Miami-Dade Extension Connection

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Winter 2017- 2018



During the Fall 2017 Mangrove Maintenance Workshop, Corine Ferre, right, of **Bright View explains** local regulations as they apply to the three species of mangroves found in south Florida. To see the full event description and learn more about 2017 programs, see page 11.

Photo: Ana Zangroniz, Florida Sea Grant

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Letter from the Editor

Jeff Wasiewewski, Tropical Fruit Extension Agent

Dear Friends of Extension,

As the calendar turns to reveal a new year, it is natural to reflect on the year that was and to look forward to what can be accomplished in the future. UF/IFAS Extension Miami-Dade County had another productive year serving the community. You will find a few of our greatest hits for 2017 listed on page 12 of this publication.

Our main goal each year is to meet the needs of Miami-Dade County's residents. Fortunately, we are uniquely positioned to accomplish that feat. We are an "extension" of the University of Florida, so we have direct access to the latest scientific research and information that concerns South Florida, and we are also a member of Miami-Dade County's Parks, Recreation, and Open Spaces (PROS) division, giving us connections across the County with Miami's movers and shakers.

At the end of each year, our Extension agents are asked to complete a daunting fifty-plus page report detailing our accomplishments for the year. We list every talk we give, every article we write, every workshop we organize and even every phone call and email we use to help the community. The list always ends up being long and impressive, but that is never where the report ends. We are also required to show how all of that work made a positive change with our stakeholders. As the commercial tropical fruit extension agent, I need to do more than just teach classes and write articles about pruning and propagation. I need to help commercial fruit growers make changes that benefit them economically and make the industry stronger and more viable as a whole.

I would like to close this letter by thanking you, our stakeholders, for everything you did for Extension in 2017. Every volunteer hour you gave, every time you thanked us for a job well done, every time you spoke out in support of our work, it all added up to making last year a great one for our team and all of Miami–Dade County. We are not satisfied, however, with a job well done. We always want to do better and dream bigger. We are honored to serve the community, and we look forward to another bigger and better banner year of accomplishments in 2018.

With warm regards,





Comings and Goings

Welcome to Carol DeBiase

Carol DeBiase is our newest Urban Horticulture Program Specialist. She comes to us from Vizcaya Museum where she worked for 16 years as the Curator of Orchids. Carol has been growing and showing orchids for over 40 years and has been the recipient of many American Orchid Society awards. She is also an Accredited American Orchid Society Judge and has been for the last 41 years. She has been a member of many orchid societies and as a member of the South Florida Orchid Society she published their newsletter monthly and semi–quarterly their publication "The Orchidist".

In her spare time, Carol is busy volunteering, cooking, sewing, playing with her dogs and cats, and of course tending to her orchids. Carol says that her love of plants and trees came from her grandmother whom she followed around the garden all the time as a young child.

Welcome to Debie Lee

We would like to introduce you to 4–H's newest Program Assistant, Debie Lee. Debie is working closely with our 4–H Youth Development Agent Kimber Sarver. Kimber does a lot of work promoting healthy living and Debie fits in perfectly to that with her expertise in yoga.

Debie has roots in Jamaica and Hawaii and is the mother of a beautiful daughter, Jesika, and two handsome boys, Brandon, and Ty. She is a certified power yoga teacher, a certified creative early childhood educator and art teacher, a passionate photographer, and a certified Master Gardener. She has taught wellness classes and art therapy programs to children and families in Miami-Dade County for over 18 years.



She has worked as an art teacher and museum instructor for the Miami Children's Debie Lee. Photo: Michael Cruz Museum, an event planner, an attorney's assistant, and an elementary school teacher. Currently, Debie teaches yoga to studios and community gyms, including 24 Hour Fitness Gym & LA Fitness Gym.

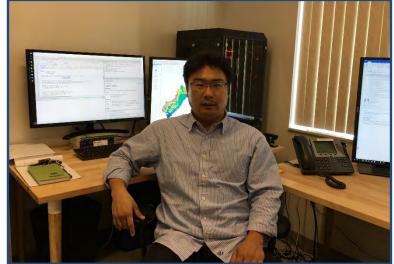
Debie has been an active volunteer for her community since 2010, including The Miami Heart Institute, Deering Estate, Buddarangsi Buddha Temple, and of course as a volunteer for the UF/IFAS Extension Miami-Dade County Master Gardeners.

Tropical Research Education Center Spotlight

Calculating How Much Water We Can Use Now and in the Future

Dr. Young Gu Her, UF/IFAS, TREC

Water is a natural resource essential for our lives, agriculture, and ecosystem. It moves around the globe. Water comes to Florida in the form of rainfall, and then moves downstream by gravity and returns back to the air by heat energy from the sun. We want water to be readily available. However, since water is constantly on the move, we may not always have enough to meet our needs. In addition, water will be much more in demand as our population quickly grows. We want to feed our people while maintaining or even improving our living standards. We also want to conserve our environment and ecosystem so that our children can enjoy the same natural resources that we have now. It will not be easy to



Dr. Young Gu Her works with computers and simulation models in his office at TREC. Photo: Tina Dispenza

satisfy all of the needs, but we have to try and come up with a solution. Such efforts will start from under-standing how much water we can use now and in the future.

As a hydrologic modeler and agricultural engineer, I am using a computer simulation model to calculate the amount of water present at a specific location and time. In the model, I mimic the reality of the water movement processes with mathematics. For instance, the amount of water infiltrated into soils or left on the ground surface can be calculated based on the known mathematical relationship between rainfall amount, soil textures, water content, and ground surface conditions. In addition, the mathematical understanding of the interaction between plant, weather, and soil can help us come up with a better watering schedule for crops.

The overarching goal of my research and extension programs is to find water management options and practices that can help increase agricultural productivity and conserve natural resources. Computer simulation models provide me reliable and affordable ways to test the efficacy of different management ideas and plans. Using computer simulation models, I am evaluating the status of water resources and exploring various management options to provide information useful to decision making and management planning processes. In addition, the computer models are used to understand water movement that is hard to observe and to teach hydrology to students.

Computer simulation can directly help farmers and growers. Computer simulation models developed to describe groundwater systems allow us to explore canal and pump operation practices that can prevent soil root zone saturation (or flooding) and drought.

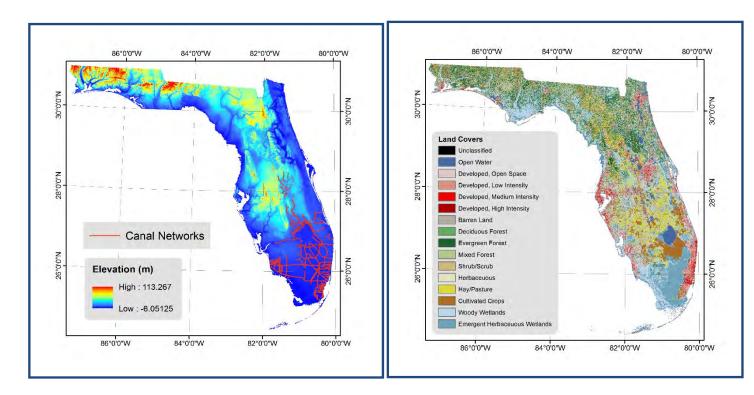
Tropical Research Education Center Spotlight

Calculating How Much Water We Can Use Now and in the Future

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With the help of Miami-Dade extension agents, I made a simple spreadsheet calculation template that can help determine irrigation scheduling by tracking soil water contents over time. With the collaboration of other scientists working at TREC, I am now trying to identify non-traditional (or new) crops and areas suitable to grow these crops in Florida using geographic and weather information. I am also figuring out how possible changes in climate and weather patterns can affect agriculture and natural resources in Florida in the future using climate and hydrology computer models. As sea level rise impacts are one of the biggest concerns and interests of people living in Florida, I am planning to develop a computer model that can show what the agricultural impacts are of saltwater intrusion caused by sea level rise.

The unique Florida climate, landscape, and geology can be a challenge to agriculture and water resources management, but at the same time, I believe they give us chances to make distinctive contributions to agriculture, food security, and ecological resources. I am happy to be a part of South Florida and TREC, and I am looking forward to working with many of farmers, natural resources managers, researchers, and extension agents in Miami-Dade and Florida.



Elevation and canal networks (left) and land covers (right). Figures created by Young Gu Her

Easy Ways To Grow Vegetables

Adrian Hunsberger, Urban Horticulture Extension Agent



Above: Various examples of raised beds showcasing leaf lettuce and other easy to grow vegetables. Photos: Adrian Hunsberger

It's not too late to start your raised bed vegetable garden! You'll have more success growing your edibles in a raised bed and by using compost and potting soil instead of using top soil. And if you plant intensely, using the square foot or French intensive method, you'll have a more productive garden. Planting in rows wastes space and provides more opportunities for weeds.

If you are new to gardening, start small. A garden that is 4 feet x 6 feet is a great size to get your feet wet. Place the bed in a sunny part of your yard so that your vegetables can get at least seven hours of full sun. You'll see how easy and satisfying it is to grow your own food. Don't forget to get the kids involved. They'll have fun and learn new skills.

Tips to Increase the Amount of Produce You Can Grow:

- Plant carrot and radish seeds together to maximize your space.
- Train pole beans to grow up bamboo poles or a trellis.
- When you harvest your broccoli, only remove the main head so that side shoots will produce more florets.

Here are a dozen easy to grow veggies you can grow now. Most vegetables can be grown from seeds unless otherwise noted.

Crop	When to plant	Comments/varieties to try
Beans, bush or pole	October - March (bush)	Fertilize at ½ rate of other vegetables; pole
	October - February (pole)	beans will yield multiple harvests.
		Pole: Kentucky Wonder, Blue Lake, & others.
		Bush: Contender, bush Blue Lake, & others.
Broccoli	October - January	Early Green, Early Dividend, Waltham, Packman. Multiple harvests from same plant.

Easy Ways To Grow Vegetables

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Crop	When to plant	Comments/varieties to try
Carrot	October – February	Imperator, Nantes, Danvers, Chantenay, Short 'n Sweet, Little Finger. Can plant with radishes to save space.
Collards	October - February	Georgia Vates, Top Bunch, Georgia Southern, Blue Max, Hicrop hybrid.
Kale	November - January	Dwarf Blue Curled Vates, Red Russian, dwarf Siberian.
Leaf Lettuce	October - January	Loose leaf types only. Simpsons, Red Sail and Salad Bowl.
Onion, green	October – March	Plant onion "sets" or seeds.
Pepper	September – March Anytime for hot peppers	Numerous sweet and/or hot varieties. Plant seeds (sweet/bell types) or transplants.
Spinach	October – January (true spinach) Anytime for the tropicals	Try true spinach (Va. Savoy, Dixie Market) or tropical spinach-like plants such as Sissoo, Malabar, and New Zealand spinach. For the tropicals, a trellis may be needed.
Sweet potato, boniato	Year-round	Plant a small store bought sweet potato. Or lace a sweet potato length-wise in a shallow dish indoors with ~2 inches of water to sprout. Take cuttings of the vine and plant outdoors. Plant in their own bed since they are aggressive growers. The vine needs to run on the ground and should not be trellised.
Tomato	October - March (cherry-types) October - February (for other types)	Cherry-type, plum-type and other small fruited varieties: Juliet, Roma, and Sweet 100. Buy transplants or start seeds in small pots first. Large fruited types are more challenging to grow.

Need to know more? Please visit our website for more vegetable gardening <u>ideas</u> and information. We also have YouTube <u>videos</u>! Happy gardening.

What is a 4-H Project?

Jeramy Smith & Kimber Sarver, 4–H Extension Agents

What is a 4-H Project? According to the official 4-H definition, a 4-H project is a planned series of learning experiences of six hours or more within a particular area of interest. The purpose of a 4-H project is to promote mastery of subject matter and to foster life skill development (i.e. communication skills, citizenship, leadership, good decision-making, and goal setting). Every 4-H member is required to do a project each year. We will utilize the Shooting Stars 4-H Club's butterfly garden to express the key dynamics of an impactful 4-H project.



Above: 4-H member Caleb Jung, right, receives training from UF Master Gardner Tom Privett on how to maintain a butterfly garden. Photo: April Jung

The Shooting Stars 4–H Club is a group of 4–H members that meet regularly at Larry and Penny Thompson Memorial Park. The group has been a charter club for the past 8 years and is led by Elizabeth Murialdo. Each year, the club selects a 4–H project. In the fall of 2016, the Shooting Stars decided to learn about pollinators and construct a butterfly garden at the Bella Luna Retirement Home. The 4–H members wanted to create a garden to be admired by the residents and bring awareness to the community about the importance of pollinators to our environment.

The youth conducted research on pollinators, attended workshops, and received instructions on landscape design.
4-H members, parents, and club leaders received funds and donations of plants from various nurseries in Miami-Dade

County. Presentations and workshops were given by the 4-H members to the community as an outlet to share their knowledge.

Breaking Down the Project

1. Experiential Learning: The 4-H project must be a commitment of mastery (six or more hours). One of the key ingredients of 4-H mastery is becoming knowledgeable on the subject matter of one's project. Before beginning the project, the 4-H members educated themselves on the environment and various Florida friendly plants suitable for butterflies in South Florida. The group sought guidance from experts such as Lorna and Danny Bravo, who are champions at educating the community on Monarch butterflies and constructing butterfly gardens. The University of Florida/IFAS Extension Miami-Dade County Florida Yards and Neighbors shared with 4-H members "The Nine Principles of Florida Friendly Landscaping," which addresses topics such as the right plant in the right place, water efficiency, smart application of fertilizers, etc. This expert guidance assisted the youth to move forward with the project.

Here's a video of the Shooting Stars Butterfly Garden.

What is a 4-H Project?

continued

2. Citizenship: Element of Community Service Related to 4-H Project

The members of Shooting Stars 4-H Club wanted their 4-H project to be educational, as well as a community service project. They decided to locate the garden at a retirement home, so the residents would be able to visit the garden on their daily walks. In addition the 4-H members had the opportunity to engage with the residents.

3. Exhibition: Presentation(s) of a 4-H Project

The 4–H members of the Shootings Stars were required to give a presentation on the butterfly garden and share before a body of people what they learned and how they executed their objectives and goals. The exhibition process gave the youth the opportunity to become more confident in their ability to communicate with others about their ideology and world. The mediums in which they presented were at club meetings, youth fairs, events, and workshops. The Shooting Stars also took their knowledge and exhibit skills to a competitive level by participating in the Miami–Dade Youth Fair's landscape design competition in 2017.

4. Youth-Adult Partnerships

One of the beautiful aspects of the 4-H experiential learning model is that we encourage youth to partner with an adult to assist them with the development of their project. "Youth-adult partnerships take place when youth and adults plan, learn and work together, with both groups sharing equally in the decision-making process" (Murdock & Costa, 2017). The adult acts as a mentor, coach, and/or advisor to the youth.

They keep the youth accountability, so the members are aware of the responsibility to finish whatever they start as a 4–H member. In the case of Shooting Stars 4–H Club, Elizabeth Murialdo and leaders allow the youth to decide on the direction of their club and give guidance on goals that may not be obtainable for the group. In addition, the adults keep the youth motivated to keep pushing through the mundane task of "weeding" a garden, so they reap the rewards of the elderly members seeing a monarch butterfly fly around their bedroom window.

<u>Additional Information</u>

5. End of the Year 4–H Project Reports, Pins and Awards Throughout the year, the 4–H Club or 4–H member follows guidelines or a 4–H project book. The youth are completing activities and logging their progress. Once a project is completed, the individuals fill out a 4–H project report generated by Florida and submit it to the 4–H office for approval to receive 4–H project pin related to the area of study. Each member of the Shooting Stars 4–H Club submitted a report and earned their Gardening and Horticulture pins for the 2016–17 4–H year.



Above: 4-H members paint their rain barrel for the butterfly garden at Bella Luna Assisted Living Facility. Photo: April Jung

What is a 4-H Project?

continued



Above: 4-H members Enzo Pasteris, left, and Luna Pasteris water the Shooting Stars 4-H Club's newly planted butterfly garden. Photo: Elizabeth Murialdo

On the Horizon: Achieving Levels of Excellence

Awards and recognition are an important component of every 4–H project. Youth respond positively to incentives, awards, and recognition opportunities. This helps youth develop mastery of their project(s). However, not every award needs to be a "blue ribbon". The Florida 4–H Awards and Recognition model recognizes this through youth's participation, progress on their goals, achievement through competition, and cooperative learning experiences. Any 4–H member are eligible to participate in this valuable learning process – "Standards of Excellence Awards and Recognition". Your 4–H Leaders or Agents can help you with the application forms which can be found at here.

In conclusion, the 4-H project is a tool to assist our youth to become champions of mastery, independence, belonging, and generosity. It gives them the opportunity to develop the life skills to become responsible and productive citizens. The sense of accomplishment that they will obtain through the completion of a project will be a lifelong achievement that they will remember forever.

References:

Murdock, S. and Costa, C. "Youth and Adult Partnerships." University of California/ANR. 2017.

Impacts of Extension Programs in 2017

Miami-Dade County Cooperative Extension staff

Now that we have started 2018, UF/IFAS Extension Miami-Dade County would like to share with you just a few of our accomplishments of the past year.

- The UF/IFAS Extension Miami Dade County Florida Yards and Neighborhoods Program (FYN) conducted over 300 landscape irrigation assessments for single family and large commercial property owners. These landscape and irrigation site assessments were part of the Landscape Irrigation Rebate Program, sponsored by Miami Dade Water and Sewer Department. The FYN program also conducted 159 educational workshops, presentations and outreach events on water conservation and sustainable landscaping with 10,025 participants. During these events, a total of 2,300 Florida Friendly landscape plants were donated and over 100 rain barrels were distributed to residents.
- The UF/IFAS Miami-Dade Commercial Urban Horticulture Extension program, in collaboration with the Landscape Inspector Association of Florida (LIAF) Miami-Dade Chapter, coordinated and conducted four training sessions for 186 participants. 26% (10/39) of new landscape inspector members were from Miami-Dade County mainly from the County Parks, Recreation and Open Spaces Department (PROS) Right-of-Way Aesthetic & Assets Management Division (RAAM).
- Lack of training and certification encourages poor landscape practices and a lot of personnel turnover. The UF/IFAS Extension Commercial Urban Horticulture Extension program (PROS ECO Division) in collaboration with PROS Special Tax District and Florida Nursery, Growers and Landscape Association (FNGLA) state office organized and taught two workshops to prepare the participants to take the FNGLA's Certified Landscape Technician (FCLT) certification exam. 62 people attended two workshops and 40 took the certification. Everybody passed the plant identification, tree planting, pruning, irrigation, and job evaluation stations.
- UF/IFAS Extension Miami-Dade County educated over 1,000 commercial tropical fruit growers on how to plant, prune, propagate, fertilize, irrigate and care for their fruit groves in 2017. Since 2014, over 3,600 commercial tropical fruit growers have been taught proper horticultural techniques to help prevent fertilizer runoff, irrigation waste, as well as to maximize profit through correct and efficient horticultural practices.
- Our Master Gardener volunteers donated over 9,033 hours helping the citizens of Miami-Dade County solve plant and pest problems. This education helps keep landscapes environmentally friendly, sustainable and reduces water/pesticide misuse. The value of the Master Gardeners' volunteer time is valued over \$199,450.

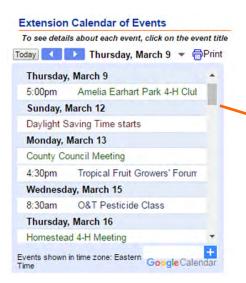
Impacts of Extension Programs in 2017

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- 410 people were taught how to compost and 300 received a bin, over 50,760 gallons (251.3 cubic yards = 6,785 cubic feet) of waste was composted and was therefore diverted from the landfill per year. The amount of waste diverted would have filled 14 dump trucks. Participants composted the equivalent of 6,785 bags of compost, valued at \$35,078.45.
- In 2017, over one ton of marine debris was removed from Biscayne Bay, nearby shorelines, and the Florida Reef Tract by over 20 trained volunteers and UF/IFAS Extension Miami-Dade County in partnership with, Biscayne National Park, Columbia Sportswear, and Miami-Dade County RER.
- UF/IFAS Extension Miami-Dade County educated over 25 horticulture professionals on proper mangrove maintenance procedures and regulatory information. Participants in the workshop received lectures containing information on mangrove biology and species identification, state and county regulations, mangroves' role in shoreline stabilization and restoration, and invasive mangroves. Conducted at the Deering Estate, the event culminated with an on-site field trip that allowed the students to view mangroves in their natural environment and discuss impacts following Hurricane Irma. This program was conducted in partnership between the Florida Sea Grant and Urban Horticulture Agents.
- Our 4-H Youth Development Program impacted over 2,100 youth with Healthy Living programing in various settings, such as schools, parks, and youth centers. These children have already made their own personal, positive behavior changes, as well as influencing their families' decisions on food choices, physical activity, and even the amount of sleep each family member should strive for.
- Our 4-H Program also reached over 1,130 youth through school enrichment programs, day camps, and field trips at Amelia Earhart Park's Bill Graham Farm Village. A partnership was developed with Miami-Dade College and their Veterinarian Tech Program, where 40 students contributed over 400 hours of community service conducting animal science programs for youth.
- Our Expanded Food and Nutrition Education Program enrolled and taught a nutrition curriculum series
 to just under 2,000 low-income families. This impacted approximately 8,000 total residents of MiamiDade County. Lessons were taught in English, Spanish and Haitian-Creole. Pre and post evaluation tools
 for dietary recall and behavior change were used with results indicating 92% of families improved in
 nutrition practices, and 93% improved in food resource management.

What's New at Miami-Dade Extension?

To access our Extension Calendar, please visit our website http://miami-dade.ifas.ufl.edu and scroll through the calendar. There, you will find all event information including how to register.



What is UF/IFAS Extension?

The **UF/IFAS Extension Service** is the liaison between research conducted at the University of Florida, other institutions of higher learning, other universities and stakeholders in Miami-Dade County. Our clientele includes growers (agricultural and horticultural), homeowners, youth, people interested in family issues or food and nutrition, and marine industries.

The **UF/IFAS Extension Miami-Dade County** receives direct funding from the <u>University of Florida's Institute of Food and Agricultural Sciences (IFAS)</u> and <u>Miami-Dade County's Parks</u>, <u>Recreation and Open Spaces</u> Department,

The United States Department of Agriculture (USDA) is the third partner in this cooperative agreement. The Miami-Dade County offices are part of a nationwide system of information, outreach, and education offered by county governments and land-grant educational institutions in each state.



Get Social With Us!

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Like our FB Page: <u>UF IFAS</u>
<u>Extension Miami-Dade</u>
<u>County</u>



Check out our various informative videos on our YouTube channel: <u>UF/IFAS</u> Extension Miami-Dade



Tweet with our agents and programs on Twitter:

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This newsletter is edited by Jeff Wasielewski and Ana Zangroniz. If you have any questions or concerns, please contact us at jwasielewski@ufl.edu or azangroniz@ufl.edu.

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