

EPAF

Extension Professional Associations of Florida

2020 Professional Improvement
and
Administrative Conference
Microsoft Teams®

September 1-3, 2020

Presentation of Extension Programs Thirty-fourth Annual Proceedings



EPSILON SIGMA PHI - Alpha Delta Chapter
FLORIDA ASSOCIATION OF COUNTY AGRICULTURAL AGENTS
FLORIDA ASSOCIATION OF EXTENSION 4-H AGENTS
FLORIDA EXTENSION ASSOCIATION OF FAMILY AND CONSUMER SCIENCE
FLORIDA ASSOCIATION OF NATURAL RESOURCE EXTENSION PROFESSIONALS

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UNIVERSITY of FLORIDA

Extension Professional Associations of Florida

A Clear Vision for a Blurry Future

Microsoft Teams Virtual Conference

34th PROCEEDINGS OF ORAL AND POSTER PRESENTATIONS

Wednesday, September 2, 2020 from 9:00 a.m. to 3:30 p.m.

EPAF Oral Presentations Committee

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J. Stacy Strickland, UF/IFAS Extension Osceola County

Agriculture and Horticulture

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Natural Resources and Outreach

Marnie Ward..... FANREP Channel

Youth Programming

Julia Kelly and Kimber Sarver..... FAE4-HA Channel

Health and Finance

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Leadership and Innovation

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The EPAF Board offers special thanks to:

- The chairs and members of ESP, FACAA, FAE4-HA, FEAFCs and FANREP abstract committees who have the honorable task of reviewing and selecting the presentations for this meeting
- All Extension faculty who submitted abstracts
- UF/IFAS Administration for their continued support of this EPAF Conference
- UF/IFAS IT Microsoft Teams staff

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Visit the EPAF website at <http://epaf.ifas.ufl.edu/> for Conference archives

2020 EPAF Oral Presentation Schedule

9/2/20	Agriculture and Horticulture Sponsored by FACAA	Natural Resources & Outreach Sponsored by FANREP	Youth Programming Sponsored by FAE4-HA	Health and Finance Sponsored by FEAFCFS	Leadership and Innovation Sponsored by ESP
9:00 - 9:10	Hands on Diagnostic Training, Focused on Maize, Improves Crop Scouting Skills for Agricultural Professionals K. Korus*	Extending our Reach through LIVE Online Education: Seafood at Your Fingertips A.J. Ubeda*, M.J. Sipos*, S.C. Barry, H.A. Abeels	Virtual 4-H Wildlife Outdoors Leadership Focus (W.O.L.F.) Camp B. Estevez*, R. Cowan*, A. Schortinghouse*, J.Bearden*, S. Dunning*, L. Tiu*, B. Moore*, A. Tharpe*, A. Peirce*, P. Davis*, H. Kent*, J. Dillard*, R. O'Connor*	Improving Health and Reducing Food Waste During a Time of Stress A.Nikolai*	Exploring Veterinary Science: Virtual Program Curriculum A. Bower*, T. Binafif*, M. Souers*, S. Hernandez*
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9:24 - 9:34	Treasure Coast Meet and Greet Event Raises Awareness of Local Agriculture Y. Goodiel*, E. Pienaar	Demonstration Living Shorelines: the good, the bad and the ugly J. Dacey*	Census Awareness Project Increases Knowledge and Census Responses M. Jackson*	Virtual First Time Homebuyer and Homeowner Education L. Osgood*, L. Hamilton*, S. Ellis*, H. Copeland *, C. Longley*, J. Corbus*, H. Corbitt*, J. Rodriguez*, J. Gomez*	A Real-Time Extension Program Response R. Madhosingh-Hector*, A. Betancourt*, C. Roberts*, L. Seals*
9:36- 9:46	Gardening in the Panhandle Live: From Newsletter to Webinar M. Orwat*, J. McConnel*, M. Loller*, D. Leonard*, E. Anderson, S. Dunning, J.S. Greer, M. Salinas, M. Tancig, L. Williams	Entomology Day Camps Used for Ecological Outreach & Science Career Education K.G. McCormick*, C. Woodard, T. McIntyre, M. Pinkerton, J.K. Yarborough	4-H Teach Me in 3: An Innovative Virtual Approach to Traditional 4-H Programs M. Olson*, T. Karsch*, R. Pienta*	Community-based Health Promotion to Reduce Rural Health Disparities K. Griffin*, W. Lynch*, L. Wiggins*, J. Diaz, K. Shelnutt, L. J. O'Neal	Treasure Coast Meet & Greet Event Raises Awareness of Local Agriculture Y. Goodiel*
9:48 - 9:58	Growing Together from a Distance: A Multi-Disciplinary Approach to Extension Programming in the Time of Covid-19 B. Moffis*, L. Johnson*, M. Brew Mann J. Popenoe	Let's Make Some Black Gold, Sarasota County's Approach to Food Waste Education R. Penn*	4-H In-School Clubs: In Good Character Programming! N. Crawson*	Healthy Florida Lifestyle Locally Grown In Orange Co J. Rodriguez*, J. Anderson*, V. Zabala*, J. K. Yarborough, J. Roberts, T. Silvasy, E. Thralls, R. Tyson, H. Wooten, M. Souers, C. Glattig	Digital Evaluation: A 21st Century Tool for Extension Programs L. Hamilton*, N. Parks*, K. Stauderman*
10:00-10:10	Utilizing a Webinar Based Platform to Successfully Demonstrate Positive Intent of Behavior Change in Urban Pest Management Practices J. Davis*, F. Oi*	Strategies to Grow Extension Faculty Engagement and Increase Recognition L.H. Byron*	Engaging 4-H Teens Using Social Media & Virtual Platforms N. Crawson*, P. Davis*, J. Gilmore*, L. Tiu*, J. Breslawski*, J. McConnell*, E. Anderson*	Reducing Risk of Functional Decline and Loss of Independence in Older Adults W. Lynch*	STEM InvestigATORS N. Moores*
10:12-10:22	Effectiveness of Tunnel Ventilation as Dairy Cow Housing in Hot Climates: Rectal Temperatures During Heat Stress and Seasonal Variation in Milk Yield S. Dikmen, C. Larson*, A. DeVries, P.J. Hansen	How Effective are Demonstration Gardens at Achieving Behavior Change A. Marek*, L. Warner	4-H Plant Science Camp Goes Virtual A. Leo*, M. Jameson*, M. Tancig*	The FCS/4-H Milk Run 5K J. Rodriguez*, J. Anderson*, V. Zabala*, E. Pardo, M. Souers	Mobile App Technology Delivers an Increase in 4-H Communications M. Olson*, S. Ghosh*, S. Conner*

2020 EPAF Oral Presentation Schedule

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10:48-10:58	UF/ IFAS Industrial Hemp Pilot Project - Developing a New Agent-Specialist Partnership for Extension C. Kelly-Begazo*	Let's Face It - Facebook Live is an Extension Educational Tool Y. Zhuang*, K. Stump*, T. McIntyre*, E. Pabon*, B. Moffis, N. Samuel, L. Duncan*, L. Hamilton	4-H BBQ Tailgate: Igniting a Passion for Food Safety & Cooking K. Rice-David*, B. Marty-Jimenez*	Promoting Soil Health and Sustainability Through Public Outreach Efforts J. Bhadha*
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11:12-11:22	Angle of Attack: Developing a Successful Drone License Test Preparation Curriculum M. Smith*, B. Scharf*, K. Taylor*, J.S. Strickland*	Energy Upgrade: Energy Education Programming for Low Income Residents and Non-Profits L.H. Byron*, S. Kane, S. Moundous	4-H Volunteer Tracking D. Meringolo*	'Around the World' in the Kitchen L. Cash*
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* Denotes scheduled presenters

Agriculture and Horticulture

Sponsored by FACAA

Abstract Chair - Matthew VanWeelden

Hands-on Diagnostic Training, Focused on Maize, Improves Crop Scouting Skills for Agricultural Professionals

Korus, K., UF/IFAS Extension, Alachua County

Objectives: According to the USDA's National Agricultural Statistics Survey, Florida's 2019 corn crop was worth \$39 million. The purpose of this training was to increase the diagnostic capability of Extension agents, producers, and crop consultants in Florida. Training first detectors helps them create more timely and appropriate management strategies to minimize yield loss and prevent unnecessary treatments. **Methods:** Diagnostic training occurred by providing in field recognition of diseases and lab-based microscopic confirmation of pathogens. Discussions, presentations, and microscopic observations were used to discuss disease prevention and management. **Results:** A post-program survey revealed the percentage of attendees (n=10) that gained knowledge in the following areas: the definition of plant diseases (70%); factors necessary for disease onset (70%); types of corn plant pathogens (100%); the difference between disease signs and symptoms (70%); diagnostic procedures (100%) and disease management strategies (80%). The survey also revealed the number of attendees (n=10) that felt confident: assisting corn growers with identifying diseases (60%); developing disease management strategies to mitigate yield loss (80%) and finding additional resources for disease diagnostics if they could not themselves come up with a diagnosis (80%). **Conclusions:** Together, the ten program attendees applied knowledge of disease prevention to over 2,850 acres of corn. Attendees valued the program but wanted the training to include diagnosis of diseases and insects that affect other crops in Florida. Because of the relevance of this training in different areas of the state, Regional Specialized Agents have asked the author to deliver this course at multiple locations.

Competitive Sweet Corn Varieties for Growers in Northeast Florida

W. Mussoline, PhD,* UF/IFAS Agriculture Extension Agent II for Flagler/Putnam Counties

M. Resende, PhD, Professor, UF Horticulture Sciences Department

C. Christensen, Director, UF/IFAS Hastings Agriculture Extension Center

Background: Sweet corn acreage in Florida has steadily increased in the past few years with 37,600 planted acres in 2016 to 42,000 planted acres in 2018, according to the 2019 USDA/NASS Bulletin.

Objectives: The goal of the trial was to determine the best yielding commercial sweet corn variety that could be grown in the Tri-County Agricultural Area. **Methods:** Eight bi-color varieties including 'Superb MXR', 'Seminole Sweet XR', 'Obsession', 'Affection', 'Everglades', 'BSS-1075', 'BSS-8021', and 'CSABF13-698' were planted from seed on March 2, 2020 in Hastings. The seeds were planted on 40" rows with 6.125" interrow spacing in a randomized complete plot design with four replications on one acre. The nutrient scheme consisted of preplant and three side dressings totaling 200-50-200₆

(N-P-K). The earliest variety, 'Superb', was harvested 72 days after planting (DAP) and remaining varieties were harvested 77 DAP. At harvest, all ears in the central 30 feet of the middle two rows in each plot were picked and weighed. A 30-ear subsample was shucked, weighed and graded according to USDA grade standards. **Results/Conclusions:** Harvest yields ranged from 324 to 448 crates/A (assuming 48 ears/crate), and the highest yielding varieties were 'Affection' (448), 'BSS-1075' (419), and 'Seminole Sweet XR' (407). The varieties with the highest percentage of ears that graded as U.S. Fancy were 'Everglades' (90%), 'Affection' (86%) and 'Superb MXR' (80%). Continued efforts will be made to reinvigorate growers in Northeast Florida to grow sweet corn and to establish new market relationships with existing processors in South Georgia.

Treasure Coast Meet & Greet Event Raises Awareness of Local Agriculture

Y. Goodiel*, UF/IFAS Extension Martin County

E. Pienaar, Wildlife Ecology and Conservation Department

Objective: Participants' knowledge of the types and amount of agricultural lands and their support for Florida agriculture, will increase by 30% after attending a program. Measured through self-reflective post-event surveys. **Methods:** In 2019, we organized the inaugural Treasure Coast Food System Meet & Greet, as follow-up to the Martin County Food System Study, which identified a need for better connectivity among food system participants. The event brought together growers, chefs, food pantries, suppliers, school food service, and the general public, for networking and sharing of services/goods offered (24 vendors & 68 attendees). I presented an educational exhibit, showcasing local agriculture. A few weeks after the event, attendees and vendors were asked to self-report via Qualtrics on knowledge gain and behavior change. **Results:** Of the respondents (n=27), 74% were attendees, and the remainder were vendors. Participants increased knowledge of the amount of land in agricultural production (n= 11 out of 27; 41%) and the diversity of crops grown in Martin County (n=12 out of 27; 44%). After participating, 15% of respondents said they now "more strongly agreed" it is important to keep land in ag production; none of the respondents disagreed. Additionally, 67% said they shared information learned and 19% increased purchases of Florida produce. **Conclusions:** Through programs like the Meet & Greet, Extension can help people broaden their perspective of agriculture. Participants often share their new knowledge and perspective, and they may also shift purchasing habits. An informed citizenry is more likely to support sustainable agriculture programs and policies.

Gardening in the Panhandle Live: From Newsletter to Webinar.

Orwat, M.*, UF / IFAS Extension Washington County; McConnel, J.*, UF / IFAS Extension Bay County; Loller, M.*, UF / IFAS Extension Santa Rosa County; Leonard, D.* UF / IFAS Extension Calhoun County; Bolles, E., UF / IFAS Extension Escambia County; Anderson, E., , UF / IFAS Extension Walton County; Dunning, S., UF / IFAS Extension Okaloosa County; Greer, J. S., UF / IFAS Extension Santa Rosa County; Salinas, M., UF / IFAS Extension Santa Rosa County; Tancig, M., UF / IFAS Extension Leon County; Williams, L., UF / IFAS Extension Okaloosa County.

Objectives: In response to new programming requirements brought on by the Covid-19 pandemic, the Horticulture Program Implementation Team (Hort PIT) developed an innovative virtual program to educate our residential clientele normally served by in-person programs. The "Gardening in the

Panhandle LIVE!” bi-monthly series was created to fill this programming void. **Methods:** The four, one hour long Gardening in the Panhandle LIVE! Sessions, were produced via Zoom Webinar technology, streamed through Facebook Live, then archived on YouTube <https://www.youtube.com/watch?v=vSE7WQ8yiSs> . Registration was performed through Zoom, with participants having the option of submitting a question for the panel. These advanced questions allowed panelists to prepare and provide supporting documents given to attendees in real time. Each session focused on one timely gardening/landscaping “hot topic”, with questions answered by two to three panelists and moderated by an emcee. Behind the scenes were three additional moderators operating technology, adding content to the Zoom and Facebook chats in real time. **Results:** There were a total of 80 participants across four sessions. A follow-up Qualtrics survey link was shared with Zoom and Facebook participants. To date, 118 surveys have been completed. Current survey results from attendees indicate 88% show knowledge gain of at least one concept and 73% have intention to adopt a best management practice. At least 67 have indicated interest in follow-up survey participation. **Conclusion:** Based on the success of the first four webinars, we are planning an additional nine webinars scheduled through November 2020. Encouraging survey results will be enhanced by follow-up.

Growing Together from a Distance: A Multi-Disciplinary Approach to Extension Programing in the Time of Covid-19

B. Moffis^{*1,2} UF/IFAS Extension, Lake County, **L. Johnson**^{*3} UF/IFAS Extension, Lake County, **M. Brew Mann**^{1,4} UF/IFAS Extension, Lake County, **J. Popenoe**¹ UF/IFAS Extension, Lake County

Out of concern for public health, and in effort to slow the spread of Covid-19, UF/IFAS Extension, Lake County temporarily ceased in-person classes on March 20, 2020. The need for research-based home garden information and the desire for connection increased during these difficult times.

Objectives: The horticulture, FCS, commercial fruit crops, and livestock agents partnered to meet these needs by providing a weekly webinar series. The series aimed to provide aspiring gardeners with the knowledge they need to be successful in their new endeavors. **Methods:** Using Zoom software, classes were held weekly from April 3rd through June 26th and will continue through 2020. Archived classes are available on our YouTube channel. Topics centered around edible plants, but also included FFL and backyard livestock subjects, such as waterwise landscaping, raising backyard chickens, cultivating, and creating with herbs, and citrus. Thus far a total of 579 individuals attended 11 classes. **Results:** One hundred thirty-four participants completed both pre and post-test polls resulting in a 22% increase in knowledge. Ninety participants of edible classes responded to a post webinar survey. As a result of attending webinars, 93% stated that they plan to incorporate more edibles into their gardens and 83% plan to incorporate more herbs and vegetables into their diet. **Conclusion:** Online classes, such as Growing Together From a Distance, allow Extension Agents the opportunity to continue educational efforts during a time when teaching in a traditional classroom setting is not possible. A follow-up survey is planned at year-end to capture behavior adoption.

Utilizing a Webinar Based Platform to Successfully Demonstrate Positive Intent of Behavior Change in Urban Pest Management Practices

J. Davis* UF/IFAS Extension Sumter and Hernando Counties; **F. Oi***, UF/IFAS Associate Extension Specialist, Pest Management University (PMU) Director

Due to COVID-19, urban pests have been on the rise in residential homes. UF/IFAS Extension has created an opportunity for homeowners to learn urban pest management practices from the comfort of their own home through distance education. UF/IFAS Extension created a partnership with Extension Specialist to create a pilot webinar series addressing the management of urban pests using integrated pest management (IPM) practices. **Objective:** After attending urban pest management webinars, participants will demonstrate at least a 30% gain of intent to practice based on pre and post polling. **Methods:** Two Zoom webinars were used to deliver live presentations on areas of urban pest management. Questions were delivered via to record intent to practice. **Results:** Based on pre-polling results, 67.4% (n=92) of surveyed participants indicated they are currently implementing IPM practices used to control rodents, cockroaches, and ants. Based on post-polling results, 99% (n=77) of surveyed participants indicated they will implement IPM practices learned. This represents a 46.9% gain in intended behavior change. Based on pre-polling results, 73.3% (n=58) of surveyed participants indicated they are currently implementing IPM practices for managing termites. Based on post-polling, 98% (n=52) of surveyed participants indicated they will implement IPM practices learned. This represents a 33.7% gain in intended behavior change. **Conclusion:** Initiation of webinars to educate homeowners has been shown to be effective and successful, reaching a wide variety of clientele. From this pilot project, a 3-month and 12-month post survey via Qualtrics will be used to report behavior change.

Effectiveness of Tunnel Ventilation as Dairy Cow Housing in Hot Climates: Rectal Temperatures During Heat Stress and Seasonal Variation in Milk Yield

Dikmen, S. Department of Animal Science, Faculty of Veterinary Medicine, Bursa Uludağ University, Bursa, 16059, Turkey, **Larson, C.C.*** Regional Specialized Dairy Extension Agent, Southeast and Southwest Districts, UF/IFAS Extension, **De Vries, A.** Department of Animal Sciences, University of Florida, Gainesville, FL, **Hansen, P.J.** Department of Animal Sciences, University of Florida, Gainesville

Situation: Tunnel ventilation is an increasingly popular approach to mitigate the effects of heat stress on dairy cattle. **Objectives:** The overall objective of the present experiments was to determine whether tunnel ventilation is superior to freestall housing with fans and sprinklers with respect to rectal temperature during heat stress and seasonal variation in milk yield. **Method:** In the first experiment, rectal temperatures were measured for 1097 lactating Holstein cows in six freestall barns and 575 lactating Holsteins in four tunnel ventilation barns at a time point between 1400H and 1600H during the months of June to August. **Results:** Rectal temperatures were lower for cows in tunnel-ventilation barns than freestall barns when the tunnel-ventilation barns were built *de novo* but not when the tunnel-ventilation barns were produced by retrofitting a freestall barn. In the second experiment, average daily milk yield in the first 90 days in milk was examined for 8,470 lactating Holsteins housed in three freestall barns and two tunnel-ventilation barns. Milk production for cows calving in cool weather (October to March) was greater than for cows calving in hot weather (April to September). The seasonal reduction in milk yield was less for cows in tunnel-ventilation barns (3.5% decrease) than for cows in freestall barns (5.8% decrease). **Conclusion:** It was concluded that housing cows in tunnel-ventilation barns can reduce the impact of heat stress on body temperature regulation and milk yield.

Virtual Plant Clinics Fill an Essential Need

W. Lester* Hernando County, **L. Sanderson*** Sumter County

Objectives: A primary service of any Extension office is to provide answers and potential recommendations to clientele for a variety of lawn and garden questions. When COVID-19 made it difficult for clientele to visit their local Extension offices or Ask the Master Gardener Plant Clinics to ask their questions, a variety of options were implemented to fill this gap using technology.

Methods: Hernando and Sumter Counties created Virtual Plant Clinics using the Zoom meeting platform to give participants the opportunity to ask questions of Agents and Master Gardener Volunteers. Virtual Plant Clinics were advertised in local papers, in online programming newsletters, on social media and through email newsletters. **Results:** Both Hernando and Sumter County have offered Virtual Plant Clinics since the end of March/beginning of April, 2020. In Sumter County, 70 Virtual Plant Clinics were held including contributions by Master Gardener Volunteers, reaching 388 participants and providing 27 digital site visits. In Hernando County, 16 weekly Virtual Plant Clinics have been held for 162 participants. These clinics were recorded, placed on YouTube and viewed 243 times. **Conclusions:** The outreach provided by ongoing virtual plant clinics provides the information and solutions that the residents of both Hernando and Sumter Counties need to address their lawn and garden questions.

Finding the “Fun” in a Functional Facebook Group and other Non-traditional Teaching Methods

E. Harlow*, UF/IFAS Extension Columbia County, **H. Janney**, UF/IFAS Extension Columbia County; **H. Corbitt**, UF/IFAS Extension Columbia County; **C. Mulvaney**, UF/IFAS Marion County; **E. Cannon**, UF/IFAS Marion County; **M. Bailey**, UF/IFAS Marion County; **A. Marek**, UF/IFAS Marion County; **M. Hunter***, UF/IFAS Marion County; **T. Silvasy***, UF/IFAS Orange County; **G. Sachs**, UF/IFAS Extension Central District; **L. Duncan**, UF/IFAS Extension Sumter County; **W. Wilber**, UF/IFAS Extension.

As technology becomes an ever-increasing part of our lives and with new opportunities being used to reach audiences during the pandemic, many agents had to try new teaching methods. Through a team of agents, the Victory2020 Garden Community was developed to connect individuals during a time of social distancing. Using non-traditional methods we reached over 2,300 participants across the globe giving them a way to connect during social distancing. **Objectives:** The objective of this presentation is to introduce agents to the pitfalls and highlights of using these non-traditional methods for large programming. **Methods:** Agents used a private Facebook group, regular Zoom workshops, and a book club to supplement an online learning module on sustainable home food production. **Results:** Agents from three counties produced 22 Zoom classes with over 1,000 live attendees. A private Facebook group with 1,300 members with over 50,000 reached and 4,000+ engagements monthly. This allowed the agents to interact with participants in real-time about their gardens and also give them an opportunity to learn from each other. A youth and adult book club was also utilized to stimulate discussion and learning. Agents had a steep learning curve using these methods. Collecting data and impacts from these methods was also a learning challenge. **Conclusions:** Using non-traditional educational methods allowed participants a chance to learn from each other and have a space they felt comfortable asking questions. Through this presentation, agents can learn from each other what worked and didn't work and how to summarize important data for reporting.

UF IFAS Industrial Hemp Pilot Project – Developing a new Agent-Specialist Partnership for Extension

C. Kelly-Begazo, Indian River County Extension

Passing of the 2018 Farm Bill officially removed industrial hemp (IH) from the federal list of controlled substances and the State of Florida legislature legalized the cultivation of industrial hemp by certified farmers in 2019. These developments resulted in farmers searching for answers and recommendations from their extension agents. **Objectives:** Gain knowledge and experience with hemp and to assist in the development of an educational outreach program **Methods:** Agent reached out to the UF IFAS Industrial Hemp Research Project coordinator to gather knowledge and to assist in development and promotion of the 2019 outreach activities for the Pilot Project. Agent attended an industrial hemp workshop sponsored by the North Carolina State University and a conference in Puerto Rico to investigate how extension agents could collaborate with researchers and specialists in similar IH projects. **Results:** Collaborating with the state specialist and the Assistant Deans of Research and Extension have resulted in 6 different statewide extension activities focusing on the IH pilot project and the potential future of hemp in Florida. More than thirty agents participated in a follow-up training in late 2019 and at least two agents from each extension district were selected to assist with the statewide development of technical material and outreach education. Current members of the Extension Hemp Team are collaborating with the 2020 on-farm trials as liaisons between the growers and the specialists. **Conclusions:** Agent-specialist collaboration is critical to the assistance that UF IFAS is affording to the potential development of a commercial hemp industry in Florida.

Assessing Miticide Efficacy for Management of the Sugarcane Rust Mite (Actinedida: Eriophyidae) in Florida Sugarcane

M. T. VanWeelden, PhD*, UF/IFAS Extension Palm Beach County, J. M. Beuzelin, PhD, Entomology and Nematology Department

Sugarcane is grown on approximately 400,000 acres of organic and mineral soils in the Everglades Agricultural Area of Florida. While most arthropods feeding on sugarcane are not considered serious economic pests, the sugarcane rust mite (SRM), *Abacarus sacchari* (Actinedidia: Eriophyidae), now poses as a potential threat to this important cropping system. To assess injury from SRM and the efficacy of miticides to manage this pest, a series of small-plot miticide trials were implemented by UF/IFAS faculty following needs assessment surveys. **Objectives:** To determine the efficacy of miticides in reducing SRM populations infesting sugarcane in order to provide Florida growers with additional tools in managing this pest. **Methods:** UF/IFAS county and state extension faculty conducted four miticide trials from 2017-2019 to evaluate their efficacy in managing SRM populations in sugarcane. Miticides (Agri-Mek, Torac, and Oberon) were assessed using small-plot trials imbedded within commercial sugarcane fields. Results from these trials were presented to 72 sugarcane growers at the 2019 Sugarcane Entomology and Pathology Workshop at the Everglades REC. **Results:** All miticides significantly reduced SRM injury by at least 50% from 12 to 19 days after treatment (DAT) and 16 to 51 DAT in 2017 and 2018, respectively. Differences in SRM injury were not detected in 2019. This data assisted in increasing grower knowledge of SRM management by 46.1%. **Conclusions:** Results from the UF/IFAS miticide trials aim to provide data necessary for the registration of chemical products in order to increase the number of SRM management tools available to Florida sugarcane growers.

Angle of Attack: Developing a Successful Drone License Test Preparation Curriculum

M. Smith*, UF/IFAS Extension Sumter, Pasco, Hernando County; **B. Scharf***, UF/IFAS Extension Hernando County; **K. Taylor***, UF/IFAS Extension Volusia County; **J. Strickland***, UF/IFAS Extension Osceola County

The Federal Aviation Administration (FAA) requires anyone operating a drone for commercial purposes to possess an Unmanned Aerial System (UAS) Certificate which is acquired by passing a rigorous test called the Part 107 Exam. **Objectives:** After completing the course, drone prep students' avionic knowledge will increase by 80% and examinees will achieve an 80% pass rate on their Part 107 Exam and obtain a drone pilot license. **Methods:** We designed a two-day course utilizing various instructional methods to teach participants required subject matter. Topics included FAA regulations, airspace classification, weather, radio communications, airport operations, aeronautical decision-making, and emergency procedures. **Results:** A total of 20 people completed the UF/IFAS Drone Exam Prep course held in Hernando and Osceola Counties. Pre/posttests showed class participants had a 1.02 fold increase in knowledge (n=20). 100% of course participants who attempted the FAA Part 107 Exam successfully passed and now hold an UAS Certificate (n=16). Follow-up surveys of participants were conducted with 10 responding (50%). Of respondents, 90% felt adequately prepared to take the Part 107 Exam after the UF/IFAS Drone Prep course and 70% believed that the UAS Certificate will aid in a career or financial advancement. **Conclusions:** Our curriculum has proven an affective drone training method. While students came into class with little to no knowledge of FAA-required topics, all showed significant knowledge gain and those who tested following our class had a 100% success rate.

Tri-County Agents Connect with Small Scale, Urban, Hobby and Community Garden Farmers through Video Mediums and Facebook Live

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Small-scale producers often visit non-science-based websites in search of general and specific information about horticulture and livestock, disease and pest pressure and cultural conditions required to grow crops. **Objectives:** During the COVID-19 pandemic, alternative educational outreach was required to continue supporting the needs of agricultural producers. **Methods:** Several Sustainable Agriculture and Food Systems Extension Agents teamed up and utilized Facebook Live or posted videos on their county Facebook page to reach a wide range of urban and rural small-farm producers on an array of agricultural topics. Using this platform gives exposure to science-based information on social media platforms where many producers are already active. An added benefit to using Facebook Live and videos is that community gardeners and home gardeners can access the same information, which provides them with tools for increased success in growing food for home consumption. **Results:** From a non-existent number of downloads in March 2020, the current downloads grew to more than 6,000 views. To date, 21% (n=1,207) of the viewers engaged in comments and 12% (n=146) of the engaged audience requested additional information on cultural requirements. **Conclusions:** Though there was a learning curve, three food systems agents adopted new methods of outreach to their clientele. Many growers have expressed their appreciation for the information in this alternative teaching style.

Relationship between home irrigation water conservation practice adoption and length of residency in Florida

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Objective: The objective of the study was to understand how length of residency in Florida may affect the adoption of landscape water conservation practices. **Methods:** We utilized an online survey developed by the researcher and distributed by a professional survey sampling company to collect data, targeting [State] Florida residents 18 years and older. The input variable was years spent in Florida which was continuous on a scale of 0 to 99 in years. The outcome variable was landscape water conservation practices adopted, which was the sum of engagement in 18 different landscape irrigation conservation practices. We used simple logistic regressions for each water conservation practice to assess whether statistically significant correlations existed. **Results:** Five water conservation practices (using recycled wastewater, drip/micro irrigation, turning off irrigation heads, using a rain sensor, calibrating sprinklers) were significantly related to the amount of time living in Florida ($p < .001$). However, the variance for adoption of each practice (Nagelkerke R-Square) showed that length of residency is not an extremely large factor, with a range of 2-5.7%. All relationships were negative/inverse, meaning likelihood of adoption decreases the longer participants have lived in [State]. Florida. The remaining 13 water conservation practices were not significantly related to length of residency. **Conclusion:** Length of residency in Florida does have a significant effect on water conservation behavior and could help educators target programming to promote adoption of practices. However, the variance indicates that other factors affecting adoption are also significant and further research is needed to account for them.

Assisting landowners in reversing the declining quail populations on working ranches in south Florida

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Over the past three decades, it is estimated that bobwhite quail have declined over 70%. UF/IFAS South Florida Beef Forage Program (SFBFP) hosted a Quail Field Day in 2019, to educate land managers how to manage and recover the northern bobwhite quail species. **Objectives:** The objective of this program was to increase knowledge of land managers in managing the northern bobwhite quail, and to develop skills in recovering the population. **One educational field day was hosted on a ranch with a native landscape in Central Florida.** **Methods:** This program spent the morning at the ranch for a tour of the property with discussion on quail coveys, biology and behavior, distribution, firescaping, Flatwood species, native quail food, and plant identification. The afternoon portion was offered in a classroom setting and included presentations from northern bobwhite quail

experts, representing University of Florida research, National Bobwhite Quail Initiative, Florida Wildlife Commission, and USDA Natural Resources Conservation Service. **Results:** A total of 31 land managers attended the field day. These producers represent an estimated total 12,225 head of cattle and manage approximately 29,325 acres of land. A post-survey assessed knowledge gain and adoption of practices. Survey results indicated that participants increased knowledge by 44% and that 100% of participants plan to implement the information presented. **Conclusion:** If participating land managers adopt management strategies to improve their native habitats, this could translate to an increase of northern bobwhite quail population.

Natural Resources and Outreach

Sponsored by FANREP

Abstract Chair - Marnie Ward

Extending our Reach through LIVE online Education: Seafood at Your Fingertips LIVE

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Objectives: To reduce barriers to at-home seafood preparation by providing step-by-step guidance for selecting and preparing seafood at home. To teach about smart seafood choices, sustainable fisheries, health benefits of a diet rich in seafood, and the seasonality of Florida seafood. **Methods:** Sea Grant and Family and Consumer Science agents presented a series of seafood-centric cooking demonstration videos on Facebook Live. A week before each episode, agents posted blogs with recipes and promotional content on social media. **Results:** First 10 episodes were viewed live by an average of 40 people. The recordings were seen by 39,057 people and achieved an average engagement rate of 21.9%, more than 146x the national average for University-generated Facebook content. A survey placed in the chat was completed by 46 people. All respondents said they were satisfied and learned something. Responses showed evidence of planned behavior change, 100% indicating they would share information with others, 96% indicating they planned on making the recipe, and 91% reporting they planned to buy more seafood. While the majority (68-88%) of viewers were in Florida, episodes were viewed in 32 US states and 5 international locations. **Conclusions:** The Program helped reduce barriers to at-home seafood preparation and promoted seafood consumption and local economies. We provided clientele with educational content aimed at helping them continue eating healthy even in times when eating out might not be feasible or safe. The program continues to provide educational content since episodes are accessible through the Florida Sea Grant social media page and website.

Evolving LIFE Programming into the Virtual Realm

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Sarasota County^{1, 3} and Wakulla County²

Objective: Deliver a quality science-based virtual LIFE (Learning In Florida’s Environment) environmental educational module after COVID-19 school lockdown, while having student engagement and learning remain comparable to previous in-person LIFE field trip modules. **Methods:** 575 upper elementary students completed two of three scheduled LIFE field trips before COVID-19 prohibited in-person activities. Participating teachers requested the last module be delivered virtually. This prompted a revisioning to create opportunities for experiential learning in a virtual environment, which required proficiency in video production, securing expert speakers, and filming multiple LIFE Science Shorts. Videos were sent to 14 participating teachers whose students were unable to attend their final field trip. The district shared with all elementary science lab instructors. **Results:** Ninety-seven students viewed all three coastal module videos and completed Qualtrics pre/post evaluations. Knowledge gain was achieved in all nine topics evaluated.

with a mean increase of 17.4% compared to a gain in 8 of 9 categories for the first field trip with an increase of 18.2%, and 9 of 9 with 35.4% for the second field trip. **Conclusions:** The virtual education module was comparable with in-person modules and did register increased knowledge gain. On request from district, a 30-minute virtual LIFE field trip was filmed and delivered to 1,700 elementary students enrolled in Sarasota County Schools' Summer Boost program for students one to two grade levels behind in math and/or English language. Over ten LIFE videos are now publicly accessible. Florida State Parks Foundation created a web page highlighting these efforts.

Demonstration Living Shorelines: the good, the bad and the ugly

Dacey, J.*, Nassau County

Florida has more than 1,350 miles of coastline which makes it highly vulnerable to erosion, sea level rise and the impacts of climate change. Coastal communities need to plan for resiliency, but numerous challenges arise when making decisions on how to mitigate for those impacts. Demonstration projects are an innovative approach to bringing communities together and creating public engagement on environmental stewardship. **Objective:** The Goffinsville Living Shoreline merges a demonstration living shoreline and citizen science to educate and engage the local community of Northeast Florida on oyster restoration, the scientific process and create public engagement on water quality issues and coastal resiliency. **Methods:** UF/IFAS Extension and the UF Whitney Laboratory for Marine Biosciences faculty collaborated to engage community volunteers and Florida Master Naturalist students in creating a unique shoreline that showcases several materials conservation agencies or homeowners can use to build their own living shoreline. Five educational workshops, two deployments and two citizen science monitoring training events were hosted. **Results:** 101 multi-county volunteers dedicated 648 hours to build and deploy >250 Community Oyster Reef Enhancement (CORE) modules (\$15,011 value) thus far. **Conclusions:** Five months after deployment, the CORE modules demonstrated successful oyster spat recruitment. They are now being utilized statewide for other restoration projects. This living shoreline/citizen science project has revealed numerous discoveries relating to project management, volunteer organization and lessons learned from the good, the bad and the ugly.

Entomology Day Camps Used for Ecological Outreach & Science Career Education

K.G. McCormick*, Seminole County, **C. Woodard**, Seminole County, **T. McIntyre**, Seminole County, **M. Pinkerton**, Seminole County, **J.K. Yarborough**, Orange and Seminole County

Objectives: Youth participating in entomology day camps gain knowledge on STEM topics related to entomology, biodiversity, and ecology, as well as careers in fields related to entomology. **Methods:** In the summer of 2019 field trips and guest speakers were utilized to teach youth about local ecosystems and science careers. Multimedia presentations covered topics on biodiversity, insect ecology, insect IPM, pinning techniques and insect identification. In July 2020, the camp was moved to an online format due to Covid-19. The camp met online twice a week for four weeks, with lessons and activities provided on Monday and a career spotlight and discussion Friday. **Results:** Of the youth that participated in 2019, 100% (10 of 10) showed knowledge gain in insect identification and ecology and 90% (9 of 10) showed increased skills in pinning and live insect care. Successes outside of the objectives were also achieved. Two neurodiverse youth showed increased peer to peer ability during and after their time in the camp, with one parent reporting their

child was better able to cope with sensory triggers. Another teen participated in order to determine her college major and decided on Environmental Sciences after participating in camp. Data collection for the 2020 camp is ongoing. **Conclusions:** The entomology day camp opened an opportunity for Seminole County youth to learn about insects and greater ecological concepts. While the youth gained knowledge on these concepts, they were also introduced to potential careers in science and learned IPM concepts they can use into adulthood.

Let's Make Some Black Gold, Sarasota County's Approach to Food Waste Education

Penn, R., UF/IFAS Extension Sarasota County

Objectives: The state has set targets for each Florida county to achieve a 75% waste stream recycling rate by 2020. Sarasota County is working to increase rates through increased recycling efforts, waste collection, food waste diversion, and education programs. Sarasota County's recycling rate was 51%; however, this still falls short of the state's 75% rate. A recent audit of the landfill waste stream shows that 13.8% of the material collected was from food waste. To increase landfill diversion, organic material and food needs to be a method for increasing diversion rates. **Methods:** A comprehensive approach to composting education was implemented by the waste reduction program. For 2019-2020 this includes: 16 in-person active learning workshops, 6 online webinars, 1 multi-county workshop, a new multi-agent UF/IFAS online certificate course, and community food diversion projects. **Results:** Post-course and annual surveys are conducted to determine the percentage of class participants that implement behavioral changes because of their participation. Behavioral impacts after attending a composting class: 32% new composting system, 23% improved existing system, 16% replaced single-use plastics with compostable products. A post-survey of attendees demonstrated that 75% of respondents (55) were actively composting at home. **Conclusions:** Sarasota County residents have demonstrated that there is a need and demand for composting education in Sarasota County. As a result of our education programs, the waste reduction program is implementing additional courses for residents, youth, and schools. The program is part of the UF/IFAS super issue to promote awareness and appreciation of food systems and the environment.

How Effective are Demonstration Gardens at Achieving Behavior Change?

Marek*, UF/IFAS Extension Marion County and **L. Warner**, UF/IFAS Department of Agricultural Education and Communication

Current research concludes that demonstration gardens can be effective teaching tools, providing visitors with opportunities for self-directed learning (Glen et.al., 2014), however, installing and maintaining these gardens can be labor intensive and expensive. Are they just pretty to look at, or do they actually help visitors implement practice change? **Objectives:** To evaluate changes in awareness, attitudes, aspirations and behaviors of visitors to one Florida-Friendly Landscaping (FFL) demonstration garden at the UF/IFAS Marion County Extension Service. **Methods:** An online survey was distributed via the Marion County Master Gardeners Facebook page twice weekly for a month in 2019. Six months later, respondents were sent a follow-up survey evaluating behavior change. **Results:** 84 survey responses were collected from the first survey. Of those that were aware of the garden, 71% had visited, 53% now liked FFL more as result of seeing the garden, 83% said they intended to adopt at least one FFL practice, and 70% provided their email addresses to be sent

information about FFL. Six months later, 100% of those that had visited the garden and responded said they had adopted at least one FFL practice, including reducing their water used for irrigation. **Conclusion:** Demonstration gardens can be effective teaching tools that promote the adoption of behavior change. In the instance of this FFL garden, visitors reported changing behaviors that conserve water and protect water quality. The behavior changes adopted by these surveyors can save at least 57,500 gallons of water per 1,000 square feet on average every year.

Developing Extension Programming to Help Low-Income Families Save Money and Energy: The Community Weatherization Coalition Model

P. Monaghan* (Agricultural Education and Communication), **J. Kipp*** (Program for Resource Efficient Communities), **M. Schmink** (Professor Emerita)

Objectives: High utility bills can constitute the largest monthly expense for some homeowners and renters and can undermine the ability of individuals and communities to maintain their homes. A 2018 study by the University of Florida documented that while the average Alachua County household spent 5.5% of their income on home energy costs, low-income families spent an average of 22% of their annual income on energy expenditures, primarily because their homes were older and less efficient. Extension agents and those committed to community development must understand the issue of high utility bills among low-income residents and what they can do to help.

Methods: The Community Weatherization Coalition (CWC) is a partnership of local organizations and Extension specialists in who joined together to address the problem of low-income residents who had difficulty paying their utility bills. They developed a volunteer-based model of training and deployment of energy “coaches” that carry out comprehensive home energy surveys or “tune-ups.”

Results: This program has trained hundreds of volunteers in household energy conservation, conducted more than 1,200 “home energy tune-ups” and saved participating households an average of \$255 on their utility bills.

Conclusions: The program has collaborated with Extension specialists for evaluation, strategic planning and expansion into other counties. This program can be easily adapted to Extension programming aimed at community development, household financial savings, and energy and sustainability efforts.

Socially Distant but Connected to Nature: Activities Improve Mood and Virtual Learning

K. Stump* UF/IFAS Extension Osceola County

Objectives: The COVID-19 pandemic has left many Florida residents isolated inside at home for extended periods of time. Research has shown that time outside in nature has important mental, emotional, and physical health benefits. Sitting outside for only 20 minutes can improve mood and reduce stress cortisol levels. Virtual learning activities can keep residents connected to nature from the safety of their homes and backyards. The objectives were to increase participants’ knowledge about ecosystems by 40% while improving their self-reported mood. **Methods:** Eighteen participants viewed two ecosystem-based virtual field trip videos on Youtube. Participants completed a reflection assignment, and the environmental concepts and interpretive methods used in the videos were discussed via Zoom break out rooms. In addition, three Backyard Nature Journaling classes were held via Zoom for 89 participants. Participants then engaged in weekly nature journaling

exercises. **Results:** Thirty-four participants had an average knowledge gain of 50.5% as measured by a Qualtrics survey. The nature journal activity improved 83% of participants' mood. **Conclusions:** Virtual field trips and backyard nature journaling can connect online program participants to nature and serve as a learning aid. In addition, the nature journaling activity improved participants' mood – a critical impact during these stressful and unprecedented times.

Let's Face It – Facebook Live is An Extension Educational Tool

Y. Zhuang*, Mid-Florida Research and Education Center; **K. Stump***, UF/IFAS Extension Osceola County; **T. McIntyre***, UF/IFAS Extension Seminole County; **E. Pabon***, UF/IFAS Extension Osceola County; **B. Moffis**, UF/IFAS Extension Lake County; **N. Samuel**, UF/IFAS Extension Sumter County; **L. Duncan***, UF/IFAS Extension Sumter County; **L. Hamilton**, UF/IFAS Extension Volusia County

Situation: Facebook is the largest social network worldwide, and their live streaming feature Facebook Live has been widely used for internet news broadcasts, however, it's still new in Extension education. **Objective:** A group of agents in the UF/IFAS Extension Central District have started a Facebook Live series, Water Wednesday, aimed at educating homeowners on water conservation and protection practices. **Methods:** We live stream a 30-minute talk about Florida's water resources on Facebook Live every Wednesday. Topics have ranged from building your own rain barrel to calibrating your irrigation system and preparing emergency water supplies. We also post a Water Wednesday Recap blog every week, have a Water Wednesday webpage, and post recordings on YouTube to reach a broader audience. **Results:** As of July 16, 2020, we have streamed 10 live talks. Average viewership has increased to 25 viewers, and active live talk participants interact with the speakers and ask questions. The Water Wednesday videos have received 817 post engagements, reaching 5,836 people and 3,437 views. **Conclusions:** Facebook Live is easily accessible and doesn't increase technological difficulties for existing Facebook users. Participants don't need to register or learn how to use the digital platform. They can interact with the speakers in the comment session or watch the recordings. However, the novelty of Facebook Live has also increased the difficulty to evaluate the knowledge gain and practices adoptions. More empirical research on effective use of Facebook Live and similar platforms to deliver Extension programs is needed.

Extension Cord Podcast Creates Opportunities to Engage a New Audience

T. Clem*, UF/IFAS Extension Alachua County; **K. Korus**, UF/IFAS Extension Alachua County; **M. Maddox**, UF/IFAS Extension Alachua County; **A. Pittman**, UF/IFAS Extension Alachua County; **Mary Lee Sale**, UF/IFAS Extension Alachua County; **T. Sanchez**, UF/IFAS Extension Alachua County; and **C. Sanders**, UF/IFAS Extension Alachua County

Background: UF/IFAS Extension provides accessible knowledge to sustain and enhance the quality of human life. In an everchanging world, extension agents, specialists, and researchers must provide accessible knowledge that is timely and relevant to all Floridians. Therefore, engaging the public through innovative and highly accessible outreach opportunities is important to continually improve extension-related programming. **Objectives:** The creation of Extension Cord podcast provides outreach opportunities regarding extension-related programming within Alachua County and other parts of the state. Additionally, the podcast increases awareness of UF/IFAS

Extension to a different audience. **Methods:** Podcast broadcasting began in March 2020 as means of providing extension-related programming during the COVID-19 pandemic. The 30-45 minute podcast episodes introduced extension in Alachua County and discussing relevant topics with different guests and specialists. The podcast is supported on all major streaming platforms and videos are released on the county's YouTube page. Extension Cord is primarily marketed through social media platforms and PSAs. **Results:** Since March 24, 2020, 428 listeners/viewers have engaged in Extension Cord episodes, with an estimated regular audience size of 38 individuals. Demographic information indicates that 50% of listeners are male, 30% are female, and 20% are unspecified. Other demographics indicate a diverse age group, with some audience members from outside the United States. **Conclusions:** 75% of Americans are familiar with podcasts, while 49% of Americans between 12-34 listen to podcasts. Podcasts can become useful tool to communicate to a wider audience, while creating opportunities to present extension-related programming to Floridians in unique and innovative ways.

Energy Upgrade: Energy Education Programming for Low Income Residents and Non-Profits **L.H. Byron,** * Sarasota County **S. Kane,** Sarasota County **S. Moundous** Sarasota County

Background: Energy has its own Initiative under the Roadmap, but programs are limited across the state. In Sarasota County, energy education has recently been enhanced due to grant funding and a renewed low-income focus. Residents' inability to pay utility bills is a serious problem and simple efficiency solutions can help address housing affordability challenges. **Objectives:** This presentation will share several energy programs in Sarasota County that can be replicated in other counties. The programs include residential and non-profit efficiency education, Energy Coach volunteer training, non-profit grants, solar education for adults and youth, and partnership with public housing agencies. The objectives are to save money for those who are most at risk of energy insecurity. **Methods:** Sarasota County has partnered with local and national foundations to fund audits and energy improvements for community non-profits. It has also implemented a volunteer training and engagement program to expand capacity and reach more residents. The methods are classroom style education, outreach through community events, and hands-on changes through distribution of energy saving devices and actual retrofits on small and large scales. **Conclusions:** With the economic downturn, energy and water conservation programs are critical Extension services to support low-income residents. Sarasota County's programs have quantifiable impacts in financial savings for residents and non-profits. Many of the programs can be replicated in other communities with or without additional funding. The presentation will give the full range of energy related programs and ideas of how others can expand this service.

Utilizing Microsoft Teams with Master Gardener Volunteers **M. Leonard-Mularz,** Monroe County

Monroe County is an archipelago of islands, which extend more than 110 miles off the mainland of Florida. Traveling from the southernmost part of the county, where the Agent is located, to the northern limits can take up to 3 hours. This greatly reduces the number of Master Gardeners (MGs) that volunteer in our office. **Objectives:** Develop remote procedures for answering resident's questions to overcome geographical restrictions, in addition to current constraints placed on in-person volunteer activities. **Methods:** Create a Monroe County Master Gardener email for clientele questions and create a Microsoft Teams page that is accessible to MG volunteers.

Microsoft Teams was chosen due to the ability to create files with real-time document editing capabilities, communicate with other members of the Team, and the ability to maintain additional resources. Hold Zoom meetings to discuss the progress and difficulties. **Results:** Our MG Teams page currently has 9 volunteers, trained by the Agent, that respond to approximately 25 residential gardening questions per week. As a result of this process, resources and documents are generated and posted to the Teams page for enhanced responses and future reference. **Conclusions:** Overall, the utilization of the Teams page to track responses and allow for more dialogue between Master Gardeners has been successful by increasing the volunteer engagement in day-to-day gardening questions by 20 percent. The time invested by the Agent at the onset was substantial, but overtime has proved beneficial by addressing gaps in resources and reducing Agents time responding to clientele questions.

Florida-Friendly Landscaping™ Landscape Assistance Program Observational Checklist **Alyssa Vinson*, Susan Griffith, Manatee County**

Objectives: To create a simple way to evaluate the impact of the Manatee County Extension's Florida Friendly Landscaping™ (FFL) Landscape Assistance Program. **Methods:** A ten question observational checklist was created to determine type and extent of implementation of suggested landscape practices. Master Gardener volunteers were trained on the use of the checklist and fourteen properties were randomly selected and evaluated. Each question was assigned a ten-point maximum with one hundred points total possible. **Results:** Of the evaluated landscapes, seventy-five percent implemented changes based on Landscape Assistance Program recommendations to a high degree (score greater than eighty points). **Conclusions:** The FFL Landscape Assistance Program in Manatee County represents a significant percentage of staff and volunteer time. As such, it was necessary to determine to what extent the program was successful. The observational checklist allows staff to harness volunteer time and expertise to evaluate the success of this time investment. This tool could be scaled and modified for use with the overall FFL recognition program. The recommended FFL strategies are known to positively benefit water quality and conservation. It allows staff to quickly apply water quality and conservation metrics to individual behavior change at the residential level.

Explore Your World... from neighborhood to nature: a family-friendly backpack program **Clements, K.*, and Lopatine, A. Sarasota County**

Objectives: In response to children spending 50% less time in nature than two decades ago, the Explore Your World backpack was developed to facilitate families from diverse socioeconomic status, ethnicities, and locations to explore nature with their children. **Methods:** Child-friendly items and age-appropriate activities were provided in an easy-to-carry backpack. A twenty-page activity guide was developed and introduces backpack contents, hands-on activities, natural areas to explore, and outdoor ethics and safety. The backpack is free to check out at ten partnering Sarasota County Libraries. To enhance reach, the activity guide was translated into Spanish, videos were filmed to introduce the backpack, and future virtual programs planned. **Results:** Backpacks have circulated 48 times and been continuously reserved since introduction in October 2019. A survey link is included in the guide and companion website, but data has yet to be collected. Ongoing efforts will be made to collect demographics and evaluation data. **Conclusion:** Research links time in nature to lower blood pressure, decreased depression, reduced stress, improved immunity, and increased attention. Time outdoors correlates with

increased physical activity in a generation often indoors or on screens. The Explore Your World backpack supports physical and mental benefits of time spent in nature, and as a family. Content introduces scientific concepts and environmental observation to a diversity of explorers. Activities were designed for several locations, from sidewalks to state parks. The Explore Your World backpack provides the means to enjoy science and nature wherever, whenever, and more importantly, whomever, you are.

Youth Programming

Sponsored by FAE4-HA

Abstract Chairs - Julia Kelly and Kimber Sarver

Virtual 4-H Wildlife Outdoors Leadership Focus (W.O.L.F.) Camp

Estevez B.* ,Cowan, R.* ,Schortinghouse, A.* , Bearden, J.* ,Dunning, S.* , Tiu, L.* , Moore, B.* ,
Tharpe, A.* , Peirce, A.* , Davis, P.* , Kent, H.* , Dillard, J.* , & O' Connor, R.*

Escambia, Okaloosa, Madison, Taylor, Lee, Bay, and Washington Counties; Northwest District.

When youth participate in environmental science education programs who do you think wins? The environment we live in! Environmental science is a very broad topic, but W.O.L.F. Camp was designed as an easy to use virtual resource utilized to incorporate many environmental components for use by youth, volunteers, and agents alike. The camp focused on topics such as wildlife ecology, marine sciences, survival skills, and careers. In addition, these natural resource programs highlight the complexity of available natural resources and the connections to other fields of discovery like engineering. **Objectives:** 1) Participants will learn how to identify wildlife and plant species of Florida. 2) Demonstrate their knowledge of best management practices for wildlife. 3) Have a greater understanding of the complexity of natural resource management. **Methods:** A team of Agents created videos to introduce a wide variety of wildlife management techniques, adventure guides, survival techniques, art, and trivia games. These instructional components were transferred to a Google Site to provide this asynchronous opportunity virtually. Campers were also provided an option to share their project work. **Results:** Over 85 participants enrolled in the 5-day camp. Camp evaluations will be sent at a later time, but early feedback from a parent indicated that her child wanted to do a beach cleanup with her 4-H club because of what she learned at the camp. **Conclusion:** The long-lasting impacts of W.O.L.F. Camp are high quality cross-discipline environmental educational videos that can be utilized by Extension Agents for years to come.

STEM InvestiGATORS

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Background: There are approximately 1,600* homeschooled youth in Hernando County. Florida Statute 1002.41 requires these youth submit annual portfolios documenting educational activities. To provide quality, research-based education, UF faculty from four Extension areas combined their expertise and created the STEM InvestiGATORS program. **Objectives:** While introducing homeschool families to Extension and, specifically, to 4-H programming, the attendees would also increase knowledge and make behavior changes pertaining to a variety of topics. Youth ages 8-18 will be exposed to several science related activities to increase their knowledge and introduce career opportunities. **Method:** Events were scheduled to occur monthly August 2019 – May 2020. April and

May events were done on a virtual platform due to the pandemic. Each agent led at least two educational events. Registration links were created through Eventbrite with small fees to cover insurance and supplies. Various instructional methods were used to teach the subject matter. Topics included coding, biology, financial management, entomology, marine/environmental science, and ecology. To encourage participation, certificates of completion were offered to youth completing five courses to use in their portfolios. Those completing nine courses were given additional gifts. **Results:** Total, 170 youth participated in STEM InvestiGATORS. Pre/post tests indicate participants had a 93% increase in knowledge. Individual follow-up surveys showed that 8% of youth have adopted at least one behavior change. Lastly, five families joined 4-H clubs and enrolled in project work. **Conclusion:** STEM InvestiGATORS is actively engaging Hernando's homeschooled youth and providing sound content for portfolios.

*Source: Hernando County Home Education Office

Census Awareness Project Increases Knowledge and Census Responses

Michael Shawn Jackson

When asked to assist in promoting the 2020 census, Lafayette 4-H Council decided to make it a civic engagement project. **Objectives:** The Lafayette 4-H Council would develop a census awareness video that would reach Lafayette County residents encouraging them to complete their 2020 Census, while educating the community and youth about the purpose and importance of responding to the census. **Methods:** The 4-H council members sent an age appropriate script to 4-H members asking them to have someone video them reading the script and email the video back to the 4-H council. 26 videos were edited into a two-minute video that explained the purpose and importance of the census, how to respond to the census and encouraging the community to respond to the census. Once completed, the video was posted to the county's UF IFAS Extension Facebook and the Lafayette 4-H YouTube channel. **Results:** The two-minute video reached 3,500 Facebook members and was viewed 1,800 times, had 720 engagements, and was shared 25 times. According to Census Bureau statistics, Lafayette County responses increased by 2% within ten days of the video being released on social media. All youth who participated were able to explain the purpose of the census after making the video, which was an increase of 85% from before the video was made. **Conclusion:** The census video was a very effective tool to increase youth's knowledge of the census while increasing community response as well.

4-H Teach Me in 3: An Innovative Virtual Approach to Traditional 4-H Programs

M. Olson*, UF/IFAS Extension Clay County; **T. Karsch***, UF/IFAS Extension Nassau County; **R. Pienta***, UF/IFAS Extension Wakulla County

The current global health crisis serves as a catalyst for change, especially the methods we use to deliver programs and engage 4-H members. 4-H Teach Me in 3 is an innovative, virtual approach providing members with the opportunity to deliver a presentation. **Objectives:** As a result of this program, youth will learn to 1) utilize technology to film and present information and 2) demonstrate self-confidence and skill mastery by learning to clearly state their thoughts, feelings, and ideas to others. **Methods:** 4-H Teach Me in 3 was implemented in two counties. Agents created model

videos, posted to Facebook, that challenged members to create a three-minute video teaching a concept or demonstrating a skill. Videos were submitted to their county 4-H office which promoted the videos, encouraging social media users to view and vote for their favorite. **Results:** 38 members participated. The videos garnered 2,710 YouTube views and reached 8,596 Facebook users. Participant evaluations (n=9) and parent evaluations (n=8) indicated an increase in the participants' ability to use technology to author and deliver a presentation, clearly stating their thoughts, feelings, and ideas. **Conclusions:** 4-H Teach Me in 3 enabled members to utilize technology and social media to present information. Responding to a unique and challenging situation, both counties were able to feature youth on their social media pages which expanded outreach and engagement compared to traditional, in-person, county events. Counties across the state have begun to pilot the program. Early preliminary evaluations indicate this program has potential to be implemented statewide.

4-H In-School Clubs: In Good Character Programming!

N. Crawson, UF/IFAS Extension Holmes County

OBJECTIVES: The purpose of this program is to 1) establish in-school programming in identified desert areas of the county to further promote 4-H 2) deliver ready-to-go kits to facilitate 4-H programming with an emphasis on positive character education 3) to address the need for creative, age appropriate, hands-on learning that is engaging to the younger audiences. **METHODS:** A 4-H classroom character program kit for elementary grade levels was created which contains all supplies needed to provide the program for twelve inventive lessons over the course of a twelve week period +/-, depending on the volunteer's time constraints in the classroom. Each lesson is created for the volunteer to complete step by step in 30 minutes to one hour. Topics covered include impulse control, diversity, friendship, acceptance of others', gossiping, compassion, and generosity. Lessons include an interactive activity, art project, or game with a specific objective which is later used as topic for discussion. **RESULTS:** Through the measurement of collecting "heart" tokens for every positive character behavior observed by the teacher, the youth meet their character goals before the end of the school year, demonstrating learned behavioral changes in the classroom daily. Teachers reported an increase in attendance and a decrease in overall classroom disruptions. **CONCLUSIONS:** This program positively impacted the dynamics of the classroom and reduced discipline issues, thus allowing positive youth development to occur. This program has been facilitated for two years in three classrooms and three additional classrooms have requested this program for the upcoming academic year.

Engaging 4-H Teens Using Social Media & Virtual Platforms

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OBJECTIVES: UF/IFAS Extension Bay, Holmes, and Walton County 4-H programs partnered during the pandemic to launch new virtual programs. 4-H Life Skills Masters invited teens to share their knowledge and skills via pre-recorded sessions and disseminated using social media. Teen counselors also helped with the development of the summer virtual plant camp. The purpose of these programs were to 1) continue the delivery of 4-H programming in a safe, controlled environment during the COVID-19 pandemic, 2) engage teens in order to build their communication and leadership skills, 3) provide access so those lacking consistent internet connectivity could sustain participation in the program, and 4) address the need for creative, virtual 4-H programming.

METHODS: Each pre-recorded video was created by a 4-H teen member or 4-H agent/staff and was edited for ADA compliance. Videos were hands-on demonstrations of topics chosen by the teens from March thru May 2020. Topics were based on coordinated themes, i.e. Make It Mondays. Teens also created videos, selected content, and assisted with design for virtual plant camp. **RESULTS:** 4-H Life Skills programs used Facebook for program delivery having a reach of 18,966; 1,717 engagement. Over 345 youth enrolled for virtual plant camp. **CONCLUSIONS:** These programs provided stability for youth and strengthened each county's 4-H virtual presence during the pandemic and provided an opportunity for youth to participate in 4-H programming throughout the summer. In addition, teen membership engagement increased as they gained confidence in their ability to role model, lead, and facilitate 4-H programs virtually.

4-H Plant Science Camp Goes Virtual

Leo, A.* Leon County, **Jameson, M.*** Leon County, and **Tancig, M.*** Leon County

Objectives: In-person Leon County 4-H Plant Science Camp was created and implemented with great success in 2019. When Florida 4-H announced the decision to cancel all in-person 2020 summer camps and activities due to COVID-19, local 4-H chapters were tasked with adapting. Presented with the challenge of keeping youth engaged remotely during the summer, Leon County 4-H decided to offer Plant Science Camp in a virtual format. **Methods:** The Virtual Plant Science Camp consisted of three days of interactive presentations, discussions, games, and at-home activities that aided 17 youth ages seven to 12 in exploring plant science. Prior to the start of the camp, families received worksheets, game pieces, hand lenses, and a water bottle through curb-side pick-up at the Extension Office. The worksheets and game pieces were also available via the Virtual Plant Science Camp Google Site developed by the agents. Agents met with the campers twice daily through Zoom sessions that included interactive lessons and educational games. In between sessions, the campers utilized worksheets developed by the agents that corresponded to both indoor and outdoor hands-on learning opportunities. **Results:** Out of the 17 participating campers, six were new to 4-H. Out of 11 participants surveyed, 100% increased their knowledge of horticulture and 90% felt a sense of belonging during Virtual Plant Science Camp. **Conclusions:** Participants in Virtual Plant Science Camp experienced knowledge gain in the following categories: Structure and Functions of Plants; Plant Classification and Shapes; Plant and Soil Life; Horticulture and Plant Identification; Plants, Insects, and Pollination.

Flying Lead Changes during COVID-19: Continuation of 4-H Equine Programming in the Virtual Space

Irvine, K.*, Nassau County 4-H; **Pittman, A.***, Alachua County 4-H; **Carter, G.***, Duval County 4-H; **Wickens, C.***, UF Department of Animal Sciences; **Schortinghouse, A.*** Escambia County 4-H

COVID-19 initiated a state-wide challenge for agents to translate 4-H programs into the virtual space, however some program areas, such as equine, are more difficult to conduct virtually. **Objectives:** Agents and specialists from across the state collaborated to create multiple educational opportunities to support the continued engagement of youth in the equine program despite disruptions to face-to-face programming and events. Youth development activities that focused on project mastery and perseverance of goals through difficult situations were needed for both riding and non-riding members. **Methods:** A series of events including a virtual riding challenge, a virtual clinic, a webinar video series, and a virtual hippology school were created to engage youth in their horse projects while in quarantine. Social media, websites, and email list serves were utilized to promote and engage new and traditional audiences. **Results:** This program actively engaged 82 participants, resulting in 8 informational 4-H horse program videos reaching 8,371 through social media. Youth from 5 states participated in more than 360 hours of self-reported riding work. Of youth participating in the hippology school, 89% (n=9) of participants reported increasing their knowledge by some or a lot. **Conclusions:** The resources, such as informational videos and the Hippology Google Site, developed and utilized to support this program will be made available to participants. While 4-H horse programming can be daunting, this program can be replicated on a county or district level to engage new and traditional youth audiences in both virtual and in-person horse programming opportunities.

“Share the Fun” Storytelling Teaches Youth Life Skills

K. Henry, UF/IFAS Extension Seminole County

Communication is important for organizations, employers, and life. Research shows that young people who learn effective communication are more successful and efficient employees and community members. **Objectives:** The objective of this program was to teach 4-H youth communication skills through the performing arts; more specifically, storytelling. **Methods:** Through a partnership with a local university, a Performing Arts Special Interest (SPIN) Club was created. Graduate students who served as 4-H volunteers worked with a group of 13 4-H youth (ages five to 18). The 4-H SPIN Club focused on storytelling, allowing young people the opportunity to write, create and perform stories for the 4-H Share the Fun program. Throughout the Performing Arts SPIN Club experience, young people learned the importance of explaining the meaning of their stories, engagement with the audience (listener), projection, stage presence, and clear communication. **Results:** The program was evaluated using a mixed method approach, including observational data using the 4-H Share the Fun Rubric, 4-H project stories, and 4-H volunteer and parent observation. As a result of participating in the 4-H SPIN Club, 46% of youth (n=13) demonstrated increased communication skills and stage presence as evidenced by scores on the 4-H Share the Fun rubric. 80% of the youth participated in the Seminole County 4-H Share the Fun Talent and Variety Show. Many of these youth performed their “stories” on stage. **Conclusion:** Youth who are more comfortable on the stage are better communicators. This skill will be used to better their workplaces, relationships and communities.

4-H BBQ Tailgate: Igniting a Passion for Food Safety & Cooking

Rice-David, K., UF/IFAS Extension Broward County 4-H Extension

Marty-Jimenez, B., UF/IFAS Extension Broward County Family and Consumer Sciences

Objectives: Participants will increase presentation, interviewing, cooking and food safety knowledge and skills. An increase in participant knowledge and skills is beneficial to the Broward 4-H community. **Methods:** 4-H and Family & Consumer Sciences joined to present a 4-H BBQ Tailgate competition. Experienced 4-H youth and adult volunteers hosted three pre-grilling trainings. Forty-five individuals attended the fall competition, including 12 4-H youth competitors. Prior food safety training was offered virtually and in-person FCS training, at the event, including an engaging exhibit. Local restaurants sponsored awards and served as volunteer judges who observed the grilling, interviewed competitors, and scored presentations. **Results:** All tailgate competitors (N=12) scored 100% on an online food safety quiz before competing. Post survey results showed a 100% gain in knowledge of starting a charcoal grill, a 19% increase in likelihood of competing in future BBQ tailgates, a 29% increase in likelihood of grilling at home, 27% correctly responded the safe temperature for cooked chicken, and 7% learned the proper use of lighter fluid. **Conclusions:** Restaurant collaboration is beneficial. Learning food safety principles and ability to barbeque properly, provides life skills to youth to cook independently, and handle food safely. Presenting and interviewing opportunities builds leadership and communication skills. These skills will help youth make better choices in the future and prevent possible foodborne illness.

Eat, Sleep, Fly: 4-H Aviation/Drone Day Camp

K. Taylor*, UF/IFAS Extension Volusia County Agriculture and Natural Resources; **B. Scharf***, UF/IFAS Extension Hernando County Sea Grant; **M. Smith***, UF/IFAS Extension Multi-County Sustainable AG/Food Systems; **J. Strickland***, UF/IFAS Extension Osceola County Extension Director; **J. Sprain**, UF/IFAS Extension Osceola County Extension 4-H; **L. Valencia**, UF/IFAS Extension Osceola County Extension 4-H; **J. Gomez**, UF/IFAS Extension Osceola County Extension Family and Consumer Sciences

Objective: Youth will report a 30% knowledge gain regarding reading airport operations, weather, sectional charts, and aeronautics. Additionally, 10% of youth will examine careers in aviation.

Methods: We designed a three-day course utilizing various instructional methods to teach youth aviation topics. Hands-on learning activities were used to teach topics such as business planning, the art of photography, and drone careers. Online apps. And airspace models were created to teach participants how to read sectional maps. Toy Cessna aircrafts and runways were incorporated to demonstrate airport operations and aeronautical decision-making. Two videos were produced to teach airport traffic patterns and to show the importance of regulations set forth by the FAA. Toy drones and real drones were included to help familiarize participants with drone handling techniques. **Results:** We have attracted an audience that is new to Extension with this program. One youth participant (Osceola County) started a drone business taking pictures for the Farmer's Market. In an evaluation survey given to Sumter County youth participants (n=5) there was a 90% knowledge gain after attending the aviation camp. Three (3) of the youth stated as a result of the aviation camp, they would consider a career in aviation. **Conclusion:** The FAA expects remote pilots will outnumber

instrument-rated pilots by 2022-2023. With this significant increase in jobs and a market projected to be \$89 billion dollars the possibilities are endless. Hosting programs such as the 4-H Aviation Drone workshop, will hopefully inspire youth with an interest in STEM to peruse careers in aviation.

4-H Volunteer Tracking

Dallas Meringolo, UF/IFAS Lake County

Objective: Capturing the number of hours volunteers are providing to the county 4-H program can be challenging. Tracking volunteer time is a critical piece of developing and maintaining a successful volunteer program for accurate reporting. The goal of this organizational management strategy is that at least 80% of Lake County 4-H volunteers will report their time utilizing the online monthly reporting system. **Method:** To better understand the volunteers' actions in the program, Qualtrics was used as a monthly tracking system. Club organizational leaders were required to submit a monthly report via Qualtrics to track the number of hours they spent completing 4-H tasks and the amount of youth and families participating in the community club program. For volunteers who had difficulty moving to an online system, PDF versions were provided. Comprehensive volunteer tracking provides 4-H agents with the ability to increase accountability, monetary benefits, grant writing, reporting, and strengthen volunteer recognition methods. **Results:** 88.9% (24 of 27 clubs) submitted a Lake County 4-H Organizational Leader Monthly Report from September 2019 until March 2020. After March 2020, volunteers were not asked to complete the form due to the 4-H programs' closure. **Conclusion:** Tracking volunteer hours can assist agents in identifying, utilizing, recognizing, and evaluating stages in the ISOTURE model (Boyce 1971). Comprehensive volunteer tracking provides 4-H agents with the ability to increase accountability, monetary benefits, grant writing, reporting, and strengthen volunteer recognition methods.

4-H and Boys & Girls Club: A Winning Combination

B. Moore*, UF/IFAS Extension Madison County

In late 2018, participation in Madison County 4-H was almost non-existent. Promotion of Madison County 4-H was crucial to the revitalization of the program. **Objectives:** 1) Establish partnerships with the Boy's & Girl's Clubs at the 5 elementary/middle schools in Madison County with possibility of forming new after school 4-H clubs at each respective school. 2) Provide youth with educational programming for making healthy and wise life choices. 3) Introduce 4-H and programs offered to prospective members who have not traditionally been reached by Madison County 4-H in previous years. **Methods:** Agent targeted each school's after school program with monthly visits/meetings. 4-H curriculums "Health Rocks" and "Be Safe" were presented to age appropriate youth. Younger youth completed "Getting Started with Entomology". **Results:** During the 2018-19 and 2019-20 school terms, 285 students participated in the 4-H afterschool program which is 97% of all registered Boy's & Girl's Club members. 88% (n=250) indicated an increase in knowledge of healthy life choices: 73% (n= 208) indicated a better understanding of bullying and how to handle a problem situation. 32 of the 285 youth became members of an existing 4-H club in Madison County. **Conclusion:** This partnership with the Boy's & Girl's Club served to promote/increase membership and activities of Madison County 4-H and to educate our youth on positive/healthy life choices. Due to COVID-19 shortened school term we were unable to start clubs last school term.

Back to School Camp Improves Youth Outlook Towards School.

Michael Shawn Jackson

Upon obtaining feedback from weekly summer day camps, parents and youth alike indicated the need to have a day camp to prepare youth transitioning into a new school year addressing school anxiety, bullying, and study skills. **Objectives:** Increase the likelihood of youth having a positive experience when starting a new school year by planning and implementing Back to School day camp. **Methods:** The 4-H Agent planned the four-day camp for youth ages 7-12. The camp was scheduled the week prior to school starting in order to help youth establish a normal day to day routine. Camp activities focused on coping with back to school anxiety, effective study habits, conflict resolution and bullying prevention. Specific activities included a personality type quiz, relaxation exercises, research based study practices and using a planner. **Results:** Back to School Camp was the most attended of all Lafayette County Summer Day Camps with 21 youth. Two adults, including a school counselor, donated a total of 32 hours of time. All youth participants felt they were better prepared for the new school year. All parents surveyed felt the camp had a positive impact on their child's returning to school, with 60 % reporting a tremendous improvement in their child's outlook towards school. **Conclusion:** Back to School Day Camp was very successful in helping youth have a positive back to school experience. All participants in the camp reported that they would participate again.

Touring Florida: Wildlife, Water and Climate Change

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4-H educators use innovation to reinvent traditional summer camp programs, engaging youth in inquiry-based learning. **Objectives:** Florida's natural environments are a finite and a unique resource. Young people benefit from participatory, project-based learning models as they learn to lead society in the preservation and protection of our natural resources. Campers learned to; make observations on the environment, identify Florida plant/animal species, explore environmental career related options and connect Florida environments to climate change. **Methods:** The 4-week virtual camp immersed youth from Florida and the United States, in learning ecosystem connections. The camp combined synchronous (video conferences and streamed games) with asynchronous (videos, report-back forms, virtual tours, etc.) activities. Campers "toured" Florida wildlife, coastal and freshwater systems. Youth interacted in bi-weekly (Monday and Friday) video conferencing as they practiced skills to "do-reflect-apply". Our program had 90 youth enrolled (ages 11-18). This allowed participants to explore Florida's natural resources. **Results:** Quantitative and qualitative assessments to measure growth of knowledge/literacy with a variety of tools; including report-back forms, and weekly surveys. Google analytics and survey data are pending and

reportable, upon availability. A state-wide Qualtrics survey will be administered in late summer and the results will be shared as available. Behavioral observations provided evidence that youth engaged in the program during synchronous sessions. **Conclusions:** Virtual environmental programs engage youth in learning about their environments, cultivate responsibility for natural resources and motivate young people to recognize cause and effect relationships. Youth can then apply project-based learning tools with experiential programs to tackle environmental issues.

Health and Finance

Sponsored by FEAFC

Abstract Chair- Virgilia Zabala

Improving Health and Reducing Food Waste During a Time of Stress

Nikolai, A., UF/IFAS Extension Polk County Family and Consumer Sciences

COVID-19 brought about a need and/or interest to eat more at home. Preparing healthy meals can reduce the risk of illnesses such as heart disease, cancer, high blood pressure, and diabetes and help support the immune system. **Objectives:** Objectives were to increase knowledge about healthy meals or snacks, increase the number of healthy meals and snacks consumed, reduce the amount of vegetables thrown away, and increase family meals. **Methods:** A four-part series, “Foodie Fun at Home” was created to give weekly, 15-minute webinars on insights on fun, healthy eats targeting parents and families. The topics included kids’ snacks, customizable family meals, making comfort foods nutritious and delicious, and sheet pan meals. **Results:** A retrospective pre-post survey was used to evaluate knowledge gain and intent to change behavior. 78% (87/112) increased their knowledge of healthy meals and snacks, 77% (87/113) intended to make changes to eat and make healthier meals and snacks (22% already made healthy meals and snacks), and 92% (24/26) intended to decrease the amount of vegetables they throw away. Additionally, 42% (8/19) intended to increase the number of family meals. **Conclusions:** Participants of the “Foodie Fun at Home” series intend to improve the nutritional value of family meals and snacks and increase the number of family meals while also reducing food waste. This can contribute to cost savings and improved health, both of which are critical during a physically and financially stressful time.

Food Access Success through Community Coordination Breaks Barriers for Food Access Success.

N. Parks*, UF IFAS Duval County, **M. Hart**, Family Nutrition Program

There are pockets of urban communities that do not have access to fresh foods and depend on the corner store for non-nutritious foods. Barriers in accessing healthy and affordable food may negatively affect diet and food security for individuals. A farm to community initiative assists in breaking these barriers. **Objective:** Community organizations, FCS agent, Small Farm Agent, and Public Health Specialist (Family Nutrition Program) worked together to connect farmers to community partners to sell locally sourced products to their clientele in multiple counties. **Methods:** Two agents and the public health specialist provided data on low income, low accessibility data, Supplemental Nutrition Access Program- SNAP recipients by neighborhood, direct marketing training manual, and EBT equipment application. Surveys were provided to community partners and their clientele to determine the need, sites, and produce preference. Families purchased twenty dollars of produce for five dollars. **Results:** To date, thirteen new community partnerships were developed providing produce

to 3,275 households. Twelve farmers sold 85,000 pounds of fresh local produce during a nine-month period to five counties. As a result of the program, other food access opportunities have occurred. **Conclusions:** The agents found the success of this farm to community initiative is due to a grassroots approach to addressing food access. The farmers sell their products directly to the clientele of community organizations.

FEAFCS: Virtual First Time Homebuyer and Homeowner Education

L. Osgood*, **L. Hamilton***, **S. Ellis***, **H. Copeland ***, **C. Longley***, **J. Corbus***, **H. Corbitt***, **J. Rodriguez***, **J. Gomez***

For many Americans homeownership is an essential part of the American Dream. However, building credit, shopping for a mortgage, purchasing a home and caring for it can be overwhelming. The UF/IFAS Extension Housing team continues to help new homeowners navigate the homebuying process. Due to the circumstances surrounding COVID-19, alternate programming has been created using online, interactive Zoom classes as the guided learning experience. **Objectives:** 1. Increased participant knowledge of the responsibilities of home buying and homeownership 2. Demonstrated improved participant homeownership readiness and 3. Demonstrated affordable home purchase. **Methods:** Traditionally, UF/IFAS Extension FCS agents across the state offer Homebuyer Education and home maintenance education classes in a traditional setting. However, with restrictions due to COVID-19, a team of agents created an online, interactive version of the program, using experts from various housing disciplines and program materials. Extension agents provided a high-quality virtual program that resulted in impact. **Results:** To date, virtual housing education has enrolled over 411 participants. Current evaluation data indicate: 100% (411/411) demonstrated improved homeowner readiness, 79% (332/411) are more confident in their ability to purchase a home, 7% (5/378) have purchased affordable homes, and \$225,000 in down payment assistance has been distributed since converting to an online format. **Conclusions:** Virtual housing education has the ability to extend the reach of ALL programs statewide bringing education and resources to Florida citizens who are not able to be reached via a traditional classroom setting. Evaluations indicate that online participants gained knowledge to successfully navigate the home buying process.

Community-based Health Promotion to Reduce Rural Health Disparities

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Health disparities in rural communities is a major public health issue. UF/IFAS Extension in four rural counties partnered with local faith-based organizations (FBOs) to implement the Faithful Families program with a goal of improving healthy lifestyle behaviors among high risk families. Through partnerships with FBOs, UF/IFAS Extension provided nutrition and healthy

lifestyle education to families, trained lay health leaders (LHLs) to support and educate families interested in lifestyle change, and supported FBOs in building capacity to support healthy lifestyle behaviors among their members. **Objectives:** 1) Participants demonstrate community-level changes in health-related knowledge and behaviors and 2) FBOs implement physical activity and nutrition-related policy or environmental change to make the healthy choice the easy choice for their members during faith-community events. **Methods:** A total of 210 community members enrolled in the program across four cohorts. Twenty-four LHLs were recruited and trained to co-facilitate the program across 12 FBO sites. Participants attended group meetings held at FBOs and facilitated by County Extension agents and LHLs for 10 consecutive weeks. Participants completed pre- and post-test surveys which assessed changes in nutrition, physical activity, health knowledge, attitudes, and behaviors. Changes in policy and environments were assessed by interviewing FBO leaders. **Results:** At the conclusion of the 10-week program, 100% of the faith communities demonstrated participant-level improvements in one or more health-related behavior. Environmental and policy-level changes were observed at one-year follow-up with FBOs. **Conclusions:** UF/IFAS Extension partnerships with FBOs were effective at promoting healthy lifestyle behavior change among families in rural communities.

Healthy Florida Lifestyle *Locally Grown in Orange County*.

J. Rodriguez*, J. Anderson*, V. Zabala*, J.K. Yarborough, J. Roberts, T. Silvasy, E. Thralls, R. Tyson, H. Wooten, M. Souers, C. Glatting, UF/IFAS Extension Orange County

Objective: The intended outcome of the Healthy Florida Lifestyle *locally grown in Orange County* program was to increase the number of Floridians who are healthy at every stage of life. Program objectives varied per Wellbeing domain: Physical – incorporate daily healthy habits to prevent or manage chronic diseases; Social – develop a sense of belonging with others in their community; Mind – practice mindfulness to reduce the risk for anxiety and stress; Environmental – connect with the environment by growing food and learning about human-animal connections; Financial – incorporate Money Management techniques to ensure a positive cash flow. **Methods:** Educational methods included hands-on games and activities, demonstrations, multimedia presentations. Each cycle of the program involved 8-hours of contact time in the form of four 2-hour sessions. The program was evaluated using surveys at program completion and 6-months after. **Results:** Both iterations of the program produced positive results. Combined, 14 out of 23 participants completed the post-surveys, with 100% indicating knowledge gain or intent to change for the following areas: health and wellness, local foods, gardening, stress management, budgeting, and food safety. For the second cycle, 100% (n=6) indicated adopting one or more recommended behaviors. **Conclusion:** The program was successful, and we intend to apply for internal funding to continue to offer the program in the future. Each iteration has improved on meeting clients' learning styles and needs and has shown to be a holistic approach to health and wellbeing while showcasing the expertise and talent of our local Extension agents.

Reducing Risk of Functional Decline and Loss of Independence in Older Adults

W. Lynch, UF/IFAS Extension – Putnam County

Florida's 65 and older population is 19.9%¹ and is estimated to reach 32.5% by 2030²; 23.2% of Putnam County³ residents are ages 65 or older. Aging is often associated with a reduction in muscle mass (sarcopenia) and "is one of the most important causes of functional decline and loss of independence in older adults."⁴ Strength training is "one of the most effective preventive measures to delay the onset of sarcopenia."⁵ **Objective:** 40% of StrongBodies™ participants will improve strength, flexibility, and functional fitness. **Methods:** The Putnam County StrongBodies™ program has been implemented seven times with a total of 59 participants since 2018. Each 8-week cohort met at least twice a week for one-hour sessions and targeted all muscle groups and flexibility. Strength, flexibility, and functional fitness were evaluated using weekly tracking charts and a pre and post Senior Fitness Test which measures functional movements. **Results:** 56% (25/45) improved strength in at least five of the eight activities measured; 62% (28/45) improved in at least four, and 76% (34/45) improved in at least three. The pre and post Senior Fitness test was completed by 44 participants. Of these participants, improvements were made in the following: Chair Stand 66% (27/41), Arm Curl 74% (31/42), 6-Minute Walk Test 72% (13/18), Sit and Reach 77% (30/39), Back Scratch 75% (27/36), 8-ft Get Up and Go (34/41). **Conclusion:** StrongBodies™ is an effective strength training program to reduce risk of functional decline and loss of independence in older adults.

The FCS-4H Milk Run 5k.

J. Rodriguez*, J. Anderson*, V. Zabala*, E. Pardo, M. Souers, UF/IFAS Extension Orange County

The Milk Run 5k is a joint effort between Family and Consumer Sciences and 4H to promote healthy living in addition to raising awareness of the 4-H program. **Objectives:** The intended outcome of the race was to promote physical activity for families and increase brand recognition of 4-H, FCS, and UF/IFAS Extension Orange County. Objectives included: Enrollment of 60 participants in the 2019 race, have 95% of runners/walkers complete the 5k, pilot innovative marketing approaches, and engage 4-H club leaders and youth to increase efficiency of run race day operations. **Methods:** FCS conducted online education and marketing in the form of blogs, newsletters, a TV segment, and Facebook posts. All agents involved mapped the race and secured event day sponsors, who contributed either monetarily or via in-kind donations. FCS agents provided hydration stations and a post-race nutrition station. Volunteers were stationed throughout to hand out snacks, drinks and educational materials. **Results:** We obtained use to over 65 acres of land for the race as an in-kind donation, attracting 65 runners (age range 10-85), 14 volunteers and 100% of participants were able to complete the 5k. Post survey results showed that over half of the participants would increase their weekly physical activity after training and participating in the milk run. All participants stated they would refer the Milk Run 5k to a friend or family. **Conclusion:** The Milk Run 5k has become a signature program, which will continue to be held yearly to teach the importance of healthy living.

Cooking with your Electric Pressure Cooker: Basics 101

Dr. Maria Portelos-Rometo Family and Consumer Sciences, Sarasota County

Objectives: As a result of the Cooking with your electric pressure cooker class, participants will increase their knowledge 60% on appliance features and functions as measured by the survey.

As a result of the class, 60% of the participants will adopt appliance safety precautions including recommendation not to use the appliance as a pressure canner as measured by the survey.

Methods: Developed in 2019 and includes a survey, factsheet and power point. The two-hour hands-on class uses 3 different multi-function pressure cooker models. Information on product features, safety, cleaning, storing, recipes and food safety are taught. Participants are grouped, with each preparing a different recipe showcasing different functions. With COVID-19, this class transitioned into a virtual presentation using power point and demonstration.

Results: To date, 102 clients have participated with a total of 67 surveys collected indicating the following:

54 of 67 (81%) reported increased knowledge on appliance features and functions.

52 of 67 (78%) reported planning on adopting at least two safety precautions including the recommendation to not use the appliance as a pressure canner.

Conclusions: As demand for healthier, less expensive meal options grow, the use of a multi-function pressure cooker to prepare meals at home quickly and less expensively than eating out is a great alternative for families. The transition to a virtual format increased participation. Future virtual classes that increase skill level are being assessed.

Leadership and Innovation

Sponsored by ESP

Abstract Chair - Qingren Wang

Exploring Veterinary Science: Virtual Program Curriculum

Bowers, A. UF/IFAS Extension Pinellas County*, **Binafif, T.** UF/IFAS Extension St. Lucie County*
Souers, M., UF/IFAS Extension Orange County*, **Hernandez, S.** UF/IFAS Extension Pinellas County Volunteer*

Objectives: The purpose of this curriculum is to introduce youth interested in veterinary and animal science careers to basic veterinary science topics, with a focus on career exploration. This curriculum was developed to be used virtually for online day camps or clubs but can also be utilized for in-person or asynchronous programming. **Methods:** The curriculum was used in a pilot test during the 4-H Adventures Virtual Camps in summer of 2020 and cost \$15 for 4-H members and \$20 for non-4-H members. Zoom, Google Classroom, Kahoot, and a variety of online resources were used to deliver the program in addition to the project book that was developed. The camp was offered for two hours each day for a week, with homework required after the live sessions. **Results:** 70 youth registered for the event, and each day averaged between 55 and 60 attendees. The camp earned \$1100 for revenue enhancement. Youth were from a variety of states, and some even from Puerto Rico the United Kingdom. Around 55% were new to 4-H. 92% of youth surveyed (n=38) indicated “This 4-H program gave me the opportunity to explore something I really care about”. **Conclusions:** This virtual day camp and curriculum gives youth interested in Veterinary Science a way to explore the topic and plan for their future careers in an engaging way, even if virtual. This curriculum has the opportunity to introduce new audiences to 4-H and can be easily replicated with the project book.

The Power of Partnership: Reaching International Gardeners during COVID-19

E. Harlow*, UF/IFAS Extension Columbia County, UF/IFAS Extension Columbia County; **H. Corbitt***, UF/IFAS Extension Columbia County; **C. Mulvaney**, UF/IFAS Marion County; **E. Cannon***, UF/IFAS Marion County; **M. Bailey**, UF/IFAS Marion County; **A. Marek**, UF/IFAS Marion County; **M. Hunter**, UF/IFAS Marion County; **T. Silvasy**, UF/IFAS Orange County; **G. Sachs**, UF/IFAS Extension Central District; **L. Duncan**, UF/IFAS Extension Sumter County; **W. Wilber**, UF/IFAS Extension.

With a pandemic impacting the world, it was important to examine cross programmatic efforts while addressing the resilience of our food systems in times of crisis. The Victory2020 Garden Community was developed as a multi-generational, joint program with several UF/IFAS Extension counties and program areas to address this need. **Objectives:** To combine multi-disciplinary program areas to maximize delivery and impacts through various media formats. **Methods:** A working group of 12 agents and support staff was formed to deliver programming. To stay organized a Microsoft Teams was created to organize file

sharing. Agents held weekly planning meetings. To reach the over 2,300 local, nationwide, and global participants, educational methods including mailed materials, social media, online learning communities, and video tutorials were utilized. **Results:** Agents worked in teams to accomplish: 32 videos totaling 23 hours and 2,000+ views, 10 Canvas modules with 40+ hours of programming for over 1,800 students, 500+ posters and record books mailed, 1,650 seed packets mailed, 22 Zoom classes with over 1,000 live attendees, one Facebook group with over 50,000 reached and 4,000+ engagements monthly and a youth and adult book club. The team received \$7,000 in funding and is using an IRB approved survey to further evaluate impacts. **Conclusions:** Cross programmatic efforts reached over 100,000 individuals and families to create a community and experiences that covered a range of subjects including gardening, well-being, food safety, history, and careers. Participants utilized the Victory2020 Garden community to find a sense of belonging during the isolation of the pandemic.

A Real-Time Extension Program Response

R. Madhosingh-Hector*, UF/IFAS Extension Southwest District, **A. Betancourt***, UF/IFAS Extension Monroe County, **C. Roberts***, UF/IFAS Extension St. Lucie County, and **L. Seals***, UF/IFAS Extension Southeast District

Objectives: A team of Community Resource Development (CRD) agents developed a lunchtime webinar series to provide content and connection time for agents during the pandemic. Many Extension agents commenced work-from-home activities in mid to late March and the series was launched on April 15. **Methods:** Agents hosted weekly meeting sessions until the series transitioned to monthly in June. Agents met virtually via the Zoom platform and learned about *Working from Home*, *Money and You*, *Finding Your Tribe*, *Feeling the Burn*, *Getting Back on Track*, *Diversity, Equity and Inclusion*, and *Skills for Dynamic Situations*. Each 1-hour block included a short educational component and connection time to share concerns and best practices. All sessions were advertised via multiple listsevs including IFAS-Extension-ALL, district lists, and word-of-mouth. Webinar topics chosen reflected both stated and expressed need based on current events and chat box responses. **Results:** To date, a total of nine sessions have been hosted with 295 participants. Over time, agents' attitudes have become more positive and 93% agreed that webinars helped them feel more connected; 99% will use one or more strategies learned; 96% gained new knowledge; and 64% formed a new collaboration. In addition to the weekly series, the CRD team produced 11 blogs, one guidance document, two newspaper articles, nine instructional Multi-Media presentations, nine administrative updates, and one summary report. **Conclusion:** The online Zoom sessions provided an opportunity for agents to share resources, learn new strategies for program development, connect with each other amidst the social isolation, and promote fellowship

Treasure Coast Meet & Greet Event Raises Awareness of Local Agriculture

Y. Goodiel*, UF/IFAS Extension Martin County

E. Pienaar, Wildlife Ecology and Conservation Department

Objective: Participants' knowledge of the types and amount of agricultural lands and their support for Florida agriculture, will increase by 30% after attending a program. Measured through self-reflective post-event surveys. **Methods:** In 2019, we organized the inaugural Treasure Coast Food System Meet & Greet, as follow-up to the Martin County Food System Study, which identified a need for better connectivity among food system participants. The event brought together growers, chefs, food pantries, suppliers, school food service, and the general public, for networking and sharing of services/goods offered (24 vendors & 68 attendees). I presented an educational exhibit, showcasing local agriculture. A few weeks after the event, attendees and vendors were asked to self-report via Qualtrics on knowledge gain and behavior change. **Results:** Of the respondents (n=27), 74% were attendees, and the remainder were vendors. Participants increased knowledge of the amount of land in agricultural production (n= 11 out of 27; 41%) and the diversity of crops grown in Martin County (n=12 out of 27; 44%). After participating, 15% of respondents said they now "more strongly agreed" it is important to keep land in ag production; none of the respondents disagreed. Additionally, 67% said they shared information learned and 19% increased purchases of Florida produce. **Conclusions:** Through programs like the Meet & Greet, Extension can help people broaden their perspective of agriculture. Participants often share their new knowledge and perspective, and they may also shift purchasing habits. An informed citizenry is more likely to support sustainable agriculture programs and policies.

Digital Evaluation: a 21st Century Tool for Extension Programs

L.Hamilton*, Volusia County, **N. Parks***, Duval County, and **K. Stauderman***, Volusia County

Evaluation is a critical component of effective extension education, but agents in all disciplines find it challenging to collect, compile, aggregate, and analyze data. **Objective:** FCS and Commercial Horticulture agents worked together to implement pre/post test evaluations using mobile devices in the classroom to improve data collection. **Methods:** Three agents used Google Forms and Qualtrics to administer surveys via smartphones, tablets, and laptops in financial, home buyer, and pesticide programs. Participants were provided with a link to the surveys. Surveys in the financial class received real-time scoring. Surveys in the home buyer and pesticide classes collected demographic data, knowledge gain, and impact data from prior year participants. **Results:** To date, 248 individuals from financial programs, 570 home buyer education participants, and 150 participants in pesticide training completed electronic pre/post surveys in the classroom. Participation rates varied: 97% (241) of financial, 86% (490) of home buyer and 60% (90) of pesticide participants completed surveys using digital devices. The remaining participants (147) completed paper surveys. Participation rates varied by age groups and support for use of mobile devices by the program speakers. **Conclusions:** Agents found that digital pre-post surveys significantly reduced the amount of time required to collect, aggregate, and analyze the data. Using in-class, real-time evaluation, participants and agents were able to see evidence of knowledge gained from the program. Scoring the post-test in the classroom is an effective tool for reinforcing learning for participants. The session will include a step-by-step guide to create surveys and implement digital evaluation.

STEM InvestiGATORS

N. M. Moores^{1*}, B.J. Hall-Scharf², S.E. Taylor³, W.J. Lester⁴

¹4-H Agent, UF/IFAS Extension, Hernando & Sumter Counties, Brooksville, FL

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Background: There are approximately 1,600^{*} homeschooled youth in Hernando County. Florida Statute 1002.41 requires these youth submit annual portfolios documenting educational activities. To provide quality, research-based education, UF faculty from four Extension areas combined their expertise and created the STEM InvestiGATORS program. **Objectives:** While introducing homeschool families to Extension and, specifically, to 4-H programming, the attendees would also increase knowledge and make behavior changes pertaining to a variety of topics. Youth ages 8-18 will be exposed to several science related activities to increase their knowledge and introduce career opportunities. **Method:** Events were scheduled to occur monthly August 2019 – May 2020. April and May events were done on a virtual platform due to the pandemic. Each agent led at least two educational events. Registration links were created through Eventbrite with small fees to cover insurance and supplies. Various instructional methods were used to teach the subject matter. Topics included coding, biology, financial management, entomology, marine/environmental science, and ecology. To encourage participation, certificates of completion were offered to youth completing five courses to use in their portfolios. Those completing nine courses were given additional gifts. **Results:** Total, 170 youth participated in STEM InvestiGATORS. Pre/post tests indicate participants had a 93% increase in knowledge. Individual follow-up surveys showed that 8% of youth have adopted at least one behavior change. Lastly, five families joined 4-H clubs and enrolled in project work. **Conclusion:** STEM InvestiGATORS is actively engaging Hernando's homeschooled youth and providing sound content for portfolios.

*Source: Hernando County Home Education Office

Mobile App Technology Delivers an Increase in 4-H Communications

M. Olson^{*}, UF/IFAS Extension Clay County; **S. Ghosh^{*}**, UF/IFAS Extension Polk County,

S. Conner, UF/IFAS Extension Clay County

Clear, effective communication in 4-H programs is paramount to an agent's success in promoting educational programs to maintain high levels of engagement. Mobile applications (app) are an innovative method to reach clientele and communicate information. **Objectives:** Through implementing an app, the Clay and Polk County 4-H programs will 1) provide services and information that is accessible and available in a timely fashion 2) increase engagement and outreach of 4-H programs to underserved clientele and 3) improve communication leading to increased public awareness of 4-H programs and their impact on society. **Methods:** Clay and Polk counties worked with Grandstand Events and Apps to create an app for use by clientele. The Clay County 4-H app launched to the public on December 3, 2019 and Polk County launched on June 17, 2020. **Results:** Since launch, the Clay County 4-H app has 230 downloads and the Polk County

app has 56 downloads. Survey results (n=17) of app users between the two counties indicate 88% prefer to find information on the app versus a website. **Conclusions:** The mobile apps developed by both counties have proven to be an efficient tool in communicating with clientele. Both counties plan to update the apps to include educational programs and lessons that can be utilized virtually by 4-H clientele and explore utilizing the app as a recruitment tool. In a short time, the app has increased the communication of both county programs by providing timely, accessible, and accurate information.

Tri-County Agents Connect with Small Scale, Urban, Hobby and Community Garden Farmers through Video Mediums and Facebook Live

L. Hickey* UF/IFAS Manatee County Extension, **S. Bostick** UF/IFAS Sarasota County Extension, and **J. Ryals** UF/IFAS Collier County Extension

Small scale producers often visit non-science-based websites in search of general and specific information about horticulture and livestock, disease and pest pressure and cultural conditions required to grow crops. Objective: During the COVID-19 pandemic, alternative educational outreach was required to continue supporting the needs of agricultural producers. Methods: Several Sustainable Agriculture and Food Systems Extension Agents teamed up and utilized Facebook Live or posted videos on their county Facebook page to reach a wide range of urban and rural small-farm producers on an array of agricultural topics. Using this platform gives exposure to science-based information on social media platforms where many producers are already active. An added benefit to using Facebook Live and videos is that community gardeners and home gardeners can access the same information, which provides them with tools for increased success in growing food for home consumption. Results: From a non-existent number of downloads in March 2020, the current downloads grew to more than 6,000 views. To date, 21% (n=1,207) of the viewers engaged in comments and 12% (n=146) of the engaged audience requested additional information on cultural requirements. Conclusion: Though there was a learning curve, three food systems agents adopted new methods of outreach to their clientele. Many growers have expressed their appreciation for the information in this alternative teaching style.

It's a Circus! – Limited Pesticide Training & CEU Day

Stauderman, K. M.*Commercial Horticulture Extension Agent III, UF/IFAS Extension Volusia County, **Wells, B. C.***Commercial Horticulture Extension Agent II, UF/IFAS Extension Brevard County

Objectives: The purpose of this program video was to celebrate Halloween at the Extension Volusia County office through a pesticide educational program. Clientele wanting a Limited Commercial Landscape Maintenance pesticide license, need 6 Continuing Educational Units (CEUs) to apply for their license and 4 CEUs to maintain it annually. Licensees tend to forget to renew their CEUs throughout the year. Methods: Two themed programs were created to motivate audiences to attend and remind all license holders to renew in a timely matter. In addition to a

themed St. Patrick's Day (March 17th) event, a Circus themed Halloween (Oct. 31st) program was offered in 2019. These holidays typify a festive event that falls on the same date yearly. Volusia Magazine, (PBS WDSC CH 15) aired this segment (<https://www.youtube.com/watch?v=z5u59q-THD0>) on December 11th, 2019 with more than 25 thousand households throughout Volusia, Flagler, Orange, Osceola, Lake, Brevard, Marion and Seminole counties, with over 1.5 million potentials. Results: As a result of this video, seventy-five participants registered for 2020 trainings an increase of 108% over 2019 attendance. Conclusion: This online video draws awareness to obtain and renew CEUs by highlighting the Halloween holiday and enticing future clientele to attend future programming in Volusia County.

Promoting Soil Health and Sustainability Through Public Outreach Efforts

J Bhadha* Everglades REC, Soil and Water Sciences Dept. Soil and Water Sciences Dept.,
A Rabbany, Everglades REC, **S Swanson** Hendry County. **J Capasso** Columbia County, Soil and Water Sciences Dept.

Objectives: Generally, soils in Florida possess little organic matter and exhibit poor water and nutrient retention capacity, especially those experiencing regular disturbance through tillage and low inputs of organic matter. Conventional cropping systems on such soils therefore requires continuous application of external nutrients and water, yet they remain vulnerable to large losses of these inputs. Practical information about the physical, chemical, and biological transformation of soils resulting from regenerative farming practices over a growing season and its effect on soil quality is lacking. Over the past five years, this team has promoted soil health and sustainability through public outreach efforts throughout the state of Florida, and beyond. **Methods:** To evaluate the impact of regenerative farming practices such as cover crops and soil amendments, we conducted pre and post soil health assessment on collaborative grower fields across the state. Soil health indicators were used to quantify changes in soil properties. Knowledge was transferred in the form of open house events, trainings (general and in-service), and outreach publications. Surveys conducted (IRB201903149) at public events were used to gauge knowledge gained and changes in behavior. **Results:** Application of cover crops and organic amendments have shown to increase soil organic matter and water holding capacity. 77% of the surveyed public would consider performing regenerative farming practices; and 61% of those would prefer to start composting in their backyards. **Conclusions:** Folks of all age groups can relate to the concept of soil health and sustainability they just need a little nudge.

Identifying and Aligning Florida's Urban Programs with the National Urban Extension Priorities Framework

B. Burbaugh*, UF/IFAS Extension Volusia County; **L. Felter***, UF/IFAS Extension Central District; **R. Madhosingh-Hector***, UF/IFAS Extension Southwest District; **L. Seals**, UF/IFAS Extension Southeast District; **N. Simmons**, UF/IFAS Extension Escambia County; **S. Greer**, UF/IFAS Extension Santa Rosa County; **B. Rogers**, UF/IFAS Extension Southwest District.

Florida welcomes over 330,000 *new* residents each year. To help ensure Extension's relevance and accessibility to this increasingly diverse population UF/IFAS hosted an Urban Extension Symposium and several follow-up sessions to identify and align our efforts with Extension's National Urban Priorities. **Objectives:** The goal of these activities were to 1) assess the progress of urban Extension efforts in Florida, 2) adapt elements of successful efforts from other institutions, 3) prioritize strategies and develop recommendations to advance urban Extension efforts statewide, and 4) identify current Extension programs and their alignment with national priorities. **Methods:** The objectives were accomplished through a series of interactive activities between December 2019 and June 2020. **Results:** To maintain an emphasis on urban Extension efforts in Florida we will share several actions to advance Urban Extension which include: 1) identifying and articulating the connection between current programs and national urban program areas: *strengthen communities, feed our future, enrich youth, improve our health, and protect the environment*; 2) revising Florida's Urban Extension Strategic Plan Indicators; 3) developing action teams to advance this work, and; 4) developing a timeline of activities to support urban efforts. **Conclusion:** Urban and rural audiences do differ and understanding these differences will enable Extension to demonstrate the innovation and creativity necessary to deliver valuable information. Urban Extension professionals in Florida need to be well-connected in urban settings, must be supported in innovation through a re-design of the Extension reporting and evaluation system, and require specific resources to be successful with diverse audiences.

'Around the World' in the Kitchen

L. Cash, UF/IFAS Extension, Volusia County 4-H, DeLand, FL.

Objectives: Diversity and inclusion are critical concepts for youth to understand and put in practice ([Tirell-Corbin, 2015](#)). In 4-H, focuses on life skills related to STEM, Healthy Lifestyles, Citizenship and Leadership, and Workforce Preparation ([Myers, 2012](#)). What better way to promote acceptance and address our mandates than in the kitchen? **Methods:** In January 2020, twelve cooking classes were offered reaching over thirty youth. Classes 'visited' South America, Europe, the Mediterranean, and Asia. Recipes and lesson plans were developed using Serv-Safe® principles, 4-H Common Measures, and Essential Elements. **Results:** Youth (n=32) were evaluated by observation for correct use of kitchen tools, proper hygiene and handling of foods; and communication skills. Youth were also assessed using guided discussion. The 4-H'ers inferred that people around the world are very similar (attitude): (1) they bond over food; (2) use the same ingredients to create like meals; and (3) define their cultures by the foods they eat (<https://www.npr.org/2017/02/02/512998465/why-eating-the-same-food-increases-peoples-trust-and-cooperation>). Participants learned the names of the foods they prepared, tried foods and spices they had never tasted before, and investigated the history and cultural significance of the foods prepared. **Conclusions:** Cooking classes are part of the Volusia County 4-H SPIN (Special Interest) program and are offered throughout the 4-H year. There was overwhelming positive response to this series of lessons. The larger implication is that youth taught at a young age that diversity and inclusion are valuable will grow up to be more aware and appreciative of other cultures (<https://child.unl.edu/cultural-diversity>).

Touring Florida: Wildlife, Water and Climate Change

M. Ward*, UF/IFAS Extension Citrus County, **A. Betancourt***, UF/IFAS Extension Monroe County, **P. Davis***, UF/IFAS Extension Bay County, FAE4-HA and ESP Member, **S. Davis***, UF/IFAS Extension Sarasota County, **H. Abeels**, UF/IFAS Extension Brevard County, **S. Clamer**, UF/IFAS Extension Citrus County **J. Costanzo**, UF/IFAS Extension Sarasota County – Intern, **R. Cowan**, UF/IFAS Extension Okaloosa County, **L. Lingelbachm**, UF/IFAS Extension – Intern, **J. Psikogios**, UF/IFAS Extension Bay County, **C. Reaves**, UF/IFAS Extension Citrus County, **J. Sims**, UF/IFAS Extension Bay County, **A. Smyth**, Assistant Professor, Soil and Water Sciences Department, **Brandi Yancy**, UF/IFAS Extension Hillsborough County

4-H educators use innovation to reinvent traditional summer camp programs, engaging youth in inquiry-based learning. **Objectives:** Florida’s natural environments are a finite and a unique resource. Young people benefit from participatory, project-based learning models as they learn to lead society in the preservation and protection of our natural resources. Campers learned to; make observations on the environment, identify Florida plant/animal species, explore environmental career related options and connect Florida environments to climate change. **Methods:** The 4-week virtual camp immersed youth from Florida and the United States, in learning ecosystem connections. The camp combined synchronous (video conferences and streamed games) with asynchronous (videos, report-back forms, virtual tours, etc.) activities. Campers “toured” Florida wildlife, coastal and freshwater systems. Youth interacted in bi-weekly (Monday and Friday) video conferencing as they practiced skills to “do-reflect-apply”. Our program had 90 youth enrolled (ages 11-18). This allowed participants to explore Florida’s natural resources. **Results:** Quantitative and qualitative assessments to measure growth of knowledge/literacy with a variety of tools; including report-back forms, and weekly surveys. Google analytics and survey data are pending and reportable, upon availability. A state-wide Qualtrics survey will be administered in late summer and the results will be shared as available. Behavioral observations provided evidence that youth engaged in the program during synchronous sessions. **Conclusions:** Virtual environmental programs engage youth in learning about their environments, cultivate responsibility for natural resources and motivate young people to recognize cause and effect relationships. Youth can then apply project-based learning tools with experiential programs to tackle environmental issues.

2020 EPAF Poster Presenters-at-a-Glance

POSTER SESSION CHANNEL

Wednesday, September 2, 2020

2:00 – 3:30 p.m.

#	Presenter	Title
1	Beckford, Marguerite	Three Hundred Trees and Counting: Growing an Experiential Urban Forestry Extension Program
2	Bravo, Lorna	Empowering Master Gardener Volunteers to Evaluate UF/IFAS Lettuce Lines Grown Hydroponically
3	Camp, Edward	Supporting Local Tourism and Economies through Coastal Fisheries Extension Enhancement
4	Carter, Grace	Virtual 4-H Embryology: Providing Teachers and Community Members Virtual STEAM Resources
5	Cash, Laura	Around the World in the Kitchen
6	Copeland, Heidi	Family Resource Management Impact via Volunteer Income Tax Assistance
7	Crawford, Sonja	Gardening Camp 1.0
8	Davis, Jim	Creating a Virtual Wildlife and Invasive Species Educational (WISE) Series
9	DeCubellis, Chris	Sense of Belonging as Perceived by Middle and High School Students Who Continue Participation in 4-H Clubs
10	Estevez, Brian	Virtual 4-H Wildlife Outdoors Leadership Focus (W.O.L.F.) Camp
11	Guay, Noelle	Expanding Equity in 4-H Summer Programming by Bringing Camps Home with 4-H Camp to Go Kits
12	Henry, Karen	4-H Breathers Create a Sense of Belonging
13	Huo, Alfred	Development of Environmentally-Resilient Ornamental Plants Using Advanced Breeding Tools
14	Karsch, Theodore	4-H Teach Me in 3
15	Kerr, Mary Beth	4-H@4 Delivering Virtual Programming to Promote Home-bound Project-based Activities during COVID-19
16	Kreuger, Shelly	Increasing Underwater Surveillance Capacity for Stony Coral Tissue Loss Disease: Citizen Science Training for Recreational SCUBA Divers
17	Leo, Allison	Teaching Sewing through a Virtual Format
18	Liao, Hui-Ling	Forage Production: On-Farm Studies Across Florida to Evaluate the Effects of Rhizoma Peanut Species, Grazing, and Environmental Factors on Bahiagrass Production
19	Lindsey, Angie	Providing Support for the Agriculture Industry and Extension During the

		COVID-19 Pandemic
20	Madhosingh-Hector, Ramona	Deliberative Discussions - A Role for Extension in Local Communities
21	McIntyre, Tina	Managing Nutrients in a Wild & Scenic River Basin: Provoking Behavior Change in Residential Fertilizer Users
22	Moore, Nancy	STEM InvestiGATORS
23	Nikolai, Andrea	Improving Health and Reducing Food Waste During a Time of Stress
24	Pittman, Amanda	To the Virtual World and Beyond Through Sustainable Agriculture Virtual Camp
25	Popa, Kristie	4-H Pen Friends
26	Rice-David, Karen	Caterpillars in the Classroom: Creating Conservation Connections
27	Roberts, Carol	Credit Score Improvement Grant Progress
28	Ryals, Jessica	Southwest Florida Small Farmers Network Regional Impacts for Peer-to-Peer Learning
29	Sanderson, Lisa	Comparison of In-Person and On-Line Palm Training on Knowledge Gain
30	Shawn, Michael	Creating an Interactive Summer 4-H Camp During a Pandemic
31	Sprain, Jessica	Growing STEM and Entrepreneurial Competencies Using Drone Education
32	Stump, Krista	Cut It Out: Video Editing Workshop for Polished Zoom Recordings
33	Taylor, Kalan	Eat, Sleep, Fly: 4-H Aviation/Drone Day Camp
34	Tharpe, Abbey	Implementing a Virtual Summer Day Camp for Physical Fitness and Culinary Adventures
35	Verlinde, Chris	Managing Stormwater in a Changing Florida Panhandle
36	Webb, Susan	Developing a Community Garden Series to Meet Local Needs
37	Wells, Bonnie	Promote Integrated Management Practices and Enhance Sustainability
38	Williams, Pat	Baby Boomers to Zoomers: A Mid-MGV Training Program Adaptation
39	Woodard, Chelsea	Building Communication Through 4-H Photography Camp
40	Zabala, Virgilia	Improving Food Preparation Skills for Better Nutrition

Poster Presentation Abstracts

Chair- Kristie Popa

Three Hundred Trees and Counting: Growing an Experiential Urban Forestry Extension Program

M. Beckford*, UF/IFAS Extension Sarasota County

Background: Communities derive many ecosystem services from urban forests, including reduced urban heat island temperatures, improved air quality, and positive physical and mental health impacts. In 2013, a tree canopy study of Sarasota County indicated 35% coverage in the Urban Service Area, and there has been continual land development and consequent tree removal since completion of the study. **Purpose:** To mitigate canopy loss, I launched the *Treejuvenation Florida* urban forestry Extension program in 2017. Objectives of the program include promoting awareness of the benefits of urban trees, encouraging community engagement in urban forestry activities, and increasing the number of trees planted throughout the county. An urban forestry Extension program designed to increase the number of tree-plantings in Sarasota county is important, not only because of the continual loss of urban canopy from development, but also because of stipulations consigning the County's re-forestation funds to planting trees only on public property. **Methods:** In addition to developing and distributing urban forestry Extension publications, the *Treejuvenation Florida* Extension program convenes a series of quarterly urban forestry community events: Florida Arbor Day *TreeQuest* - scavenger hunts for native trees in local parks; Project Learning Tree youth library sessions - workshops educating youth about the ecosystem services of urban forests; *Tree Trail Tour* - guided tree-centric nature walks in local gardens and arboreta; and National Arbor Day tree planting demonstrations at various locations throughout the county. For the National Arbor Day tree planting demonstration events, registered participants pledge to planting a tree on their property after attending an urban forestry seminar on tree care and receive up to 3 native trees per local address. To assess new tree survival rates, a follow up survey is done with participants 1 year after the tree-planting demonstration event, with participants having the option of submitting pictures of their sapling tree(s) in the survey response. **Conclusion:** Since its launch, *Treejuvenation Florida* has had 355 tree-plantings in Sarasota County, with an 84% survival rate (300 trees) as determined by follow-up surveys with National Arbor Day tree-planting demonstration event participants.

Empowering Master Gardener Volunteers to Evaluate UF/IFAS Lettuce Lines Grown Hydroponically

L. Bravo* (Broward County), K. Moore (FLREC Broward County), G. Sandoya (EREC Palm Beach County), E. Vanessa Campoverde (Miami Dade County)

Background: In May 2019, the Broward County Master Gardener Volunteer program (MGVs) launched the first hydroponic workshop to 23 MGVs with a focus on water use efficiency. The program has been collaborating with the UF/IFAS Lettuce breeding program. One of Dr. Sandoya's (lettuce breeder) objective is to develop lettuce cultivars with good horticultural traits for Florida production. In 2020, 22 new MGVs completed the general hydroponic course. Half of the class volunteered to apply the knowledge gained with a deep-water culture system designed by the Broward County Urban Horticulture team to evaluate three different experimental lines from UF/IFAS lettuce breeding program. **Objective/Purpose:** This multi-discipline approach brings together UF statewide and county extension faculty, and MGVs to explore Agriculture and Horticulture in an urban setting to increase awareness of the environmental benefits of urban farming and hydroponics. In doing this Broward County Extension can offer more programs to reach a different audience and provide higher quality research-based learning experiences to MGVs. This collaboration will ultimately improve urban residents' livelihoods, abundant in the southeast counties of Florida. **Method:** We implemented a virtual 7-week online learning platform via Microsoft Teams due to the 2019 pandemic. Each participant took a deep-water culture system home and a lettuce cultivar following social distancing during the pandemic. Urban Horticulture agent created deep-water culture how-to videos and manuals. We invited several UF specialists to cover virtual weekly topics. MGVs planted their lettuce in groups of 4 from home, shared weekly progress, collected data, and presented results on week seven via Teams. **Conclusion:** 22 MGV's were educated on the use of hydroponics to focus on water use efficiency. 50% (n=11) showed knowledge gain by growing with their deep-water hydroponic system, apply hands-on water quality measurements, proper fertilizer use, pest management, and know-how to reduce nutrient load. Ongoing MGV students learn about lettuce yields and quality parameters such as taste ingrown Florida lettuce as an alternative crop for local food production. Future applications of this program will expand to Broward schools in collaboration with 4-H faculty.

Supporting Local Tourism and Economies through Coastal Fisheries Extension Enhancement
Camp, E.V.*, UF Fisheries and Aquatic Sciences; H. Abeels, Florida Sea Grant Brevard County; A. Collins, Florida Sea Grant Manatee, Sarasota, and Hillsborough Counties; E. Staugler, Florida Sea Grant Charlotte County

Background: Marine recreational fishing supports tourism and recreational sector that is economically critical for many coastal counties in Florida. Supporting these sectors is one of the main ways that Extension agents serve these counties, and is a particularly clear way that agents can demonstrate having economic impacts. One-way agents can do this is to provide guidance—such as market research—that helps county or regional institutions, like Tourist Development Councils better understand who is using local fishing resources, and how. Agents, then, must have this information to provide their stakeholders. This project demonstrates a pathway to efficiently providing agents the information they, in turn, and provide to their stakeholders. **Objective/purpose:** The objective of our work was to evaluate a rapid, automated, approach for transforming freely-available data on recreational fishing into ready-to-use, county-specific

reports that Extension agents could provide to tourist development councils to ultimately augment local economic impact. **Method:** We developed a computer program to automate the data querying, analyses, and even report-writing to create, in minutes, detailed reports suitable for presentation to local tourist development councils. We then surveyed both end-users (recipients) and agents to evaluate the program's efficacy at increasing knowledge and improving advertising efficiency. **Conclusion:** This program has resulted in the creation of angler travel dynamic information documents created for all coastal counties in Florida, providing Extension agents in these counties with new materials with which to serve their stakeholders. This has directly resulted in substantial increases (>400%) in the creative works that agents have provided to local tourist development councils and 82% of agents reported increased agent knowledge. Moreover, recipients 67% of recipients described the information as useful for making advertising decisions and 50% stated the information would increase their advertising efficiency. The program is being expanded to provide additional information (such as local economic contributions of recreational fishing) in Florida and will be expanded to serve other states in the future.

Virtual 4-H Embryology: Providing Teachers and Community Members Virtual STEAM Resources

J.Cooper*,UF/IFAS Extension Gilchrist County, G. Carter*, UF/IFAS Extension Duval County

Background: 4-H Embryology is a favorite school enrichment program in Gilchrist and Duval Counties. As schools began transferring to online classes in spring 2020, teachers expressed interest in virtual embryology opportunities. **Objective:** Virtual 4-H Embryology aimed to 1) Increase students' knowledge of embryo development, the environment fertile eggs need for a successful hatch, agriculture, and general poultry science 2) Create resources teachers can use in future years when school enrichment programs return to in-person settings. **Method:** Gilchrist and Duval County agents collaborated to create 41 videos with daily lessons and activities for the 21-day program. Additionally, we partnered with Lancaster County (University of Nebraska-Lincoln Extension), and participants viewed Lancaster County's live stream of a chicken incubation period and hatch. Over 472 Florida elementary and middle school students participated in the March and April sessions. **Conclusions:** The videos created for the virtual program will be made available to teachers hosting incubators in their classrooms during future 4-H Embryology sessions. These resources will help teachers better understand and communicate the material. Students enrolled in the spring virtual sessions demonstrated an increased understanding of fertility, the amount of time required for incubation, environmental conditions necessary for a hatch, and poultry vocabulary through a pre/post-test. Teachers and families reported student interest and engagement as youth looked forward to watching chicks hatch on the live stream and enjoyed "movies and lunch" with embryology resources. Additionally, one kindergarten class created their own videos documenting what they learned through the project.

‘Around the World’ in the Kitchen L. Cash, UF/IFAS Extension, Volusia County 4-H, DeLand, FL.

Objectives: Diversity and inclusion are critical concepts for youth to understand and put in practice ([Tirell-Corbin, 2015](#)). In 4-H, focuses on life skills related to STEM, Healthy Lifestyles, Citizenship and Leadership, and Workforce Preparation ([Myers, 2012](#)). What better way to promote acceptance and address our mandates than in the kitchen? **Methods:** In January 2020, twelve cooking classes were offered reaching over thirty youth. Classes ‘visited’ South America, Europe, the Mediterranean, and Asia. Recipes and lesson plans were developed using Serv-Safe® principles, 4-H Common Measures, and Essential Elements. **Results:** Youth (n=32) were evaluated by observation for correct use of kitchen tools, proper hygiene and handling of foods; and communication skills. Youth were also assessed using guided discussion. The 4-H’ers inferred that people around the world are very similar (attitude): (1) they bond over food; (2) use the same ingredients to create like meals; and (3) define their cultures by the foods they eat (<https://www.npr.org/2017/02/02/512998465/why-eating-the-same-food-increases-peoples-trust-and-cooperation>). Participants learned the names of the foods they prepared, tried foods and spices they had never tasted before, and investigated the history and cultural significance of the foods prepared. **Conclusions:** Cooking classes are part of the Volusia County 4-H SPIN (Special Interest) program and are offered throughout the 4-H year. There was overwhelming positive response to this series of lessons. The larger implication is that youth taught at a young age that diversity and inclusion are valuable will grow up to be more aware and appreciative of other cultures (<https://child.unl.edu/cultural-diversity>).

Family Resource Management Impact via Volunteer Income Tax Assistance

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Background: Family and Consumer Sciences Extension Agents have a history of providing Family Resource Management programming. Involvement in the Volunteer Income Tax Assistance (VITA) program is a catalyst for agent involvement in a variety of financial management educational and volunteer opportunities. **Objectives/Purpose:** This multi-county, multi-state approach to financial education brings together the expertise of each Extension Agent as well as volunteers. This collaboration allows agents and volunteers to help each other and their community participants to address financial management topics. **Method:** Agents and volunteers meet prior to the income tax season to strategize and develop a variety of activities to facilitate the needs of the clients served via VITA. For the duration of the income tax season, agents continue to be in contact virtually via TEAMS and other means, working to promote individual financial capacity building for their clientele. **Conclusion:** The VITA collaboration has increased teamwork, created a deeper level of respect among agents and volunteers as well as increased the VITA program capacity. Despite having to end the program five weeks early due to

the COVID-19 pandemic, 197, 2019 income tax returns were completed via virtual VITA (plus, 7:2018, 2: 2017 and 1: 2016) 85 income tax returns were completed via the traditional, one on one tax preparation method. 250 income tax returns were completed via the Facilitated, Self-Assisted (FSA) method. Vita clients received nearly 400,000 in taxpayer refunds, including tax credits: Child Tax Credit, Earned Income Tax Credits, Affordable Care Tax Credit and Education Tax Credits. Additionally, the National Society of Accountants reports an average fee of \$176 to submit a simple 1040: more depending on the details of taxpayer filing status. Clientele using a no cost VITA site saved over \$44,000 in 2019 tax preparer preparation fees for the standard 1040 form used by all taxpayers to file their annual income tax return. (In that the 2019 Tax Season ended on July 15, 2020 the exact VITA numbers are to be release on August 10, 2020)

Gardening Camp 1.0

S. Crawford*, UF/IFAS Extension Hendry County; T. Prevatt*, UF/IFAS Extension Glades County; K. Mulinex, UF/IFAS Extension Desoto County; K. Popa, UF/IFAS Extension Charlotte County; K. Sarver, UF/IFAS Extension Miami-Dade County; J. Zayas, UF/IFAS Extension Hardee County

Background: Gardening Camp 1.0 was presented to youth virtually utilizing ZOOM in Charlotte, Desoto, Glades, Hardee, Hendry, and Miami-Dade counties. **Objectives/Purpose:** The program was developed from youth being at home during the COVID-19 Pandemic. Gardening is a great inexpensive way for youth to be outdoors promoting physical health while growing a nutritious commodity. Youth gardening increases one's self-esteem, self-confidence as well as a sense of gratification. **Method:** Gardening Camp 1.0 was held on Tuesday's and Thursday's for three weeks for one hour. The topics included plant basics, why are plants important, vegetable gardening, fun with plants, food safety and the future of plants and you. A hand's on activity complimented each presentation topic. **Conclusion:** An average of twenty-six (26) youth represented in six (6) counties attended the Gardening Camp 1.0 program. A pre and post question test was designed for each topic to determine the success of the program. Of the respondents, one hundred percent (100%) indicted they learned something new as well as one hundred percent (100%) indicating the Gardening Camp 1.0 met their expectations and needs. With the success of this program, Gardening Camp 2.0 will be presented as the next program.

Creating a Virtual Wildlife and Invasive Species Educational (WISE) Series

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FACAA

Background: Due to COVID-19, the availability for residents to attend in-person trainings related to topics of natural resources quickly came to an end. As a result of this, UF/IFAS Extension created a virtual webinar series based on the bi-annual Wildlife and Invasive Species Education (WISE) workshop held in Sumter County. This virtual webinar series has become extremely popular, reaching 1,204 participants. **Objective/Purpose:** The objective of this virtual webinar series was to provide access to quality Extension programming to residents who were unable to participate at in-person workshops. After attending webinars, polled participants will demonstrate a knowledge gain of at least 40% as measured by pre and posttests. **Methods:** Webinars began in April. Fifteen webinars were held every Friday at 1:00 pm. Speakers consisted of Extension agents and Extension specialists. Webinars first used the Zoom Meeting platform, then migrated to the Zoom Webinar platform. Webinars are one-hour long and provide an opportunity for attendees to ask questions. Pre and posttests were delivered via polling. Most questions consisted of five to six true/false or multiple choice. Webinars were advertised using county websites, blogs, newsletters, media releases, and social media. Webinars were recorded and placed on YouTube. Webinar polling reports and attendance reports were used to collect data and contact information. **Conclusion:** Surveyed participants demonstrated a 46% gain in knowledge measured by pre and posttests. WISE webinar series has been very well received by clients. Webinars now reach capacity of 100 every Friday. Attendees are viewing from multiple Florida counties, multiples states, and has reached international clientele. Feedback has been overwhelmingly positive. Vicki, one WISE attendee, wrote *“All of your zooms have been a learning and enjoyable time during this crazy twilight zone we're in now”*. Recorded webinars have received 908 YouTube views. Follow-up surveys will be delivered at 3-month and 12-month intervals to collect behavior change.

Sense of Belonging as Perceived by Middle and High School Students Who Continue Participation in 4-H Clubs

C.D. DeCubellis, UF/IFAS Extension State 4-H Headquarters

Background: Youth enrolled in a quality 4-H program that incorporates the essential elements (Kress, 2003) for an extended period of time develop life skills (Targeting Life Skills Model, 2015), and this continued participation leads to positive youth development (Lerner et al., 2014). Belonging has been considered the most important essential elements of a quality 4-H program. Unfortunately, not much prior research exists in 4-H that quantitatively measured sense of belonging. **Objectives:** The purpose of the study was to explore why Florida 4-H members decided to remain active in 4-H. The specific objectives of this study were: describe perceptions of teenage 4-H youth regarding a sense of belonging in 4-H; describe factors that contribute to teenagers deciding to remain enrolled in 4-H; analyze the association among factors that might lead to continued enrollment and indicators of belonging among teenagers in 4-H; and determine what programs, events, activities, projects, or other opportunities Florida 4-H attract and retain older youth. **Methods:** The data collection instrument was based on Goodenow's Psychological Sense of School Membership instrument modified to fit the 4-H study group. In

addition, in order to address some depth of why these participants remained enrolled in 4-H, the researcher added seven additional questions. **Results:** Data from this study confirms the extremely high perceived sense of belonging among older 4-H members who choose to remain involved in 4-H. In all, 98.4% of participants scored above a 45, which indicated that these youth had a perceived sense of belonging in their 4-H club; 21.9% of respondents (n = 104) scored a 90, which is the highest possible score on the PSSM. **Conclusions:** Parental encouragement and interaction with a caring adult were found to be important motivators to remain enrolled in 4-H.

Virtual 4-H Wildlife Outdoors Leadership Focus (W.O.L.F.) Camp

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Escambia, Okaloosa, Madison, Taylor, Lee, Bay, and Washington Counties; Northwest District.
FAE4-HA

Background: When youth participate in environmental science education programs who do you think wins? The environment we live in! Environmental science is a very broad topic, but W.O.L.F. Camp was designed as an easy to use virtual resource utilized to incorporate many environmental components for use by youth, volunteers, and agents alike. The camp focused on topics such as wildlife ecology, marine sciences, survival skills, and careers. In addition, these natural resource programs highlight the complexity of available natural resources and the connections to other fields of discovery like engineering. **Objectives:** 1) Participants will learn how to identify wildlife and plant species of Florida. 2) Demonstrate their knowledge of best management practices for wildlife. 3) Have a greater understanding of the complexity of natural resource management. **Methods:** A team of Agents created videos to introduce a wide variety of wildlife management techniques, adventure guides, survival techniques, art, and trivia games. These instructional components were transferred to a Google Site to provide this asynchronous opportunity virtually. Campers were also provided an option to share their project work. **Results:** Over 85 participants enrolled in the 5-day camp. Camp evaluations will be sent at a later time, but early feedback from a parent indicated that her child wanted to do a beach cleanup with her 4-H club because of what she learned at the camp. **Conclusion:** The long-lasting impacts of W.O.L.F. Camp are high quality cross-discipline environmental educational videos that can be utilized by Extension Agents for years to come.

Expanding Equity in 4-H Summer Programming by Bringing Camps Home with 4-H Camp to Go Kits.

Guay, N.*, Palm Beach County and Gonzalez, D.*, Palm Beach County

Objectives: To increase diversity in 4-H programming by addressing the needs of youth living below the poverty line. Palm Beach County is economically diverse with many youth and adolescents lacking funds for traditional summer camps or technology to participate in virtual camp activities. Camp to Go Kits are Palm Beach County 4-H's solution to engaging non-

traditional 4-H youth in hand-on 4-H camp activities from their homes. **Methods:** Palm Beach County staff created 250 Camp to Go kits which included 25 healthy living and STEM activities along with all instructions and materials. The kit activities were selected to foster creativity, healthy living, competency, and critical thinking in camp participants and enable youth to feel connected to other youth in the county through 4-H. The kits were distributed to families throughout the county free of charge; families only had to sign-up to reserve their kit. **Results:** All 250 kits were reserved and distributed with 30 families on a waiting list. The kits were advertised via social media, blogs, and the local newspaper. This also provided an opportunity for Palm Beach 4-H to expand local participation, educate families on 4-H projects, and increase diversity in 4-H participation. Qualitative, positive feedback was acquired through family photo/video submissions, social media posts, and emails. **Conclusions:** Creating and delivering programs that reach youth of all income levels addresses the needs for diversity in programming. Camp to Go Kits meets Extension's goal of reaching all audiences and ensures youth can grow through 4-H, despite their financial ability.

4-H Breathers Create a Sense of Belonging

K. Henry* and C. Woodard*, UF/IFAS Extension Seminole County

Background: Belonging is one of the four 4-H Essential Elements of positive youth development (Kress, 2004). Belonging reinforces to young people that someone cares about them, as well as creates a sense of connection within the group. Oftentimes, youth in the 4-H program feel this belonging when interacting with one another in a face-to-face setting. With the onset of COVID-19, Seminole County 4-H youth found themselves with limited opportunities to connect and feel belonging. **Objective/Purpose:** The purpose of the 4-H Breather was to provide an occasion for 4-Hers to check-in with their 4-H friends, chat with other 4-H youth and staff, and participate in teambuilding. **Methods:** Weekly online meetings were held every Wednesday for two months and were open to all Seminole County 4-H youth. 4-H staff provided support to foster communication and teambuilding within the group. Youth were able to connect with one another through interactive games such as Dutch Auction, scavenger hunts, and Pictionary. **Conclusion:** Forty-five participants were engaged over seven weeks. Youth in the program reported they felt a sense of belonging and connection. One 4-H member commented: "The weekly 4 -H Breathers are a great way to take a break from your schedule to hang out and have fun with other 4-H members!"

Development of Environmentally-Resilient Ornamental Plants Using Advanced Breeding Tools

Huo, A., UF/IFAS Mid-Florida Research & Education Center, Wilson, S., UF/IFAS Department of Environmental Horticulture

Background: Snapdragon (*Antirrhinum majus* L.) is a commercially important cut flower and bedding plant due to its great variation in morphology and flower color. Snapdragon is a cool-season plant species that can only be grown from October to early May in Florida. The Gulf-Coast region is experiencing weather extremes such as winter drought and summer heat waves,

while current commercial varieties for growers in this region are highly heat and drought sensitive. Breeding of stress-resilient snapdragon has been hindered by the lack of breeding materials. **Objectives:** The major aim of this study is to utilize advanced tools such as transposon (“jumping DNA elements”) mutagenesis and gene editing to develop non-GMO snapdragon breeding materials with enhanced stress resilience or superior plant quality. **Method:** Snapdragon plants were grown at a cool temperature (59°F) to trigger the translocation of endogenous mobile DNA element to create mutant pools. In addition, genome-editing tools has been developed and applied to generate non-GMO mutant with improved plant quality. **Conclusions:** 1) A range of mutants have been generated through mutagenesis and some of these mutants exhibit high tolerance to drought and heat stresses. 2) Mutants with improved shelf life are being generated using CRISPR-gene editing.

4-H Teach Me In 3

T. Karsch*, UF/IFAS Extension Nassau County; M. Olson*, UF/IFAS Extension Clay County; R. Pienta*, UF/IFAS Extension Wakulla County

Background: Fifty nine percent of Generation Z, people ages 14 to 23, cite YouTube as their preferred method of learning. Eighty five percent of Generation Z are currently watching YouTube (Genota, 2018). However, many youth remain only consumers of video media because they lack the technical and communication skills to create and publish videos. A rapid shift to virtual learning, as a result of the COVID-19 pandemic, has created an urgent need for youth to master the skills necessary to create and publish video content. **Objectives:** Youth participants in the 4-H Teach me in 3 challenge learned to research, organize, plan, and edit educational content. They filmed videos to share this content. While filming they learned how to manipulate lighting, sound, and digital recording equipment to create the final video. **Methods:** County agents prepared an educational video explaining the 4-H Teach me in 3 video challenge. Agents filmed a model video as a reference. Agents challenged participants to prepare a three-minute video teaching a concept or demonstrating a skill. Participants created the video and sent the video to county agents. The agents posted the video on YouTube and Facebook. Posts were tagged #4hin3 on Facebook. The participant video with the greatest number of likes on social media won the challenge. **Results:** Thirty-eight members participated. The videos garnered 2,710 YouTube views and reached 8,596 Facebook users. Participant evaluations (n=9) and parent evaluations (n=8) indicated an increase in the participants’ ability to use technology to author and deliver a presentation, clearly stating their thoughts, feelings, and ideas. **Conclusions:** YouTube and other social media outlets are where youth prefer to learn. Participants in 4-H Teach me in 3 are given the model and support to engage in creating and sharing educational content with peers. In the spirit of 4-H *learning by doing*, participants demonstrated how to successfully teach a concept or demonstrate a skill.

Genota, L. (2018). Why Generation Z learners prefer YouTube lessons over printed books.

Education Week. www.edweek.org/ew/articles/2018/09/12/why-generation-z-learners-prefer-youtube-lessons.html.

4-H@4: Delivering Virtual Programming to Promote Home-bound Project-based Activities during COVID-19

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Background: As 4-H programs moved to virtual platforms due to COVID-19, 4-H Agents in Northeast Florida recognized a need for quality virtual content. 4-H@4 was created to be an inclusive, educational, and accessible workshop series for youth across Florida. **Objective:** 4-H@4 aimed to 1) build cross-county collaboration amongst agents 2) provide youth with diverse workshop options that would not otherwise be available in their county 3) give youth an opportunity to complete a project and share what they learned with others. **Method:** Agents formed a multicounty leadership team which held weekly meetings to produce bi-weekly virtual workshop experiences for youth, statewide. This team used their own expertise and developed partnerships with other faculty and staff to present the bi-weekly educational workshops utilizing a virtual platform. Slide presentations, interactive games, polls, and demonstrations were used to engage youth. 4-H@4 was advertised on state and local social media, inviting participation from youth and their families. Participants explored concepts learned during virtual presentations by completing project-based activities at home. Youth were given the opportunity to share their completed projects through social media using the #FL4-Hat4. Workshop concepts varied and included topics such as physics, hurricane preparation, entomology, robotics, nutrition, and graphic design. **Conclusion:** Collaborative efforts produced seven workshops that provided youth with 4-H programming not available by traditional delivery methods, due to COVID-19 restrictions. During the three-month period, 84 youth from across the state and 18 agents participated in the 4-H@4 programs, averaging 12 youth per session. Collaboration resulted in agent skill development in virtual programming to enhance county, district, and statewide impact. One Parent noted *“My 7-year-old enjoyed this course. She sat quietly, attentively listening. Afterwards, she's already educated not only, us but her grandmother and her Aunt on all the things to be prepared (for hurricanes).”*

Increasing Underwater Surveillance Capacity for Stony Coral Tissue Loss Disease: Citizen Science Training for Recreational SCUBA Divers

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Background: Florida's Coral Reef has an asset value of \$7 billion per year and supports over

70,000 jobs in South Florida. Unfortunately, a lethal coral disease has been devastating at least 22 species of reef-building corals since 2014. First recognized in Miami-Dade County, stony coral tissue loss disease (SCTLD) has spread rapidly throughout Florida's Coral Reef and at least nine countries in the Caribbean. Since SCTLD is unprecedented in scale and duration, disease surveillance requires a large underwater observer network within a framework of multi-agency partnerships in the United States and Caribbean. **Objective/Purpose:** Engage and train recreational SCUBA divers to identify and report SCTLD to natural resource managers. **Method:** Two Extension agents developed the SCTLD Observer Train-the-Trainer program, a citizen science platform for recreational SCUBA divers to maximize the efficiency of scale for SCTLD education and create an underwater surveillance network. Participants are trained in the classroom to identify the signs and symptoms of SCTLD and 11 of the early- and intermediate-susceptible coral species. Underwater, SCUBA divers perform roving diver surveys and learn how to report disease presence/absence and recovery to the Florida Department of Environmental Protection at SEAFAN.org. **Conclusions:** 153 divers have passed the written test with >80%. Post-reflective evaluations indicate an average overall knowledge gain of 42%. Fifty-two staff from federal, state, and local governments, non-profit organizations, and dive operators in the United States and the Caribbean have been trained to report SCTLD. A SCUBA diver trained by the Agents reported the first sighting of SCTLD off Key West, Florida. Citizen science is an efficient and cost-effective means to engage stakeholders, accelerate scientific research, provide hands-on learning, and build social capital. By providing the SCTLD Observer Training, two Florida Sea Grant agents are training stakeholders to collect data that will facilitate future coral reef management actions.

Teaching Sewing through a Virtual Format

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Background: When Florida 4-H announced the decision to cancel all in-person 2020 4-H summer camps and activities due to the COVID-19 pandemic, 4-H Agents were tasked with adapting their summer programs. 4-H Agents across the state collaborated with FCS Agents and created a virtual sewing camp titled Having Sew Much Fun. **Objective/Purpose:** To offer a virtual sewing program to provide beginner and advanced sewers with educational lessons and activities to enhance individual skill sets. **Method:** Having Sew Much Fun was offered in an asynchronous format, with the option to participate in a live Zoom session daily. Having Sew Much Fun used a webpage developed through google suite to house all program content. During the five days of Having Sew Much Fun, participants reviewed online sewing instructions, played sewing related games, and participated in a daily show and tell session via Zoom. An average of 34 households (some households had more than one camper) attended the daily zoom sessions. An average of 37 campers submitted a show and tell project picture each day. Technical sewing assistance to 4-H campers was also provided during the Zoom calls on a one on one basis. Each day, 4-H campers utilized educational content developed by Extension agents to complete various sewing

projects. Preliminary data collected through a qualtrics survey determined that almost half of participants chose to hand-sew instead of using a machine. To accommodate the large number participants without a sewing machine, a variety of projects that could be completed by hand were offered each day along with lessons on hand-sewing techniques. **Conclusions:** Participants in Having Sew Much Fun experienced knowledge gain of sewing tool identification, fabric type identification, and sewing stitch methods. 100% of 29 participants surveyed stated they learned a new skill. 100% of 22 participants surveyed who were new to sewing learned to sew by participating in Having Sew Much Fun.

Forage production: On-Farm Studies Across Florida to Evaluate the Effects of Rhizoma Peanut Species, Grazing, and Environmental Factors on Bahiagrass Production

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Background: The integration of rhizoma peanut (RP) into bahiagrass system is a sustainable way to supply nitrogen (N), reduce synthetic N fertilizer cost, and improve soil and forage productivity. However, forage productivity and sustainability can be influenced by forage cultivars, grazing, soil type, weather, and the unique production system of each farm.

Objectives/Purpose: To work side by side with forage producers on their farms across Florida and evaluate the effects of RP, grazing, and climate on forage production. To assess the impact of their individual farm production practices on the overall outcome. **Method:** Field studies were established on three private farms in North Florida, Central Florida, and South Florida to evaluate the mixture of bahiagrass and rhizoma peanut and grazing on forage growth and nutritive value for animals, microbial-mediated soil fertility, soil health, carbon and nitrogen cycling, and greenhouse gases emissions. **Conclusion:** There have been positive interactions between the farmers, students, and farmers during farm visits and the farmers are eager to find out the findings from this study. We also presented to a broader community of farmers and extension agents during the RP field day and soil-health in-service training, through oral presentation and virtual demonstration of our field and lab works. These video presentations and demonstrations can be accessed online. After the completion of this study, producers will be able to select the best performing RP cultivars for increasing N under grazing and different management practices. They can also implement realistic and sustainable management practices that will reduce the input of synthetic fertilizers and increase profitability. After this project, we plan to do a follow up with the farmers through one-on-one visit and organization of webinars/seminars to reach a larger audience of farmers. This will enable us to assess the benefits our project provided to the farmers and ways to improve future projects.

Providing Support for the Agriculture Industry and Extension During the COVID-19 Pandemic

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Southeastern Coastal Center for Agricultural Health and Safety (SCCAHS)

Background: The Coronavirus Disease 2019 (COVID-19) is a highly infectious virus can easily be spread from person to person and has spread throughout the world. COVID-19 directly impacts the agriculture sector and extension. The Southeastern Coastal Center for Agricultural Health and Safety (SCCAHS) worked quickly to gather and provide helpful resources to extension faculty and agents. **Objectives/Purpose:** This effort aimed to connect extension faculty and agents with educational resources from the Centers for Disease Control and Prevention (CDC), the SCCAHS, departments of health, departments of agriculture, and other groups related to agricultural health and safety and COVID-19. **Method:** The UF/IFAS Center for Public Issues Education (PIE Center) and the SCCAHS conducted survey research to identify the needs of the agriculture sector and extension faculty and concerns of the general public. The SCCAHS Outreach Core gathered and developed several resources to address the needs and concerns identified in the research. **Conclusion:** A webpage was been developed on the SCCAHS website to house these resources. The resources on the webpage (<http://www.sccaahs.org/index.php/covid-19/>) have been categorized for specific audiences or resource types, including recommendations for farmworkers and employers, risk prevention, communication resources, and extension resources. Resources are targeted for agricultural producers, farm workers, and extension faculty and agents located in the Southeast region of the United States. Resources include PowerPoint slide sets, fact sheets, social media content, posters, videos, and radio PSAs. Many materials are in English and Spanish are ready for Florida Extension faculty to integrate into educational programs across the state.

Deliberative Discussions – A Role for Extension in Local Communities

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Background: The Kettering Foundation and National Issues Forum Institute advance the principles of democracy in local communities to address contentious issues using a targeted lens and proven organizing tools. **Objectives:** The *Community Voices, Informed Choices* (CIVIC) is a UF/IFAS and FAMU Extension program that uses deliberative discussion strategies to support and convene community conversations that address contentious issues of local concern. The need for civil dialogue and engagement is evident given increasing community concerns about policing, racism, climate change, and natural resource pressures. **Methods:** The CIVIC team utilizes concern collecting circles, issue guides, and deliberative forums to help communities listen to all voices and hear different perspectives surrounding contentious issues. In-service trainings are held to train Extension agents and community leaders facilitate and convene deliberative forums. Participants learn the fundamentals of deliberative dialogue and facilitation and are given space to practice and hone their skills. Recorded sessions are available on-demand

via Canvas or MS Teams for participants to refer to when convening their own forums. **Results:** To date, over 50 agents and community leaders have been trained to facilitate deliberative forums. Forums have been held across the state with more than 120 youth and adults on issues including plastic pollution, affordable housing, water quality, septic-to-sewer conversion, and community safety. An online evaluation tool has been developed to capture local and statewide impacts, and to help agents capture outcomes and impacts for annual reporting. **Conclusion:** The use of deliberative discussions is a valuable tool in the UF/IFAS Extension agent toolbox. It allows agents to work with communities to address on-the-ground issues using proven engagement strategies that connect science with local community leaders to endorse active decision-making. It also supports the role of Extension agents as “change” agents as every local community faces different local issues, which require a customized but compassionate approach to support a solutions-oriented outlook.

MANAGING NUTRIENTS IN A WILD & SCENIC RIVER BASIN: PROVOKING BEHAVIOR CHANGE IN RESIDENTIAL FERTILIZER USERS

T. McIntyre, University of Florida IFAS Extension Seminole County

Background: Seminole County (SC) is home to the Wekiva Springs River, a National Wild & Scenic River and an Outstanding Florida Waterbody, and the St. Johns River, which includes the oxbow Lakes Harney, Monroe and Jesup. These waterbodies *are all impaired by nutrients*. These water resources are economically and environmentally tied to the area through recreation, property values, wildlife support and aquifer recharge. Research on the Wekiva Springs Basin shows 26% of all nitrate entering the basin was from urban turfgrass fertilizer. **Objective:** September 2018 – May 2019* the Florida-Friendly Landscaping team taught *Fertilizing Effectively in Sandy Florida Soils* workshops. Workshops targeted homeowners and HOA’s, offered a free bag of fertilizer and educated participants on Best Management Practices (BMP’s) for residential landscapes. **Method*:** Byway of mass media and 27 classes, 17,454 people were educated about fertilizer BMP’s; of those, 288 completed reflective post-surveys which revealed 97.2% increased their knowledge on the impacts stormwater (including fertilizer run-off) has on local waterbodies, 98.8% intended to use the information to fertilize their yard appropriately, and 95.3% were more confident they could fertilize appropriately. In a 6 month follow up survey, 86.1% of 129 participants reported they were currently using BMP’s or had recommended BMP’s to their landscaper as a result of the fertilizer workshop. **Conclusions:** These educational efforts resulted in data that shows significant behavior changes which seeks to reduce local levels of nitrogen and phosphorous, pollutants that lead to harmful algae blooms and impairments. Participants better understand sources of water contamination resulting from fertilizer misuse and have acted to change those behaviors.

STEM INVESTIGATORS

N. M. Moores^{1*}, B.J. Hall-Scharf², S.E. Taylor³, W.J. Lester⁴

- 1 4-H Agent, UF/IFAS Extension, Hernando & Sumter Counties, Brooksville, FL
- 2 Marine Agent, UF/IFAS Extension, Hernando County, Brooksville, FL
- 3 Family Consumer Sciences Agent, UF/IFAS Extension, Hernando County, Brooksville, FL
- 4 Horticulture Agent, UF/IFAS Extension, Hernando County, Brooksville, FL

Background: There are approximately 1,600* homeschooled youth who reside in Hernando County, Florida. Florida Statute 1002.41 requires that these youth submit portfolios documenting their educational activities each year. To provide quality, research-based education for these portfolios, UF faculty from four Extension areas combined their expertise and created the STEM InvestiGATORS program. **Objectives/Purpose:** While introducing new homeschool families to Extension and, specifically, to 4-H programming, the attendees would also increase knowledge and make behavior changes pertaining to topics of finance management, public speaking, marine life, and beneficial insects. Youth ages 8-18 will be exposed to several science related activities such as coding and fish tagging to increase their knowledge and introduce career opportunities. **Method:** Events were scheduled to occur monthly between August 2019 and May 2020. April and May events were done on a virtual platform due to the pandemic. Each agent led at least two educational events with registrations numbering 20-40 youth per event. Registration links were created through Eventbrite and a fee of at least \$5.00 was charged to cover insurance and supplies. Various instructional methods were used to teach the subject matter. Topics included coding, biology, anatomy and physiology, financial management, entomology, marine science, environmental science, and ecology. Parents were provided space in a separate room to network during the events. To encourage participation in multiple classes, certificates of completion were offered to youth completing ten hours (5 courses) to use in their homeschool portfolios. Those completing 18 hours (9 courses) were given additional gifts. **Conclusion:** A total of 170 youth participated in our STEM InvestiGATORS program. Pre/post tests showed that participants had an 93% increase in knowledge. Individual follow-up surveys showed that 8% of youth have adopted at least one behavioral change as a result of what they have learned. Lastly, five families have joined 4-H clubs and enrolled in project work. The STEM InvestiGATORS program is actively engaging Hernando's homeschooled youth and providing sound content for portfolios.

*Source: Hernando County Home Education Office

Improving Health and Reducing Food Waste During a Time of Stress

Nikolai, A., UF/IFAS Extension Polk County Family and Consumer Sciences

Background: COVID-19 brought about a need and/or interest to eat more at home. Preparing healthy meals can reduce the risk of illnesses such as heart disease, cancer, high blood pressure, and diabetes and help support the immune system. **Objective/Purpose:** The objectives were to increase knowledge about healthy meals or snacks, increase the number of healthy meals and snacks consumed, reduce the amount of vegetables thrown away, and increase family meals. **Methods:** A four-part series, "Foodie Fun at Home" was created to give weekly, 15-minute webinars on insights on fun, healthy eats targeting parents and families. The topics included kids' snacks, customizable family meals, making comfort foods nutritious and delicious, and

sheet pan meals. The class taught participants how they could make easy, healthy, family-friendly meals and snacks and provided tips for making them work in their homes. **Conclusions:** A retrospective pre-post survey was used to evaluate knowledge gain and intent to change behavior. 78% (87/112) increased their knowledge of healthy meals and snacks, 77% (87/113) intended to make changes to eat and make healthier meals and snacks (22% already made healthy meals and snacks), and 92% (24/26) intended to decrease the amount of vegetables they throw away. Additionally, 42% (8/19) intended to increase the number of family meals. Participants of the “Foodie Fun at Home” series intend to improve the nutritional value of family meals and snacks and increase number of family meals while also reducing food waste. This can contribute to cost savings and improved health, both of which are of utmost importance during a physically and financially stressful time.

To the Virtual World and Beyond through Sustainable Agriculture Virtual Camp

Pittman, A*, Alachua County 4-H; Leitheiser, K*, UF IFAS Alachua County Intern; Sanders, C.* Alachua County Livestock Agent and CED; Clem, T*, Alachua County Residential Horticulture Agent; Korus, K*, Alachua County Natural Resources Agent; Sanchez, T*, Alachua County Commercial Horticulture Agent; Maddox, M*, Alachua County Family and Consumer Sciences Agent

Background: Many county extension programs rely on summer camps as a means for non-4-H agents to satisfy their 4-H appointment and gain contact hours with youth. Additionally, summer camps are a major source of revenue enhancement for many 4-H programs funding programming throughout the year. In light of the COVID-19 pandemic, summer camps were rendered impossible in the traditional format leaving agents to look for different formats.

Objectives: We intended to host a virtual camp that incorporates all agents’ specialties, utilizing our UF/IFAS intern, and meeting the community need for youth summer programming. We chose to focus on sustainable Agriculture to connect the dots between farms, food and the difference individuals can make by being a steward of the land. Topics included: chickens, gardening, blueberries and watermelons, farmers markets and buying local, soil health, livestock and telling your food story. **Methods:** We utilized live zoom and a self-paced google classroom to present the camp. **Results:** A total of 16 youth have finished the camp and 180 are still working through the self-paced camp. 94 of these youth are not current 4-H members attracted to the camp by the subject alone. We developed 15 new videos and voice-over PowerPoints for the camp. Parents commented that they felt their kids had a better understanding and appreciation for agriculture. **Conclusions:** This camp is a example of teamwork between UF IFAS staff and agents as well as how to engage youth virtually. This camp structure can be easily adapted to many situations to reach youth.

Pen Friends (4-H Communication Program)

Popa, K., UF/IFAS Extension Charlotte County, Prevatt, T., UF/IFAS Extension Glades County

Background: During March 2020 4-H Youth found themselves living in a new normal. With all 4-H face to face programing immediately on hold, and many activities cancelled. 4-H is a place where children can enjoy communicating and interacting with friends. However, many 4-H members found themselves at home with only their projects overnight. **Objective/Purpose:** The purpose of Pen Friends was to teach 4-H members proper email and mail etiquette while allowing them to practice their new skill by communicating with other 4-H members their same age by way of writing through the mail or email. **Method:** Youth registered for the program and were given a pen friend according to their age and type of delivery (email or USPS mail) of their choice. Fact sheets were created and sent to all youth. Subjects included bullying, how to address an envelope, correct letter format, and email and texting etiquette. **Results:** This effort resulted in 6 agents from 3 states working together to provide programing for over 250 youth from 20 states. At the conclusion of the program: 57% stated that they learned better communication skills through this program, 53% felt that they have stronger letter or email writing because of this program, 85% developed new friendships and improved social skills, 67% felt that they had a sense of belonging in this program, and 89% would participate in this program again. **Conclusion:** Through this informal educational program, youth around the United States made new friends, increased the self-confidence and learned an important life-skill – communication. Each of these elements of the Pen Friends program will serve them well now and in the future.

Caterpillars in the Classroom: Creating Conservation Connections

*Rice-David, K. UF/IFAS Extension Broward County, Lavelly, E. UF/IFAS Extension Broward County

Background: STEM careers are the fastest growing career track, but students in the US often score below average. An interest in science can be sparked by experience, specifically by connecting to the natural world. However, connecting to nature is another challenge for today's youth. This disconnect leads to worse personal wellbeing. **Objective/Purpose:** We aimed to connect youth to nature to improve knowledge of science and conservation while building personal skills in middle schoolers. We introduced live caterpillars and butterflies in the classroom, provided a series of 4-H curriculum, and collected record books. **Method:** Using grant funding, we purchased interactive 4-H curriculum (Project Butterfly Wings) and pollinator plants. Three teachers of middle schoolers were trained by 4-H staff to run SPIN clubs about butterflies and how to plant the provided pollinator plants. Youth recorded reflections in project books. A Master Gardener Volunteer (MGV) created a display of live caterpillar eggs, larvae, and butterflies in an enclosure. To supplement their lessons, 4-H and the MGV frequently presented live insects to youth to observe, hold, and release into their garden. **Conclusions:** 97 youth completed surveys. Greatest knowledge gains came in making contributions to science as a citizen (32%), identifying many common butterflies (27%), and approaching butterflies and observing their behavior (25%). Youth reported increased confidence in doing science (15%) and increased interest in science at school (11%). Survey data showed this project led to improved

personal skills, such as increased ability to set personal goals and make plans to accomplish them (24%), practice patience while gathering and recording data through observations (18%), and talking to other people about what they learned (23%). By combining hands-on interaction with living insects to build on interactive 4-H lessons, this project connected youth to nature, increased interest and ability in science, and improved personal skills.

Credit Score Improvement Grant Progress

Roberts, C., UF/IFAS Extension St. Lucie

Background: A credit score is a major factor in qualifying for a loan and affects how much someone will spend for various services. Florida's Treasure Coast boasts almost 196,000 households with the United Way reporting that an average of 49.3% of those households are Asset Limited, Income Constrained yet Employed (ALICE). Because a poor credit score equates to higher overall living expenses, St. Lucie County Community Services collaborated with the St. Lucie County Extension to offer the Credit Score Improvement Grant (CSIG) to residents of St. Lucie, Martin and Okeechobee counties. **Objective/Purpose:** This two-year grant-funded program provides participants tools for financial stability and \$14,000 funding to assist in obtaining that stability through an improved credit score. **Method:** Potential GSIG participants attend a free educational program to learn about spending plans and credit management. Class attendance and post-survey completion makes them eligible for the next step of accessing and reviewing their credit file with an Extension faculty member. Current credit score and depth of indebtedness is noted to ensure the grant assists those whose credit scores have the potential to increase based on this small debt elimination (\$500 max). They identify an appropriate debt to pay, negotiate a settlement and arrange for payment by St. Lucie County staff. **Conclusion:** Within the first six month of the 24-month grant period, seven educational courses were offered with 81 participating. Of those, 29 completed the survey and sat for a credit file review. Six had no outstanding debts to pay, four others were referred to a credit counseling service for further assistance and eleven debts were paid. So far, \$3,882 was paid to eliminate \$7,368 in debt - an average payout of \$352. Additionally, participants report an average of 42-point score increase within 90 days of the debt payment. Post-survey results showed 19% increase in knowing the benefits of a spending plan, 38% increased their ability to set SMART goals, 63% now know how to compare credit card features, and 69% now know how to use a credit card for free.

Southwest Florida Small Farmers Network Regional Impacts for Peer-To-Peer Learning

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Background: The Southwest Florida Small Farmers Network (SWFSFN) connects producers to a network focused on diversified farming systems. Facilitated by UF/IFAS Extension agents in Manatee, Sarasota, Hillsborough, Polk, Lee and Collier counties. **Objective/Purpose:** The network addresses priorities and needs identified by farmers. The audience includes small and

mid-size farmers interested in evaluating alternative enterprises and developing a regional network of peer-producers. Membership includes specialty crop growers, livestock producers, beekeepers, nursery and cottage food operators. **Method:** Meetings include on-farm, farmer-led tour, seed exchange and discussion topics pre-selected by membership. Members from FDACS, local and state agencies attend to discuss programmatic updates. Meetings include a producer-focused discussion facilitated by Extension to address farmer concerns. Each networking meeting includes time for participants to socialize and share knowledge. **Results/Conclusion:** Data collected between 2016- 2019 (98 attendees, 4 meetings) discussed topics of fruit, vegetable, poultry and aquaponics production, farm food safety, agricultural regulations/licensing, marketing, value-added products, and how to access science based resources. Of the 4 meetings held between 2016-19: 100% participants reported the meeting met or exceeded expectations, with 72% respondents reporting exceeded expectations; 93% stated knowledge gain; 73% planned to adopt at least one new best management practice learned at the meeting. In a 3-month follow-up survey of 17 respondents, 25% applied knowledge gain to one or more management practice such as new market opportunities, regulations, locating agricultural supplies/technology and increase access to the small farm community. The information gained by producers is beneficial to their operations by providing both real world and research based best management practices. In addition to knowledge gain, the SWFSFN meetings builds a social network of peers and service providers that act as a sounding board to reduce risk and improve business practices. Rotating meetings between counties highlights different farming techniques and reduces the travel burden for farms farthest away. Due to need, SWFSFN will continue to offer networking sessions on a diverse set of topics to our ever-expanding membership.

Comparison of In-Person and On-Line Palm Training on Knowledge Gain

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Background: New residents of Florida, and of Sumter County, often seek to have the quintessential palm(s) for their new Florida landscapes. These new residents from other parts of the United States or other countries who choose to have palms installed often do not consider the specific palm species, hardiness, nutrition, and fertilizer, pruning or other important considerations. Selection of non-hardy species, mismanagement of nutrition and incorrect pruning can lead to unhealthy or even dead palms. **Objective/Purpose:** The objective of providing palm training is to inspire a change in participant behavior which can lead to the selection of hardy palms and proper palm management, reducing potential palm death. **Method:** In 2019, two full-day Palm Schools were offered in the spring and the fall to residents, agents, and green industry professionals. UF/IFAS Extension Specialists and Agents presented topics from addressing palm selection, educating on nutrition and fertilization, reviewing

pruning, and discussing diseases and insects. In 2020, considering COVID-19, a digital Palm Training was offered to residents and other participants via a 1.5 hour Zoom webinar which addressed much of the same information in an abbreviated form. Based on a survey of participants from Palm School, attendees (n=84) demonstrated a 27% knowledge gain, while the Zoom attendees (n=28/29) demonstrated an 18% knowledge gain. **Conclusion:** The comparison of the full-day Palm Schools and the 1.5-hour Palm Webinar indicates the full-day training resulted in a higher knowledge gain overall, but both resulted in a significant attendee gain of palm knowledge.

Creating an Interactive Summer 4-H Camp During a Pandemic

M.S. Jackson*, UF/IFAS Extension Lafayette County; C. Vann, UF/IFAS Extension Lafayette County

Background: After successfully recruiting and expanding our members through traditional programming in 2019-20, the COVID-19 pandemic forced the Lafayette Agents to find creative ways to maintain the level of enthusiasm present among young, new members.

Objective/Purpose: Create and implement an interactive 4-H camp that helps develop resilience, independence, and responsibility appealing to children ages 5-10. Our goal was to provide self-sufficient activities that would encourage youth to be self-motivated. The lessons and projects would also be easily accessible and conducive to experiential learning. **Method:** The Agents and staff created 8 weeks of daily camp videos titled “4-H Rise and Shine”. Each day, participating youth accessed the Lafayette YouTube Channel for a 15 minute “4-H Rise and Shine” video presented in a morning show format that started with a quick review of the day’s theme followed by the pledges (led by local 4-H members who submitted electronic videos). Daily videos included crafts, snacks, games, and/or virtual field trips. A box of “camp gear” was provided monthly to all participants containing pre-packaged craft kits, pre-measured culinary kits, souvenirs, and give-a-ways from virtual field trips. Field trips focused on the local Ag industry, local landmarks and preserving natural resources. **Conclusion:** 30 youth, ages 5-10 participated in the interactive day camp. 1,200 craft and culinary kits were prepared and distributed to participants. Of parents surveyed, 45% of the participants learned the 4-H pledge. 55% reported that their child participated in the camp each morning without being asked. 80% reported that their child was able to access the camp and complete activities independently. 100% felt the camp activities and projects helped teach their child to complete task and work independently. “4-H Rise and Shine” interactive camp proved to be an effective way to offer non face-to-face camp to local youth. Prepared kits with all supplies needed for participants to join in daily activities and complete projects, at little to no effort by parents, made the in-home interactive camp more appealing and accessible to youth.

Growing STEM and Entrepreneurial Competencies Using Drone Education

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Background: STEM and entrepreneurial skills are important for youth development. Drones are a great way to address these skills. The use of drones has expanded tremendously in the public and private sector in the recent years. According to DroneDeploys' 2018 trends report, drones have cut surveying time for a 12-acre property from 100 hours down to two, and homes with an aerial photo sold 68% faster. This provides a huge entrepreneurial opportunity for youth.

Objective/Purpose: To address this entrepreneurial opportunity, UF/IFAS Extension created a 4-H STEM Aviation/ Drone Day Camp to help prepare youth to enter the drone industry by providing basic aviation education for the Part 107 exam and tools necessary to start and operate their own business. Passing the exam is required to receive a drone license and a drone-based business. **Method:** 4-H STEM Aviation/Drone Day Camp occurred over three days and taught youth about flight regulations, airspace classification, operating requirements, reading sectionals, weather, photography skills and business basics. Youth visited local airports, toured the Sheriff's Department helicopter facility and practiced drone photography skills at a local ranch. These activities were to provide a real-world, hands-on experience to increase knowledge gain. **Conclusion:** As a result of the program, all youth (n=13) increased their knowledge about aviation and business basics. Three youth plan to take the Part 107 exam and one passed and is starting his own business providing drone services.

Cut It Out: Video Editing Workshop for Polished Zoom Recordings

K. Stump*, UF/IFAS Extension Osceola County

Background: Extension agents around the state are using Zoom to deliver virtual programs to their clientele. Recordings of live online classes can be shared afterwards for a larger reach. Video editing software, such as Adobe Premiere, allows agents to create polished videos of their Zoom classes to reach a larger online audience. **Objective/Purpose:** The objectives of this program were 1) to increase attendees' knowledge about video editing tools and methods by 50%, and 2) for 50% of attendees to use what they learned in their profession. **Method:** Eighteen (18) Extension agents attended a 1-hour workshop via Zoom. The session began with a 20-minute presentation, followed by a step-by-step demonstration of the instructor editing a simple Zoom recording. The program ended with a Q&A session using the Zoom chat function. **Conclusions:** A retrospective Qualtrics survey of 11 attendees found an average knowledge gain of 123%. 91% of attendees reported they were "very likely" to use what they learned in the training for their profession. Video editing is a skill that requires hands-on learning. The screen-sharing demonstration allowed agents to follow along and was recorded for future reference. As virtual learning continues, agents can create professional-looking recordings of their programs with simple editing skills.

Eat, Sleep, Fly: 4-H Aviation/Drone Day Camp

K. Taylor*, UF/IFAS Extension Volusia County Agriculture and Natural Resources; B. Scharf*, UF/IFAS Extension Hernando County Sea Grant; M. Smith*, UF/IFAS Extension Multi-County

Sustainable AG/Food Systems; **J. Strickland***, UF/IFAS Extension Osceola County Extension Director; J. Sprain, UF/IFAS Extension Osceola County Extension 4-H; L. Valencia, UF/IFAS Extension Osceola County Extension 4-H; J. Gomez, UF/IFAS Extension Osceola County Extension Family and Consumer Sciences
FAE4-HA

Objective: Youth will report a 30% knowledge gain regarding reading airport operations, weather, sectional charts, and aeronautics. Additionally, 10% of youth will examine careers in aviation. **Methods:** We designed a three-day course utilizing various instructional methods to teach youth aviation topics. Hands-on learning activities were used to teach topics such as business planning, the art of photography, and drone careers. Online apps. and airspace models were created to teach participants how to read sectional maps. Toy Cessna aircrafts and runways were incorporated to demonstrate airport operations and aeronautical decision-making. Two videos were produced to teach airport traffic patterns and to show the importance of regulations set forth by the FAA. Toy drones and real drones were included to help familiarize participants with drone handling techniques. **Results:** We have attracted an audience that is new to Extension with this program. One youth participant (Osceola County) started a drone business taking pictures for the Farmer's Market. In an evaluation survey given to Sumter County youth participants (n=5) there was a 90% knowledge gain after attending the aviation camp. Three (3) of the youth stated as a result of the aviation camp, they would consider a career in aviation. **Conclusion:** The FAA expects remote pilots will outnumber instrument-rated pilots by 2022-2023. With this significant increase in jobs and a market projected to be \$89 billion dollars the possibilities are endless. Hosting programs such as the 4-H Aviation Drone workshop, will hopefully inspire youth with an interest in STEM to peruse careers in aviation.

Implementing a Virtual Summer Day Camp for Physical Fitness and Culinary Adventures

Tharpe, A., Guay, N., Pierce, A., Janney, H., Treffeisen, D., Henry, K.
FAE4-HA

Background: 4-H summer camps have a rich history of providing educational programming to youth. Due to the COVID-19 pandemic, 4-H had to adapt its summer day camps to bring the camp experience to youth. In response to COVID-19 restrictions to in-person camping activities, the Florida 4-H Agents worked together to prepare and implement virtual day camps. The virtual camps gave 4-H the opportunity to bring camp to youth safely while adhering to CDC guidelines. **Objective/Purpose:** Physical fitness and culinary adventures camp combines the expertise and experience of 4-H agents to provide a high quality, hands-on camp experience youth can complete at home. **Method:** The physical fitness and culinary adventure team worked together virtually to brainstorm and develop this virtual camp. The agents were able to share resources and develop ten physical fitness and culinary lessons that were formatted into a Google site that campers could access from home. **Conclusion:** This collaboration empowered agents to work together and increase 4-H day camp capacity. As a result of the virtual camp platform, 505 youth

registered for the physical fitness and culinary camp. The virtual camp also enabled 4-H Agents to expand camp participation; most in-person day camps can accommodate 30 youth, which would total 150 between the five agents involved. The virtual platform allowed 355 additional youth access that would otherwise not be able to participate. The physical fitness and culinary adventures virtual day camp increased the number of youth participating in high quality, educational 4-H camp programs despite COVID-19 restrictions.

Managing Stormwater in a Changing Florida Panhandle

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Background The Florida Panhandle has the highest average total rainfall in the state (65") and limited stormwater management has resulted in legacy water quality and flooding problems across the region. A need exists for local stakeholders, including city and county personnel, professional engineers, residents and extension faculty, to better understand the relationship between how development occurs, its impact on hydrology and water quality downstream, and available solutions to manage and mitigate these impacts. **Objectives/Purpose** Develop a regional stormwater education program to increase knowledge and build technical capacity among stakeholders to incorporate sustainable stormwater management practices on various scales, from individual residences to larger infrastructure projects. **Method** A team of researchers, specialists and Extension faculty collaborated to produce one in-person stormwater management workshop in 2019 funded through an IFAS Extension grant, and a free 2-part webinar series in 2020. Topics covered included stormwater fundamentals (hydrology and pollutant load dynamics), green infrastructure and low impact development (LID) options, and local case studies. A presentation was given both years about funding opportunities for LID projects by a project manager from FDEP's Nonpoint Source Management Program, furthering the connection between funding sources and stakeholders. New topics added in 2020 included stormwater infrastructure maintenance, permitting requirements, and planning tools.

Conclusion Participation grew from 22 in 2019 to 83 in 2020. Attendees included state, county and municipal employees, extension faculty, professional engineers and residents. Future educational programs are being planned as the stormwater program grows, with CEUs offered for professional engineers and planners. CEU courses will be fee-based, but historic experience denotes that professionals will pay to receive this valuable benefit. A hybrid model will be adopted based on feedback from participants, with morning presentations offered online to reach participants across the panhandle, and an afternoon in-person fieldtrip to visit stormwater management projects. Fieldtrips will rotate yearly across counties to highlight example installations and ways to replicate successes across the panhandle.

Developing a Community Garden Series to Meet Local Needs

S. Webb*, UF/IFAS Extension Southwest District, L. Barber, UF/IFAS Extension Hillsborough County, N. Pinson, UF/IFAS Extension Hillsborough County

Background: In partnership with UF/IFAS Extension Hillsborough County, UF/IFAS Extension Community Gardens RSA, and the Tampa Bay Community Garden Coalition, a four-part community garden educational series was developed and delivered in the Fall of 2019, and a condensed, intensive version in Winter 2020 to community gardeners in Hillsborough County, Florida. **Objective/Purpose:** The garden coalition met with agents over the summer of 2019 to request an educational series for new and existing community gardens in order to better educate gardeners on best practices for vegetable gardening. The agents worked with the coalition to select topics that would meet the needs of multiple garden sites. **Methods:** Topics covered in the series included how to start a community garden, soil, watering, seasonality, square-foot gardening, compost, vermi-compost, mulch, pest and disease management, and tools. In 2019, presenters delivered content to participants at the UF/IFAS CALS at Plant City over four weeks. The attendees also toured a community garden located at the campus. In 2020, the same topics were delivered to community gardeners in south Hillsborough County over two days. **Conclusions:** Evaluation results indicate knowledge gain and plan to implement what attendees learned across all community and vegetable gardening best practices, including planting practices, pest and disease management, and irrigation. Participants also received free seeds and microirrigation kits. Interestingly, several home gardeners attended the 2019 four-week series and one attendee went on to volunteer with a community garden. While the 2019 series attracted a more diverse audience (home and community gardeners), the 2020 two-day intensive classes drew more participants due to internal advertising within several gardens. Overall, based on the outcomes of the events: 1) both series based and intensive learning events are appropriate for delivering education to multiple gardens/gardeners at the same time; 2) highlighting a specific garden may assist the garden in finding new volunteers and new membership; 3) offering education at different locations and working with individual community garden leadership to advertise educational events may lead to better participation; and 4) this series can be easily adapted to teach diverse community gardens throughout Florida.

Fostering an Association Between Space Coast Golf and Sports Turf Professionals to Promote Integrated Management Practices and Enhance Sustainability

B. Wells, UF/IFAS Extension, Brevard County, Cocoa, FL

Background: Implementing sustainable turfgrass management practices is a high priority for golf course superintendents and sports turf professionals in Brevard County, an area extending 72 miles along the Atlantic Ocean on Florida's Space Coast. Found here is the Indian River Lagoon (IRL), one of the most biodiverse estuaries on the planet with a diverse array of biota whose existence depends on the quality of the water. Protection of the IRL is a high-priority initiative of county government, and educational programs addressing this need are a high-priority of

UF/IFAS Extension Brevard County. Working together as the Space Coast Golf and Turf Association (SCGTA), the commercial horticulture agent along with key representatives from the local turfgrass industry plan, promote and conduct educational activities to increase the knowledge and adoption of integrated management practices to stay profitable, sustainable and stewards of the unique landscape along the Space Coast and beyond. **Objectives:** After attending a SCGTA workshop, (1) 75% of attendees will increase their knowledge of integrated management practices, while (2) 50% will adopt at least one integrated management strategy presented by 2022. **Methods:** Since January 2019, five SCGTA workshops were held reaching a total of 242 participants covering diverse topics in integrated pest and nutrient management. Surveys measured knowledge gain and intent to adopt integrated management practices presented at the workshops. Sixty-nine site visits were also performed to support the implementation of the practices presented. **Results:** Of the participants surveyed (n=205), 95% of respondents reported an increase in knowledge while 92% reported an intent to adopt a new sustainable production practice after attending one of the five workshops. Adoption of practices are being documented with site visits. **Conclusions:** This on-going program actively engages target clientele to consider implementing integrated management practices to increase the profitability of the turf industry in Brevard County while limiting the impact on the Space Coast's abundant natural resources, such as the IRL. By fostering associations with target clientele, Extension agents can strengthen relationships and enhance educational efforts.

Baby Boomers to Zoomers: a Mid-MGV Training Program Adaptation

P.N. Williams* UF/IFAS Extension Wakulla County and W.J. Holley* UF/IFAS Extension Sarasota County

Background: The two UF/IFAS Extension Sarasota County Master Gardener Volunteer (MGV) training programs began in January 2020. The 13-week course was 7.5 weeks completed when the in-person training was suspended on March 13th. The highest percentage of individuals in class consisted of Baby Boomers who were not all comfortable with technology and grew up with in-person educational experiences. **Objective/Purpose:** To complete the Master Gardener Volunteer training with the same level of accomplishment and academic standards as before the pandemic restrictions. **Methods:** A poll was conducted to ascertain comfort levels with considering completing the course online. After tallying mixed survey results and not knowing the extent of restriction length, a decision was made to switch to a Zoom platform. The in-person classes were converted to 6-hour Zoom classes. All individuals were encouraged to attend practice Zoom sessions prior to class beginning two weeks after stoppage to test personal equipment and comfort level with the new delivery system. Live plant portions of classes were converted to showing live specimens to the camera and all testing moved to online formats. **Conclusion:** At the time of suspending in-person classes, there were 47 individuals on roster. Two dropped because of distrust with online format and two others dropped because of medical issues. The remaining 43 individuals passed the training course with weekly test scores post COVID-19 being consistent with in-person training test scores. The levels of camaraderie and emotional support increased among individuals who felt isolated by the stay at home orders.

End responses were positive, and participants expressed gratitude to all agents and staff involved with their successful training.

Building Communication Through 4-H Photography Camp

C. Woodard*, UF/IFAS Extension Seminole County; L. Cash, UF/IFAS Extension Volusia County

Background: Studies of youth under quarantine due to the COVID-19 pandemic have documented changes in youth behavior. Interruption of daily routine and quarantine conditions have resulted in youth displaying difficulty concentrating, irritability, loneliness, and nervousness. Additionally, youth develop social skills including communication through interactions with peers (Volkin, 2020). In an effort to keep youth engaged in 4-H and continue developing these life skills virtual 4-H camps were implemented. **Objectives/Purpose:** According to the Targeting Life Skills Model for 4-H, communication is a life skill related to social competencies (Norman and Jordan, 2016). In an effort to continue building 4-H members' communication and social skills the 4-H Photography Camp was developed. By allowing 4-H members to share captured photographs and provide appropriate constructive feedback to their peers, 4-Hers developed socially. **Method:** For eight weeks, youth met virtually to learn about basic camera functions; composition techniques; giving and receiving constructive criticism; and career opportunities. Youth learned to apply the 'Oreo Method' to develop confidence in providing constructive criticism to other members. Weekly, youth were challenged to capture photographs with specific composition techniques and encouraged to share their photographs. Additionally, 4-H members were taught to apply descriptive language to write captions for their photographs. **Conclusion:** 33 youth registered for this camp with an average of 10 youth participating in the live session per week. Each week, 4-H members shared their photographs and peers provided constructive criticism. As a result of this feedback, 4-H members' photography skills increased as indicated by weekly submissions. Seven of the youth participants completed the final project. Each of these youth submitted five photographs, correctly identified composition techniques used, and provided captions for their photographs.

Improving Food Preparation Skills for Better Nutrition

V. Zabala, UF/IFAS Extension Orange County

Background: In general, foods prepared away from home provide more calories, sodium, and saturated fats than foods prepared at home. The Food & Drug Administration reports that for the average adult, eating one meal away from home each week translates to a two pound weight gain per year. Lack of knowledge and skills in planning, shopping, and preparing healthy meals can lead to increased eating away from home. UF/IFAS Extension Orange County adapted and piloted North Carolina's Cook Smart, Eat Smart curriculum to equip adults with basic food preparation skills and nutrition knowledge. **Objective:** Increase participants' knowledge, self-efficacy, and intention of preparing healthy meals at home. **Methods:** The series consisted of

four 3-hour sessions. Through lecture, recipe demonstration and hands-on food preparation, participants learned a variety of healthy food preparation techniques and skills. These included knife skills, roasting, baking, grilling, and preparing packet meals. Participants worked in groups to prepare recipes that were sampled by all. Fifteen individuals completed the series and post survey. 100% of respondents indicated increased knowledge in food preparation skills and cooking techniques not previously used, 100% were somewhat confident or very confident in their ability to prepare healthy meals at home, and 100% (of n=3 who were not already doing this) intended to prepare more meals at home and use healthy cooking methods more often.

Conclusion: Equipping individuals with the conceptual nutrition knowledge is only as effective as the participants' ability to put knowledge into practice. Through the Cook Smart, Eat Smart series participants acquire technical expertise and practice, thus increasing knowledge, skills, self-efficacy, and intention to prepare and consume healthier foods at home. This simple behavior change can help participants manage their weight and prevent associated health conditions.

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