



Feeling Like Johnny Appleseed? Growing Plants from Seed

By Nancy Hammer, Master Gardener Volunteer 2014

In a previous issue, we covered plant propagation by stem cuttings. In this article, we will discuss growing plants from seed. Many vegetables, annuals, perennials, herbs, shrubs, and trees can be started by seed, and growing from seed can be an inexpensive way to produce large numbers of plants. This method also gives the gardener more choices, as plant varieties can be limited at garden centers. Some plants are more easily grown from seed than by cuttings and other vegetative methods. One difference between propagation with cuttings and by seed is that there can be variation between plants with seeds.

Plastic pots, cell packs, or trays (with drainage holes) that are deep enough for root growth are ideal for starting seeds. Later, seedlings can be transplanted to larger containers or into the landscape. With some seeds, planting directly into the garden yields a better outcome.

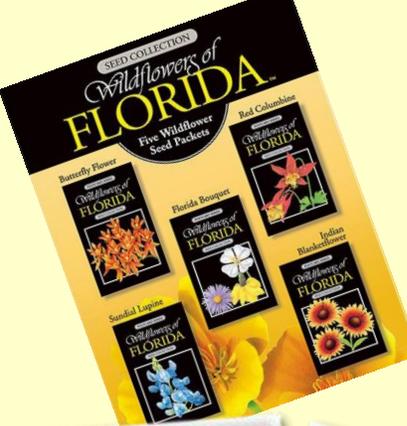
Begin with moistened seed starting mix or potting mix in your containers, and sow the seeds per package instructions. Generally, seeds should be planted at a depth of 1 to 2 times their diameter, but there are exceptions. Mist regularly to maintain even moisture (but not overly wet) or place the moistened seeded containers in sealed plastic bags to maintain humidity. Optimal growing temperatures for most seeds are between 70 and 80 degrees F. Place containers in indirect light until germination, then for sturdy seedlings, gradually increase light. If using sealed plastic bags, remove once seedlings are firmly established, and maintain even soil moisture.

For purchased seeds, carefully follow package directions for any seed treatments, planting depth, light requirements, days to germination, thinning, when to transplant, and other important information.

Refer to the online publications “UF Landscape Plant Propagation Information” (LPPI), “UF/IFAS Plant Propagation Techniques for the Florida Gardener,” or call the Master Gardener Plant Clinic for the best methods of propagation of specific plants. Where plants can be started from seed, the above publications will also provide critical information to ensure success.

Perhaps you want to save seed from some of your landscape plants for propagation. Some will be ready to harvest when seed heads are mature and dry. Others will be surrounded by pulp and must be cleaned and dried. Dry seeds on waxed paper for 2-4 weeks before sowing or storing in air tight containers in your refrigerator. Seed from open pollinated plants will result in plants that look like the parent plants, but seed collected from F1 hybrids will likely produce plants that are very different. Therefore, you are better off purchasing seed for hybrid plants. See the online publication “UF/IFAS Seed Saving” for more information, as well as the publications in the previous paragraph, for details on collecting seeds from specific plants.

Whether paging through seed catalogs for interesting plants, trading seeds with fellow gardeners (see the article in this issue by Mack Lessig regarding seed exchanging), or collecting seed from your landscape – growing plants from seed can be rewarding. Give your Johnny Appleseed a go!





Remove Invasive Plants with a Financial Boo\$t from Manatee County!

By Amy Stripe, Master Gardener Volunteer 2008

Manatee County's Neighborhood Enhancement Grant program offers a matching fund of up to \$10,000 for HOA's and community groups to beautify their neighborhoods. Removal of invasive plant species is among the beautification programs they will help fund.

To quote their website: "Applications must demonstrate community support and involvement in both the application and implementation phases of proposed projects/programs." Projects must be completed within 12 months of receiving funding.

Also, "Homeowners associations and other resident-based groups located in Manatee County are eligible to apply. Groups must be comprised of neighborhood residents and stakeholders, and the project or event must be held in the same neighborhood."

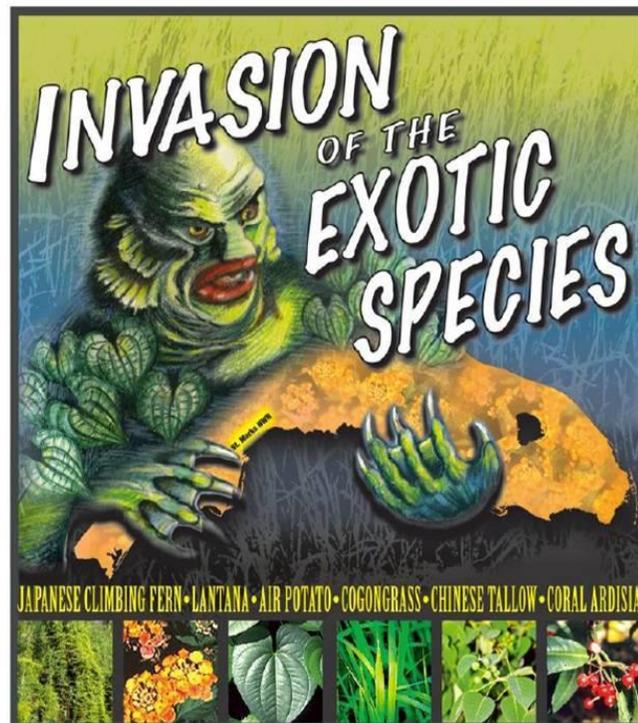
For information contact Debbie DeLeon, Neighborhood Services Coordinator:

- (941) 749-3030
- <https://spark.adobe.com/page/Yc7DRSkMFC5NL/>

Eligible projects include anything that is protecting water and energy resources, and native plants and animals. (Note: Only Florida-Friendly landscaping will be considered.) Examples:

- Improving water quality in our watersheds (ditches, canals, retention ponds),
- Removing invasive species (Brazilian Pepper, Air Potato, etc),
- Habitat enhancement for native animals.

County funds are limited, so be patient and prepare your application carefully.



Under-Utilized Native Plants for your Florida Landscape

By Norma Kisida, Master Gardener Volunteer 2012

Area gardeners may be familiar with many of our wonderful and commonly used native landscape plants such as firebush, wild coffee, coontie, and coral honeysuckle vine. However, many less familiar native plants are beautiful in the home landscape. Having taken several native garden tours as well as being a frequent visitor to our native plant nurseries, I have discovered some less common ones that do well in gardens. Although there are many more great natives, in this article I will describe a ground cover, a shrub, a vine, and a small tree.

<p>Creeping Sage <i>Salvia misella</i></p>	<p>Creeping sage is a very low growing, short-lived perennial that spreads 3-5 feet. It does very well in shade, part shade, or sun and forms a dense ground cover. The foliage is interesting and fragrant, and the flower is blue. Creeping sage is dormant in winter. For butterfly lovers, it is a larval host for Fulvous Hairstreak butterfly.</p> <p>Propagate this sage by seed, by dividing the root ball, or from stem cuttings. Creeping sage is tolerant of a wide range of soil moisture but is not salt tolerant. Although it may spread more than wanted, removal is easy.</p>	
<p>Button Sage Lantana <i>Lantana involucrata</i></p>	<p>Button sage lantana is an alternative to invasive lantana. This medium shrub with willow-like stems will reach 4-8 feet high and wide. The delicate flowers are white or pink with yellow centers, followed by purple-pink berries in the fall. It provides nectar for butterflies, berries for songbirds, and shelter for small creatures in your garden.</p> <p>Button Sage Lantana prefers full sun, and well drained limestone or sand soils. It has a high drought tolerance but a low salt tolerance.</p>	
<p>Skyblue Clustervine <i>Jacquemontia pantanths</i></p>	<p>This evergreen twining vine establishes easily on a trellis, fence, or other support. It is a member of the morning glory family (Convolvulaceae); the light blue flowers open in the morning and close in the mid to late afternoon. It flowers mostly in the fall and winter.</p> <p>Skyblue clustervine is listed as an endangered species in south Florida. It is cold hardy in zones 10a -11b, but I have used it in two gardens in zone 9b. It established quickly and was easy to maintain, even without irrigation. It is a nectar plant as well as a food source for birds.</p>	
<p>Fringe Tree <i>Chionanthus virginicus</i></p>	<p>If you are looking for a small native tree with beautiful white fragrant flowers in the spring, fringe tree may fit the bill. It is also called "old-man's-beard" for the long cotton-like flowers. This rounded, upright tree is native to the southeastern and south-central United States. It grows slowly to 20 feet in height, but usually only reaches 10 to 15 feet in the landscape. Prune to shape when young.</p> <p>The dark green glossy leaves drop in the winter, but they reemerge as the blooms peak in the spring. It is hardy up to zone 9b; does best in full sun, partial sun, or partial shade; and tolerates a variety of soils. It is moderately drought tolerant but not salt tolerant.</p>	

Photo J. Hetman. www.arboretum.harvard.edu

Many of these plants are displayed in our Educational Garden, and some may be available at our annual plant sale on the **first Saturday in October**.

Salvia misella, southern river sage, creeping sage - <https://www.fnps.org/plants/plant/salvia-misella>

Button sage lantana - <https://www.fnps.org/plants/plant/lantana-involucrata>

Skyblue Clustervine - <https://www.fnps.org/plants/plant/jacquemontia-pentanths>

Fringe tree - <http://gardeningsolutions.ifas.ufl.edu/plants/trees-and-shrubs/trees/fringetree.html>



Photo: W.N. Dixon, FDAACS



Adult sixspined ips
Ips calligraphus (Germar)
University of Florida



Photo: R.F. Billings, Texas Forest Service

Inner bark gallery characteristic of the sixspined ips, *Ips calligraphus* (Germar)

Pitch tube, a possible sign of an Ips engraver beetle infestation
Ips calligraphus (Germar)

Bark Beetle Battles

By Rob Hinz, Master Gardener Volunteer 2016

Bark beetles affect both coniferous and deciduous trees, but most of the activity is concentrated in pines in Manatee County, according to local foresters. The pine engraver beetles, known as *Ips*, are the major culprits. The three species that are most prevalent in our area are: the Eastern six-spined engraver (*Ips calligraphus calligraphus*), the Eastern five-spined engraver (*I. ggandicollis*), and the small Southern pine engraver (*I. valvulus*).

Healthy trees are usually able to stop the beetles by drowning or trapping them in sap and pushing them out through the beetle bore holes. So *Ips* beetles usually have the most negative affect on stressed or dying pine trees. Each beetle prefers a different part of the tree: the Eastern six-spined engraver attacks the lower portions while the small Southern pine engraver prefers the upper branches and stems; the Eastern five-spined engraver seeks out the higher branches and crown. As a result, all three *Ips* species may be found in one tree. Once the inner bark is penetrated, they will feed and breed. The beetles carry a blue-stain fungus (*Ophiostoma spp.*) which proliferates within the xylem (the vascular tissue conducting water), inhibiting the flow of water and causing the tree's demise. Tree death from the fungus can occur in the presence of only a few beetles.

Pines being affected in our area are the sand pine (*Pinus clausa*), longleaf pine (*P. echinata*), and slash pine (*P. elliotii*).

With an *Ips* infestation, the pine needles show a yellow to reddish-brown color instead of the normal green of a healthy tree. The color changes can occur within several weeks. A reddish-brown dust, much like sawdust, forms on the outer bark. There can also be "pitch tubes," a combination of dust and resin (pitch) on the bark, and a hole indicating the beetle has penetrated the inner bark. The absence of a hole in the "pitch tube" indicates an unsuccessful attempt by the beetle. Removing a portion of outer bark from the suspected infested area can reveal

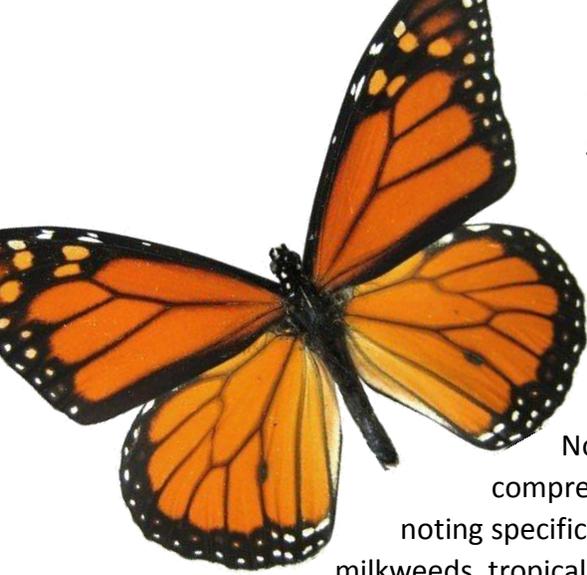
beetles and their galleries (Y, I, and H shaped tunnels).

The life cycle of the *Ips* beetles starts with the adult male burrowing into the inner bark and releasing two types of pheromones which attract other males and females. One pheromone is produced when there is successful feeding, and the other is produced when the beetle encounters "defensive resin." The female carves out an "egg gallery" (chamber) where she lays her white oblong eggs. Hatched larvae eat tunnels in the phloem (sugar conducting tissue.) Emerging adults feed for a short time on the phloem before leaving the tree and beginning the life cycle again. The life cycle of the *Ips* beetle takes only a few weeks during the warm summer but may take several months in winter.

In the urban environment, reduce infestations by keeping trees in good condition. Appropriate planting, spacing, watering, and fertilizing will help keep trees healthy during times of drought or stress. Taking care not to disturb the trunk and root system by keeping ground under the canopy free of grass, vegetation, mulch, and careful use of lawn equipment helps maintain tree health. In large forest areas, removing dead or dying trees, prescribed burning, and thinning can be beneficial.

Care must be taken in both urban and forested areas not to disturb the roots of healthy trees with heavy equipment when removing dead or dying trees. Insecticides applied either topically or systemically are for prevention only. While these products may kill the *Ips*, they do not affect the harmful blue-stain fungus.

- <http://blogs.ifas.ufl.edu/collierco/2018/02/10/pines-beetles/>
- https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev_2_043330.pdf,
- https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev_2_043190.pdf,
- <https://edis.ifas.ufl.edu/pdf/IN/IN70100.pdf>.



More About Tropical Milkweed

By Mary Lange, Master Gardener Volunteer 2017

As the population of monarch butterflies (*Danaus plexippus*) continues to decline, the controversy over milkweed (*Asclepias* spp.), the monarch's only larval food source, continues to increase. In our November/December 2018 issue of the *Master Gardening Bench*, Norma Kisida (Master Gardener Volunteer 2012) provided a comprehensive overview of the four most commonly available milkweeds, noting specifically the dangers of tropical milkweed (*A. curassavica*). Unlike native milkweeds, tropical milkweed does not die off in the fall, thus encouraging butterflies to stick around longer. And, the longer the monarchs remain here rather than make their annual migration south to Mexico or Southern California, the more they are at risk of either succumbing to cold temperatures or contracting the deadly parasite (*Ophryocystis elektroscirrha* or OE) that accumulates in tropical milkweed over time.

If you already have tropical milkweed (see photo, right) and can't bear to pull it up, the University of Florida recommends that you cut it down in the fall to discourage lingering monarchs and prevent the buildup of OE. If you do not have tropical milkweed, think twice about buying or planting it.



Photo: Austin Thomason/Michigan Photography
<https://news.umich.edu>

I recently spoke to Dr. Jaret Daniels, Associate Professor of Entomology at the University of Florida in Gainesville and one of the foremost experts on monarch butterflies. He cautions against buying tropical milkweed not only for the above reasons but also because of the likelihood that the plants have been treated with a systemic pesticide that could prove fatal to monarch larvae ingesting the plant. One way to determine this is to inspect the plant closely for aphids or other signs of insect damage. If the plant looks pristine, it most likely has been treated.

Dr. Daniels also emphasized the importance of educating ourselves on monarchs and milkweed. He stressed the following points:

- Tropical milkweed is not a Florida native plant.
- It can be highly disruptive and dangerous for monarchs if not cut down every fall.
- To best support monarchs, only purchase native milkweeds from a reliable native nursery.

For a list of native plant nurseries by county, see the Florida Association of Native Nurseries (FANN) website (www.floridanativenurseries.org).

For more information on monarchs and milkweed see: <https://edis.ifas.ufl.edu/in780>, <https://flawildflowers.org/non-native-milkweeds-killing-monarchs>, <https://www.floridanativenurseries.org/info/why-plant-native/save-our-monarchs-plant-native-milkweed>.



ANNUAL PLANT FAIR

Offers Savings and Selection

And supports the Master Gardener Volunteer educational outreach programs, including the operation and maintenance of the educational gardens and greenhouse.

Saturday, October 5

8 AM - 1 PM



Manatee County Extension

Do you have a spot in your yard where you would love to have a butterfly garden, or does your landscape just need a little splash of color? Interested in growing more Florida natives?

The Manatee County Master Gardener Volunteers may have the answer! Saturday, October 5 is their annual plant fair fundraiser at the Manatee County Agriculture & Extension office located at 1303 17th Street West in Palmetto.

These plants raised by the Master Gardener Volunteers - including a wide array of natives, perennials, vegetables, shrubs, and ornamental grasses - are all priced to sell.

Gardening accessories will also be on sale. Come early for the best selection and bring along your own wagon or garden cart to stock up. Master Gardener Volunteers are on hand to answer your gardening questions.

We accept cash or personal checks ONLY.



**ASK A
MASTER GARDENER
VOLUNTEER**

Dear Master Gardener Volunteer:

I'm new to Florida and was forewarned about lizards and bugs but not giant spiders! What is this and is it dangerous?

New to Florida



Dear New to Florida:

Thank you for contacting the Manatee County Master Gardener Volunteers.

Oh yes, lizards and bugs are but a small price we pay for living in paradise!

As for the giant spider, you are looking at *Argiope aurantia*, the yellow garden spider or zig-zag spider, whose name is derived from the thick, zig-zag web that is evident in your picture. The spider's size does make it a bit intimidating, but she is a gardener's friend. This is easily identified as an adult female because of her size; her body, excluding her legs, can be from 3/4 to 1 1/8 inches. Males are considerably smaller and do not live as long.

This spider is dangerous only to the male *Argiope* as the female often eats him after mating. These spiders are carnivores that feast on all sorts of bugs and moths that happen to be around the garden. Occasionally even a lizard may become tangled in her web, thus signaling his doom. As with all spiders, she may bite if handled. It is best to leave her to do her handy work in your yard and be thankful for her elimination of some of our Florida bugs.

Here is a link to information about this spider:

<http://blogs.ifas.ufl.edu/nassauco/2017/07/01/q-huge-spiders-zigzag-webs/>

Master Gardener Volunteer Karen Holleran answers your email questions and looks at photographs for identification of problems at ManateeMG@gmail.com.



So, You Like to Save Seeds?

By Mack Lessig, Community Gardens Coordinator and
Master Gardener Volunteer 2015

Have you ever considered saving seeds from your favorite vegetables or flowers but were unaware of how to go about it? Then the Manatee Seed Bank is for you! The Manatee Seed Bank is a program that was developed to assist the public in discovering the secrets to successful seed-saving. Through education and skill-building workshops, we can help you become a great seed-saver!

Seed banks are programs or organizations that protect, save, and store our favorite or most interesting varieties of vegetables, fruits, and flowers. The Manatee Seed Bank developed as part of the Community Garden Program to help address food security and resilience issues for residents.

Members of the seed bank may deposit or withdraw seeds to grow food crops at home or in community gardens. Our bank provides non-hybrid, non-invasive seed choices to the public.

Our mission at the Manatee Seed Bank is to provide access to regionally-adapted food and flower crops. To accomplish this, we have a special focus on acquiring heirloom varieties

that were developed in the southeastern United States with an emphasis on Floridian varieties. Through continued cultivation of these heirlooms, we hope to develop more productive, disease-resistant, and environmentally tolerant varieties specific to our region.

For those of you interested in joining, the Manatee Seed Bank has a short application to complete and an annual membership fee of \$10.00 due each August. Membership provides you with access to our 40+ varieties during our major growing seasons, horticultural assistance and education, and skill-building workshops to develop your seed-saving arsenal. You can also join our monthly meetings to discuss garden problems, new techniques, and horticultural topics.

So, the next time you attempt to save seeds from your favorite tomato, reach out to the Manatee Seed Bank. We offer the resources and education to become a great seed-saver! For more information, contact Mack Lessig at mlessig@ufl.edu or 941-722-4524 ext. 1821.



September CALENDAR OF EVENTS

Date	Time	Event
2 nd & 4 th Saturday	10:00 a.m.-1:00 p.m.	Ask a Master Gardener Volunteer – Rocky Bluff Library – 6750 US Highway 301 N., Ellenton. Visit the Extension Master Gardener information table and get answers to your gardening questions.
2 nd Saturday	10:00 a.m.-1:00 p.m.	Ask a Master Gardener Volunteer – South Manatee Library – 6081 26 th Street West, Bradenton. Visit the Extension Master Gardener information table and get answers to your gardening questions.
3 rd Saturday	11:30 a.m.-2:30 p.m.	Ask a Master Gardener Volunteer – Central Library – 1301 1 st Avenue West, Bradenton. Visit the Extension Master Gardener information table and get answers to your gardening questions
Thursday September 12	6:00-8:00 p.m.	Beginning Farmer Workshop - Now You Have Bees, What's Next? – Learn how to improve the health of your bee hive by tips given in this workshop on how to properly maintain, inspect, care for, and feed your hive. Proper inspection of the hive helps reduce future problems. The \$20 registration fee includes colored handouts, light snacks, and other useful resources. \$25 at the door. Register online at http://uf-ifas-extension-manatee.eventbrite.com/
Thursday September 19	10:00- 11:30 a.m.	Flower Power - Growing Outdoor Flowers in Florida - Join us for a program on growing outdoor flowers in central Florida. This workshop will cover topics including plant selection, cultivation techniques, basic garden design, and more! \$5.00 administrative fee. For more information contact, Mack Lessig, at (941) 722-4524 ext.1821 or mlessig@ufl.edu .
Tuesday September 24	10:00 a.m.- Noon	Ground Covers – Plants that Work! Come join Valrie Massey, Horticulture Program Assistant, as she presents how landscaping with low-growing ground cover plants has become a popular trend in landscape practices because once they are established, these plants will need little or no water. Learn noteworthy plants, site considerations, and management of these plants. This class satisfies the landscape educational requirement for the Manatee County Outdoor Water Conservation Rebate Program. Register online at http://uf-ifas-extension-manatee.eventbrite.com/ .
Thursday September 26	10:00 a.m.- Noon	Irrigation Operation and Maintenance - Presented by Don Adkins, Irrigation Program Assistant. Learn the basic operation of your in-ground irrigation system and maintenance repairs you as a homeowner can do yourself. This class will satisfy the landscape educational requirement for the Manatee County Outdoor Water Rebate Program. Register online at http://uf-ifas-extension-manatee.eventbrite.com/
Saturday September 28	12:30.-2:30 p.m.	Vermicomposting – Composting with Worms! Did you know that there is a worm that is incredibly efficient at turning certain types of food scraps into a rich and beneficial soil amendment? Learn all about how to make compost using these special worms and after the class will be an opportunity to purchase a Municipal Wormcycler worm bin for \$69.00 (a significant savings over retail pricing.) Cash or check only plus 7% tax. \$5 Advance registration fee or \$8 at the door. Register online at http://uf-ifas-extension-manatee.eventbrite.com/ or call the Extension Master Gardener Volunteers (941) 722-4524.
Saturday October 5	8:00 a.m.-1:00 p.m.	<p>Master Gardener Annual Plant Fair</p> <p>Plants raised by the Manatee County Master Gardener Volunteers and include a wide array of natives, perennials, vegetables, shrubs, and ornamental grasses, all priced to sell! Gardening accessories will also be on sale. Come early for the best selection and bring along your own wagon or garden cart to stock up! Master Gardeners on hand to answer your gardening questions. We accept cash or personal checks ONLY.</p> <p style="color: #e67e22; font-weight: bold; text-align: center;">Get a Good Thing Growing!</p>