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Happy New Year!

Welcome to 2025! So far, it's been rainy and cool. My plants are enjoying this, but I wouldn't mind a warm sunny day! I hope you have a healthy, successful 2025.

Thank you to our photographer Amy George for the photo of the Class of 2023 below.



Congratulations to the 2023 Class of Master Gardener Volunteers! Photo credit Amy George



Add another predator to the beneficial insect list

By Ellen Mahany, Master Gardener Volunteer

Last summer I snapped a photo of a mysterious bug hiding in a partridge pea bush (*Camaecrista fasciculata*). This orange and black bug, later identified by iNaturalist as milkweed assassin bug (*Zelus longpipes Linnaeus*), resembles the milkweed bug.

The partridge pea plant produces extrafloral nectaries in small orange glands at the base of each leaflet, irresistible to a variety of insects, which this effective assassin of soft-bodied prey feasts on from its hidden perch, shown below.



Milkweed assassin bug (Zelus longpipes Linnaeus). Photo credit: Ellen Mahany

To trap its victim and prepare it for dining, the milkweed assassin bug uses its long legs and sucking mouthparts with a three-segmented beak. It raises its viscous-covered forelegs in the air to trap its prey. Then it paralyzes its victim by inserting enzymes through its beak into the body to dissolve the tissue. Finally, it uses the beak as a stylet or straw to suck up the liquid.

The wide range of wildlife appetizing to the milkweed assassin bug includes mosquitoes, flies, earthworms, cucumber beetles, caterpillars, fall armyworms, and Asian citrus psyllid, the infamous destroyer of citrus.

Let us be thankful that we can add this colorful insect to our list of known predators.



Could new research on spinach greens mean a green light for greening management?

By Charlotte Vaughn, Master Gardener Volunteer

“Breakfast without orange juice is like a day without sunshine.”

--Ed Taylor, former FDOC Executive Director (63-78) and Florida Citrus Hall of Fame inductee

Amid low production rates due to hurricane damage and recent reports of growers ending citrus production in Florida, some glimmers of hope are surfacing that could renew the dwindling citrus industry in our state. According to the National Institute of Food and Agriculture (USDA-NIFA), Florida’s citrus production has fallen by 75%, including 90% of grapefruit production, largely due to increasing pressure from HLB (huanglongbing, also known as citrus greening) which has been in Florida since 2005 and is spread by the Asian Citrus Psyllid (ACP).

While researchers work to develop and test new citrus cultivars with resistance or tolerance of HLB, other studies are showing success with parasitic wasps which lay eggs in the ACP nymphs, killing them, and antibacterial injections to mitigate pest pressure from ACP (approved for emergency use but not yet recommended by IFAS).

Studies on the bacteria *Candidatus Liberibacter asiaticus* (CLas) which cause HLB have proved challenging because it is *fastidious*, or, not easily cultured for testing outside of its host. Texas A&M AgriLife Research scientists led by Kranthi Mandadi, Ph.D., have discovered a “hairy root” method of culturing and studying the bacteria and are making encouraging progress with a natural peptide derived from spinach. Mandadi’s team collaborated with UF scientists who developed a citrus RNA viral vector capable of delivering the peptide directly to the infected trees’ vascular system and early results have shown promise of increasing yield by 30% to 50% in HLB infected trees; potentially reducing the need for pesticide use. This peptide treatment method has been submitted to federal regulators with the EPA and is making headway in the various milestones.

The future of our National Breakfast Beverage is in jeopardy, but the sun can still rise on another day of citrus success.

<https://crec.ifas.ufl.edu/citrus-research/hlb-management/trunk-injections/>

<https://agrifetoday.tamu.edu/2024/12/02/hope-for-the-fight-against-citrus-disease/>

<https://news.ufl.edu/2025/01/citrus-greening-research/>



Adult Asian citrus psyllids.
Courtesy, UF/IFAS photography



Southern Magnolia, the Warrior of the Magnoliaceae!

By Tammy Ayotte, Master Gardener Volunteer. Photo credits: Tammy Ayotte.

*Lovely grandiflora, sweetly soft petals -
Whispering breezes and stately bowers –
Belies its native strength!
Raging winds and rushing waters,
Leaving earth with barren roots...
Holding the line 'til back up comes;
Helping hand to right the posture,
Bruised but beautiful in its stature.
Determined strength to bloom again,
Instilling hope and joy and faith
That every new dawn will still bring grace.*





The Garden Tourist's FLORIDA by Jana Milbocker

Book Review by Amy George, Master Gardener Volunteer

Cover photo taken at Florida Botanical Gardens in Largo, one of 80 gardens featured in this book. Photo by Jana Milbocker.

There are many paths and motivations to become a cultivator of plants. I'll be totally honest here and admit that what drew me to embrace gardening was the desire to create something beautiful.

In her book, *The Garden Tourist's FLORIDA*, Milbocker delivers beauty on every page.

"This guide," as described in the book, "is for travelers who wish to visit some of the most enchanting gardens in Florida." It is organized into four chapters (or regions) with maps, suggested itineraries, addresses, hours, historical information, websites, and more.

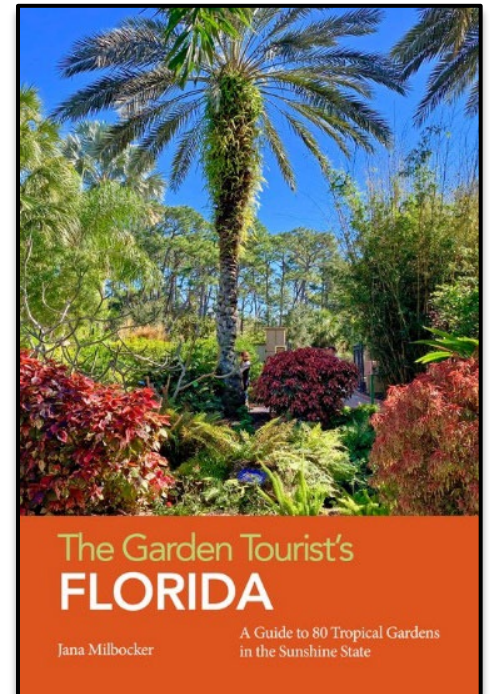
And by more, I mean photos. There are 500 full-color photographs of gardens, most of them taken by Milbocker herself, which capture the seductive allure of 80 of our state's tropical gardens. The photography is wonderful, enhanced by the choice of using a coated paper stock throughout the book, which creates brighter, crisper images.

However, it would be wrong to imply that this book is merely eye candy for gardeners. It is incredibly organized and would be very useful for any tourist looking to visit some of these compelling gardens. I appreciated the way information was presented in a consistent fashion for each destination.

As a Master Gardener Volunteer, I would have liked to see more photo captions and plant identifications, but I also acknowledged that this was not the point of this book. I also had to briefly suspend our training to lean towards Florida Friendly or native landscaping and plant choices. Many of the featured gardens were founded or developed by botanists, ornithologists, civic leaders and philanthropists; some date back a century or even more. A number of these gardens feature exotic trees, plants and flowers from all over the world, accumulated from studying or traveling abroad during a different era in the world of Florida gardening.

If you're inclined to add gardens to your list of Florida travel goals, or if you just want to expand your knowledge of Florida Gardens, I highly recommend *The Garden Tourist's FLORIDA*.

Reviewer's Note: A complimentary copy of this book was sent to Master Gardener Program Leaders throughout Florida with a request to review it. We were under no obligation to review it, nor were we encouraged to publish a positive review. This review represents my honest opinion and recommendation.





Submit Your Articles and Pictures to The Dirt

The Dirt is published January, April, June, and October for Master Gardeners by Master Gardeners. The deadline for the next issue is **April 11**. If you would like to submit an article or photo feature, see the following guidelines:

- Articles should be 250 to 300 words.
- NOTE! All images must be open source – i.e., your own work, photos from UF IFAS, or an image for which you have been granted permission.
- The topic can be anything you would like to share to educate your fellow gardeners.
- You may send pictures, poetry, or garden-related articles.
- Submit only Word documents, not PDF, so that edits are possible.
- Send tips or information about a community or Master Gardener project for a potential article.
- Include proper attribution for photos/images.
- Send submissions to Susan Ladwig at ladwig.susan@gmail.com

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