

The beneficial insect that is being released will help reduce the population of the Asian citrus psyllid. The insect is a tiny parasitic wasp, *Tamarixia radiata*, imported from Southeast Asia. This parasitoid has been very effective at suppressing the Asian citrus psyllid in other countries. As a test, the wasp has been released in Florida and has become established, with varying levels of suppression of the target insect.

The female *Tamarixia* will hunt the Asian citrus psyllid and lay eggs on the surface of the immature (nymph) psyllid. Once the wasp larva emerges from the egg, it

enters the psyllid and feeds on its body fluid. It pupates inside the pest insect and emerges as an adult wasp, killing and creating a mummy of the psyllid. The adult female wasp will also feed on the psyllid nymphs. The lifespan of the *Tamarixia* wasp is around 28 days, but a female has the ability to kill over 500 Asian citrus psyllid nymphs during her lifetime. These

wasps will not eradicate all the psyllids in our area, but they will reduce the population, thereby reducing the risk of citrus greening. They are not miracle workers; the wasp will not cure your tree if you already have citrus greening.

The Florida Department of Agriculture and Consumer Services is making the Asian citrus psyllid parasite available to homeowners in an effort to stop the spread of citrus greening. To sign up to receive the parasitic wasp, go to this website <http://www.freshfromflorida.com/Divisions-Offices/Plant-Industry/Bureaus-and-Services/Bureau-Of-Methods-Development-Biological-Control/Biological-Control/Asian-Citrus-Psyllid-Biological-Control/Biological-Control-of-Asian-Citrus-Psyllid-in-Dooryard-Citrus-and-Ornamentals/Tamarixia-Release-Application>.

Once this parasite is introduced, avoid the use of pesticides on your citrus because this will kill the developing wasps and adult wasps.

If your citrus is infected with citrus greening, removal of the infected tree is not mandatory, but keeping it will increase the risk of greening for other citrus in your landscape or in your neighbor's. The problem may be so wide-spread in northeast Florida that removing your infected tree may not make a huge difference. If you do remove your tree, spray to control the psyllids before removing it from your property. Examples of sprays that are effective include spinosad, petroleum oil insecticide, and imidacloprid. Once the tree is sprayed, it can be placed curbside for pickup along with yard waste. See page 7 for information on symptoms of citrus greening.



Adult parasitoid *Tamarixia radiata* (Waterston) (foreground), emerging from the mummified nymph of an Asian citrus psyllid (*Diaphorina citri* Kuwayama).

Photo Credit: Angel Hoyte, Jamie D. Yates, UF/IFAS



# Plan for your Fall Garden Now!!

By Mary Puckett



It takes planning to have a successful garden and now is the time to evaluate your site:

## Location:

- Full sun, ideally 6-8 hours of sun
- Consider your water source
- Avoid tree roots
- Do you plan on growing in the ground, in raised beds and/or in containers?

## Test soil pH:

- When growing in the ground, it is a necessity to know what your pH is.
- Vegetables grow best in a slightly acidic soil (5.8-6.2).
- The Duval County Extension Office will test your soil pH for free. Go to: <http://duval.ifas.ufl.edu/documents/Howtotakeasoiltestsamplereb.pdf>

## Amend Soil:

- Work the top 10"-12" of the soil at least three weeks before planting.
- Spread a minimum of 3"-4" of organic matter, composted animal manure or compost, and work it into the top 6"-12".

## Raised Bed:

- Good for dealing with poor soil or drainage
- Recommend the publication "Gardening in Raised Beds:" <http://edis.ifas.ufl.edu/pdf/EP/EP47200.pdf>

## Container Culture:

- Use a commercial ready soilless mix labeled for containers or make your own.
- To grow a healthy root system, use a good potting soil that has a "nice and fluffy" texture. It also should hold water as needed and drain completely through.
- Potting Mixes for Certified Organic Production: <https://attra.ncat.org/attra-pub/viewhtml.php?id=47>
- Recommend the publication "Minigardening (Growing Vegetables in Containers):" <http://edis.ifas.ufl.edu/VH032>

## Select the Vegetables:

- Now is the time to get started.
- Choose disease-resistant varieties recommended

for our area.

- Start your own transplants from seed.
- Start with transplants if you don't have time to start plants from seed.
- Refer to "Florida Vegetable Gardening Guide," Table 1, for those that transplant easily or that should be direct seeded: <http://edis.ifas.ufl.edu/vh021>.

Cool-season vegetables prefer daytime temperatures between 60°F and 80°F, and lose quality in hot weather.



Many favorites that grow best in our cool weather are referred to as cole crops. Cole crops are in the Brassicaceae (Cruciferae) family and include broccoli, cabbage, Chinese cauliflower, collards, kale, mustard greens and turnips.

It is believed that all of the cole crops within *B. oleracea* evolved from a wild cabbage-like plant that was native to the British Isles and to the Mediterranean area of Europe.

All cabbage varieties are round with layers of tightly held leaves against a short, thick stem. These leaves form a head, some smooth or curled. Cabbages are separated into three general categories:

- Green, with smooth leaves
- Red, with purplish leaves
- Savoy, with crinkly green leaves

Related varieties of cabbage are inflorescent (flowering) cabbage and stem cabbage:

- Inflorescent:
  - Broccoli
  - Cauliflower
- Stem:
  - Kohlrabi
  - Kale
  - Collards
  - Chinese cabbage



Cabbage, Farao F1  
DTH: 64 (early)  
3lb. Head

# Plan for your Fall Garden Now!!

Continued from page 5



They are all cool-season crops that are grown in our area successfully if the right varieties are planted at the right time. Cauliflower can be finicky to grow, while broccoli and cabbage are the easiest.

They prefer soils with a pH of 6-6.5; yield will be reduced if the soil pH is below 6.

Refer to the "Florida Vegetable Guide," Table 1, for recommended spacing. For example, if broccoli is spaced too closely, it will have small heads and fewer side sprouts.

Broccoli, cauliflower and cabbage can be grown in both spring and fall, but fall planting is more successful because very early spring planting is often delayed by wet or cold weather. If spring planting is delayed, the plants are at risk of being exposed to weather that is too hot before they mature.

## Broccoli:

- Needs rich soil, even moisture and cool weather.
- Cultivation should be shallow.
- Green buds develop first in one large central head. Harvest head before flowers open.
- Cut central head with 5"-6" of stem, which will stimulate side shoots for later pickings.



Broccoli, Blue Wind F1  
DTH: 49-59 (early mature date)  
Produce medium-sized head.  
Powdery light-blue foliage.



Cabbage, Early Jersey Wakefield

DTH: 65-70

Heirloom introduced in the 1840's.

2-3 lb. Sweet conical head.

Good protective wrapper leaves.

## Cauliflower:

- Requires even moisture. Uneven moisture leads to smaller heads and less flavor.
- Plants are cold hardy, heads are not.
- Heads are sensitive to freeze and extreme heat.
- Unless self-blanching varieties are planted, blanching is required to protect the curd (head). Tie the outside leaves together over the head when 2"-3" in diameter.



Cauliflower, Cheddar F1

DTH: 58-60

Bright orange heads

Head grows 6"-7" in diameter

## Cabbage:

- Requires ample moisture and fertilizer. Fertilize at planting and will benefit from regular applications, especially just before the head starts to form.
- May be the least finicky of the cool-season crops.
- Roots develop near surface of soil and run almost horizontally across the rows. Be mindful when cultivating.
- Use a collar to protect tender seedlings from worms.

## **Resources:**

- University of Florida
- Texas A&M <http://aggie-horticulture.tamu.edu>
- Saddleback College of Horticulture <http://www.saddleback.edu/atas/Horticulture/>

## **(Special note)**

DTH refers to Days to Harvest  
F1 is a hybrid

## Tree Questions by Larry Figart

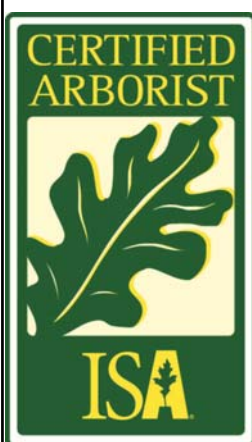
In lieu of a dedicated topic, this edition of tree tips will be a collection of some of the most common tree questions that have been asked of both Master Gardeners and extension staff.

### 1. What is the most wind-resistant tree?

While sweetgum, live oak, sand hickory, and magnolia are reported as wind-resistant, the best way a homeowner can grow a wind-resistant tree is to provide proper maintenance in the form of good pruning and providing an adequate rooting space to develop a healthy root system.

### 2. Can I safely cut roots without hurting my tree?

The answer is many-faceted. Most folks picture the root system of a tree as growing like a carrot with a deep tap root when in fact the root system grows more like a wine glass with a wide base. Any injury to a root may provide the entry point for root decay fungi. If roots need to be cut then the wounds need to be as far away from the tree, smooth, not jagged, small and as few as possible.



### 3. Can you recommend someone to prune my tree?

No, however I can recommend that you use an I.S.A. certified arborist. A searchable list of certified arborists in our area can be found at [www.isa-rbor.com](http://www.isa-rbor.com). Click on the link that says "verify a certification."

### 4. Can I top my tree?

No, the proper place to prune a tree is at the branch collar. While

topping has been almost eliminated from the repertoire of most arborists, a new problem has arisen. The practice of lions-tailing has become very prevalent. Lions-tailing is when the crown of the tree is over lifted and over thinned. It leaves live branches only at the tips of the canopy. Lions-tailing is bad for the tree because it alters the structure of the limb and puts all the weight out toward the end. This makes the branches susceptible to breakage.

### 5. Is it better to plant native trees rather than non-native trees?

A wise urban forester told me many years ago that there was no such thing as a native urban tree. What he meant by that was that in the urban forest, so many things have been altered (soils, exposure, irrigation, fertilization) from what would be the natural state, that nothing would be native. The key in

choosing trees is to analyze the site conditions where the tree is to be planted and then match the correct tree to the site. However, in **no** circumstance is an invasive tree an acceptable choice for any landscape.

### 6. Where can I find good tree information on the internet?

This is a hard question to answer because the internet is full of wrong or misleading answers. I recommend putting the letters "IFAS" (Institute of Food and Agricultural Sciences) after the item searched in my favorite browser. This assures that my responses will be from the University of Florida. If that does not produce any satisfactory results, I will then add the letters "edu" to my search terms. I get a lot of responses that I will have to narrow down to schools in the Southeast such as Georgia, Clemson, Auburn, or Mississippi State.

### 7. I think my tree has citrus greening, how can I tell for sure?

The symptoms of citrus greening include asymmetrical mottling of leaves, small misshapen fruit, bitter or salty tasting fruit. A good site that shows the symptoms of citrus greening can be found at: <http://www.crec.ifas.ufl.edu/extension/greening/symptoms.shtml>. However, the only way to know for sure is to send a leaf sample into the University of Florida. There is a test using household iodine that will help you figure out if you might have greening. The iodine reacts with the starch in the leaves. Citrus leaves with greening have elevated starch levels. The procedures for the iodine test can be found at: <http://www.crec.ifas.ufl.edu/extension/greening/PDF/HS37500.pdf>.



Asymmetrical mottling in a citrus leaf with greening



Duval County Extension  
1010 N. McDuff Avenue  
Jacksonville, FL 32254  
(904) 255-7450  
Fax: (904) 387-8902  
Website: <http://duval.ifas.ufl.edu>

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## Lawn Problems by Terry DeValle

Based on the calls we are getting, there are lots of people having problems with their lawns. If you are one of those, ask yourself these questions: Is the lawn getting adequate light? Are you irrigating at the recommended rate? Are you mowing at the proper height? For recommendations based on your lawn type, go to <http://turf.ufl.edu/> and click on "Residential Landscapes."

Good watering practices are critical to a healthy lawn. First, always water in the early morning hours when the grass is already damp with dew to limit the hours moisture stays on the grass. This will help reduce disease problems. Next, water the lawn on an as-needed basis. Symptoms of a thirsty lawn include grass blades folding lengthwise, lawn turning a blue-gray color, and footprints remaining after you walk on it. Finally, don't overwater. Know where the 'off' setting is on your irrigation control clock, and use it.

Because of the rains this summer, we are seeing several diseases. If spots are present on the leaf blades,

gray leaf spot (photo on right) is likely the culprit. Go to this link for details: <http://edis.ifas.ufl.edu/pp126>.



For areas that are experiencing a general decline, the damage is not occurring in patches, and there are no spots on the leaf blade, pythium root rot may be present. Read the following publication for remedies: <https://edis.ifas.ufl.edu/lh050>.

Take-all root rot is another disease active during the rainy season. With take-all, the affected areas occur in distinct patches and the lawn turns yellow to brown in color. Initially the lower leaves are off-color followed by discoloration on the upper leaves. By the time the above ground symptoms are obvious, the runners can be easily separated from the roots because the roots are short, black and rotted. This disease affects all warm season turfgrasses and is a tough one to manage. This document provides additional information about take-all <https://edis.ifas.ufl.edu/lh079>.

Once you have read this newsletter, turn "A New Leaf" and pass this information on to a friend.

Terry B. DeValle  
Extension Agent-Environmental Horticulture

For individuals requiring special accommodations, please contact our office (904-255-7450) within a minimum of 5 working days of the program. For persons with hearing or speech impairments, when contacting our office please use the Florida Relay Service at 1-800-955-8771 (TDD).

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