UF IFAS Extension UNIVERSITY of FLORIDA

Sunny Times

FLORIDA MASTER GARDENER VOLUNTEER

May & June 2025 Volume 6

Editor-Pat Rossi
Contributors- Lorna Bravo, Stephen Deegan

Highlights

Hi Everyone!
Can you believe it's May already? As our vegetable gardens wrap up for the growing season and the gardens themselves are prepared for the long hot summer, it's time to start planning for the next growing season! Our mornings are still cool-ish, but the days are heating up and soon we'll be into the dog days of summer. How time passes, huh? I hope you have been putting in your hours as we approach the mid-year point, it's important to remember to update your hours as the months fly by. We are looking forward to our Recognition Event in October and are looking to give out our new pins for 100, 200, 500, 1,000 and 2,000 hours of service!!!! **So, please, please enter them into Better Impact** before you forget. Please feel free to contact me (954) 756-8513 if you need assistance (I am happy to help).
Thanks everyone and have a great summer!

Steve

Featuring Birthdays

Laura Metrick	May 2
Marcia Lambert	May 24
Peggy Lackner	May 24
Roselen Mora	Jun 17
Helene Sinclair	Jun 22
Taryn Palo	Jun 30

Needed: from MGVs Any ongoing projects, email: **lbravo1@ufl.edu**
Next issue: Florida Scrub

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eventbrite ☐ https://tinyurl.com/wyrkbdzj

Common Blue Violet *Viola sororia*

UF IFAS Extension UNIVERSITY of FLORIDA

Florida-Friendly Landscaping™ PROGRAM

BROWARD COUNTY FLORIDA

FLORIDA MASTER GARDENER VOLUNTEER

2025 Florida-Friendly Landscaping™ Series: Cultivating Sustainability in Your Garden

May 13	TOPIC:	Managing Adversity, Preparing Future Trees for Future Climates & Natural Disasters – Zoom 6.30-7.30pm **Speaker - Dr. Ryan Klein**
June 10	TOPIC:	Rain Gardens – Zoom 6.30-7.30pm **Speaker - Urban Horticulture Agent Lorna Bravo**
July		NO MEETING
August 12	TOPIC:	Understanding Mosquito Control: Best Practices for South Florida Residents – Zoom 6.30-7.30pm **Speaker - Dr. Eva Buckner**
September 9	TOPIC:	Creating a Food Forest. Live Presentation 6.30-7.30pm **Speaker - Sustainable Food Systems & Natural Resource Agent David Outerbridge**
October 14	TOPIC:	Heritage Vegetables – Zoom 6.30-7.30pm **Speaker - Dr. Dina Liebowitz**
November 4	TOPIC:	Worm Wonders: Composting in Small Spaces with Vermiculture – Zoom 6.30-7.30pm **Speaker - Urban Horticulture Agent Lorna Bravo**
December 9	TOPIC:	Bat Monitoring-Citizen Science for Broward County - Zoom 6.30-7.30pm **Speaker - Dr. Shelly Johnson**

Live Presentation: UF/IFAS Extension Broward County
Location: 3245 College Avenue
David FL 33314

Contact: Lorna Bravo email:lbravo@ufl.edu
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https://tinyurl.com/yx3u7j9k

* Announcements*
Upcoming Webinars Local & State

Reminder don't forget to do your Education Hours; log those into the Better Impact system

MGV 2025 Broward Urban Horticulture Webinar Series & MGV Speaker Bureau Live Workshops

- ❑ 2025 – Subscribe to our Event Brite

https://tinyurl.com/wyrkbdzj

MGV 2025 Webinar Series by Wendy Wilber, Gainesville Location: Virtual. Time 12 noon-1pm

- ❑ May 22 – Turf grass updates with Dr. A.J. Lindsey
- ❑ June 26 – Growing Clumping Bamboo with Tia Silvasy.

Zoom links coming

For Past State Webinars:
Scroll down to find "watch recording of the webinar" under each month's section

MGV 2025 Webinar Series by Wendy Wilber, Gainesville Location: Virtual, 12 noon-1pm continued

- ❑ July 24 – Prevention of Mosquito-borne diseases in FL with Eva Buckner
- ❑ Aug 28 – People. Plant interaction with Dr. Leah Diehl
- ❑ Sept 25 – Urban Pests & landscape Consideration with Dr. Faith Oi
- ❑ Oct 23 – Benefits of Bats and Conserving Bat Habitat with Dr. Shelly Johnson
- ❑ Nov 20 – Mushrooms in FL with Dr. Matt Smith
- ❑ Dec 18 – Artificial Intelligence for MGVs with Wendy Wilber and Wayne Hobbs

Zoom links coming

Past Webinars. June 2024: Great Southeast Pollinator Census; May 2024: Milkweed, Monarchs and OE in Florida; April 2024: Climate Change in Real Life with Larry Figart and Savanna Barry; March 2024: Turf and Soil Testing with Brian Unruh; March 2024: Special Pest Alert: Thrips Parvispinus with Dr. Lance Osborne and Nicole Brenda. Et al

LINK - PAST WEBINARS

Webinars - Florida Master Gardener Volunteer Program - University of Florida, Institute of Food and Agricultural Sciences (ufl.edu)

The University of Florida is committed to providing universal access to all of our events. For disability accommodations such as sign language interpreters and listening devices, please contact Lorna Bravo at lbravo1@ufl.edu at least one week in advance. Advance notice is necessary to arrange for some accessibility needs.

INVITATION

Ice Cream Social

When: Thurday June 5, 5.30-7.30pm

Meet the new MGV Class of 2025, a very dynamic group of talented MGVs. Come and introduce yourself to these eager volunteers and tell them your stories of your volunteerism, as they join the family! See you there, *Steve*

SCAN ME

https://tinyurl.com/5n8dc78t

Contact: Lorna Bravo @ lbravo1@ufl.edu or Steve Deegan @Stephen.Deegan@ufl.edu

Florida-Friendly Butterfly Gardening

Saturday, July 12, 2025 from 10:00 AM to 11:00 AM (ET)

UF-IFAS Broward County Extension Auditorium OR AS NOTED - see detail. • Davie FL

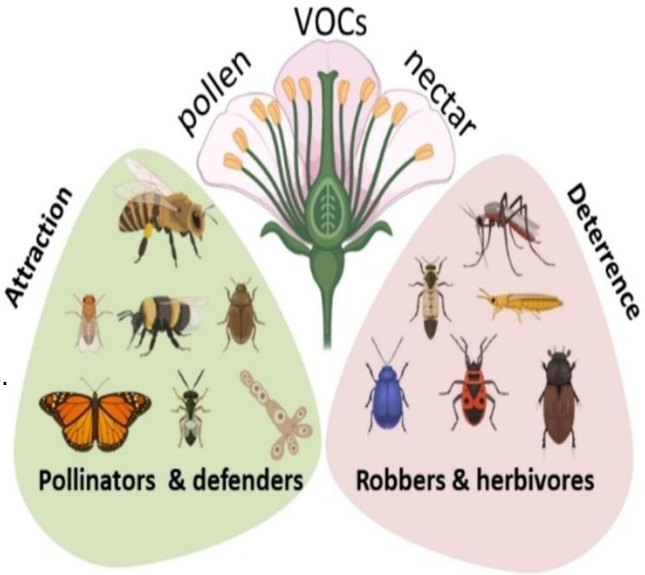
Learn to create a butterfly-friendly Florida garden using Florida-Friendly Landscaping principles from the UF/IFAS Extension Broward County Master Gardener Volunteers

Free option. Attend the class at no cost and learn the essential skills to start your Florida-Friendly butterfly garden in South Florida **Premium option**. For $15 per class, learn from our expert presenter and take home two native milkweeds, one native ground cover, and one nectar source to get you started attracting wildlife right away. Additional native plants will be available for sale after the program.

Location: 3245 College Avenue
Davie, FL 33314

Plants on the Defense

Plants can't move, they're sessile, not free to move about yet have ways to defend themselves against attackers in ways you can't image. Their first line of defense is physical. Plants say don't touch or try to eat me. The waxy leaves or bark make it hard for animals to chew. Plants have **thorns, prickles and spines.** These growths discourage insects and animals (herbivores) from munching on the plant. Plants with thorns-modified leaves, parts of leaves like Florida's Coral Bean, *Erthrina herbacea* and Sweet Acacia, *Vachellia farnesiana* discourages grazing animals. Roses have prickles. There's another painful defense causing rashes plants use; the stinging hairs called trichomes on leaves & plants for e.g. of Florida's Heart-leaf nettle and Tread Softly. Cacti species have this too, e.g. Florida's Prickly Pear, *Opuntia spp.,* have spines, or sharper modified leaves, which protects the plant serving multiple functions, acting as shade, at the same time helping to collect moisture that prevents water loss. The spines found in clusters called areoles also keep away large predators. And smaller hairs of trichomes growing on cacti from the areoles is a physical barrier in the *Opuntia cacti* species, which deters smaller predators, that'll break off, ouch, in the flesh of the offender.



Source:Floral Phytochemistry;Impact of Volatile Organic Compounds & Secondary Metabolites on Pollinator Behavior & Health.http://online.wiley.com

There is a second line of defense, called Secondary metabolites(SMs); also called natural products or secondary products. Some compounds of SMs are known, some are unfamiliar. They're chemicals within plants which are used for defense and other useful purposes. Plants have chemistry on their side, releasing compounds from the plant's immune system to defend against fungi, bacteria or viruses called pathogens. The primary group of SM compounds plants use for defense against pathogens and herbivores are: 1.Terpens the largest group, followed by 2. Phenolics which includes flavonoids and lignin and 3.Nitrogen and sulfur-containing compounds like glucosinolates and lectins. All play roles in defending plants from unwanted disease, or invaders like animals and insects seeking meals from plant-greenery or as an inefficient pollinator like ants, robbing nectar. In Florida herbivores can be butterfly larvae, bush-crickets; leaf and chafer-beetles or fish and apple snail-herbivores, even tree frogs. So, when it's an induced defense, plants release terpenes or phenolic chemicals that are toxic which repels these herbivores. Plants wanting to attract pollinators like bumblebees and moths, will release compounds, they are scents with terpenes such as linalool. Plants also release volatile organic compound (VOCs), floral scents into the air like benzenoid or methyl salicylate as signals attracting bees while deterring pests. Further plants produce nectar rich in sugars and amino acids, lipids and proteins. Nectar, with vitamins and phenolics-SMs has health effects for pollinators although some compounds in nectar also does the opposite, deter nectar robbers. Source: Distasteful nectar deters floral robbery: https//www.sciencedirect.com.

The secondary metabolites: phenols (from the phenolic SM) with terpenoids & alkaloids in nectar and pollen are called *nectar secondary compounds-NSCs.* This is another term for nectar working positively helping insects recall their flowers. Who knew that these plant compounds in nectar affect insects how they forage; insects remember floral traits returning to flowers with the same nectar secondary (metabolite) compounds-NSCs of phenols, terpenoids and nitrogen-alkaloid type compounds. Plants also sense touch, a form of mechanical stimulation. Plants react If they're being destroyed, they release as a warning to nearby plants volatile organic compounds, VOC scents as signals. Interestingly plants can also discourage the growth of nearby plants by releasing chemicals, or do this facing stress like drought, heat or cold. Compounds have other uses as well. Cont'd.

Plants + A Work-Day

Plants on the Defense

Humans have put plant compound chemicals to good use - for medicine; examples are Paclitaxel known as Taxol a SM derived from the Pacific Yew tree, it's used to treat various cancers so are morphine and codeine-plant alkaloids used as medicines. Eating certain fruits and vegetables has healthy effects because they have flavonoids, by-products of the SM compound phenolic. These berries contain phenolic acids, flavonoids, tannins, vitamins and minerals in high concentrations, example: blueberries, blackberries & raspberries. Mangoes are included which have flavonoids and polyphenols for a healthy effect as having antioxidants. Plants certainly pack a variety of punches when it comes to their chemical makeup.

Sources:

- Plant secondary metabolites as defense Tools against herbivores: *http://pmc.ncbi.nim.nih.gov.*
- Secondary metabolites in plant defense: *https://www.researchgate.net.*
- Floral phytochemistry: Impact of volatile organic compounds and nectar secondary metabolites: *http://onlinelibrary.wiley.com.*
- Mechanics of plant defense against insect herbivores: *http://pmc.ncbi.nih.gov*
- Plant defense against herbivory: http://wikipedia
- Plant secondary metabolites in nectar: impacts on pollinators and ecological functions: *http://besjournals.onlinelibrary.wiley.com.*
- The role in secondary metabolites in shaping bee activity: *http://www.ernstseed.com*

World Mission Society Church of God University Student Volunteer Group (ASEZ)

RESULTS OF A WORK-DAY)

ASEZ helped to rejuvenate the Beautiful Passion Garden on the UF/IFAS grounds, we appreciate their work.

L.Coreopsis. R.Zebra longwing butterfly on Coralbush, *Jathropa multifida*

Wildflowers for Nectar In South Florida

Tickseed *Coreopsis leavenworthii*

Coral Honeysuckle *Lonicera sempervirens*

Privet senna *Senna ligustrina*

Firebush *Hamelia patens*

Spotted Beebalm *Monarda punctata*

Tropical sage *Salvia coccinea*

Source: Florida Wildflower Foundation native wildflowers