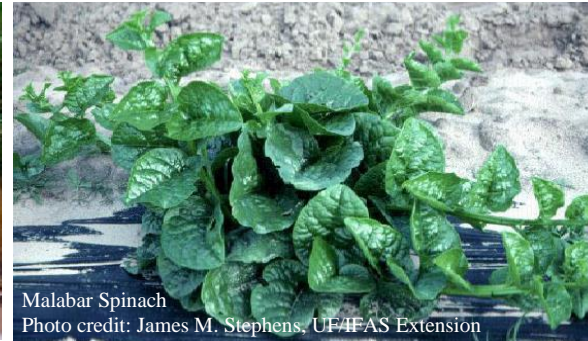




Basket of Okra
Photo credit: Gardening Solutions, University of Florida



Seminole Pumpkin
Photo credit: Miranda Castro, Edible Project



Malabar Spinach
Photo credit: James M. Stephens, UF/IFAS Extension

Sizzling Summer Vegetables

By Nancy Hammer, Master Gardener 2014

If you are from up north, you know May is when vegetable gardeners joyfully plant tomato seedlings and look forward to juicy slicing tomatoes as summer unfolds. Experienced Florida veggie gardeners know otherwise. Many take a break in the summer months and enjoy the pool, beach, and A/C. However, with correct plant selection, summer vegetable gardening in Florida can be very, well, fruitful!

Here are some vegetables that can thrive in our heat and humidity.

- Okra: Recommended varieties include Clemson Spineless, Emerald, Annie Oakley II, and Cajun Delights. Plant through the summer until September.
- Sweet Potato: Centennial, Beauregard, Vardaman, and Jewel. Plant through summer until September.
- Southern peas (field peas, cow peas, crowder peas); California Blackeye No. 5, Pinkeye Purple Hull, and Texas Cream. Plant through the summer until October.
- Yard long beans: Plant throughout the summer.
- Luffa (*Luffa* spp.): Plant until September. (There was an article on luffa vines in the March issue.)
- Seminole Pumpkin (*Curcubita muschata*): Plant until September.
- Malabar spinach (*Basella rubra*)
- Okinawa spinach (*Gynura crepioides*)

If you currently have cherry tomatoes, peppers, or eggplant, and they are still healthy, they may continue to produce fruit into the summer months.

Should you want to explore other options, consider

trying varieties from Southeast Asia and Caribbean countries, Israeli varieties, and Southern heirlooms. Sources for seeds include Southern Exposure Seed Exchange, Seed Savers Exchange and other online suppliers. Detailed information on Florida vegetable gardening, including a table of planting dates can be found online at UF/IFAS Florida Vegetable Gardening Guide at <http://edis.ifas.ufl.edu/vh021>.

If you and your vegetable garden prefer to have a break during the summer, take advantage of the heat by solarizing the soil to kill harmful nematodes, other insect pests, and weed seeds. Look online at UF/IFAS Gardening Solutions, Soil Solarization for how-to information at <http://gardeningolutions.ifas.ufl.edu/care/pests-and-diseases/pests/management/soil-solarization.html>.

Alternatively, consider cover crops for the summer which will prevent erosion during heavy summer rains, discourage weed growth, add nutrients and organic matter, improve soil texture, and interrupt insect and disease cycles. More information, including suggested cover crop plants, can be found online at UF/IFAS Gardening Solutions, Cover Crops: <http://gardeningolutions.ifas.ufl.edu/care/fertilizer/organic-matter.html>

Finally, we invite you to tour our educational gardens at the Manatee County Extension office. We have examples of how to successfully grow vegetables and herbs in raised beds, a variety of containers, and salad tables. The okra is spectacular in the summer!



What's This? – Wild Coffee Moth

By Norma Kisida, Master Gardener 2012



Center photo from Wikimedia Commons, other photos by Norma Kisida, Master Gardener

If some of the leaves on your wild coffee (*Psychotria nervosa*) look like they have been rolled and stitched together by a surgeon, they have likely been visited by a ***Pyrausta tyralis***, the coffee-loving pyrausta moth. This very colorful moth has been recorded to fly year-round and the larvae feed on wild coffee. The eggs are laid on the leaf which is rolled and stitched by the adult moth. The caterpillars feed inside the rolled up leaf and then chew through the rolled leaf to emerge. If you open one of the affected leaves, you will probably find caterpillar frass (*aka* poop) and one or more caterpillars.

Although initially concerned when I found several of my wild coffees affected, the damage appeared more interesting than significant. After researching, I decided that no treatment was needed. If you are bothered by the cosmetic appearance, the best treatment would be to trim off the affected leaves.



Photo Credit: Mark Hutchinson, Florida Native Plant Society

UPCYCLING

With the Urban Fox

By Ross Peterson, Manatee County Florida-Friendly Landscaping™ Coordinator

Upcycling? A trendy, new exercise regimen that entails bicycling in elevated terrain in only one direction? I think not! Upcycling, also known as creative reuse, or repurposing, is the process of transforming by-products, waste materials, and useless and/or unwanted products into new materials or products of better quality or for better environmental value.

Beginning in August and September of this year, Manatee County will transition from our current system of sorted recyclables via the blue bins to single stream recycling. Single stream recycling eliminates the need for residents to sort their recyclable material by allowing them to be combined in a new sixty-four gallon bin.

Converting to this process increases overall participation and the volume of recyclables collected. This strategy will help Manatee County reach the statewide recycling goal of 75% by the year 2020. This is great news for Manatee County and the state of Florida.

What will become of the eighteen gallon blue bins we currently use? Enter Master Gardener John Dawson, aka the "Urban Fox." John's professional background in engineering gives him some unique perspectives on the creative reuse of materials that may have been destined for the landfill.

Join John on June 1st from 10 A.M. to Noon at the Extension Office located in Palmetto as he shares a few of his repurposing ideas, including using the blue bins, during his presentation "Upcycle Your Recycle Bins!" Wondering what to do with your recycle bins when Manatee County switches to single stream collection? Upcycle your old bins by turning them into useful items such as gardening planters, tool bins, totes and more! To register to attend, [click here](#).

John refers to the repurposed bins as Garden Planters for the various prototypes that bear any resemblance to the Earth Box®. Some of the uses John has identified for the bins without any further modification include a tote, seat, tool bin, and planter. Making some modifications, John has several versions of planters, tool bin, and a water garden! These modifications use materials that you may already have at home or would only cost \$10-\$15 to purchase. John is also working on versions of planters that can be constructed without the use of power tools.

John is open to suggestions for alternative upcycling ideas for these bins and we applaud his efforts at repurposing these materials for

UPCYCLE IT



Photo credit: www.mymanatee.org



Photo credit: <http://cfaes.osu.edu>

Is It Ripe Yet?

By John Dawson, Master Gardener 2007

Plants have developed numerous means by which they spread their seeds. One way is by growing fruit which contain seed(s) that is taken, eaten, and discarded by man and other creatures, sometimes very far away from the mother plant. So how does a plant entice us to eat its fruit at just the right time?

If a fruit is eaten before the seed has had time to mature it will not be viable and will not grow. Only when the seed has properly matured is the fruit considered ripe.

Fruiting plants protect their maturing seeds by making the fruit unpalatable. All of us at one time or another have learned our lesson in eating unripe fruit. It was either too hard, bitter, or made us sick.

We learn or are taught the signals which tell us a fruit is ready to eat. It may change color, change size, smell sweet, or get soft. So how do these changes take place?

After pollination, the fruit begins to form. This fruit contains acids which make it bitter, starches which are not sweet, chlorophyll

which makes it green, pectin which holds the developing cells tightly (making it hard) and sometimes tannins, which make your mouth pucker.

Scientists and researchers have found that a natural chemical plant hormone called ethylene is responsible for ripening. Ethylene builds up as the fruit seed matures and when it no longer can be contained, is released as a gas. This release triggers a response via various genes and enzymes within the fruit to begin the ripening process.

Various enzymes break down cell walls and soften the fruit, convert carbohydrates into simple sugars, and degrade the chlorophyll content of the fruit resulting in color change. Other large molecules are broken down into volatile aromatic gases which we detect as a fruity aroma.

Color, smell, and feel are the main cues that tell us a fruit is ripe. Other processes in the plant cause the stem of the fruit to weaken and dry up. The weight of the fruit eventually will cause it to drop, another

continued on page 5

indicator of ripeness.

For thousands of years, people have used ethylene gas (quite by accident) to hasten fruit ripening even if they did not know what it was or how it worked. Ancient Egyptians learned that sliced figs ripened faster, sailors discovered that one bad apple could spoil the whole barrel, and Chinese farmers discovered leaving unripened pears in closed heated rooms would ripen them quicker.

Research has shown that wounding and high temperatures trigger plants to produce ethylene gas. Some fruits produce high volumes of ethylene gas and when placed with other fruits, trigger their ripening. Apples are notorious ethylene gas producers and have been used for many years to help quickly ripen other fruit (e.g., tomatoes and bananas), especially when placed together in a paper bag.

Here in Florida you will see large trucks hauling mounds of green tomatoes to processing plants where they are treated with ethylene gas prior to sale in stores. As you can imagine, transporting red ripe tomatoes the same way would be disastrous. Still, fruit must be picked close to full maturity before being rushed to ripeness.

Trying to gas a half-developed fruit into ripening will not work. Growers need to determine the right time to pick each type of fruit for transportation.

There are some fruits that, if picked early, will never ripen no matter how much ethylene gas is present. These fruits will not ripen after harvest and must remain on the plant until mature. They are called "non-climacteric" and usually have short shelf lives after picking. Knowing which fruits are climacteric (those with ripening associated with ethylene gas production) and which are non-climacteric will

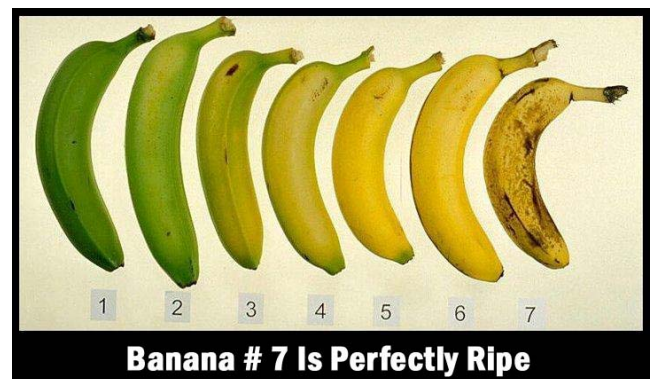
help you in smarter purchases. Buy non-climacteric fruit in smaller quantities and use quickly. Buy climacteric fruit in varying degrees of ripeness for longer storage and take care where and how the fruit is stored.

Some climacteric fruit – Avocado (only ripen after picking), bananas, citrus, cantaloupe, guava, kiwi, mangoes, papaya, passion fruit, pome fruits (apricots, peaches, plums, nectarines), pears, persimmons, pomegranates and tomatoes.

Some non-climacteric fruit – Berries, cherries, coconuts, grapes, olives, squash, peppers, and watermelons.

Unfortunately, fruit are not labeled as (non) climacteric in stores or in most texts. Sapodillas are rock hard and impossible to eat when unripe and last only a few days after ripening. They seemingly go from unripe to ripe overnight on the tree and usually disappear, stolen by some critter.

As an experiment (since I couldn't find an answer in any text), I picked one that should be ripe soon (by size) and waited. After a week it was still rock hard, then a few days later, it went soft overnight and was delicious. I have tried several others with the same result. I now know that sapodillas are climacteric (P.S. – don't tell the critters!). I will try putting one in a bag with a sliced apple next to see if that speeds things up.



Taken from <http://health101.org>

Fruits and Vegetables: From Harvest to Storage and Preserving New Flavors

By Jim Haupt, Master Gardener Trainee 2015

When I was a kid, my dad always grew an abundance of garden produce to freeze, can, and store for the long winter months. On one occasion, he decided to do something different with his surplus of garden tomatoes. He created his own home style brand of ketchup. He was proud of his recipe, but never revealed the ingredients. Throughout the winter, without fail, mom paired every evening meal with dad's homemade ketchup. The large, lumpy, and overly spiced concoction was incredibly hot and inedible. To this day, I shy away from ketchup.

However, there are many other interesting and tasty ways to store and utilize your garden produce! Freezing, canning, drying, and pickling are popular methods of preserving fruits, vegetables, and herbs, but let's use our preservation skills, and try some interesting alternatives.

Of course, using your bumper crop of tomatoes to can ketchup is possible, but do follow a reliable recipe. An alternative is canning whole tomatoes. Freezing tomatoes can be accomplished simply by rinsing, drying, and placing them on cookie sheets. Slightly slice an "X" on top of each to prevent bursting, and freeze. You can then store them in freezer bags and use later to make your favorite soups, stews, pastes, or sauces.

Strawberries, blueberries, melon balls, and grapes can be placed in a single layer on a cookie sheet, placed in the freezer, and once frozen, can be transferred to freezer bags or air tight plastic containers. For cooking purposes, fruits can be packed in sugar syrup before freezing. Strawberry and banana lollipops are a tasty and refreshing treat. Puree strawberries and bananas in a mixing bowl. Pour mixture into small-sized paper cups. Place in the freezer until they are half frozen. Insert a popsicle stick in the center of each and freeze thoroughly.

Grapefruit can be stored at room temperature for up to a week and kept in the fridge for two or three weeks. However, for long term storage, grapefruit can be frozen whole. The flavor is better than trying to freeze the juice.

Oranges can be stored at room temperature for 2-3 days, and kept in the fridge for 3-4 weeks. The best storage temperature is between 50 and 60 degrees Fahrenheit. Good ventilation and a humid environment keep fruit from drying out. Oranges are best preserved by freezing the juice.



Orange sections are best preserved by canning with equal parts of grapefruit juice.

Juice from oranges, lemons, and limes can be poured into ice cube trays and frozen, then transferred to re-sealable freezer bags for later use. Grated lemon, lime, and orange, for zest, may be frozen and stored for 2-3 weeks.

Avocados cannot be frozen whole or sliced, but can be frozen as puree. Use a food processor, blender, or fork to mash. Add lemon or lime to preserve color. You can then store air-tight containers in the freezer.

Even though they're not a vegetable that screams preservation, radishes make perfect pickles when placed in brine. Radishes can then be placed in the fridge and stay crisp for weeks.

The herb garden is a natural place to begin your tea making adventure. Most herbs can be dried in bunches hung in the garage, or dried in the microwave. Once dried, herbs can be crumbled and stored in jars or plastic bags. Chopped herbs can also be placed in ice cube trays, covered with water, and frozen. The ice will seal out air and help preserve the flavor and aroma. Thaw as many cubes as needed to prepare your next meal.

There are limitless ways to preserve and store Florida garden fruit and vegetables. However, if you want to can and preserve homemade ketchup, find a recipe along with other canning recipes by contacting Family and Consumer Sciences (FCS) at the Extension office.

For more information visit:

https://edis.ifas.ufl.edu/topic_handling_and_storing_fruits_and_vegetables,

<https://edis.ifas.ufl.edu/he621>,

<https://edis.ifas.ufl.edu/he606>,

<http://gardeningolutions.ifas.ufl.edu/plants/edibles/vegetables/harvesting-and-storing-vegetables.html>.

Sassy New Cultivars of Summer Annuals

By Norma Kisida, Master Gardener 2012



"Mainstreet Abbey Road" coleus - Photo credit: Masterscapes



"Cherry Tart" Caladium - Photo credit: Park Seed



"Cathedral Shining Sea" - Photo credit: Green Fuse™ Botanicals

As our favorite spring flowers fade we look for plants that will be both beautiful and stand up to our hot, humid summer season. Three winners from the 2014 Florida Nursery Growers and Landscape Association (FNGLA) fit the bill. These winners include the and "Main Street Abbey Road" coleus "Cherry Tart" caladium, "Cathedral Shining Sea" salvia.

"Mainstreet Abbey Road" coleus (*Solenostemon scutellarioides*) is the first of eight new coleus releases developed at the Florida Agricultural Experiment Station, an agricultural and natural resource research program of the University of Florida's Institute of Food and Agricultural Sciences (IFAS). Each is named for a famous street and the series consists of many colors, leaf shapes, and patterns – something for everyone. They are reported to be sturdy plants that do not get leggy and do not bloom much, which is a desirable trait as the foliage is the main attraction. "Mainstreet Abbey Road" coleus is mahogany to purple with a hot pink center and lime green edge. It is bushy, upright, and compact (medium, 16"); very appropriate for borders and pots. It grows best in part shade but will tolerate full sun for part of the day and is not drought tolerant.

"Cherry Tart" caladium, also developed by the University of Florida and trialed by Bates Sons and Daughters, is a compact strap variety with rose pink colored leaves with green margins and a unique combination of leaf characteristics which includes bright red color, slightly undulate leaf margins, and a broadly heart shaped leaf. In field and greenhouse trials it was found to be comparable or superior to two of the most popular red lance leaved varieties ('Florida Red Ruffles' and 'Florida Sweetheart'). It is suitable in the landscape, planters, or hanging baskets, makes an ideal border, and will tolerate up to eight hours of morning sun.

"Cathedral Shining Sea" (*Salvia farinacea*) is a hardy, more compact, full branching salvia with long lasting, large bi-color blue and white flower spikes. It will tolerate a wide range of conditions and will provide great color spring through autumn. It is suitable for perennial borders as well as containers and fits well into cottage gardens. It does well in full sun to part shade, requires little water once established, and attracts hummingbirds and butterflies.

For more information on these plants:

"Mainstreet" Coleus series:

<http://www.ffsp.net/varieties/coleus/mainstreet-abbey-road-uf12-46-2/>,

"Cherry Tart" Caladium: <http://edis.ifas.ufl.edu/ep445>,

"Cathedral Shining Sea" Salvia:

http://trialgardenspsu.com/search_summary.php?species=Salvia&sort=finalsunshdave.

May

CALENDAR OF EVENTS



Passiflora coccinea – Photo credit: www.flowerspictures.org/

Date	Time	Event
Starting Wednesday August 17	8:30 a.m.-4:00 p.m.	We've Got A Good Thing Growing! Become a Master Gardener and "get a good thing growing!" We are accepting applications for the Manatee County Master Gardener Volunteer Training Program. This is a 14-week course that will meet weekly on Wednesdays. The \$200 fee covers all textbooks and program materials. Call Cindy Mozeleski (941) 722-4524 to have an application mailed to you or download an application today! Visit: http://manatee.ifas.ufl.edu/lawn_and_garden/master-gardener/index.shtml .
3 rd Tuesday Of each Month	10:00 a.m.	Monthly Guided Tours of the Master Gardener Educational Gardens - Join us for a guided tour lasting about one hour. The gardens illustrate a variety of garden styles and techniques, demonstrate Florida-Friendly Landscaping™ principles, educate residents about plants that perform well in Florida landscapes, and inspire garden visitors to follow recommended gardening practices at home. Register by calling the Master Gardener Plant Diagnostic Clinic (941) 722-4524.
2 nd & 4 th Saturday	10:00 a.m.-1:00 p.m.	Ask a Master Gardener – Rocky Bluff Library – 6750 US Highway 301 N., Ellenton. Visit the Extension Master Gardener information table and get answers to your gardening questions.
Saturday May 7	10:00 a.m.-Noon	Tillandsia Make and Take Wreath Workshop - Learn about these lovely epiphytes that only require air and water to live. This is a "make and take" workshop where you will create a wreath using Tillandsia plants. Bring wire cutters and pliers. Registration and payment for materials due by May 4. Check or cash only – make checks payable to Friends of Extension. Register online at http://manatee.ifas.ufl.edu or call the Master Gardeners (941) 722-4524.
Saturday May 7	9:00 a.m.-2:00 p.m.	Flying WILD & Creating Schoolyard Wildlife Habitats to Celebrate Birds - is designed to provide hands-on activities for formal and non-formal educators working with youth ages K-8 th grade. Flying WILD specializes in activities about birds and their habitats. Creating Schoolyard Wildlife Habitats specializes in converting empty areas into wildlife habitats. Pre-registration is required in order to get workshop books and materials. \$10 materials fee check or cash only, checks made payable to Friends of Extension. Register online at http://manatee.ifas.ufl.edu or call the Master Gardeners (941) 722-4524.
Wednesday May 11	1:00-2:30 p.m.	Rain Barrel Workshop - Storing rainwater aids in the reduction of stormwater runoff which can help reduce the levels of pesticides and fertilizers that drain into ponds, streams, lakes, and our bays. Learn how to install, paint, and maintain a functional rain barrel. Rain Barrel fee is \$33 check or cash only. Register online at http://manatee.ifas.ufl.edu or call the Master Gardeners (941) 722-4524.
Tuesday May 24	1:30-3:30 p.m.	Taking the Mystery Out of Micro-Irrigation - This class satisfies the irrigation educational requirement for the Manatee County Outdoor Water Conservation Rebate Program. Learn how to select, install, and operate your own water-saving micro-irrigation system, the pros and cons, parts and pieces, and how to put it all together. Learn why it is important to water shrubs and other landscape plants separately from your lawn. Note Location: Island Library 5701 Marina Dr., Holmes Beach. Register online at http://manatee.ifas.ufl.edu or call Joann (941) 722-4524.
Wednesday May 25	10:00-11:30 a.m.	Mulch Mania - Everything you wanted to know about mulch and more is covered in this informational workshop. From the benefits of using mulch to the different types of mulches that are available and how they compare to one another. Don't miss mulch mania! Register online at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners (941) 722-4524.
Thursday May 26	1:30-3:30 p.m.	Ground Covers – Plants that Work - This class satisfies the landscape educational requirement for the Manatee County Outdoor Water Conservation Rebate Program. Learn how landscaping with low-growing ground cover plants has become a popular trend in landscape practices because once they are established, these plants need little or no water. Note Location: Braden River Library 4915 53 rd Avenue East, Bradenton. Register online at http://manatee.ifas.ufl.edu or call Joann (941) 722-4524.
Wednesday June 1	10:00 a.m.-Noon	Upcycle Your Recycle Bins! - Wondering what to do with your recycle bins when Manatee County switches to single stream collection? Upcycle your old bins by turning them into useful items such as garden planters, tool bins, totes, and more. Master Gardener John Dawson will demonstrate the steps to turn your trash bins into treasured items. Register online at http://manatee.ifas.ufl.edu or call the Master Gardeners (941) 722-4524.



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