



YOUR NORTH FLORIDA YARD & GARDEN

Flagler County Extension Service & UF/IFAS Florida
Master Gardeners

ISSUE XLII

July - September, 2013

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From the MG Desk...

David Tibbetts, Newsletter Editor



In spite of the drought and water restrictions, it seems many of our neighbors have their irrigation systems on full automatic all the time - it is particularly distressing (to me anyway) to see a yard being watered in the midst of a downpour.

Other articles in this issue cover things that your editor has enjoyed or suffered since moving here almost 8½ years ago. These include oleander caterpillars, busy bees and blackberries. Hopefully, this information will be of use to many of you.

For those of you who are trying to improve your gardens and landscapes, see the article that starts on page 16, Creating a Garden We Love.

Q. My tomato plant leaves are getting very spotty right now. The spots are small with gray centers. What is it and how do I stop it?

A. With high humidity and continued rainfall over the summer months, we see a lot of fungus problems in many plants. Gray leaf spot is common on tomatoes and turfgrasses and is spread by overhead irrigation or excessive rainfall. Tomatoes do not like humid or wet conditions. So, it may be time to pull them up and try again in October. The other option is to avoid overhead irrigation and treat with a fungicide labeled for use on fruits and vegetables to control Gray Leaf Spot.

(Continued on page 21)



FLAGLER COUNTY EXTENSION SERVICE &
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Upcoming Programs at the Flagler County Extension Service:

University of Florida/IFAS Flagler County Master Gardener Volunteer Training Program

Do you have a passion for helping others? Do you want to learn more about Florida landscaping and gardening? Do you enjoy sharing your new-found knowledge with others? After completing the training program are you able to commit to a few hours of volunteer time per week? If you answered yes to all of these questions, we want to talk to you!

Applications are being accepted July 8th through August 2nd for the annual Flagler County Master Gardener training. This is a 12 week program held on Wednesdays from 9 am—4 pm starting September 25th through December 11th. Each day of class will cover a wide range of horticulture topics including soils, insects, diseases, landscape design, botany, trees and palms, fruits and vegetables, turfgrass and much more.

Call or stop by the Flagler County Extension Service or e-mail rmicieli@flaglercounty.org for an application packet.



The Good...

By David Tibbetts, UF/IFAS Master Gardener

Color for the Garden, Summer Annuals

Introduction. I have to admit that I have not (knowingly anyway) been one to plant annual ornamentals. I've tried various plants in my beds, but always with the thought of planting them and having them become permanent parts of my landscape. As many of you may know, I'm an avid vegetable gardener, at least when it comes to looking after vegetables at the Community Garden in Bunnell - my attention to my own vegetable patch has been, well, patchy. But then it occurred to me that all vegetables are pretty much annuals, so why am I spending so much time and effort on them, but shortchanging the rest of my landscape. So, I thought I'd look into what might be good plants for this time of year. Where to start - the Flagler Master Gardener book ([Guide to Successful Gardening in Florida's Zone 9A](#)) seemed like a very good place to start. This is the go-to publication for finding out what can be grown successfully in our county. In addition, the University of Florida has some great information (for example, Gardening with Annuals in Florida, publication CIR1134 from the website <http://edis.ifas.ufl.edu>). Finally, there are commercial growers who would love to sell you some of their new creations - one of these is Proven Winners, which can be found on the web at <http://www.provenwinners.com>.

For July through September, there are a plethora of heat tolerant annuals such as celosia, coleus, crossandras, impatiens, kalanchoe, moss rose, nicotianas, ornamental peppers, periwinkles, Persian violet, salvia, torenia, creeping zinnias, globe amaranth, purslane, marigolds, sunflowers, and wax begonia. Here are four easy to find annuals to add a burst of color and texture to your summer garden.



Various coleus hybrids

Coleus. This plant is grown for its beautiful foliage. It is classified an annual for our area, but can be brought inside (if potted) during the colder months, can be easily propagated by cuttings or seed.

There are over 150 cultivars to choose from with various color combinations, sizes and shapes to fit your needs. Certain varieties of coleus (generally the darker color foliage) can tolerate full sun, but the brighter colors thrive in shady areas. They prefer relatively moist soil but will revive quickly if it wilts in the heat when watered. Coleus can tolerate soils that are slightly acidic to slightly alkaline, but does not do well in salty areas. It's not native to Florida, but like many plants, is well adapted to our climate. Coleus will flower if it gets tall, producing purple blossoms, but these are not why it's in the landscape - these blossoms should be pinched off to keep its energies working to make beautiful foliage. (Source: *Coleus x hybridus* Coleus, <http://edis.ifas.ufl.edu/fp136>)



Ornamental Peppers

Ornamental Peppers. While at EPCOT earlier this year, I saw some amazing Ornamental Peppers, as well as ornamental versions of various other vegetables (kale and cabbage quickly come to mind). These are a striking addition to the landscape and can be grown in the ground or pots, and, if you are willing to experiment with potentially HOT stuff, the peppers that are produced may be eaten, just be very careful.

Ornamental Peppers reach 10 to 20 inches in height and are grown as annuals or pot plants, producing their colorful fruits from May until frost. In warmer climates (Zones 9B and south), Ornamental Peppers are perennial and actually one of the best bedding plants for hot weather conditions, performing beautifully as a ground cover in mixed flower borders, as an edging, or in containers. Fruits are available in a wide range of colors, from red, purple, yellow, orange, or white. Several colors are often seen at the same time on plants as the fruits ripen and change color. (Source: *Capsicum annum* Ornamental Pepper, <http://edis.ifas.ufl.edu/fp105>)

(Continued page 4)

The Good...(cont.)

Persian Violet. Also known as German violet, this 6 to 24-inch annual is incorporated into the landscape to take advantage of its beautiful blue blossoms and showy green foliage. It likes a spot in partial shade in an acidic soil of just about any type (sand, loam, clay). The small (1/4") flowers have bright yellow pollen masses and are fragrant. The plant is slow-growing, but if taken care of properly Persian Violet will provide dense foliage and blossoms that make a good ground cover.



Persian Violet

In Zone 9A, given the normal winter weather conditions, Persian Violet is an annual, but if the winter is sufficiently mild, it can make it through another season. The plant may be propagated from cuttings but is much more likely to be grown from seed, germinating in 7 - 21 days. Its origin is in the Yemen archipelago of Socotra. (Source: *Exacum affine Persian Violet*, German Violet, <http://edis.ifas.ufl.edu/fp208>)

Globe Amaranth. Globe Amaranth produces small, globe-shaped flowers in shades of purple, pink, yellow or white. The purple form is most common in retail nurseries. Most horticulturists utilize Globe Amaranth in a mass planting spacing them 12 to 18 inches apart. Others use them as small specimens in rock gardens or plant them in containers. They are also attractive planted in a row along a walk or patio as an edging plant.



Globe Amaranth

Flowers can be dried for indoor use if cut just before they are fully opened. The plant grows 18 inches tall, and prefers full sun, and a moderately dry soil. Globe Amaranth is resistant to heat and should not be over watered. It provides bright color to a garden or landscape where irrigation will be limited. Generally, it is unaffected by pests or diseases. (Source: *Gomphrena globosa* Globe Amaranth, <http://edis.ifas.ufl.edu/fp234>)

“Pot” Garden. In researching this article, I came across what I thought was a pretty neat idea for easily incorporating any number of annuals into the landscape with a minimum of fuss. Instead of planting your chosen ornamentals directly into the soil, “plant” a series of planter pots into the ground. The “planted” pots provide a ready resting spot for something that has been propagated elsewhere. Just drop the pot with your propagated plant in its pot into the empty pot you have ready. There is an up-front work requirement to put this idea into action, but it will pay dividends in the future with extremely simple planting. Don’t forget to water them!



Use post-hole digger to “plant” pots



Drop in instant color

Summary. These are but a very few of the options one can select to add color to the landscape. All of the above examples can be started from seed, but they might also be found for sale in any garden center or local plant nursery. While there were several examples of how these plants might be used in the garden mentioned in this article on each one, use your imagination!

If you need to get some other ideas and tips on colors and textures try some online plant breeder resources such as Syngenta Flowers (<http://www.syngentaflowersinc.com/default.aspx>) or Proven Winners™, (<http://www.provenwinners.com/>). Here you can find all sorts of ideas and find out what’s new each season based on your site and location.

(Source: Gardening with Annuals in Florida, <http://edis.ifas.ufl.edu/mg319>)



The Bad...

By: David Tibbetts, UF/IFAS Master Gardener

Armadillo

Introduction. Have you seen these cute little armored critters in your neighborhood? I have seen them just down the road from my house, happily rooting around in a yard that must have had something delicious (for an armadillo). For this reason, taken to its extreme, the armadillo is something of a benefit to the home gardener. That is, if the armadillo doesn't rip up the turf too much looking for its next meal. Unfortunately, armadillos typically do rip things up, not to mention digging holes under houses for their nests, and under fences to get to the houses. They are accomplished diggers, to say the least, and the average fence is no match if they REALLY want to get to the



Nine-banded Armadillo

other side.

The **nine-banded armadillo** (*Dasypus novemcinctus*), or the **nine-banded, long-nosed armadillo**, is a medium-sized mammal. It is found in North, Central and South America making it the most widespread of the armadillos. Its ancestors originated in South America, and remained there until thousands of years later when the formation of the Isthmus of Panama allowed them to enter North America. The nine-banded armadillo is a solitary, mainly nocturnal animal, found in many kinds of habitats, from mature and secondary rainforests to grassland and dry scrub. An insectivore, it feeds chiefly on ants, termites and other small invertebrates.

The nine-banded armadillo has been rapidly expanding its range both north and east within the U.S., where it is the only regularly occurring species of armadillo. The armadillo crossed the Rio Grande from Mexico in the late 19th century, and was introduced in Florida at about the same time by humans. By 1995, the species had become well-established in Texas, Oklahoma, Louisiana, Arkansas, Mississippi, Alabama and Florida, and had been sighted as far afield as Kansas, Missouri, Tennessee, Georgia and South Carolina. A decade later, the armadillo had become established in all of those areas and continued its migration, being sighted as far north as southern Nebraska, southern Illinois, and southern Indiana. The primary cause of this rapid expansion is explained simply by the species having few natural predators (cars?), little desire on the part of Americans to hunt or eat the armadillo, and the animals' high reproductive rate. The northern expansion of the armadillo is expected to continue until the species reaches as far north as Ohio, Pennsylvania and New Jersey, and all points southward on the East Coast. Further northward and westward expansion will probably be limited by the armadillo's poor tolerance of harsh winters, due to its lack of insulating fat and its inability to hibernate. In late 2009, North Carolina began considering establishment of a hunting season for armadillo, following reports that the species has been moving into the southern reaches of the state. In 1995, armadillos were only seen in the southern tip of South Carolina, and within two to three years, they had swept across most of the state.

Armadillo reproduction is interesting and unique in that four identical young (quadruplets) from a single egg are produced in each litter (see image). Armadillos are sexually mature at about one year of age and live reportedly for 12 to 15 years. Little wonder then that they occur in high densities commonly in Florida. Armadillos roam far and wide with a home range found to be over 12 acres in Florida studies.



Hole caused by a feeding armadillo



Armadillo quadruplets

The Bad...(cont.)

Thus, combating armadillos around the home will be a never-ending chore. As one is removed another will likely find the open territory.

As mentioned earlier, I have seen armadillos “grazing” in a neighbor’s yard here in Palm Coast. In Ocala, I’ve seen their nest holes and may have even have had one next to my house here, though I never actually saw an armadillo. If you’re like me, you’re just happy that they eat pest insects and hope that they don’t do too much damage in the process. But, if that’s not good enough for, what are the alternatives?

Management. The armadillo has no enemies, except when they cross the road. One solution is to get rid of its food supply in your yard. But this is not as easy as it sounds either. Among the many things that will sustain an armadillo are earthworms, and you probably don’t want to get rid of all your earthworms. A second option, if you’re dealing with an armadillo nesting in your landscape, is to fill its burrow(s) with soil and put a piece of hardware wire in the entrance hole in the evening when they are out of the hole foraging. If you’re lucky, the armadillo(s) will get startled and discouraged and go elsewhere. Option #3 that is sometimes mentioned, is to do-it-yourself trap the animals. While this is relatively straightforward, it leads to the problem of what to do with the armadillo once you’ve trapped it? Live trapping any animal and releasing it on any property other than your own is UNLAWFUL without a permit issued from the Florida Fish and Wildlife Conservation Commission and permission from the landowner you plan to relocate it to. That leaves euthanasia for the do-it-yourself trapper - and

by law it must be done within 24 hours of capturing the animal, so this step must be considered before setting the trap.



Trapped armadillo - for reference the yellow object is 12” long and 3” wide

Suffice to say, the best idea, to me anyway, is to try to deter the armadillos from continuing residence near one’s home. The next best alternative, again to me anyway, is to hire a wildlife control company to do the trapping and disposal job.

Summary. Armadillos are incredibly interesting to look at in the wild, but in our

own backyards, not so much. If you do end up with armadillos in your yard, try to ward them off by reducing the population of whatever drew them there. If they take up residence, try to get them to abandon the burrow by regularly (like everyday until they leave) filling in the entrance hole. There is no known repellent except maybe a very persistent dog (is there an armadillo terrier?). If an armadillo problem becomes unbearable, strongly consider hiring a wild animal control company to take care of it. They will have all the necessary traps, the know-how of where to place them, but especially the know-how to take of the animal once it has been trapped.



Humane trap at top with makeshift armadillo ‘funnel’ below it leading to the burrow entrance

Resources: Trapping the Nine-banded Armadillo, by Dr. Russell F. Mizell, III
The Nine-Banded Armadillo, Shaefer, Hostetler, <http://edis.ifas.ufl.edu/uw082>
Wikipedia, Nine-Banded Armadillo, http://en.wikipedia.org/wiki/Nine-banded_Armadillo
MyFWC website, <http://myfwc.com/conservation/you-serve/assitnuisance-wildlife>



and the Bugglies

Mole Crickets

Introduction. The mole cricket is often one of the first things to be blamed when something goes wrong with a homeowner's turfgrass. It's either the mole cricket or the chinch bug that's first to be blamed, when often the culprit is the dread "cultural practices." The bugs get invited in when we stress our lawns with too much or too little of several things. We may be stressing the lawn by mowing too low, with dull blades, fertilizing too much or too little, or, probably most frequently, using too much or too little water.

What is a Mole Cricket? Mole crickets are common turfgrass pests. Three species of mole crickets are considered pests in the Southeast United States: tawny, southern, and short-winged mole crickets. This insect's "hands" are uniquely adapted for digging, allowing it to tunnel through the soil. Sod farms, home lawns, golf courses, and pastures can all play host to mole crickets. Any species of turfgrass can be damaged by mole crickets, but they particularly like Bahiagrass and Bermudagrass.



Mole Cricket

What Do They Do? Mole crickets make tunnels in the ground, severing grass roots and causing the earth to bulge upwards. They also eat the roots and shoots of grass. Mole cricket damage looks like brown patches. Predators such as raccoons and armadillos may further dig up the turf to snack on the crickets.

When Are They Active? Mole crickets do the most damage from late August to early October. There is one generation of mole crickets per year, with eggs typically being laid in April and May. Mole crickets are nocturnal, which means they do their dirty work at night.

How Can I Tell If I Have Mole Crickets? An easy way to determine whether there are mole crickets in your yard is to mix 1.5 ounces of liquid dishwashing soap into 2 gallons of water and sprinkle the mixture over 4 square feet of turf. If two to four mole crickets appear within three minutes of application, corrective action is justified.



Mole Cricket turf damage (left)
& tunnel tracks (right)

Management Options. Besides good cultural practices, pesticides have been used to combat these winged pests. University of Florida researchers have recently been looking at alternative methods of control. While liquid and granular insecticides do remain an option, UF scientists think that using beneficial insects on your lawn or golf course will more easily do away with the little diggers--at virtually no cost to you.

Biocontrols: A Safe, Thrifty Approach. Many insects have become pests in the United States because they came from other countries and had no predators here. With nothing to keep them in check, their populations exploded. The mole cricket, which arrived as a stowaway from South America, is a perfect example. Biocontrol (short for "biological control") means using a beneficial animal to combat a pesky one. Scientists look to the homeland of a foreign invader to find its natural enemies and then import them into our environment. The benefits of biocontrols are many. They are cheap to establish; safe for humans, pets, and livestock; require little to no maintenance; and do not pollute. They are also often more effective than pesticides.

"Bugs are not going to inherit the earth. They own it now. So we might as well make peace with the landlord." ~ Thomas Eisner

and the Bugglies (cont.)

Why Not Pesticides? Pesticides are a valid option for dealing with mole crickets--and a sometimes necessary one--but they do have drawbacks. Pesticides require regular reapplication, which costs you money. They also create potential hazards. Beneficial pollinators such as bees may suffer from pesticides. Rain or sprinklers may wash pesticide runoff into groundwater, which comes up through our taps. Biocontrols are most successful when the control is very specific to the pest. Biocontrols seek to reestablish population equilibriums rather than bombard a lawn or garden with chemicals that target every insect.

Specific Biocontrols: The Larra Wasp. The *Larra bicolor* wasp--one of the mole cricket's natural enemies--is called a "parasitoid" because its young feed off mole crickets, though the adults live on nectar. The wasp lays an average of two to three eggs per day, or up to one hundred in a lifetime. Each one of these eggs is laid on a mole cricket. When an egg hatches, the wasp larva sticks to the cricket, feeding off its blood. When the wasp is fully grown, it eats the mole cricket it has lived on. There is a one hundred percent death rate for mole crickets that play host to a *Larra* wasp.



Larra wasp on a mole cricket

Each generation of wasps kills about twenty-five percent of the local mole cricket population--and there are three generations of wasps per year to one generation of mole crickets. *Larra bicolor* wasps do not sting humans unless caught and held in the hand. They are solitary, which means they have no nest to defend. It is more beneficial for them to flee than to sting. At least thirty-one Florida counties are home to the wasp today, and they're spreading. It's simple to encourage these wasps to visit your property. Simply plant their favored host wildflowers--*Spermacoce verticillata* and/or *Chamaecrista fasciculata*--in the vicinity of your lawn; sit back; and watch nature work.

Host Plants for the Larra Wasp. Commonly known as "shrubby false buttonweed" and "partridge pea," respectively, *Spermacoce verticillata* and *Chamaecrista fasciculata* are much cheaper than chemical treatments to install and require little to no maintenance. Because they are wildflowers--weeds, in essence--they are used to growing without fertilizer, irrigation, or other assistance from humans. Both shrubs are perennials and can grow up to two feet tall. They produce yellow, odorless compound flowers with leaflets roughly 2/3" in length. In North and Central Florida, shrubby false buttonweed provides great coverage from July through the first freeze. Partridge pea blooms from May to October. In South Florida, they may bloom year-round. UF's Department of Entomology and Nematology recommends installing these plants before mole crickets are a problem on your property. This preemptive action will greatly reduce your risk of ever having mole crickets. Should the little pests find their way to your turf, the wasps are already on hand to deal with them.



Larra flower, *Spermacoce verticillata*



Partridge pea- *Chamaecrista fasciculata*

You can plant buttonweed and partridge pea from seed or as a whole plant. The shrub can take up to a year to grow if you plant from seed, so if you're in a hurry, purchasing and installing a fully-grown plant is probably the best option. Contact your county Extension office for information about where to purchase these plants. Nurseries specializing in Florida native plants are likely to stock one or both of them.

"Bugs are not going to inherit the earth. They own it now. So we might as well make peace with the landlord." ~ Thomas Eisner

Another Biocontrol - Beneficial Nematodes. Nematodes, in general, are elongate, cylindrical worms belonging to the phylum Nemata (or Nematoda). Most are microscopic in size and, as a phylum, occupy many ecological niches. There are both beneficial and harmful nematodes.

The harmful nematodes are those that parasitize plants and animals, including man. Beneficial nematodes are those that play a role in the decay of organic matter, and those that man can use to control pests. One member of the latter group is *Steinernema scapterisci* (STEIN-er-NEM-a scap-te-RISK-ee). Although the nematode does not have an official common name, it is generally called the mole cricket nematode. The use of this nematode is currently licensed by the University of Florida to Becker Underwood which markets it in a biopesticide formulation called **Nematac™ S**, which attacks only pest mole crickets. It only infects adult and large immature mole crickets (1 – 1½ inches long) that are most abundant in September through November and February through April in Florida. The nematodes cannot harm children, pets, wildlife, or plants.



Mole cricket nematodes, *Steinernema scapterisci* Nguyen & Smart, emerging from a mole cricket. Photograph by K. Nguyen, University of Florida.

Summary. Mole crickets are a threat to lawns in Florida. The damage they do looks like that caused by a variety lawn pests or problems. However, once the problem is identified, corrective action can be taken using Integrated Pest Management strategies including cultural methods, biocontrols and/or pesticides. Your local UF/IFAS Extension Service can assist in the identification and eradication of a mole cricket problem.

References:

Mole Crickets: http://solutionsforyourlife.ufl.edu/hot_topics/lawn_and_garden/mole_crickets.html, How to Use Beneficial Nematodes Against Pest Mole Crickets in Home Lawns (http://ipm.ifas.ufl.edu/pdf/MC_brochure_8-29.pdf), http://entnemdept.ufl.edu/creatures/nematode/mole_cricket_nematode.htm



Fresh from Florida

Florida Sweet Corn

There's nothing better during the summer than an ocean breeze, a barbeque grill going and fresh Florida corn on the cob!

Did you know:

- Florida ranks #1 nationally in the production and value of fresh market sweet corn, typically accounting for approximately 20 percent of both national sweet corn production and of U.S. cash receipts for fresh sales (1).
- Sweet corn has typically ranked as one of Florida's four most valuable vegetable crops.
- ◆ Sweet corn seeds can be planted any time from August through April, depending on the specific production region. However, growers usually plant in north Florida from February to April, in central Florida from January to April, and in south Florida from October to March.
- ◆ Standard spacing allows for approximately 30 inches between rows, with seeds typically planted about one inch deep, 6-8 inches apart.
- ◆ Adequate water is especially important in sweet corn production during periods of silking and tasseling and of ear development.
- ◆ Corn intended for local markets remains marketable for up to 2 days without pre-cooling, as long as it is kept cool after harvest. Researchers in Florida are also developing procedures for preparing and handling fresh-cut sweet corn kernels, which they believe to be a potentially successful marketing alternative for sweet corn, given the increasing popularity of fresh-cut vegetables.
- ◆ The entire sweet corn crop in Florida is sold on the open market. Sweet corn harvest can occur from mid-November through mid-July, with the most active harvest period occurring from April through May. Sweet corn ears are harvested only once, using either hand or mechanical methods.

Reference: <http://edis.ifas.ufl.edu/pi034>, florida-agriculture.com.



- ◆ Indian corn was cultivated in North and South America long before Columbus reached the shores of the New World. The first written record of corn in North America is found in Icelandic Sagas as early as 1006. Corn (maize) was bound closely to the great Native American civilizations, but sweet corn was primarily a minor or local crop for fresh markets in the United States until after World War II.
- ◆ When selecting sweet corn, whether it is yellow or white, look for even rows of fresh, tender, plump, milky kernels just firm enough to offer slight resistance to pressure. If corn is in the husks, select ears with bright green "snug" husks. Over-mature corn is identified by large, excessively firm kernels, which are usually deeper in color than at the most desirable stage of maturity. If corn is bought in husk, remove husk and silks, dip in a cold water bath, and wrap with plastic wrap. Fresh sweet corn is best when used the same day it is purchased.
- ◆ Pre-packaging does not take the place of refrigeration, and corn held at room temperature will rapidly lose its sugar content. The typical shelf life is four to six days.
- ◆ Sweet corn provides vitamin A and B and is very low in sodium.

By Chef Justin Timineri

Chef Timineri is the culinary ambassador and executive chef for the State of Florida. His mission is to encourage everyone to rediscover fresh, healthy Florida cuisine.

Florida Corn, Tomato and Avocado Salsa

Ingredients

4 ears corn, roasted and kernels removed from the cob
 2 large tomatoes, diced
 1 large avocado, peeled, seeded and diced
 1/2 cup red onion, chopped fine
 1/2 cup bell pepper, chopped fine
 1/4 cup fresh cilantro, hand torn
 1 lime, juiced (plus more if desired)
 1 teaspoon powdered cumin
 your favorite hot sauce (for heat)
 sea salt to taste
 fresh ground pepper to taste

Directions

1. In a medium-sized mixing bowl, combine all ingredients.
2. Stir to combine.
3. Taste and adjust seasoning with salt, pepper and hot sauce.



Sweet Corn and Ricotta Fritters

Ingredients

2 ears fresh sweet corn, kernels removed
 1/2 bunch fresh cilantro, chopped fine
 4 ounces low-fat ricotta cheese
 2 large eggs, beaten
 1/3 cup self-rising unbleached or whole-wheat flour
 olive oil (for shallow pan frying)
 kosher salt to taste
 fresh ground pepper to taste

Directions

1. In a medium-sized bowl, combine corn, cilantro, ricotta, eggs, flour and a pinch of salt and pepper. Add a small amount of olive oil to a medium-high preheated sauté pan.
2. Carefully add spoonfuls of the corn mixture to the hot pan. Cook on both sides until golden brown. Test the first done fritter, and adjust seasoning with salt and pepper.
3. Serve with low-fat sour cream if desired.





The Urban Forest

By Gilman & Watson, *Betula nigra*: River Birch (<http://edis.ifas.ufl.edu/st094>)

River Birch

Introduction. River birch can grow 50 to 90 feet tall but is often seen 40 to 50 feet. It normally grows with a central leader and small-diameter, dark-colored lateral branches. It has a narrow, oval to pyramidal crown when young, spreading wider with age as several branches become dominant. It lacks the white trunk bark associated with other birches but is distinguished by reddish, brown bark peeling off in film-like papery curls providing interest all year round. River birch can be easily trained with one central leader or as a multi-stemmed tree. Some nurseries plant two or three trees together to form a clump, but these trunks will not fuse into one strong trunk. It should be grown more as a single-trunked specimen. Branches droop particularly when they are wet, so regular pruning in the early years will be required to remove lower branches when they are located close to areas where clearance is needed for pedestrian or vehicular traffic.

General Information.

Scientific name: *Betula nigra*
 Pronunciation: BET-yoo-luh NYE-gruh
 Common name(s): River Birch
 Family: *Betulaceae*
 USDA hardiness zones: 4A through 9A
 Origin: native to North America
 Invasive potential: little invasive potential
 Uses: hedge; street without sidewalk; screen; shade; specimen; deck or patio
 Availability: not native to North America

Description.

Height: 40 to 50 feet
 Spread: 25 to 35 feet
 Crown uniformity: symmetrical
 Crown shape: upright/erect, pyramidal, oval
 Crown density: dense
 Growth rate: fast
 Texture: medium

Foliage.

Leaf arrangement: alternate
 Leaf type: simple
 Leaf margin: double serrate
 Leaf shape: rhomboid, ovate
 Leaf venation: pinnate
 Leaf type and persistence: deciduous
 Leaf blade length: 2 to 4 inches
 Leaf color: green
 Fall color: yellow
 Fall characteristic: not showy



Mature River Birch



River Birch foliage

The Urban Forest (cont.)

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Flower.

Flower color: brown
Flower characteristics: not showy

Fruit.

Fruit shape: elongated
Fruit length: 1 to 3 inches
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: does not attract wildlife; not showy; fruit/leaves not a litter problem

Trunk and Branches.

Trunk/bark/branches: branches droop; very showy; typically multi-trunked; thorns
Pruning requirement: little required
Breakage: resistant
Current year twig color: reddish, brown
Current year twig thickness: thin
Wood specific gravity: unknown

Culture.

Light requirement: full sun, partial sun or partial shade
Soil tolerances: clay; sand; loam; acidic; extended flooding; well-drained
Drought tolerance: moderate
Aerosol salt tolerance: low

Other.

Roots: not a problem
Winter interest: yes
Outstanding tree: yes
Ozone sensitivity: tolerant
Verticillium wilt susceptibility: resistant
Pest resistance: resistant to pests/diseases



River Birch flower



River Birch bark

Use and Management. It is very well-suited for planting along stream banks where it is native and in other areas which are inundated for weeks. River birch tolerates low soil oxygen, flooding, and clay soil but needs moist conditions. The tree requires an acid soil, otherwise it becomes chlorotic. River birch is hardy, grows rapidly, but tends to be short-lived (30 to 40 years) in many urban settings, possibly due to inadequate water supply. Situate the tree so it receives adequate water. Large trees are prone to trunk decay. It is not a tree to plant and forget due to irrigation requirement.

The tree is not as susceptible to bronze birch borer as are other birches. It is not particularly adapted to heat but can make a nice tree in USDA hardiness zone 8b, possibly 9a, if provided with irrigation and plenty of soil space. It is not suited for confined street tree pits or tree lawns in the south. The yellow fall color display is of short duration.

The cultivar 'Heritage' grows 50 feet tall, has an oval shape, and scaly bark that is beige in color and is the closest to a paper white birch that will survive in hot areas; it grows from Minnesota to Florida. It is also tolerant of poor drainage. It is reportedly resistant to bronze birch borer and unlike most birches it is resistant to leaf spot. It is more vigorous than the species.

Pests. No pests are of major concern. Resistant to bronze birch borer.

Diseases. Leaf spots; chlorosis on soils with a high pH.

Garden Calendar

From: Guide to Successful Gardening in Florida's Zone 9A, by Flagler County Master Gardeners

July

General

If it does not rain, water no more than twice per week, putting down approximately 1/2 to 3/4 of an inch of water each time.

Lawn

If sedges are causing a weed problem, check your irrigation and soil drainage. Sedges prefer wet sites. If persistent problem, spot treat with imazaquin or Basagran. Follow label instructions.

If mole crickets are damaging the lawn, begin applying mole cricket bait to control them. Follow the label instructions. See the article in this newsletter for other methods of control.

Food Garden

Pumpkins can still be planted.

Fruit

Guava should be checked for ripeness this month.

Fertilize citrus trees with a citrus fertilizer.

Landscape

Fertilize palm trees with a palm fertilizer containing three to four percent magnesium sulfate.

Check mulch around all flower beds. If dry and stuck together, break apart with a rake. If mulch is less than two inches thick, add more. Do not mulch over two inches. Be sure mulch is pulled back from shrub and tree trunks to protect against moisture-caused diseases.

Remove seed heads and old flowers from crape myrtles. Deadheading spent flowers will encourage more blooming.

Plants that have become too leggy due to summer rains should be cut back. Trim no more than one third of the plant.

Watch pyracantha and junipers for spider mite damage. Spray with horticultural oil sprays weekly for at least 3 weeks or apply a miticide to control them.

Annuals that can be planted now are celosia, coleus, crossandras, impatiens, kalanchoe, moss rose, nicotianas, ornamental peppers, periwinkles, Persian violet, salvia, torenia, creeping zinnias, globe amaranth, purslane, and wax begonia.

Check trees for weak limbs and have them trimmed or removed. Hurricane season started in June. Be prepared.



Hibiscus

August

General

If it does not rain, water up to twice a week, putting 1/2 to 3/4 inch of water each time.

Lawn

Mow weekly, but be sure to follow mowing height guidelines for your grass. Use upper height of guidelines to protect lawn in summer heat. (Mowing height guidelines: Bahiagrass: 3"-4", Bermudagrass: 1/2"-1 1/2", St. Augustinegrass: 3"-4", Zoysia: 1 1/2"-2".)

Yellowish or brown patches of St. Augustinegrass along sidewalks and driveways and other water-stressed areas where the grass is in full sun may be caused by chinch bugs. Check for chinch bugs by fillings one gallon jug with water. Add two tablespoons of liquid dish soap, shake until sudsy and pour on area at the edge of the dead spot(s). After a minute or two, check for small bugs in the soap bubbles. Spot treat for chinch bugs with an approved insecticide or refer to the local UF Extension for additional information. Rotate the type of insecticide used to prevent chinch bugs developing an immunity to one insecticide. If in doubt, bring a sample of the complete plant to the local UF Extension Service. For mole crickets, apply a mole cricket bait. Follow the label instructions for application rates and frequency.

Food Garden

Start your cool season crop seeds this month. Crops that can be planted: pole beans, sweet corn, eggplant, okra, southern peas, peppers, pumpkin, summer squash, winter squash, watermelon, tomatoes, and cucumbers.

Fruit

Pineapple should be checked for ripeness this month.

Landscape

This is the last month to "shape" poinsettias by cutting back. Do not pinch or prune after August.



Princess Flower

Spray roses weekly with a fungicide labeled for black spot fungus.

Annuals and perennials to plant this month include coleus, marigolds, salvia, verbena, ornamental peppers, nicotiana, and sunflowers.

If you cut back summer annuals, you can get new growth, bushier plants, and more flowers. Wax begonias, coleus, and impatiens respond well to being cut back.

Hand pull weeds rather than cultivating to protect the roots of your plants.

Yes, it's hot! It's a good month to sit back and enjoy your earlier efforts from the pool!

September

General

If it does not rain, water up to twice per week, putting down one inch 3/4 inch of water each time.

Lawn

Fertilize with a 15-0-15 slow release fertilizer.

Fill in dead areas with plugs or sod. Water them regularly after planting.

Food Garden

It's time to prepare the garden and plant your fall vegetables. Cool season crops that can be planted are beets, broccoli, Brussels sprouts, cabbage, carrots, cauliflower, endive, kohlrabi, leek, lettuce, mustard, parsley, radish, summer squash.

Fruit

Check peach trees for scale. If present, spray with horticultural oil as needed.

Fertilize pears, grapes, and figs with a complete, slow-release fertilizer.

Fertilize citrus with a citrus fertilizer containing at least two percent magnesium.

Grape vines that are long and lacking leaves can be pruned back.



Snapdragon

Landscape

Fertilize azaleas, bougainvilleas and poinsettias with a slow-release fertilizer.

Fertilize palm trees with palm tree fertilizer.

Inspect roses weekly for black spot fungus. If necessary, apply a fungicide labeled for black spot fungus.

A nice fall planting is digitalis (Foxglove). You can also plant wax begonias, Shasta daisy, marigolds, pansy, petunia, snapdragon, and verbena.



Garden Design

Finding Inspiration for a Design Theme (part 1)

Most homeowners have some idea of the features they would like to have in their yards and how they want to use them, yet they are often unsure of their choices and how to put it all together in an appealing and functional design. A design theme can offer inspiration and guidance for making decisions about which features to include, appropriate materials, and spatial organization. Understanding how to use a theme for design guidance can be helpful for finding a theme that works for your yard. Themes can be identified and reproduced, which makes them useful for creating a visually pleasing and functional yard.

Design Themes

A landscape designed around a theme has identifiable characteristics, such as specific built features, distinguishing materials, a signature form, and recognizable spatial organization.

Many themes are culturally historic and very well defined, such as traditional Italian or Japanese gardens (Figure 1). They have been used for centuries in a particular culture and are easily identified. Other themes are newer, less defined, and although they have identifiable characteristics, they tend to have several variations. For example, a minimalist garden, which is a simple design, can be different forms or types, including formal, informal, urban, tropical, or desert. Using a design theme is helpful because most of the decisions that must be made about the landscape



Figure 1. Japanese Garden Theme
(Credit: Gail Hansen)

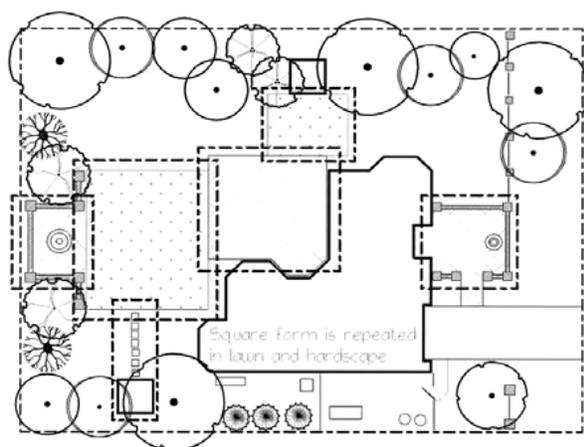


Figure 2. Square forms repeated in the landscape
(Credit: Gail Hansen)

are already made—they are inherent in the theme. A design theme can be based on a form (Figure 2), a style, a type of landscape, or a combination of any of the three. One important distinction is that all landscapes have a form because everything has form, but not all landscapes have an identifiable style or type. For example, many yards in today's suburban neighborhoods and gated communities are not considered a traditional style, but they have form in the ever-present foundation plant beds with curved lines and large lawns. American suburban yards have become so generic and

(Continued on page 18)

Garden Design (cont.)

identifiable that they could now be considered a landscape style—perhaps American classic? Landscape forms, styles, and types have different characteristics and functions, as described below.

Landscape Forms

Design themes based on landscape forms are the easiest to recognize because they are characterized by a distinct form. Forms generally fall into two categories—geometric and naturalistic—and most gardens include both forms. Geometric forms are typically found in the hardscape, and they include rectangles (Figure 3), circles (Figure 4), and polygons (Figure 5). Naturalistic forms are most often found in the plant material. Geometric forms work well for repetition and organization in the garden. Squares can be segmented and arranged in grid patterns, circles can be segmented and used with lines to create arcs and tangents, and irregular polygons can be used to fit in odd-shaped spaces. Geometric forms are often considered to be for-



Figure 3. Rectangular (square) form theme (Credit: Gail Hansen)



Figure 4. Circular form theme (Credit: Gail Hansen)



Figure 5. Polygon (angular) form theme (Credit: Gail Hansen)

mal. A number of design styles are associated with a particular form; for example, a garden with an Italian theme typically incorporates rectangular forms.

Naturalistic Forms

Naturalistic forms tend to be informal. As the name implies, these are forms that are found in nature and imitated or used in a more abstract manner in the design. The emphasis is typically on the arrangement of materials to appear natural and not the function, unless it is a re-created ecosystem, such as a restored wetland. Plants and land forms (creeks, rocks, hills, and valleys) have a variety of Naturalistic Forms

Naturalistic forms tend to be informal. As the name implies, these are forms that are found in nature and imitated or used in a more abstract manner in the design. The emphasis is typically on the arrangement of materials to appear natural and not the function, unless it is a re-created ecosystem, such as a restored wetland. Plants and land forms (creeks, rocks, hills, and valleys) have a variety of forms, including meandering lines, organic edges, and fragmented edges. Meandering lines are often used for plant bed edges and pathways, and organic and fragmented edges are used to make built features, such as dry creek beds and rock gardens, look more natural (Figure 6).



Figure 6. Naturalistic form theme (Credit: Gail Hansen)

Next issue: part 2, Landscape styles, types and finding theme inspirations.



The Bistro Garden and Florida Friendly Landscape Project at Flagler Palm Coast High School

by Ruth A. Micieli, Horticulture Program Assistant & Master Gardener Coordinator,
UF/IFAS Flagler County Extension

K I D Z

O Did you know Flagler Palm Coast High School has a Bistro? Not only that, they also have a Culinary Arts program that operates a full commercial kitchen and dining room under the instruction of Ms. Savoka. One of the items on her “wish list” was to have a culinary garden that she and her students could use.

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N Back in 2011 Johanna Davis, FFA and Ag Foundations instructor at the High School was presented with this project. She in turn had contacted us to help and teach the students to design a plan to enhance the entrance to the Bistro. We worked with the students teaching basic landscape design, Florida Friendly Landscaping™ and coming up with a plant and supply list. Naturally, not much by the way of funding was available for this project at that time. So the idea was put “on the back burner”.

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Then, in August 2013, I received an e-mail from Mrs. Davis letting me know there was a new “Partner” interested in this project. Trish Reonas runs the Service Learning Program that was based at Linear Park in Palm Coast. They are still very much involved with the park, but are housed in the 600 building next to the Bistro. So, the Service Learning students took on the project with some grant money Ms. Reonas applied for and was awarded this year.

Master Gardener Volunteer Fran Atkinson and I worked with this new group of students every third Friday in the classroom and on the site teaching them how to plan a landscape, design plans, plant lists, hardscaping, and implementing several types of gardens in the overall plan.



Bistro Entrance– before

This group came up with several fantastic ideas for the property including a culinary garden in raised beds, butterfly garden, screening around the base of a portable classroom, rain barrels, picnic area, rock garden and our favorite, a Zen garden where students could relax and meditate.

Since the focus was to enhance the Bistro, the students included an arbor to welcome visitors to the Bistro. They coordinated with the wood shop class to build the arbor and 2 lattice screens to cover the air conditioner unit. The Arbor now has confederate jasmine climbing up it's framework and the lattice screens have star jasmine on them.

(Continued page 20)

The raised beds for the culinary program were planted with nasturtium, basil, oregano, cilantro, dill and arugula. The culinary students also learned how these plants grow, what parts to use and how to maintain them. They also enjoyed picking fresh herbs and greens right outside their classroom door!

This was a very good example of how to get different resources together to create one beautiful and functional landscape.

Thanks to all those involved especially the students to make this project a success!



Bistro Entrance— after



Culinary Program classroom herb gardens and rain barrels.



(Continued from page 1)

Q: I have dead spots in my Zoysiagrass lawn that is light brown in color. My dogs tend to use that area for their “bathroom”. Will that kill the grass? How can I get it green again?

A: Pet urine and feces can cause brown patches in the turfgrass. The problem is actually an excessive amount of nitrogen from the urine into the grass and soil. Female dogs cause more damaging burns because they tend to squat in the same place. So what do you do? One suggestion is to clean up the dead grass blades and keep the dogs off that area until the grass recovers. Training your dog to do their “business” in a designated area is another option. Flushing the area with water will help dilute the nitrogen and salt build up.

There are some products on the market that claim to neutralize the urine with a tablet you feed to the dog. There are other products applied to the grass that neutralize the nitrogen and salt. Zoysiagrass is a pretty tough turf and most times will recover and grow back in that area if given time to do so.

Q: How much water should I apply to my lawn and landscape plants during the summer?

A: If we are getting at least 1-2 inches of rain per week, you can shut off your irrigation system. That is all the plants need. Keep landscape beds mulched with 2-3 inches of organic mulch to help regulate soil temperature and retain moisture.

This will save you a lot of money if you are using municipal water supply to irrigate your landscape! If you have an irrigation well, save your water for the times you do need to irrigate such as periods of drought and the dry season.



Gardening in the Bag

If you're a gardener, chances are you've purchased bags of potting mix before, maybe when you needed to repot other plants.

But did you know that you can grow plants directly *in* the bags?

Gardening in potting mix bags is a great way to grow eye-catching plants underneath a rooty tree, or to set up a quick and easy vegetable garden.

Purchase bags at your local nursery or garden center, and cut a few drainage holes in the back side of each bag. Lay the bags flat on the ground, and then cut holes in the top of the bags to make room for the plants. Use a hose to moisten the potting mix, and then add plants.

If flowers are your favorites, try colorful annuals or perennials. Or if you prefer edibles, try growing herbs, tomatoes, or other vegetables.

UF Resources For Gardeners

- Solutions For Your Life
<http://solutionsforyourlife.com>
- UF/IFAS Publications (EDIS)
<http://edis.ifas.ufl.edu/>
- Florida Yards & Neighborhoods
<http://fyn.ifas.ufl.edu>
- UF Environmental Horticulture Dept.
<http://hort.ufl.edu/>
- Florida Master Gardener Program
<http://mastergardener.ifas.ufl.edu>
- Florida-friendly Landscaping
<http://www.floridayards.org/>

For more information, contact your county Extension office or visit GardeninginaMinute.com.

Gardening in a Minute is a production of the University of Florida's Environmental Horticulture Department, IFAS Extension, and WUFT-FM.