# EPAF

### Extension Professional Associations of Florida

2021 Professional Improvement and Administrative Conference Microsoft TEAMS®

September 14-16, 2021

### **Thirty-Fifth 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 Sciences Florida Association of Natural Resource Extension Professionals





Extension Professional Associations of Florida *Riding the Waves of Change* Microsoft Teams Virtual Conference

35th PROCEEDINGS OF ORAL AND POSTER PRESENTATIONS

Wednesday, September 15, from 10:00 a.m. to 2:15 p.m.

### **EPAF Oral Presentations Committee**

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FANREP Abstracts Chairs	Marnie Ward, David Outerbridge, and Taylor Clem
FAE4-HA Abstracts Chairs	Julia Kelly and Kimber Sarver
FEAFCS Abstracts Chair	Virgilia Zabala
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### The EPAF Board Offers Special Thanks To:

- Chairs and members of the ESP, FACAA, FAE4-HA, FEAFCS and FANREP abstract committees who reviewed and selected presentations
- All county and state Extension faculty who submitted abstracts
- UF/IFAS Extension Administration, under the leadership of Senior Associate Dean Dr. Tom Obreza, for continued support of the EPAF Conference
- Dewayne Hyatt, Systems Administrator IV, and Joe Gasper, Systems Administrator IV, UF/IFAS Information Technology, for making it possible to host the conference on Microsoft TEAMS

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

### 2021 EPAF Oral Presentation Schedule

Wednesday,	Agriculture and	Natural Resources	Youth	Health, Families,	Educational
September 15	Horticulture Sponsored by FACAA	and Outreach Sponsored by FANREP	Programming Sponsored by FAE4-HA	and Communities Sponsored by FEAFCS	Technology, Leadership, and Innovation
10:00 a.m.	Demonstrating IPM as an Effective Alternative to Calendar-Based Pest Management *T. Clem, *T. Sanchez	Covering the Bases: Development of Basic Training for New Initiative One Extension Agents *M. Wallau, *M. Benge	Strategic Methods for Extension Agents to Maximize the Impact of Your County's 4-H Animal Science Programming *A. Schortinghouse, *B. Estevez, *N. Simmons	Demystifying Florida Food Regulations for Food Entrepreneurs *J. Hagen, *N. Parks	Sponsored by ESP 2020 Virtual Summer Adventures Day Camp: Beautiful Invaders and Native Beauties *L. Cash, *M. Ward
10:15 a.m.	Statewide Evidence-Based Zoysiagrass Management Workshops Produce Economic and Environmental Impacts *E. Harlow	Water Resources and Human Society: Educating Floridians About the Value of Water Resources *F. He, *T. Borisova	New Club Leader Training Series *S. Ghosh	We are All in This Together: Cross- County Collaboration to Increase Physical Activity *L. Johnson, *J. Anderson, *V. Zabala, *W. Lynch, *A. Keene, *L. Duncan	Beginning <u>Better</u> <u>Impact</u> : Lessons Learned New Master Gardener Volunteer Management Software *W. Hobbs
10:30 a.m.	Beginner Beekeeper's Short Course: Hybridizing a Staple In- Person Program *C. Dossin	Mushroom Series Begins: A Fungus Among Us in the Southwest District *D. Outerbridge, *A. Vinson, *A. Ubeda	Wildlife Outdoor Leadership Focus (W.O.L.F.) Day Camp *R. Cowan, *J. Breslawski, *S. Dunning	Building Health Literacy and Physical Activity Through StoryWalk *A. Wallau	Using Technology to Enhance 4-H Educational Field Trips *T. Binafif
10:45 a.m.	Food Systems: Introducing Alternative Crops to Local Markets *P. Fletcher	Florida Shuffles from Resilient Gulf Conference to Webinar Series *L. Carnahan, *A. Ubeda, *R. Collini	Encouraging Mindfulness in Youth: A Florida 4- H Summer Adventures Program *N. Crawson, *J. Emerson, *D. Gonzalez, *H. Janney, *W. Lynch, *B. Yancy, *A. Leo	Building Community Through Innovative Partnership and County Wide Programming: Health First Mayor's Fitness Challenge *A. Keene	Epsilon Sigma Phi Global Relations: Fostering Connections Between Land Grant Institutions and International Initiatives *J. Bhadha

Wednesday, September 15 11:00 a.m.	Agriculture and Horticulture Sponsored by FACAA Creating Innovative Environmental Experiences: Clay County 4-H Nature Retreat *C. Dossin, *A.	Natural Resources and Outreach Sponsored by FANREP CISMA Invasive Grass ID Workshop for Professionals in a Virtual Setting *T. McIntyre, *M. Pinkerton	Youth Programming Sponsored by FAE4-HA Bug Clubs and Bug Hotels: First Grade Students Learn the Value of Pollinators *M. Jackson	Health, Families, and Communities Sponsored by FEAFCS Living Well Wednesday: Maintaining and Growing a Virtual Audience During COVID-19	Educational Technology, Leadership, and Innovation Sponsored by ESP Spreading Care Through Social Media with Superb Teamwork *H. Janney, *N. Crawson,
	Wallau, *S. Conner			*J. Breslawski, *K. Zamojski, *M. Arick, *J. McMillian	*P. Davis, *D. Gonzalez, *M. Jackson, *R. Pienta
11:15 a.m.	Building 4-H Youth Engagement Through a Unique STEAM Summer Camp *L. Harlow	Assessing the Status of Diamondback Terrapins in the Florida Panhandle Utilizing Citizen Scientists *R. O'Connor, *R. Bodrey	Becoming Butterflies: A 4-H Metamorphosis Project *G. Carter, *K. Haupt	Achieving Healthier Lifestyle Habits through Virtual Education *S. Bresin	County Extension Director Calendar *J. Altum Cooper, *C. Sanders
11:30 a.m.	Connecting Producers Virtually to Researchers Through the 2021 Panhandle Row Crops Update Series *J. Bearden, *L. Johnson, *E. Carter, *D. Sprague	Edible Ornamental Landscaping: A Multi-Method Teaching Approach of the Florida- Friendly Landscaping Principles *A. Marek, *M. Bailey	2020 Virtual Summer Adventures Day Camp: Having Sew Much Fun *L. Cash, *P. Daniel, *H. Janney	Financial Education for Limited Resource Youth in Rural Communities *K. Griffin, *B. Kerr	Building Program Capacity for Under-Served Youth *M. Souers
11:45 a.m.	Farm Tour Facilitates Change in Consumer Purchasing Behaviors *K. Taylor, *L. Hamilton, *K. Stauderman, *L. Cash	Back to Nature: Virtual Class Encourages Residents to Visit Local Parks *K. Stump	<b>4-H Mailbox</b> <b>Program</b> *J. Cooper, *C. Sanders	Embracing Technology and Creating a Successful Virtual Cooking School *M. Arick, *K. Zamojski, *J. Breslawski, *A. Hinkle, *M. Taylor, *V. Zabala, *J. McMillian	<b>Don't Burn Your Bridges!</b> *H. Janney, *P. Tomlinson

Wednesday, September 15	Agriculture and	Natural Resources	Youth Programming	Health, Families,	Educational
September 15	Sponsored by	Sponsored by	Sponsored by	Sponsored by	Leadership, and
	FACAA	FANREP	FAE4-HA	FEAFCS	Innovation
					Sponsored by ESP
12:30 p.m.	Implementing a	Growing	Beating Breakfast	Culinary	Live Landscape
	Statewide Peanut	Sustainably in	Barriers to Guide	Medicine: A	University Virtual
	Diagnostic Survey	2020 and Beyond:	Youth to Healthy	Prescription for	CEU Series
	for Florida	Policy Makers	Living	Prevention	*H. Wooten, *M.
	*D. Broughton, *	Learn about	*N. Guay	*A. Mullins	Pinkerton, *B.
	T. Pittman	Conservation			Moffis
		Strategies			
		*C. Snodgrass, *C.			
		Kirby			
12:45 p.m.	Corn Video Series	Sustainability in	Formal and	Preschoolers and	Open Space
	by UF/IFAS	Urban Food	Informal Learning	Their Families	Technology
	Extension Agents	Production in	to Support	Getting Healthy	Sparks Ideas,
	Replaces Field	Broward County	Northwest District	and Active with	Collaboration,
	Day in the Wake	*L. Bravo	4-H Volunteers	the Homestyles	and Growth
	of COVID-19		*J.P. Dillard, *H.C.	Program	*S. Ellison, *D.
	*K. Korus, *K.		Kent,	*L. Wiggins	Sale,
	Wynn		*B. Estevez		*S. Hensley
1:00 p.m.	Bahiagrass	The Life Aquatic	Angler Club Adds	Let's Walk	Are You LinkedIn?
	Establishment:	with UF/IFAS	Variety to Rural	Florida! Western	Agent Meets
	With or Without	Florida Master	Area Sports	Panhandle	Extension
	Browntop Millet	Naturalist	*M. Jackson	Cohort: A	Audience on
	*K. Taylor, *J.	Program, a New		Comparison of	Popular
	Strickland	Marine Habitat		Programming	Professional App
		Restoration		During an	*L. Carnanan
		Course		Emerging and an	
		S. Krueger		Pandemic	
				*I Broslawski *A	
				Hinkle	
				*G Hinton *D	
				Lee	
1:15 p.m.	Using Soil	Uncharted	4-H Take-out:	Growing and	Broadcasting
	Moisture Sensors	Waters: A Multi-	Project-based	Cooking	Webinars/In-
	in Cover Crops to	State Partnership	Learning in the	Webinars:	Person Events
	Determine the	to Assess	Home	Connecting	Live to Social
	Efficacy of Using	iviangrove		Programs and	iviedia Platforms
	winter Cover in	Expansion in the	тВ. Kerr, *М.	People to Meet	to Increase Reach
	Northwestern	Northern Gulf of	Jackson, *E.	Needs and	тк. Waters
	riorida		ivioore, *A. Tharpe	Improve Health	
	L. Jonnson	°K. Boarey, *K. O'Connor		During the COVID-	
		Connor			
		1		A. NIKOIAI	

Wednesday, September 15	Agriculture and Horticulture Sponsored by FACAA	Natural Resources and Outreach Sponsored by FANREP	Youth Programming Sponsored by FAE4-HA	Health, Families, and Communities Sponsored by FEAFCS	Educational Technology, Leadership, and Innovation Sponsored by ESP
1:30 p.m.	Successful Collaborations Between Agents and Specialists to Hold Virtual Bee College *J. Yarborough, *S. Willis, *A. Vu	Local Partners as Essential Components of a Successful Mangrove Trimmer Education Program *A. Vinson, *A.J. Ubeda, *D. Outerbridge	The Rejuvenation of the UF/IFAS 4- H Horticulture and Judging Contest *W. Wilber, * E. Eubanks	Housing in Florida, A Team Approach *L. Osgood, *L. Hamilton	Florida Extension Agents Perceived Level of Trust with Their County Extension Director *E. Cash, *M. Benge
1:45 p.m.	Using Traditional Production Meetings to Promote Pesticide Safety in North Florida *K. Wynn, *J. Capasso, *K. Korus	Introducing the Florida Youth Naturalist Program *S. Johnson, *S. Hensley	<b>Nature Bike Explorers</b> *S. Hayes, *L. Sapp	Building a Multi- Generational Poultry Project in a Pandemic *P. Tomlinson, *H. Janney	Empowering the Resilient Paraprofessional *A. Hinkle, *D. Devries-Navarro, *P. Bradford, *R. Biderman
2:00 p.m.	Farmer to Farmer Networks: Needs and Opportunities *H. Wooten, *L. Felter	<b>Growing for Florida Forks</b> *M. Ward, *B.J. Jarvis	Youth Leadership Nassau *T. Karsch, *S. Woods	Commercial Kitchen Food Incubator: A Model for Business Success *W. Elmore	EmpowerU: Advocacy Training Program Teaches Communication and Leadership Skills *S. Johnson

### Agriculture and Horticulture Sponsored by FACAA

Virtual Room Hosts: Danielle Sprague and Caitlin Bainum

### Demonstrating IPM as An Effective Alternative to Calendar-Based Pest Management Clem, T.\*, UF/IFAS Extension Alachua County and Sanchez, T.\*, UF/IFAS Extension Alachua County

Following homeowner complaints about insecticide applications within a community, a local homeowners association (HOA) contacted UF/IFAS Extension Alachua County about implementing better insecticide management practices. Concluding multiple meetings between the HOA, county extension agents, and the landscape and pest control companies, two alternative pest management treatment strategies were proposed to reduce insecticide use while following UF/IFAS recommendations. Objective: To adopt integrated pest management (IPM) as the HOA's basis for pest control, including cultural management, regular scouting, and proper insecticide applications. Methods: Four test plots (at neighborhood entrances) with similar environmental conditions were selected for this study. The treatments included two control plots (calendar spray program), an alternative spray schedule (reduced spray frequency), and one IPM (no applications unless pest pressure observed). Initial soil samples, insect traps, weather, visual quality assessments, applicator scouting reports, and insecticide logs were collected to compare different treatments. Results: After the first year of data collection, little to no visual impacts could be seen across treatment areas and turfgrass health did not decline in the alternative treatments compared to the calendar-based plots. Based on the number of insecticide applications avoided, the HOA realized they can reduce insecticide applications by 66% without increasing the risk for major pest outbreaks. This represents a 66% economic savings without compromising the aesthetics of the common areas. **Conclusion:** Insecticide-use reduction helps to ease concerns regarding pesticide exposure in the community while providing an economic benefit. Due to the observed success, the team expanded the study to include four additional test plots with different environmental conditions.

# Statewide Evidence-Based Zoysiagrass Management Workshops Produce Economic and Environmental Impacts

Harlow, E.\*, UF/IFAS Extension Columbia County

In 2016, turf management companies contacted the agent and turf specialist concerning management struggles they were having with zoysiagrass. An in-depth, advanced education program was created as a response. **Objective:** The Objective of the program were to increase manager's knowledge of zoysiagrass management, change practices to align with evidence-based recommendations, and increase their profitability of accounts. **Methods:** Twelve trainings were provided across the state over three years (2016-2019). The training was taught by the agent and two UF turfgrass specialists. A follow-up survey was sent one year after to

measure behavior change and economic impact (2017-2020). The training covered several aspects of management and heavily focused on cultural and nutrient management. It also introduced new research and concepts important for managing zoysiagrass. **Results:** The follow-up survey was sent using a computer-based software to 472 participants who provided emails. A response rate of 23.5% was achieved (111 of 472). Seventy-six percent of respondents indicated they made changes to their management program, citing reduced or better applications and more appropriate management practices (52 of 68). According to attendees, the evidence-based zoysiagrass management workshops provided a revenue increase between \$1,000 and \$50,000 per company. With costs of chemicals being reduced \$250 to up to \$10,000. **Conclusion:** This program demonstrates the success of a joint program between state specialists and agents that addresses needs identified and driven by clientele. The results show that Objective were achieved, and true impacts were realized.

### Beginner Beekeeper's Short Course: Hybridizing a staple in-person program Dossin, C., UF/IFAS Extension Clay County

Clay County Extension offers the Beginner Beekeeper's Short Course in collaboration with the Clay County Beekeeper's Association. This popular program is well-known for offering participants the opportunity to get hands-on experience working in honey bee hives. When we went into widespread quarantine, the Beginner Beekeeper's Short Course collaborators decided to hybridize the program to provide valuable beekeeping education and continue working toward course Objective despite the restraints faced by many individuals due to COVID-19. Objective: Objective of The Beginner Beekeeper's Short Course were for 75% of participants to report knowledge gain of honey bees and beekeeping and for 50% of participants to adopt beekeeping by the next year while practicing recommended hive and colony management practices. Methods: Course collaborators adjusted modules to transition to an online platform for live broadcast and developed a video to provide online participants a valuable experience looking inside bee hives with the guidance of Clay County beekeepers. The course was delivered as a one-day workshop by the Clay County Agriculture Agent, experienced beekeepers, and the district apiary inspector to provide a variety of expertise and information. **Results:** A total of 59 individuals participated in the hybrid Beginner Beekeeper's Short Course in Fall of 2020 and Spring of 2021, including 11 virtual participants. 95% of participants reported knowledge gain in beekeeping topics and 54% of participants reported beginning beekeeping in 2021. Conclusion: The Beginner Beekeeper's Short Course was successful in offering the course in a hybrid format for the first time and saw positive feedback from virtual participants.

### Food Systems: Introducing Alternative Crops to Local Markets Fletcher, P., UF/IFAS Extension St. Johns County

Alternative crops are an exciting new adventure for researchers and farmers. Surrounded by multi-generational farms with a need to diversify, St. Johns County government provides financial support for projects that benefit the local agricultural community. However, one must not just grow but also have a market and plan for these new crops. **Objective**: Provide produce <sub>o</sub>

from alternative crops trials to local restaurants and markets, while enlightening the urban audience of Florida food systems. **Methods:** Utilizing the St. Augustine Amphitheater's Farmer's Market and local chefs, artichokes and pumpkins were supplied to assess the quality and marketability if available from local farmers. Instagram posts allowed us to engage interest with quizzes and showcase where our produce was being assessed. **Results:** 83 farmer's market visitors were surveyed and selected their favorite artichoke variety ('Green Queen') by appearance. 100% (n=5) of chefs who cooked with Florida-grown artichokes reported good and consistent flavor with a desire to acquire more produce. Small batches of pumpkins and artichoke flowers were trialed for retail marketability (n = 6) with 100% of produce selling out in every location. 100% of Instagrammers surveyed (n = 42) said "yes" to wanting to buy locally produced artichoke flowers. **Conclusion**: While it is the grower's responsibility to create their business model, it can be a challenge for new crops. These food system activities helped gauge the interest of these crops from chefs and consumers, while promoting UF/IFAS research through social media. Four farms plan on incorporating these crops into their rotation by 2022.

### Creating Innovative Environmental Experiences: Clay County 4-H Nature Retreat Dossin, C.\*, UF/IFAS Extension Clay County, Wallau, A.\*, UF/IFAS Extension Clay County, Conner, S.\*, UF/IFAS Extension Clay County, Olson, M., UF/IFAS Extension Clay County, Pierce, J., Clay County Parks and Recreation, and McCain, L., Camp Chowenwaw Park

Youth today spend more time indoors and have decreased knowledge of natural environments; combined with guarantine, youth were left at home disheartened in summer 2020. UF/IFAS Extension Clay County partnered with Clay County Parks and Recreation to develop a virtual day camp that took youth to nearby natural locations to connect with nature and learn about local ecosystems. **Objective:** The 4-H Nature Retreat targeted youth ages 5 to 11 and their families with the objective to increase knowledge of local ecosystems and environmental literacy. Methods: A self-paced summer day camp composed of 6 different days was developed, each highlighting a different Clay County park and the surrounding natural environment. Google Sites was used as the platform to provide educational content to guide participants through each of the 6 days. Extension and Parks and Recreation staff collaborated to develop videos, activities, and fact sheets to compose each lesson. Participants completed the online portion of each lesson before heading to a Clay County park to put their new knowledge into action through an activity. Results: A total of 16 youth and their families participated in the Nature Retreat. Postprogram surveys revealed that 80% of respondents increased their knowledge of ecosystems and environmental topics. 100% of participants indicated that this was the first time they visited one or more of the parks highlighted by the camp. Conclusion: The Nature Retreat was successful in getting participating families outside during lockdown to gain knowledge of local environments and ecosystems and build environmental literacy of youth.

### Building 4-H Youth Engagement Through a Unique STEAM Summer Camp Harlow, L., UF/IFAS Extension Union County

Keeping youth engaged in science, technology, engineering, arts, mathematics (STEAM) concepts can sometimes be challenging. There has been a recent interest in blacksmithing and weaponsmithing, as evident by the success of TV shows such as Forged In Fire and Iron and Fire. As this industry trade utilizes STEAM concepts, the opportunity arose to integrate the agriculture agent's knowledge in blacksmithing into a youth educational summer camp. **Objective:** The objective of this program is to increase youth knowledge and interest in agricultural and science areas through a unique STEAM concept-driven summer camp. Methods: In 2019, the agent partnered with the Northeast Chapter of Florida Artist Blacksmith Association (FABA) to develop and provide a blacksmithing 4-H youth summer camp. This camp introduced basic blacksmithing skills, including safety around the forge, using hammer skills to shape hot metal, and techniques for designing basic tools. The agent and two other FABA instructors taught 8 youth how to use hammers to create s-hooks and decorative wall hangers to take home. **Results:** In a post-program survey, 100% of youth (n=8) indicated that they increased their knowledge of blacksmithing, and 100% of youth (n=8) indicated that if given the chance they would like to blacksmith again. **Conclusion:** By providing a unique and different avenue for STEAM concepts, youth were actively engaged in a new STEAM topic. There were several requests to continue this camp and it will be implemented again in the summer of 2021.

# Connecting Producers Virtually to Researchers through the 2021 Panhandle Row Crops Update Series

### Bearden, J., UF/IFAS Extension Okaloosa County, Johnson, L.,\* UF/IFAS Extension Escambia County, Carter, E.,\* UF/IFAS Extension Jackson County, Sprague, D.,\* UF/IFAS Extension Jefferson County, and Atkins, J., UF/IFAS Extension Santa Rosa County

**Objective**: To educate 125-200 producers on row crop management practices and acquire skills related to integrated pest management and best management practices (at least 80% of participants will increase knowledge); at least 50% of participants will adopt behavior changes in one or more of these areas; 100-125 producers and industry personnel would receive training in utilizing restricted use pesticides (80% of participants would receive certification or recertification through FDACS or CCA). Methods: The project aimed to move traditional, in class educational opportunities to a virtual world for producers due to COVID-19. The four weekly February webinars covered the following topics: Cotton, Peanuts, Corn/Soybeans, and Precision Agriculture. Agents filmed and edited videos with Florida, Auburn, and Georgia specialists in Fall/Winter. **Results**: A Webpage was developed with 24 YouTube videos and presentations for farmers to review the series. Critical numbers from the series include 284 people from 17 Florida, 3, Georgia, and 4 Alabama Counties, 263 pesticide applicators for points, 15 CCA CEUs, 229/231 (99%) of respondents reported a knowledge gain, 168/232 (72%) of respondents reported an anticipated practice change, 11/43 (26%) of survey respondents expect cost reductions on farm from their anticipated change. **Conclusion**: Ag business representatives were pleased with the opportunity to address clientele through this innovative meeting approach. Farmers sent texts and emails relaying that it was good to see what new research

had come out from 2020 work. The people who needed CCAs were particularly satisfied in the ease of the process.

### Farm Tour Facilitates Change in Consumer Purchasing Behaviors Burbaugh, B.J., Taylor, K.A.\*, Hamilton, L.A.\*, Stauderman, K.\*, and Cash, L.\*, UF/IFAS Extension Volusia County

Most Floridians have minimal knowledge about the economic significance of production agriculture and related industries (Hodges & Rahmani, 2010). Agricultural education can play an important role in gaining the public and financial support needed to protect farmland and sustain local agribusinesses. **Objective:** To address this knowledge gap, the faculty team in Volusia County collaborated to reimagine the 39<sup>th</sup> Annual Farm Tour to include non-traditional agribusinesses in order to 1) increase the awareness of the economic importance of agriculture to the state of Florida and county, and 2) increase residents' financial support for Florida agriculture through increased purchases of Florida-grown products. Methods: The ½ day farm tour included six stops. Individuals were greeted by the IFAS team and given an overview of the industry and its importance to our community. This presentation was followed by a tour of the operation with the farmers, owners and families. A 30-day follow-up evaluation was sent to participants. Results: 100% (n= 34) of participants are now more aware of the value that agriculture and natural resources adds to the county, 88% are more aware of the economic contributions made by agribusinesses in the county, and 59% stated they have already or plan to seek out and purchase Florida grown food and/or products as compared to 29% before the farm tour. Conclusion: Through this program, our team was able to connect local producers with consumers, increase the awareness of local agriculture, and help facilitate changes to consumer purchasing behaviors through increased purchases of Florida-grown products.

### Implementing A Statewide Peanut Diagnostic Survey for Florida Broughton, D.\* North Florida REC, Suwannee Valley, and Pittman, T.\* Gilchrist County Extension

In response to widespread peanut production collapse observed among North Florida growers in 2017, the UF/IFAS Extension Northeast District Row Crop Team developed a process known as the "Florida Peanut Diagnostic Survey". **Objective:** The survey was a collective effort among Extension Agents, peanut growers, industry leaders, and University of Florida researchers. Data on plant disease and environmental conditions was collected, shared, and analyzed in order to mitigate the risk of future crop collapse. **Methods:** A central online data repository was developed to allow researchers and vested partners to view historical environmental data, track instances of disease, and correlate data points across broad geographical locations. This nexus of agents, growers, and researchers working in conjunction, fosters industry relationships and empowers growers faced with mercurial environmental challenges. Factors such as disease cycles, spread, and underlying environmental correlations can be observed and studied interseasonally and knowledge gained may serve as an insulator against future crop loss or even collapse. **Results:** In 2020, the agent team observed a 172% participatory uptick in analyzed sampling from across seven Florida counties. Over the past three years, 250 samples were collected, saving producers \$6,800.00 in fees associated with nutrient and diagnostic reports alone. The common charge for Certified Crop Advisor (CCA) consultation services is around \$10/acre. Having scouted nearly 15,000 acres of peanuts, the agents saved 18 producers \$150,000.00 by providing scouting services associated with the peanut survey activities. **Conclusion:** Overall, the survey provided \$154,497.00 in services to growers directly who participated over the timeframe.

### Corn Video Series by UF/IFAS Extension Agents Replaces Field Day in the Wake of COVID-19 Korus, K.\*, Alachua County, Wynn, K.\*, Hamilton County, Halbritter, A. Baker County, and Broughton, D., NE District RSA, Suwannee County

**Objective:** The COVID-19 pandemic placed constraints on meeting in-person. To deliver corn management information to our clientele, several agents in the Northeast District created a corn management video series posted to social media sites in lieu of the traditional field day held each year. The objective of these videos was to reach 25 views per segment for a total of 100 views. Methods: Extension agents created videos while standing in research plots at the UF/IFAS North Florida Research & Education Center, Suwanee Valley (NFRECSV). Each agent discussed a different aspect of corn management. Topics included; variety selection, planting population, disease identification and management and stink bug identification and management. Recording the videos in the field plots allowed for excellent visuals to accompany the information. Videos were posted to the UF/IFAS NFRECSV's Facebook, YouTube and Instagram sites as well as to the UF/IFAS Extension, Alachua County's Ag and Natural Resources Facebook page. Results: The video series reached 120 views. It also garnered 14 comments, 9 shares, 78 likes and 2,964 lifetime impressions (defined as the total number of times activity related to a Page is seen by people on Facebook, whether it is organically, virally or via a paid advertisement). Conclusion: Crop management videos, when placed on social media sites, can reach as many, if not more people then delivering the information via inperson field days only. Educational video segments should be utilized in conjunction with inperson field day workshops to maximize the reach of UF/IFAS Extension.

### Bahia Establishment: With or Without Browntop Millet? Taylor, K.\*, UF/IFAS Extension Volusia County; Strickland, J.\*, UF/IFAS Extension Osceola County; and White, J.J. Soil Water Technician

Bahiagrass (Paspalum notatum) is one of the most commonly utilized warm-season perennial forages in Florida with over two million acres planted. Local seed producers frequently recommend mixing Browntop Millet (Urochloa ramose) with Bahiagrass at planting for better stand establishment as Browntop Millet establishes quickly and can help with weed suppression. **Objective:** Assess if combining Browntop Millet to Bahiagrass produces a denser stand of Bahiagrass and if the percentage of Browntop Millet (30% or 50%) mixed with Bahiagrass makes a significant difference. **Methods:** For this experiment, we used a complete randomized block design with three replications of each of the following seed mixtures: mix #1: Bahiagrass; mix #2: Bahiagrass mixed with 30% Browntop Millet; mix #3: Bahiagrass mixed with 13

50% Browntop Millet; and mix #4 Browntop Millet. Using a calibrated rotary spreader, we applied the seed mixtures to a prepared seedbed. Assessment of the experiment was completed 10 months post planting using both visual assessment and drone technology. **Results:** The average percent establishment for the plots with 50% Browntop Millet was highest at 60% coverage, followed by 30% Browntop Millet at 56.7% forage coverage. The two-tailed P value equals 0.0153, which is statistically significant between the plots with Browntop Millet and those with no Browntop Millet. **Conclusion:** Combining Bahiagrass and Browntop Millet produces a denser stand of Bahiagrass when evaluated at 10 months post planting with no statistical difference between 30% and 50% Browntop Millet mixes with Bahiagrass.

### Using Soil Moistures Sensors in Cover Crops to Determine the Efficacy of Using Winter Cover in Northwestern Florida

### Johnson, L.\*, UF/IFAS Extension Escambia and Santa Rosa counties, and Mulvaney, M.\*, WFREC Cropping Systems Specialist

Unless you can afford irrigation, there are not a lot of options left to manage soil moisture under dryland production. A lot of benefits of cover cropping take years to become apparent, but improved soil moisture is not one of them. Keeping the ground mulched during periods of drought during summer production reduces the evapo- part of the evapotranspiration equation, and results in increased soil moisture compared to non-covered ground. **Objective:** To utilize winter cover crops on dryland farmland to demonstrate an improvement on soil moisture to profitably grow the summer cash crops. **Methods:** Soil moisture sensors were installed in 3 growers' fields in Escambia and Santa Rosa county, both in cover and non-cover fields; one set in a livestock cover crop situation. Currently, summer crops are being planted in the fields, and soil moisture will continue to be monitored. Results: Early on results demonstrate improved soil moisture in covered areas and greater penetration of moisture in the profile. Past years' results have shown an increased cotton yield in covered fields; it will be interesting to see the comparison side by side in 2021. **Conclusion:** Extension activities in the area have demonstrated improved soil moisture status and yield when a persistent cover crop remains on the soil surface during cotton. Every year's data are being used to advocate for statewide cost share for cover cropping in Florida, where proposals are currently being developed for \$75/acre cost share for cover cropped land.

# Successful Collaboration Between UF/IFAS Extension Agents and Specialists to Hold a Virtual Bee College

Yarborough, J.\* UF/IFAS Extension Orange County, Willis, S.\* UF/IFAS Extension Suwannee County and Vu, A.\* UF/IFAS Honey Bee Research and Extension Lab

**Objective:** The objective of the UF/IFAS Bee College is to offer valuable beekeeping education to clients with varying levels of beekeeping experience. Collaboration between state specialists and county agents can enhance a virtual training by bringing in experts across the state. **Methods:** Due to COVID-19, UF/IFAS Bee College was moved to Zoom, a virtual platform. Trainings were held every Saturday morning in March 2021 with three tracks running simultaneously from 8:30am-12:30pm (US Eastern Time). Tracks were facilitated and taught by 14

extension agents and members of the UF/IFAS Honey Bee Lab. Agents from various programmatic areas were represented as facilitators and instructors. Subjects included information for beginners, managing bee stress and other miscellaneous topics. **Results:** 214 participants attended the virtual workshop. Surveyed participants (n=152) were represented across the world with 4.5% attending from outside the U.S and 25% occurring in the U.S. but outside of Florida. During the sessions, 47.4% moved around to different meeting rooms. 98.6% responded that the agents and specialist's knowledge of the subject matter were 'good' or 'excellent'. Of the 152 surveyed, 100% said that attending the UF/IFAS 2021 Spring Virtual Bee College made them a better/more successful beekeeper, and 93.8% planned to attend a virtual UF/IFAS Bee College in the future. **Conclusion:** Collaboration between agents and specialists can lead to successful virtual programming where diverse material is presented, allowing participants to recognize the resources UF/IFAS Extension offers on honey bee management leading to sustaining and maintaining honey bees worldwide.

### Using Traditional Production Meetings to Promote Pesticide Safety in North Florida Wynn, K.\*, UF/IFAS Extension Hamilton County, Broughton, D., UF/IFAS Extension Regional Specialized Agent-Agronomic Crops, Capasso, J.\*, UF/IFAS Extension Columbia County, Fenneman, D., UF/IFAS Extension Madison County, and Korus, K.\*, UF/IFAS Extension Alachua County

Each year in the North Florida area, agronomic production meetings are held to assist producers in adopting appropriate pesticide management and crop production strategies necessary to promote sustainability. Exit evaluations at these meetings suggested the need to incorporate pesticide safety training to encourage personal safety and provide the continuing educational units (CEU's), required by Florida Department of Agriculture and Consumer Services (FDACS), to recertify their Restricted-Use Pesticide (RUP) license. Over the years premeeting safety trainings have evolved at production meetings throughout the Suwannee River Valley. Objective: (1) 95% of agronomic producers attending safety trainings will increase knowledge in personal pesticide safety, measured by exit evaluations and observations. (2) 100% of agronomic producers attending safety trainings will receive the mandatory CEU's needed to renew their RUP license, measured by observation and recertification success. Methods: Pesticide safety trainings were offered as one-hour optional meetings prior to existing county production meetings. Collaboration among Extension Specialists, Extension agents, and FDACS Division of Agricultural Environmental Services Specialists created a venue for expertise and information exchange. **Results:** During each 4-year recertification period producers with a private RUP license were able to receive the required 4 core and 4 private CEU's required to recertify their RUP license. Conclusion: Pesticide training offered during production meetings have impacted over 2,300 attendees during the past 10 years. Exit evaluations and observations have indicated producers have adopted appropriate personal safety practices to safely apply pesticides while protecting the environment and have acquired the CEU's needed to successfully recertify their license.

### Farmer to Farmer Networks: Needs and Opportunities Wooten, H.\*, UF/IFAS Extension Orange County, and Felter, L.\*, UF/IFAS Extension Mid-Florida Research and Education Center

**Objective:** Extension is changing and so are clientele needs. More individuals leave their day jobs pursuing agricultural production full time. Extension has an opportunity to interact with these new-to-Extension clientele providing them with support and expertise. Methods: UF/IFAS faculty conducted "new farmer" focus groups to understand needs. Throughout the focus groups, new farmers noted challenges in getting to know other new, local farmers due to time, resource, and financial constraints. This finding revealed a more in-depth approach was needed to talk to new food producers, to get detailed input on their needs, and to get them talking to each other. Results: A Farmer- to- Farmer networking event occurred at a well-known local food market. Farmers self- identified and 49 participants including farmers new and experienced, chefs, market directors, and policy makers attended the event. Researchers asked attendees to use dot voting to identify key points under consideration when selecting an alternative enterprise, including limitations and needs. New farmers identified the greatest needs for more education and improvement in pest control, managing operating costs, and effective marketing strategies. Conclusion: As Extension continues to evolve to meet everchanging needs of clientele, Extension must also evolve their approaches when working with audiences who have never worked in agriculture before. The idea of evolving traditional networking events from conferences and tradeshows to local food markets and breweries will appeal to new-to-the game producers while building strong foundations to communicate science-based information, now, and into the future as farmers' needs continue to evolve.

### Natural Resources and Outreach Sponsored by FANREP

Virtual Room Hosts: Marnie Ward, David Outerbridge, and Taylor Clem

### Covering the Bases – Development of Basic Training for New Initiative One Extension Agents Wallau, M.\*, Agronomy Department, Benge, M.\*, Agricultural Education and Communication, Halbritter, A., UF/IFAS Extension Baker County

The "Ag 101" section (and implementation team) at the Extension Faculty Development Academy emerged in 2018 to provide a basic training for new extension agents within Initiative One. Because of diverse backgrounds and degree specializations, agents have specific subjectmatter knowledge, but many lack the technical and field experience needed to meet the expectations of their position. Objective: present resources available, tools and basic field knowledge to increase the competence and confidence of new agents. Methods: training is divided in two sections, one where we present and discuss UF/IFAS analytical resources, musthave toolkit for farm visit, agent-to-agent perspective on meanders of the job, and connecting with specialists; and the second tours analytical labs to learn about methods and processes of submitting samples and interpreting results. Five cohorts of new agents went through the training. Results: Evaluations showed that 80% of participants considered the information moderately to very useful for their jobs, and 70% reported increasing confidence in interacting with and addressing clientele's questions. Nevertheless, not all needs of newly hired agents are being met through current available training. Continued feedback from colleagues in the agriculture and natural resource departments suggested a need for a more in-depth, program area specific training. **Conclusion:** A new proposal is currently being developed to create an online training that will be available to Initiative One agents from day 1 and provide a deeper level of training than can be offered in person. Current faculty input and participation will be important to the project's future success.

# Water Resources and Human Society: Educating Floridians About the Value of Water Resources

### He, F.\*, Ph.D. student, UF/IFAS, Food and Resource Economics Department Borisova, T.\*, Extension specialist, UF/IFAS, Food and Resource Economics Department

Training students to become Extension and outreach leaders has been a key priority for UF/IFAS Extension. This presentation reports on the Extension program led by a graduate student, supported by UF/Thompson Environmental Systems Institute, and focused on water resource management. **Objective:** to inform the general public about the economic benefits and values of water resource protection and restoration. **Method:** the train-the-trainer approach is used. Existing Florida-based studies focused on the economic benefits were reviewed, summarized in different formats, and delivered to the Extension agents and outreach professionals outside UF/IFAS. The following materials were developed and publicized: (1) five one-page fact sheets;

(2) four EDIS documents; (3) one PowerPoint presentation; and (4) a set of 23 geographicallyspecific social media posts. **Results:** (1) In total, the materials were presented to 65 UF/IFAS Extension agents from multiple counties; (2) 300 printed copies of the facts sheets were distributed to extension faculty in each UF Extension District; (3) two EDIS documents published in 2019 were viewed more than 1,200 times in 2020, and two more EDIS publications are forthcoming. **Conclusion:** This program offers easy-to-use tools to the county extension agents to raise public awareness regarding the value of Florida water resources. This student-led program can be used as a model for successfully training of graduate students to become Extension program leaders.

### Mushroom Series Begins a Fungus Among Us in the Southwest District Outerbridge, D.\*, UF/IFAS Extension Lee County, Vinson, A.\*, UF/IFAS Extension Manatee County and Ubeda, A.J.\*, UF/IFAS Extension Sarasota County and Florida Sea Grant

Typically, Extension programs left out edible, beneficial or interesting fungi and focused on horticulture related species of concern. Limited Florida resources exist for individuals and professionals interested in the world of mushrooms. The popularity of mushrooms, in media, wellness, medicine and literature has recently risen. This increase highlights the need in our communities for research-based mushroom programming. **Objective**: Address the need for education in the areas of mushroom biology, ecology, identification and research on the applications of mushrooms to health and industry. Methods: The training includes; digital resources, videos, guided nature hikes, and publications. The program has been initiated with a webinar series with accompanying resources following. The program is promoted through videos and infographics shared via social media. Results: The first webinar had 100 attendees, nine of whom joined from outside of the United States, thirty of those were non-white. Registration for future webinars continues to increase, and recordings of the first webinar have been requested for use in schools. Survey results from the first webinar attendees show that 100% (of 23 survey responses) were able to identify three parts of a mushroom, while 95% were able to recognize their ecological function. **Conclusion:** The popularity of the first part of the program series, results of the initial survey and the increasing demand for recordings points to the current interest in mushroom programming. This model of interactive, multi-modal programming can meet demand while establishing a base line template to convey the ongoing advances in the field of mycology.

### Florida Shuffles from Resilient Gulf Conference to Webinar Series Carnahan, L.\*, Pinellas County, Ubeda, A.\*, Sarasota County, and Collini, R.\*, MS-AL Sea Grant

**Objective:** The Gulf of Mexico Climate and Resilience Community of Practice (Gulf CoP) is led by a 5-state team of volunteer Sea Grant Agents and NOAA colleagues. The Gulf CoP holds annual workshops aimed to co-produce and share best management practices for extension, outreach and education professionals to work with federal, state and local decision-makers to adapt and become more resilient to coastal hazards. **Methods:** Florida was scheduled to host a July 2020 in person conference when the pandemic hit and in-person conferences were shuttered. In collaboration with other members of the 5-state team, 2 Florida Sea Grant Agents and 1

affiliate MS-AL Sea Grant Agent developed a participant survey to identify topics of interest for virtual programming. As a result, a 7-installment Resilient Gulf webinar series was developed. The series was attended by 230 Floodplain Managers, Planners, CRS Coordinators, Emergency Managers, and other professions. **Results:** Ninety percent (90%) of survey respondents reported increased knowledge in climate science, coastal resilience, climate change mitigation skills, sea level rise adaptation planning competencies sea level rise adaptation planning competencies. Also, 90% of survey respondents pledged to act or implement something new that they learned from the webinar series. The series is shared online with stakeholders via the website and social media posts, http://masgc.org/climate-resilience-community-of-practice/workshops-webinars. **Conclusion:** Many hands do make lighter work, but not quite in the same way in an online broadcast as in-person program. The team will share these and other lessons learned producing this series.

#### CISMA Invasive Grass ID Workshop for Professionals in a Virtual Setting McIntyre, T.\*, UF/IFAS Extension Seminole County, Pinkerton, M.\*, UF/IFAS Extension Seminole County, Enloe, S. UF/IFAS Center for Aquatic and Invasive Plants

**Objective:** In collaboration with the Central Florida Cooperative Invasive Species Management Area (CF CISMA), a virtual workshop was developed to increase knowledge on identification of invasive grass species and to safely provide a continuing education unit (CEU) opportunity for professionals during COVID-19. Methods: In 2020, UF/IFAS Extension in Seminole County took the lead on the first ever virtual CF CISMA workshop. A zoom webinar license (500 seat) was utilized to offer a free, full day workshop with instruction provided by an array of University of Florida and state experts on topics related to identification and management of invasive grass and sedge species in Florida. The class was also approved for pesticide CEUs for natural area weeds management and aquatic pest control licensed applicators. Results: The workshop had over 400 highly engaged participants. More than 570 CEUs were issued following the class. In a post-workshop survey, 97.5% (312/320) respondents increased their knowledge on invasive species and 100% (322/322) on grass/sedge identification, and 98.1% (310/316) indicated they were more confident they could distinguish between grasses and sedges. 96.7% (266/275) intend to adopt proper pest identification prior to applying pesticides and 97% (259/267) pesticide safety practices (PPE). Conclusion: The virtual workshop exceeded expectations in terms of participation and positive attendee feedback. This workshop is usually limited in capacity, however the virtual setting allowed us to serve professionals across the state. This collaborative effort with CF CISMA also offered a critical CEU opportunity in a year where many traditional in-person CEU programs were limited.

### Assessing the Status of Diamondback Terrapins in the Florida Panhandle Utilizing Citizen Scientists

### O'Connor, R.\* UF/IFAS Extension Florida Sea Grant Escambia County, and Bodrey, R.\* UF/IFAS Extension Florida Sea Grant Gulf County

**Objective**: To assess the status of the diamondback terrapin (*Malaclemys terrapin*) in the Florida panhandle for state/regional conservation management planning. **Method:** Annually, Extension Agents conduct terrapin survey citizen science trainings in March and manage those surveys between April and October. Volunteers monitor known nesting beaches and assist with the tagging and tissue sampling of captured terrapins. All protocols are developed in partnership with the U.S. Geological Survey (USGS) and the results are shared with both the USGS and the Florida Fish & Wildlife Conservation Commission (FWC). Results: Since 2015, 126 volunteers have been trained or re-trained. A total of 416 surveys have been conducted logging 832 hours. 95 records of terrapin activity were logged, 7 were captured for tissue sampling, and 3 were tagged. All participants who attended trainings (100%) gained new knowledge about terrapin ecology and conservation. Of those participants, 80 of those (63%) participated in one or more surveys. Tissue samples were sent to FWC for genetic analysis. The project, which was initiated in Pensacola, now includes the entire Northwest District and has formed a strong partnership with USGS. Conclusion: FWC continues to seek tissue samples and there is consideration to list a panhandle subspecies. Extension Agents have worked with agencies to draft a management plan. The National Terrapin Working Group recognizes this as the only assessment occurring in the panhandle. The rewarding part of this initiative is the knowledge that volunteers have gained and their eagerness to educate others about the diamondback terrapin ecology in the panhandle.

# Edible Ornamental Landscaping: A Multi-Method Teaching Approach of the Florida-Friendly Landscaping<sup>™</sup> Principles

#### Marek, A.\*, and Bailey, M.\*, UF/IFAS Extension Marion County

**Objective:** To meet the growing demand for edible ornamental landscaping programs, agents from the UF/IFAS Extension Marion County office combined expertise to develop a new program that utilizes multiple teaching methods. The Objective of this program are to expand the knowledge and skills of program participants to effectively install and maintain an edible ornamental landscape using the Florida-Friendly Landscaping principles and to increase their consumption of fresh produce harvested from their own yards. **Methods:** Three online programs were provided in 2020 – 2021. In April of 2021, the first in-person class was provided to those that attended one of the online classes at the newly completed edible ornamental demonstration landscape in Ocala, FL. This class was supplemented with a new educational pamphlet and presentations. **Results:** 774 people participated in the three online programs and 13 people participated in the in-person class at the demonstration garden. Participants' post-test scores improved by 20% from the pre-test, and 70% of participants three months after the program reported practice change. After the program, 61% have added edible ornamental plants to their landscape, 84% selected Florida-friendly plants and 70% have harvested food from their edible ornamental landscape. Likewise, participants save

an aggregate of approximately 81,654 gallons of water per year on irrigation. **Conclusion:** By combining online programs with an in-person field day and printed materials, a much larger and diverse audience was reached. Evaluation results affirmed the need for these programs, demonstrated positive impacts, and participants greatly valued seeing the plants and principles they learned about put into practice.

### Back to Nature: Virtual Class Encourages Residents to Visit Local Parks Stump, K.\*, UF/IFAS Extension Osceola County, Kincaid, C., Osceola County Urban Forester, and Pabon, E., UF/IFAS Extension Osceola County.

Osceola County manages 40 conservation areas and parks. Many residents are not aware of these parks or the free recreational opportunities they provide. By increasing knowledge about these areas, residents are more likely to visit them and experience the positive impacts of nature. **Objective:** Following the program, the participants will improve their knowledge about Osceola County conservation areas by 30%. In addition, at least 75% or participants will indicate that they are very likely or somewhat likely to visit an Osceola County park due to the class. **Methods:** Forty-seven residents attended a 1-hour virtual class via Zoom. Topics included: health benefits of nature, County-managed conservation areas, available recreational activities, and management practices. Results: Following the program, an online Qualtrics survey was sent to participants and 32 responded. According to a retrospective post-test, the respondents (n=32) improved their knowledge about Osceola County conservation areas by 44%. 91% of respondents indicated they were very likely or somewhat likely to visit an Osceola County park due to the class. Conclusion: These outcomes are linked to health, economic, and environmental impacts. Program participants who visit local parks may experience improved physical and mental health. Twenty minutes outside has been shown to reduce stress cortisol levels and improve mood. The existence economic value of conserved green space increases when residents learn about the areas and their benefits. Their use value also increases when participants visit these areas. Finally, environmental awareness can lead to more environmentally conscious behaviors.

### Growing Sustainably in 2020 and Beyond: Policy Makers Learn about Conservation Strategies Snodgrass, C.\* UF/IFAS Extension Manatee County and Kirby, C.\*, UF/IFAS Extension Manatee

Manatee County is a leader in agriculture production with a \$298 million (2012) value of agricultural products sold. However, with rapid urbanization of agriculture lands, the Manatee County Commissioners requested to discuss conservation and sustainability in Manatee County. **Objective:** To educate Manatee County Commissioners, county administration, staff and citizens about the importance of agricultural sustainability, benefits of land conservation and strategies to achieve conservation goals through the use of conservation practices. **Methods:** Manatee County agents coordinated with the Parks & Natural Resources Department and County Administration to conduct a work session for commissioners focused on land conservation. The program included a panel discussion with six prominent agriculturalists and conservationists hosted by an influential local cattleman. After the panel discussion, commissioners were provided a locally produced lunch, followed by a ranch tour where they

were invited to experience the impacts of conservation practices. **Results:** 100% of Manatee County commissioners and administration (n=9) gained knowledge on topics including economic and environmental benefits of land conservation, conservation strategies such as conservation easements, diverse strategies to maintain resiliency in the agriculture industry, and the importance of partnerships in conservation. A six month follow up survey will measure intention to apply new principles learned. **Conclusion:** Policy makers, county administration and citizens gained knowledge, collaborated with new partners, and developed an appreciation for land conservation. This has the potential to change the face of development in Manatee County developing sustainably while reducing impacts on our environment, ensuring that it remains intact for generations to come.

### Sustainability in Urban Food Production in Broward County Bravo, L.\*, UF/IFAS Extension Broward County, Jiangxiao, Q., FLREC Broward County, Moore, K., FLREC Broward County, Sandoya, G., EREC Palm Beach County

Since May 2019, the Broward County Master Gardener Volunteer program (MGVs) has collaborated with UF/IFAS FLREC Landscape Ecology program led by Dr. Jiangxiao Qiu focused on urban sustainability, UF/IFAS FLREC Sustainable Plant Production program directed by Dr. Kimberly Moore, and UF/IFAS EREC Dr. Germán Sandoya focusing on lettuce cultivar development to launch the first Sustainable Urban Food Production program. Objective: This multi-disciplinary approach brings together UF statewide and county extension faculty to train MGVs on new sustainable urban food production practices. The overall goal is to reach an audience in unique urbanized landscapes, support food desert areas, and provide researchbased learning experiences. This course is a pilot for a new Sustainable Urban Food Production program in urban areas. Method: We introduced an Urban Food Production MGV module into the current MGV training in Broward County. MGVs learned practices on sustainable urban agriculture, water and energy conservation, and implementation of various technologies including rain barrels, drip irrigation, composting, hydroponics, and growing plants in small spaces. They expanded their knowledge by growing UF Lettuce lines in a Hydro Kit (Deep-water culture system model) designed explicitly for this purpose. **Results/Conclusion**: MGV's gained knowledge on urban food production principles. The pre-and post-survey results indicated a 97% level of program satisfaction. After the workshop, participants (100%) agreed that wellmanaged and adopted urban agriculture could promote sustainability. Future applications of this program will expand to Broward schools in collaboration with 4-H faculty.

The Life Aquatic with UF/IFAS Florida Master Naturalist Program – a New Marine Habitat Restoration Course

Krueger, S.\*, UF/IFAS Extension Monroe County, Johnson, S., UF/IFAS Wildlife Ecology and Conservation, Barry, S., UF/IFAS Extension Nature Coast Biological Station, Jackson, S., UF/IFAS Extension Bay County, Patterson, J., UF/IFAS Fisheries and Aquatic Sciences, Reynolds, L., UF/IFAS Soil and Water Sciences Department, and Main, M., UF/IFAS Florida Master Naturalist Program Leader

Marine resource managers and ecological restoration practitioners rely upon volunteers for habitat restoration programs to maximize efficiency and lower labor costs. As a result, there is a need for volunteer training programs that teach detailed information about the goals of and methods used in marine habitat restoration. **Objective:** Create a new Florida Master Naturalist Program (FMNP), entitled Marine Habitat Restoration, with course curriculum focused on the restoration of seagrasses, coral reefs, sponges, and marine enhancement through artificial reefs. Methods: A team of seven faculty from around the state created a manual with an introductory chapter and four modules focused on 1) seagrass restoration, 2) coral restoration, 3) sponge restoration, and 4) artificial reefs. The curriculum includes comprehension tests, videos, and sample activities for instructors. Four regional focus groups composed of FMNP instructors provided feedback. **Results:** Two train-the-trainer courses yielded 45–51% knowledge gain about marine restoration topics. Three hybrid virtual courses yielded an average knowledge gain of 57% for 60 participants as measured by pre- and post-tests. The publicly available video series received more than 961 views. **Conclusion:** The new and innovative content provided by the UF/IFAS FMNP Marine Habitat Restoration course provides detailed information on the ecology, benefits, restoration methods, and monitoring of marine habitats in Florida. Graduates are entrusted to share the information they gain with others and use the skills they acquire to contribute to conservation education and to participate in restoration initiatives.

### Uncharted Waters: A Multi-State Partnership to Assess Mangrove Expansion in the Northern Gulf of Mexico

Bodrey, R.\* UF/IFAS Extension Florida Sea Grant Gulf County, O'Connor, R.\* UF/IFAS Extension Florida Sea Grant Escambia County, Stevenson, C. UF/IFAS Extension Escambia County, Verlinde, C. UF/IFAS Extension Florida Sea Grant Santa Rosa County, Tiu, L. UF/IFAS Extension Florida Sea Grant Okaloosa/Walton Counties, Jackson, L.S., UF/IFAS Extension Florida Sea Grant Bay County, and Lovestrand, E. UF/IFAS Extension Florida Sea Grant Franklin County

**Objective**: To determine the extent of mangrove expansion into the northern Gulf of Mexico. **Method**: Working under the direction of the Dauphin Island Sea Lab's Mangrove Sighting Network Initiative Team, Extension Agents and environmental professionals from Mississippi, Alabama, and the Florida panhandle, selected 10 high potential sites within their region where a 100 meter transect could be established. Extension Agents trained citizen science volunteers to paddle these transects once each year to survey for the presence/absence of both red and black mangroves. All mangroves found were measured using pre-determined methods and photographed. All reports were housed with the DISL Mangrove Sighting Network. **Results:** Since 2018, there have been 55 volunteers trained in the program. These volunteers have logged 227 hours and conducted 267 surveys across the northern Gulf. A total of 479 mangrove records have been logged. Of those records, 419 of those (87%) were from the eastern panhandle of Florida, but mangroves were found in Mississippi as well. All citizen science volunteers gained new knowledge about the identification and dispersal of mangroves into this region. **Conclusion**: The efforts of these citizen scientists have confirmed locations of both black and red mangroves in the northern Gulf of Mexico. This tropicalization of the northern Gulf has been important information for partnering agencies including Dauphin Island Sea Lab and the National Estuarine Research Reserves within this area. It has also spawned more discussion on the connection of climate on this range expansion.

#### Local Partners as Essential Components of a Successful Mangrove Trimmer Education Program

#### Vinson, A.\*, UF/IFAS Extension Manatee County, Ubeda, A.J.\*, UF/IFAS Extension Sarasota County, and Florida Sea Grant, and Outerbridge, D.\*, UF/IFAS Extension Lee County

Mangroves are an essential protected resource in Florida, with strict regulations for trimming or removal. Remaining mangrove shorelines in Florida are managed and/or regulated by municipal or state agencies. The management agencies responsible for mangroves often utilize employees with little arboricultural training. **Objective:** To promote the best pruning practices of mangrove shorelines, in collaboration with ISA (International Society of Arboriculture) certified professionals, an experiential half-day program was developed and delivered to three county governments. **Methods:** The training relies on the real-world experience of the industry professionals, who provide a hands-on pruning demonstration and the expertise of UF/IFAS Extension and FL Sea Grant. This three-hour training program provided participants the opportunity to learn the importance of mangroves, mangrove identification, review of applicable state and local regulations, and mangrove pruning best practices. The program was offered once in each Manatee, Sarasota and Lee Counties. Attendees included municipal staff, private arborists and landscapers. Each training was held in a mangrove location with a local arborist to perform live pruning demonstrations. Results: Via direct observation, 80% of attendees correctly identified the three mangrove species and 90% could point out improper and proper pruning cuts. Knowledge of appropriate mangrove pruning increased by 85% as shown in a pre/post electronic survey. **Conclusion:** As indicated by the program evaluation, the need exists for improved training and access to education on mangrove forests. This program demonstrates a successful approach to closing the gap between regulation, education, and professionals and individuals carrying out maintenance of mangroves on public lands.

### Introducing the Florida Youth Naturalist Program Johnson, S.\*, UF/IFAS Extension Natural Resources and Hensley, S.\*, UF/IFAS Extension Florida 4-H Youth Development

**Objective:** The Florida Youth Naturalist Program (FYNP) is a new program developed through a novel partnership between the Florida Master Naturalist Program and Florida 4-H Youth Development. The need for this program is dually to extend naturalist program opportunities to youth and to diversify the types of programs offered by Florida 4-H. Methods: With one author as content expert, and the other author as youth context expert, we collaboratively developed an experientially focused curriculum that uses a learn-by-doing approach and provides opportunities for youth to contribute to the future of Florida's natural resources. The initial curriculum was peer-reviewed by 4 colleagues, we then conducted 2 workshops with 48 subject matter experts and youth educators to solicit feedback, and finally completed a pilot course with ten youth 10-13 years old. Results: We completed a 130-page Instructor Field Guide to lead instructors through 24 hours of teaching with 10 interactive lessons including ecological background, hands-on activities, service-learning projects, field trip ideas, and guidance for students to reflect and apply life/work skills. The Florida-focused content is applicable throughout the state and any organization can use the curriculum as appropriate for their mission. Activities can be easily adapted to indoor and urban settings where access to natural settings may be limited. **Conclusion:** The FYNP Instructor Field Guide will be available through the UF/IFAS Bookstore. Numerous organizations and at least 25 individuals have registered on the FYNP listserv in anticipation of teaching the program, which will impact least 300 youth per year to change behavior related to environmental conservation.

#### Growing for Florida Forks Ward, M.\*, Jarvis, B.J.\*, Davis, S., and Reaves, C. UF/IFAS Extension Citrus County

The past year has revealed the important role of backyard and container gardens as a method for families to produce their own food, while learning sustainable practices. By using practices to turn landscapes into gardenscapes youth learn where their food comes from. **Objective:** Campers will increase their knowledge of Florida agriculture, identify ways to add edibles to their home landscape, and develop sustainable practices. **Methods:** The camp immerses youth, ages 8 – 12 years, in hands-on activities as they learn about Florida agriculture and ways to add it to their home landscape. Camp activities teach campers to identify edible plants, trees and shrubs grown in Florida, including less well recognized items (e.g. dragon fruit) and emerging crops (e.g. luffa). Youth explore techniques to identify and control pest habitats, while reducing threats to human health and agricultural productivity. Youth connect agriculture with sustainability as they create garden containers from recycled materials. Campers trace "seed to supper" with peanuts and sweet potatoes. Learning, planting, harvesting, safe food handling and food preparation skills, youth practice healthy habits to share with friends and family. **Results:** Camp outcomes assessed by observation of competencies mastered and knowledge gain quantified with a pre/post survey. **Conclusion:** Extension day programs engage youth in exploring their environments, building responsibility for agricultural resources and motivating

young people to recognize cause and effect relationships. Youth can then apply project-based learning tools with experiential programs to tackle food and sustainability issues.

### Youth Programming Sponsored by FAE4-HA

Virtual Room Hosts: Julia Kelly, Crystal McCazzio,

and Matt Olson

# Strategic Methods for Extension Agents to Maximize the Impact of Your County's 4-H Animal Science Programming

Schortinghouse, A.\*, Estevez, B.\*, and Simmons, N.\*, UF/IFAS Extension Escambia County

The Escambia County 4-H program has historically had strong interest in animal science programing and events, though in years prior minimal programming was conducted. To recharge and expand animal science programming, new teaching methods and technology were utilized to increase engagement and learning for youth and volunteers. Programing efforts included judging teams, livestock workshops/shows, and animal science projects. **Objective:** 1. Develop programming to maximize life skill development through an animal science focus. 2. Increase youth and volunteer participation in animal science programming. Methods: The following types of animal science teaching methods were utilized to increase participation and impact: a livestock workshop series; a virtual livestock show; agent and volunteer led in-person and virtual judging practices and workshops; tours; and introducing web-based tools for teaching. Each animal science event utilized multiple teaching methods to help facilitate learning. Pre/post tests were utilized to evaluate teaching methods. Results: Participant evaluations and agent observation resulted in higher-rated record books, attendance, and event placings than those of peers who did not take advantage of animal science learning opportunities. Animal science project enrollment has increased from 11% to 30% in four years. Evaluation and observations also showed adopted behaviors became demonstrated behaviors at end of session events. **Conclusion:** By incorporating more diverse styles of teaching animal science material, youth received opportunities to enhance their learning and life skill development at local, state, and national levels. Youth enrolled in animal science activities were also more likely to participate in non-animal 4-H programming as well.

### New Club Leader Training Series Ghosh, S.\*, UF/IFAS Extension Polk County

**Objective:** The New Club Leader Training (NCLT) series was developed and implemented by the Polk County 4-H agent to follow a systematic approach of recruiting and retaining long-term volunteers, which is critical to the success of the 4-H program. The two overarching goals of the NCLT series are i) to increase the number of well-trained 4-H volunteers that provide quality positive youth development experiences in a club setting, and ii) to expand the reach of 4-H within the community. **Methods:** The NCLT series commences in April and concludes in August, each year and comprises of four components- an application, an interview, 4honline onboarding and four, three hour training sessions. These sessions are co-taught by the 4-H agent and the County Extension Director. **Results:** Since 2018-20, a total of 33 (8 in 2020) new club leaders have

been trained resulting in 12 new clubs. The retention rate of these new clubs is 86%. In 2020, four out of the 33 trained volunteers, organized two volunteer led youth opportunities for youth ages 8-13 years. These two events forged 19 new partnerships that supported the successful implementation of these volunteer led opportunities serving a total of 106 youth participants. **Conclusion:** The impacts of implementing the NCLT series is multifold and positive to the overall county 4-H program. Starting 2021, a year round mentorship component will be added to the NCLT series which will encourage new volunteers to build relationships with existing volunteers and the 4-H staff, ensuring they feel supported in their new leadership roles.

### Wildlife Outdoor Leadership Focus (W.O.L.F.) Day Camp Cowan, R.\*, UF/IFAS Okaloosa County, Breslawski, J.\*, UF/IFAS Okaloosa County, Dunning, S.\*, UF/IFAS Okaloosa County, and Tiu, L.\*, UF/IFAS Okaloosa County

Environmental science is a very broad topic. Wildlife Outdoor Leadership Focus (W.O.L.F.) Day Camp was designed 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. **Objective:** As a result of this program, participants were able to 1) identify Florida wildlife and plants, 2) Demonstrate their knowledge of best management practices for wildlife, and 3) describe the complexity of natural resource management. Methods: The virtual 2020 W.O.L.F. Camp google site http://sites.google.com/ufl.edu/4-h-w-o-l-f-camp/home was utilized for activities and materials for the face to face 2021-day camp. Participants were broken into three groups. A team of Agents and 4-H Volunteers hosted stations that instructed participants on wildlife management techniques, nutrition/health, team work, art, and marine science. The three groups rotated ever forty minutes. Results: 31 participants enrolled in the 3-day camp. Camp evaluations were completed by every camper. Over 80% of participants reported a knowledge increase in concepts and identification of flora and fauna. Furthermore 90% considered the importance of teamwork. Participants self-assessed that their knowledge increased by 60%. Furthermore 100% indicated that they would consider their impact on wildlife habitat. Conclusion: The long-lasting impacts of W.O.L.F. Camp are high quality crossdiscipline environmental educational content that can be replicated by Extension Agents for years to come.

Encouraging Mindfulness in Youth: A Florida 4-H Summer Adventures Program Lynch, W.\*, UF/IFAS Extension Putnam County, Sarver, K., UF/IFAS Extension Miami-Dade County, Crawson, N.\*, UF/IFAS Extension Holmes County, Emerson, J.\*, UF/IFAS Extension Levy County, Gonzalez, D.\*, UF/IFAS Extension Palm Beach County, Janney, H.\*, UF/IFAS Extension Columbia County, Lynch, W.\*, UF/IFAS Extension Putnam County, Yancy, B.\*, UF/IFAS Extension Hillsborough County, and Leo, A.\*, UF/IFAS Extension Leon County

The pandemic brought multiple challenges in 2020 and agents were quick to respond with programming for youth during the summer. **Objective:** The interactive website and webinar series set one main objective: Encourage youth to apply healthy living behaviors that promote emotional well-being through a safe and inclusive virtual environment. Methods: 4-H and FCS agents created a hybrid of synchronous and asynchronous learning using multiple forms of technology including a website with one-hour interactive sessions on five consecutive Mondays. Then, multiple mediums such as photos, videos, fact sheets, and audio recordings were utilized for the asynchronous portion of the site. In addition, online educational games related to the mindfulness lessons were created and linked to the site for fun, engaging challenges. Results: Of the 194 registered youth, 57 were active users of the Google Site which received 191 page views. 93 youth participated in the optional weekly Zoom sessions. 28% (n=57) responded to the provided electronic surveys: 94% (n=16) of youth reported that they felt safe; and 80% (n= 15) of youth reported that they enjoyed being a part of the program. They reported learning to identify red flags in friendships, eating healthy, and how to practice mindfulness in everyday life. Youth also explained that they plan to share with others about emotional intelligence, meditation music, and how to do yoga. Conclusion: The Mindful Mondays series and interactive online website allowed youth to be engaged in exploring mindfulness using newly learned and/or not often utilized computer-based life skills.

# Bug Clubs and Bug Hotels, First Grade Students Learn the Value of Pollinators Jackson, M.\*, UF/IFAS Extension Lafayette County

According to the United Nations, 40% of invertebrate pollinators are facing extinction (UN Sustainable Development, 2016) **Objective:** Organize a first-grade bug club at Lafayette Elementary School to allow hands-on learning about the process of pollination, its impact on our food supply and attracting pollinators with an insect habitat. **Methods**: In nine weekly lessons, students would learn the different types of insects and to distinguish those known as "beneficial insects". Students would also be asked to collect insects from the school garden and then identify them. The local Ag agent would explain to students that using pesticides to control unwanted insects could lead to loss of all pollinators. Students created an insect habitat by planting rows of flowers in the garden and built a "bug hotel" of recycled milk cartons, straws, hoses and bamboo. **Results:** After 9 weeks of the First Grade "Bug Club" meetings and lessons 95% (n=97) percent of students understood the fundamentals of pollination, a 50% increase. 89% (n=97) were aware that the number of insect pollinators are on the decline, an increase of 86% and the number of kids who knew how to attract insects to a garden was 93% (n=97), a 90% increase. **Conclusion:** This entomology program was very successful in increasing first graders knowledge about pollination, that the number of insect pollinators is on the

decline and how to attract pollinators to a garden. This program can easily be replicated in other schools and 4-H clubs as well as in the participants family gardening projects.

### Becoming Butterflies: A 4-H Metamorphosis Project. Carter, G.\*, UF/IFAS Extension Duval County and Haupt, K.\*, UF/IFAS Extension Duval County

**Objective:** Duval County school teachers expressed a desire for more STEM opportunities with live animals. In an effort to expand the capacity of 4-H school enrichment projects, Becoming Butterflies: A 4-H Metamorphosis Project was developed for 2<sup>nd</sup>-5<sup>th</sup> grade students. Becoming Butterflies aimed to 1) develop experiential learning resources for teachers that meet Florida's school science standards 2) increase students' knowledge of/interest in STEM topics and careers. Methods: 4-H Agents partnered with Junior Master Gardener instructors, faculty at UF's Entomology and Nematology Department, and UF employees at the McGuire Center for Lepidoptera & Biodiversity. Eight video lessons were developed and housed on a Google Site with vocabulary, discussion questions, activities, and bonus resources. The Florida Nursery Growers and Landscape Association's Northeast Chapter sponsored a pilot of the project in spring of 2021. Over 400 students at eight sites participated. Each class received Painted Lady Butterfly larva, habitats for larva, habitats for butterflies, and supplies for organism care. Students tracked daily changes in their organisms as they learned about lifecycles, anatomy, pollination, habitats, migration, coloration, adaptation, and careers in entomology. Results and **Conclusion:** Teacher's completed observation forms on student participants. These forms indicated student improvement in the follow areas: recognizing and comparing major life cycles, making observations and keeping records, recognizing animal/human environmental impacts, understanding animal needs, relating science to real life experiences, expressing concern for living things, and exhibiting interest in science. Duval agents have met with agents in three additional counties about replicating the program.

### 2020 Virtual Summer Adventures Day Camp: "Having Sew Much Fun" Cash, L.\*, UF/IFAS Extension Volusia County, Copeland, H., UF/IFAS Extension Leon County, Daniel, P.\*, UF/IFAS Extension Okeechobee County, Janney, H.\*, UF/IFAS Extension Columbia County, and Leo, A., UF/IFAS Extension Leon County

Whether you look at sewing as a creative outlet, a practical talent, or an exercise in planning and mathematics, it is a valuable life skill. **Objective:** To reach youth with life skills activities and continue their involvement in 4-H while remote. Educational Methods: The "Having Sew Much Fun<sup>7</sup> virtual day camp focused on (1) hand- and machine-sewing projects; (2) a daily Zoom session where youth could share their projects and engage in interactive games and activities; (3) lessons on terminology, methods, and tools available on the Google site (https://sites.google.com/ufl.edu/having-sew-much-fun/home); and (4) community service. The team was innovative with the activities and lesson plans. Each day's page on the *Google* site had specific sections: Welcome; Supply List; Learn; Projects; and Show and Tell. Results: Over 250 youth registered for the day camp and 55% were not current 4-H members. Participants came from four states and represented several races and ethnicities. There were approximately 25 campers on each day's *Zoom* session. Results of a post-survey showed (n=29 respondents): 100% of participants learned a new skill; 67% of participants learned to sew for the first time; 80% of participants can now identify common sewing tools; and 100% of participants stated this program gave them the opportunity to learn about something they care about. **Conclusion:** "Having Sew Much Fun" gave Extension educators the opportunity to provide a state-wide educational program during the pandemic, has been used by other agents in Florida and other states, and local organizations benefited from the community service projects.

### 4-H Mailbox Program. Altum Cooper, J.\*, Emerson, J., Houghton, H., UF/IFAS Extension Gilchrist County and Sanders, C.\*, UF/IFAS Extension Alachua County

This shift in program delivery occurred during COVID-19, but resulted in an added option for 4-H membership that will be value added to the program moving forward. Objective: (1) Design user-friendly project sheets that are available for members who do not have access to distance programs using technology. (2) Develop a list of materials that can be an ala carte menu of 4-H mini projects that can be done as individual units or combined for a project book type experience for members of all ages. Methods: (1) Seven main priority areas were identified using needs assessments (2) A branding guide was designed to make all units have the same design elements (3) Gilchrist, Dixie, and Levy County offices united forces to develop each unit and peer review them (4) Members were given a menu to select their options and opted into this distance program. **Results:** Over 60 members in the tri-county area selected this option in 2020-2021 as their main avenue to participate in 4-H. Of those participants, the members reported knowledge gain and behavior changes within their project areas. Conclusion: Over 70 individual units were developed and were peer reviewed through this new option made available in 2020 for Tri-County 4-H members. This innovative approach to a technology deficiency in Gilchrist, Levy, and Dixie counties continued to make 4-H projects available for individuals, families and classrooms during COVID-19. Additionally, this program is under continued development and will continue to make 4-H more accessible to all communities in the future.

### Beating Breakfast Barriers to Guide Youth to Healthy Living Guay, N.\*, UF/IFAS Extension Palm Beach County and Sarver, K., UF/IFAS Extension Miami-Dade County

**Objective:** To encourage youth to change breakfast opinions to increase consumption and maintain a healthy lifestyle. **Methods:** Hands-on nutrition activities are used to facilitate discussion around breakfast foods and understanding nutrition. Understanding what makes food nutritious is broken down in a step-by-step approach. Youth are given food nutrition labels to explore protein, fat, carbohydrates, and other nutrition information. Secondly, youth measure the amount of sugar and fat in the food products to gain a visual understanding of the quantity of sugar and fat they are consuming. Lastly, youth view various marketing advertisements in magazines and analyze the product's nutrition label to determine if it is a healthy option. Woven throughout this activity, adults engage youth in discussion on the

importance of breakfast and alternative healthy breakfast foods. **Results:** 73% of 154 schoolaged children "liked" the Breakfast Banana Split recipe. 89% of 154 youth reported learning about healthy food choices and 86% of 154 youth reported an increase in regular breakfast consumption. **Conclusion:** Breakfast consumption is important to a healthy lifestyle and may favorably influence body mass index (Affenito, 2007). Despite breakfast's positive attributes, many children go to school without breakfast. Impressions and personal opinions on what constitutes breakfast food influence reasons why school-aged children are unwilling to consume healthy breakfast foods. After learning that many foods became breakfast staples because of intensive marketing campaigns and that people in other cultures readily include lunch or dinner foods on their breakfast plate, traditional beliefs about breakfast foods can be changed.

### Formal and Informal Learning to Support Northwest District 4-H Volunteers Dillard, J.P.\*, UF/IFAS Extension Washington County, Kent, H.C.\*, UF/IFAS Extension Regional Specialized Agent, and Estevez, B.\*, UF/IFAS Extension Escambia County

**Objective:** 1) Provide 4-H volunteers with quality formal and informal training materials, resources, and supports needed to fulfill their roles and responsibilities. 2) Increase and support volunteer capacity in communication, organization, program management, and positive youth development. Methods: Following Council for Certification in Volunteer Administration recommendations, we created a training/support system for volunteers that was less rigid and more individualized than previous efforts. We planned, implemented, and evaluated a volunteer leadership academy based on the Volunteer Knowledge and Research Competencies. It was delivered virtually via webinars with resources and materials generated from blogs, videos, and social media posts. Recognizing not all volunteers were available for live webinars, a volunteer resource site was created to host recorded sessions and support tools like job aids, infographics, materials, and additional instructional videos. Tools and resources were focused on 4-H volunteer tasks and functions to support them in doing their work and fulfilling their responsibilities. Results: This program allowed us to be more flexible and fluent in meeting volunteer needs for learning and support. It also increased the reach and engagement of our volunteer programs. Immediate results included: 100 live webinar participants; 220 video views; 170 volunteer resource site users; 7,948 social media engagements; 70,008 social media reach. Conclusion: Meeting the training, development, and support needs of today's 4-H volunteers requires a multi-tiered approach. Volunteer training, development, and support must also be on-going. A repository of resources and materials is now readily available to support volunteers in fulfilling their roles and responsibilities.

#### Angler Club Adds Variety to Rural Area Sports Jackson, M., UF/IFAS Extension Lafayette County

Parents and youth have indicated the need for alternative youth sporting clubs other than traditional sports related to ball. Rural youth have less variety of programs to choose from than their urban counterparts which could lead to increased risk of delinquent behaviors (Caldwell & Smith, 2006) **Objective**: Utilize local resources to start an anglers 4-H Club which will teach

angling skills, laws and ethics related to angling, proper cleaning and dressing fish for consumption and an appreciation for natural resources. **Methods**: At the initial 4-H Anglers meeting, youth learned to set up rods with a hook, line and sinker as well as how to safely cast a real. Following meetings included learning fishing regulations, fishing trips to local lakes and hands-on lessons of how to safely clean fish. **Results**: 18 youth are participating in the Lafayette 4-H Anglers Club. Three adults have donated a total of 62 hours of time. 100% (n-18) of youth participants felt they had gained knowledge about fishing. 88% (N=18) were able to bait a hook with live bait and all parents surveyed felt the club had a positive impact on their child's happiness and 72% (n=18) reporting a tremendous improvement in their child's outlook towards outdoor sports. **Conclusion**: The Anglers Club has been successful in teaching youth angling skills and an appreciation for local natural resources. Participants are spending time with families angling and believe it will be a lifelong sport.

#### 4-H Take-Out: Project-Based Learning in the Home Environment

### Kerr, B.\*, UF/IFAS Extension Hamilton County, Jackson, M.\*, UF/IFAS Extension Lafayette County, Moore, B.\*, UF/IFAS Extension Madison County, Thames, Tharpe, A.\*, UF/IFAS Extension Taylor County, and Glasscock, K., UF/IFAS Extension Suwannee County

The decline in 4-H member participation in project-based activities due to the pandemic resulted in the creation of a multi-county 4-H program called 4-H Take-out. 4-H Take-out provided youth with project-based, theme-focused activities to encourage experiential learning and youth-adult engagement. **Objective:** (1) Provide educational materials to youth to encourage science exploration in the home environment; (2) engage youth and adults in experiential learning together; and (3) provide a sense of belonging to the 4-H community. Methods: The target audience were 4-H families distanced from in-person club meetings and activities. Take-out was developed by a team of agents that identified themes for each project bag and developed activity sheets with educational information and instructions to complete 4-5 hands-on projects per topic. Ninety percent of the materials were included, and a project book was provided for each youth to complete and return to the agent. Themes selected supported youth learning in science, engineering, and communication. Results: Two-hundred and eight bags were distributed. Formal and informal surveys of youth revealed that 100% of youth (n=121) reported a sense of belonging; ninety adults were engaged in project learning with their youth member; and 86% of youth indicated they gained knowledge about the topics. **Conclusion:** 4-H Take-out successfully provided project-based learning that promoted adultyouth partnerships and a sense of belonging. The program's versatility allowed it to be used in virtual club meetings and by families in home settings. This new collaborative effort strengthened agent relationships across five counties and kept youth engaged in 4-H programs. The Rejuvenation of the UF/IFAS 4-H Horticulture and Judging Contest Wilber, W.\*, UF/IFAS Florida Master Gardener Volunteer Program, Sachs, G., UF/IFAS 4-H Central District, Eubanks, E.\*, Center for Land Use Efficiency, Frank, M., UF/IFAS Extension Botanist Florida Museum of Natural History, Williamson, J., UF/IFAS Department of Horticultural Sciences, and Wichman, T., UF/IFAS Florida-Friendly Landscaping <sup>™</sup> Program

For more than 50 years the UF/IFAS 4-H Horticulture ID and Judging Contest has been well attended and an instrumental part of sparking youth interest and challenging youth knowledge in horticulture. However, in recent years, youth interest had dwindled, and in 2015, a record low of eight youth took part in this statewide event. Needed changes were implemented to rejuvenate the contest. **Objective**: Increase youth interest and knowledge of Florida horticulture. Methods: The contest was reorganized to be a stand-alone contest in a centralized location instead of in 4-H University. New training materials were created: reverse learning power point presentations on the 200 plants, Quizlets for self-learning and a webinar to train Horticulture ID team coaches. Since the Florida Master Gardener Volunteers (MGVs) also have the same exact horticulture ID contest, inter-generational coaching between the MGV's and the 4-H teams were encouraged and incentivized at the county level. The horticulture faculty team expanded the contest to include junior and intermediate aged 4-Hers as well as seniors to build continuity and sustainability into the training and contest. Results: In the last five years engagement has grown from 8 senior participants in 2015 to 38 participants from 6 counties in 2019. In 2019 80% of junior participants were able to identify 65% of the vegetable contest specimens **Conclusion:** The new training materials, building sustainability and coaching into the contest have rejuvenated the contest. It's an important 4-H activity to increase youth's knowledge of horticulture and open this horizon for Florida's 4-H.

#### Nature Bike Explorers Hayes, S\*, FAMU Cooperative Extension, and Sapp, L\*, FAMU Cooperative Extension

Objective: Teach awareness, understanding and appreciation for our environment and increases active transportation and safe behavior. Methods: Lessons are hands on with benefits of outdoor activities and the practice of bike riding and bike safety skills. First, members were educated in bike safety and completed a bike safety training course. Next, bike repair and maintenance lesson were given. Then, it was time to take to the streets. Youth took educational expeditions of their local community via bicycle tour. Tours included natural hiking area, community gardens, the City Square Community, a historical tour of downtown Apalachicola, Three Soldiers memorial site, the Apalachicola Florida Aquatic Preserve, and Woody's Trail. During each expedition members were taught about local flora and fauna as well as information about their local community. **Results:** Participants in the program summed up their experience using one word- "Awesome." Following participation members were able to demonstrate proper bike safety skill. All members learned to repair and maintain a bicycle. Members were able to practice life skills of decision making, leadership, planning, organizing and communication. **Conclusion:** Being outdoors can be fun, enjoyable and educational. However, as 2020 progressed, it looked as though even going outside would be cancelled! Therefore, the Nature Bike Explorers was created to give members a safe place to explore the outdoors, gain

valuable knowledge and practice life skills. Participants gained valuable knowledge and enjoyed the great outdoors. The program was a success and is looking forward to even more adventures in the future.

#### Youth Leadership Nassau

### Karsch, T.\*, UF/IFAS Nassau County and Woods, S.\*, UF/IFAS Nassau County Volunteer

**Objective:** To develop civic and social responsibility in youth participants. To increase youth knowledge of community service through community service projects. To increase youth civic knowledge by participation in civic procedures. To develop youth leadership skills through direct curriculum-based instruction. Methods: Youth were exposed to civic, government and business institutions. They interacted with prominent adult leaders in business, law, and government. The program themes were: Team Building, The Environment, Government, Justice and Law Enforcement, Economic Development and Entrepreneurship, and Quality of Life and the Arts. Youth received instruction based on The Youth Leadership Challenge curriculum (Posner, B. and Kouzes, J.). Results: Youth completed 5 community service projects. Reflecting on her service project, one youth said, "I believe I developed team working skills." Another youth stated, "It sparked a long-lost fire to help people." Reflecting on what she had learned from her experiences, one youth said, "having to research many different organizations and learning about how much they helped the community sparked a sense of motivation in me. I have begun to be more charitable within my community." Describing how his leadership abilities changed, one youth said, "the program has taught me there is much more than simply being loud that goes into being a leader and many different qualities, like listening, organizing, compassion, and more, actually go into being a leader." Conclusion: Partner organizations and adult mentors exist in all Florida counties; therefore, the methods and practices of Youth Leadership Nassau can be adapted for programmatic development by 4-H agents throughout Florida.

### Health, Families, and Communities Sponsored by FEAFCS

Virtual Room Hosts: Virgilia Zabala, Andrea Nikolai, and Katherine Allen

### Demystifying Florida Food Regulations for Food Entrepreneurs Hagen, J.\*, UF/IFAS Extension Lee County; Parks, N.\*, UF/IFAS Extension Duval County; Krug, M., UF/IFAS SWREC ; and Ryals, J. UF/IFAS Collier County

Food regulations enforced by Florida agencies can be complex and present a significant hurdle for entrepreneurs who attempt to launch a food-based business. Objective: To increase Florida food entrepreneurs' knowledge in basic food safety principles and food regulations, and to facilitate their access to regulatory agency personnel. The target audience includes individuals interested in creating a food-based business located in Florida (e.g., cottage food operators, small farmers, other food processors). Methods: A virtual 6-hour interactive workshop conducted by a multi-county Extension team and partner agencies. The training includes guidelines for cottage food operations, a food safety review for processors, an introduction to federal and state food regulations and licensing requirements, and a panel discussion of representatives from federal and state food regulatory agencies who answered questions submitted by the workshop participants. Results: Thirty-five (n=35) participants completed both a pre-and post-survey which asked basic food safety and regulatory questions. Responses demonstrate a 20% participant knowledge gain (57.1% on pre-survey and 77.1% on postsurvey) in those subject areas. Furthermore, when asked if they intended to open a food-based business, 8 participants indicated "not sure" on the pre-survey, but 5 of those 8 changed their answer to "yes" on the post-survey. Overall, 34 of the 35 post-survey responses stated intent to open a food-based business in the future. **Conclusion:** This workshop increased participant's food safety and regulatory knowledge and gave them direct access to regulatory agency personnel. For Extension, pivoting to online food safety programming minimizes costs associated with in-person training and may further prevent foodborne illness statewide.

We Are All in This Together: Cross-County Collaboration to Increase Physical Activity Johnson, L.\*, UF/IFAS Extension Lake County, Anderson, J.\*, UF/IFAS Extension Orange County, Zabala, V.\*, UF/IFAS Extension Orange County, Lynch, W.\*, UF/IFAS Extension Putnam County, Keene, A.\*, UF/IFAS Extension Brevard County, Duncan, L.\*, UF/IFAS Extension Sumter County

**Objective:** Twenty-five percent of participants will 1) engage with two or more "12 at 12" educational sessions, 2) self-monitor weekly physical activity (PA) 3) report at least five weeks of moderate to vigorous PA. By collaborating across the district, participating agents will broaden reach, add variety and meet the demands of a 10-week virtual program. **Methods:** Six agents across five counties collaborated to deliver weekly, online educational sessions for
participants in the Let's Walk Florida virtual program. Each session expanded on material shared via educational guides. Agents alternated topics covered, with a Certified Personal Trainer demonstrating physical activity exercises weekly. Sessions concluded with questions and group problem-solving. Participants who were unable to attend the live sessions received a link to the session recording. **Results:** 37% (13 of 35) of participants engaged with two or more of the live, educational sessions. 71% (25 of 35) of participants monitored PA, with 34% (12 of 35) monitoring moderate to vigorous PA minutes for at least five weeks; 57% (20 of 35) reported at least two weeks of moderate to vigorous PA minutes. Per-county enrollment varied; therefore, agents were able to reach a larger audience through the combined weekly sessions. **Conclusion:** Collaborating across counties allowed agents to have a larger reach, share weekly duties, and meet the programmatic Objective for engagement and participant physical activity outcomes. Working jointly improved agent productivity and built teamwork while helping Floridians strive for health by increasing physical activity in the Let's Walk Florida program.

### Building Health Literacy and Physical Activity Through StoryWalk<sup>®</sup> Sheldon Wallau, A., UF/IFAS Extension Clay County

Objective: As COVID-19 impacted the ability of Extension to offer in person programming there was a need to find new and innovative ways to serve our clientele. To meet this need UF/IFAS Extension Clay County partnered with the Clay County Public Library System and the Clay County School District to bring the StoryWalk® program to Clay County. Methods: StoryWalk® is a fun outdoor activity that helps build children's interest in reading while encouraging healthy physical activity and chronic disease prevention. Pages from a children's story book are posted in kiosks along a walking path or trail. As you walk and read, discussion questions and activities help little ones build essential early health literacy skills. Through our partnership the StoryWalk<sup>®</sup> program was implemented at 29 elementary school campuses and at a walking trail located in a low-income community. The books for each StoryWalk® were selected to align with the statewide extension nutrition program Objective of increasing fruit and vegetable consumption and physical activity. **Results:** Completion of the StoryWalk<sup>®</sup> is self-reported by participants through an online survey. Since January 2021 1,820 3rd grade students, 79 youth, and 49 adults have completed the program. With an average of 10 minutes of walking for the StoryWalk<sup>®</sup> participants have completed a total of 325 hours of physical activity. **Conclusion:** This partnership has provided the opportunity to implement an innovative approach that provides children and families the opportunity to be physically active while enjoying a story as a fun alternative to traditional story time.

### Building Community Through Innovative Partnership and County Wide Programming: Health First Mayor's Fitness Challenge

Keene, A.\*, Shephard, B., UF/IFAS Extension Brevard County

**Objective:** Fitness challenges provide opportunities for cities to address community health issues such as increasing obesity rates and failure of adults to meet the recommended daily

minutes of exercise<sup>1</sup>. Due to decreased funding, individual cities often lack the resources to launch such challenges on their own. Sharing resources, funding, personnel, and expertise among multiple municipalities, organizations, and communities, allows opportunities to provide these programs. **Methods:** A free, 8-week fitness challenge/competition for citizens aimed at positively impacting their health and community was implemented among 11 municipalities. Participants chose which team to join and were instructed to begin their activity and track progress. Points were assigned based on average number of minutes exercised plus the number of team members reporting weekly. The municipality with the most points won the "Most Fit City" for the year. Throughout the challenge city leaders, county parks, and other organizations hosted free physical activities such as virtual Zumba, yoga, and trail walks. Results: The program was evaluated via participants' weekly tracking and post surveys. In 2020, 11 municipalities had teams and 1,877 residents participated. 65% of residents completed the challenge, reporting over 4.5 million minutes of activity. Post survey reports indicated a 70% increase in number of days they exercised, development of at least one new healthy habit, improved mood, and an intent to continue what was learned. Conclusion: Combining resources for community fitness challenges provide a win-win for individuals and communities in addressing health needs.

Living Well Wednesday: Growing and Maintaining a Virtual Audience During COVID-19 Breslawski, J.\* UF/IFAS Extension Okaloosa and Walton Counties, Zamojski, K.\* UF/IFAS Extension Northwest District Regional Specialized Agent, Arick, M.\* UF/IFAS Extension Liberty County, Hinkle, A. UF/IFAS Extension Escambia County, Taylor, M. UF/IFAS Extension Bay County, McMillian, J.\* UF/IFAS Extension Gulf County, Corbus, J. UF/IFAS Extension Holmes and Washington Counties, Copeland, H. UF/IFAS Extension Leon County, Hinton, G. UF/IFAS Extension Santa Rosa County, Keith, T. UF/IFAS Extension Jackson County, Kennedy, S. UF/IFAS Extension Wakulla County, Lee, D. UF/IFAS Extension Escambia County, Mullins, A. UF/IFAS Extension Leon County, Osgood, L. UF/IFAS Extension Gadsden County

During the COVID-19 pandemic, people were encouraged to take precautions to prevent infection, including avoiding group gatherings. **Objective:** Agents worked together throughout the district to convert traditional programs into interactive, live-streamed events to meet client needs during the pandemic. Agents and a Regional Specialized Agent utilized numerous technologies to accomplish this, including Zoom, Facebook Live, and Qualtrics. **Methods:** This live, interactive class consisted of 17 free, 30-minute weekly lessons. Together Agents planned lessons based on timeliness, client needs, and public health trends. Agents rotated duties throughout the timeframe. The Regional Specialized Agent, along with Agents, produced social media advertisements for recruitment, managed registration and live program production, and survey distribution. During live production, Agents not actively teaching, acted as an expert panel to monitor chat boxes to answer client inquiries, provide conversation starters, interject teachable moments, or relay information to the presenters. The Regional Specialized Agent developed an International Review Board approved survey to distribute post-program containing common measures. This survey was adapted in a limited capacity to each different

topic area. **Results:** Eighty-two of 174 participants receiving and responding to post-session surveys representing a 47% response rate. Forty-five percent of participants planned to make healthful changes, including the use of safe food practices, increasing hydration, improvements in the overall diet, and others. Eighteen percent of participants planned to share the information with others, either professionally or personally. **Conclusion:** Agents utilizing new technology maintained and grew extensions' presence and provided essential information to clients during the pandemic.

### Achieving Healthier Lifestyle Habits through Virtual Education Bresin, S., UF/IFAS Extension Pasco County

The local hospital, AdventHealth, had partnered with Extension before through their Food is Health program, a series of six-week classes where a partner teaches in the hospital's wellness center while the hospital staff does health screenings on the first and last week and provides \$10 produce vouchers for each class participants attend. Due to the pandemic, the wellness center was closed and the program paused. In early 2021, the hospital asked the Extension agent for a Food is Health series to be adapted virtually. There wouldn't be health screenings, but there would still be \$10 vouchers, which also helped a local food business. **Objective:** The Objective were for at least 20 percent of participants to improve their lifestyle choices through the virtual series. Methods: The agent pieced together various evidence-based curricula to make the content feasible for a virtual setting. The focus was on healthy lifestyle habits, and topics included food journals, MyPlate, reading food labels, exercise, meal planning, portion control, eating cues, dining out, and cooking healthier at home. Results: At the end of the sixweek program, participants did improve lifestyle habits. Out of 33 respondents, 81% increased daily vegetable intake, 55% increased their daily fruit intake, 70% increased exercise time, 70% meal plan, 97% better understand their eating cues, and 67% made a habit change that resulted in weight loss. Follow up data will be gathered later. Conclusion: Even done virtually, the educational content was still effective in helping people improve their lifestyle choices and lose weight.

### Financial Education for Limited Resource Youth in Rural Communities Griffin, K.\*, UF/IFAS Extension Suwannee County and Kerr, B.\*, UF/IFAS Extension Hamilton County

An increasing number of today's youth are transitioning to adulthood without having developed the basic financial knowledge needed to establish a secure financial future. Furthermore, individuals living in poverty are even less likely to have financial knowledge because they have less access to accurate financial information. Youth in these households can become victims of high interest loans, elevated debt, and money fraud in adulthood. The target audience for the program was economically disadvantaged middle school and high school students residing in rural communities. **Objective:** Youth will increase their knowledge about financial management concepts including setting SMART financial goals, tracking expenses, spending habits, creating a budget, utilizing financial institutions, calculating interest, and using credit wisely. **Methods:** Agents partnered with local organizations serving limited-resource

individuals to provide a program for 103 youth. Twelve ninety-minute classes covered financial topics from the My Financial Future curriculum. The program used supplemental educational materials that included multi-media presentations, videos, hands-on activities and workbooks. The agents co-taught lessons using videoconferencing and in-person delivery methods. **Results:** At the conclusion of the program the majority of youth improved their financial knowledge with intentions to utilize financial skills gained during the program. 100% of the youth demonstrated knowledge gained in spending and understanding needs/wants, SMART financial goals, tracking expenses and budgets. **Conclusion:** Implementing a financial education program for limited resource youth in rural communities provided skills to make sound financial decisions.

### Embracing Technology and Creating a Successful Virtual Cooking School Arick, M.\* Liberty County, Zamojski, K.\* Northwest District Regional Specialized Agent, Breslawski, J.\* Okaloosa and Walton Counties, Hinkle, A.\*, Escambia County, Taylor, M.\* Bay County, Zabala, V.\* Orange County, McMillian, J.\* Gulf County

People found it necessary to prepare food at home more often due to the COVID-19 pandemic. Objective: Using remote, interactive technology, this virtual cooking school will increase knowledge, skills, and positive health behaviors for participants cooking at home. Methods: Using a variety of technologies, including Zoom, Eventbrite, a closed Google site, private Facebook page, YouTube, and video creation and editing software, multiple agents across the state and a Regional Specialized Agent created a virtual cooking school. This hybrid cooking school includes five virtual live sessions via Zoom with cooking demonstrations, live participant cook-along opportunities, question and answer opportunities and other interactive educational activities. The asynchronous activities are housed on a closed Google site for participants to view education videos supporting food safety, kitchen safety, cooking techniques, recipe demonstration videos and other resources. Do It Yourself (DIY) projects allow participants to apply the knowledge and food preparation skills and techniques demonstrated in the lessons. Participants who join the private Facebook group page can share pictures of their DIY end products and other culinary creations and ask questions about lesson topics and seek county faculty assistance. Agents monitor the page and quickly answer participants' questions. **Results:** Sixty-four paying participants registered and regularly attend the sessions. Polls and post-session surveys show increases in healthy cooking knowledge and skills. Post-series and three-month follow up evaluations will be utilized along with Google analytics site usage data to show long-term outcomes. Conclusion: Participants are learning to cook and eat healthier at home.

# Culinary Medicine: A Prescription for Prevention Mullins, A., Leon County

**Objective:** Dietary interventions have proven to both prevent and manage diseases, such as diabetes and cardiovascular disease. Less than 30% of U.S. medical schools provide adequate nutrition education to medical students. The *Food Rx* program taught medical students and resident physicians' concepts in medical nutrition therapy and culinary skills. Participants increased food literacy knowledge and skills, and plan to incorporate these concepts into

patient care for chronic disease management and prevention. Methods: Resident physicians and medical students (n=52) participated in an interactive medical nutrition cooking workshop series led by the agent, hospital registered dietitians (RDN) and a culinary expert. Workshops included slide presentations and reinforcement activities focused on nutrition, culinary basics, and chronic disease prevention/management strategies. Food demonstrations, discussion and skills practice prepared students for successful hands-on cooking in teams. Results: Retrospective survey measured knowledge, competency, and intent to implement change. Students demonstrated knowledge gain (% increase): dietary guidelines/portions=48%; planning nutritious meals=46%; interpreting food labels=73%; sodium reduction strategies=61%; basic culinary skills=33%; food safety=46%; budgeting and food waste reduction=49%. Also, 94% indicated their intent to incorporate culinary and nutrition strategies within patient education and encourage colleagues to learn more about culinary medicine. **Conclusion:** Food Rx workshops support a patient-centered approach to preventative healthcare through food literacy and skill development for physicians. Through collaborative state and local partnerships, Extension agents can be on the forefront of medical nutrition education and ultimately improve patient outcomes and decrease healthcare costs.

## Preschoolers and their families getting healthy and active with the Homestyles Program Wiggins, L., UF/IFAS Extension Taylor County

**Objective:** The home environment is where young children spend most of their time and is critically important to supporting behaviors that promote health and prevent obesity. The aim of the HomeStyles program is to determine whether the web-based HomeStyles intervention program enables and motivates parents to shape the weight-related aspects of their home environments and lifestyle behavioral practices (diet, exercise, and sleep) to be more supportive of their preschool children's optimal health. UF/IFAS Extension partnered with local day cares and families to adapt and implement the Homestyles program. This practice-tested health promotion program focuses on building a culture of health among families with preschoolers. Methods: HomeStyles was developed to help parents of young children shape or makeover their home environment and lifestyles to prevent childhood obesity. HomeStyles had two delivery modes: independent online learning and face-to-face learning facilitated by the Extension Agent. 69 families participated receiving weekly guides that focused on health or safety and a "Family Fun Box" of resources and supplies that was used hand in hand with the educational materials covered each week. Results: Overall parents reported an increase in physical activity, reduced screen time, improved family mealtime behaviors, and increased selfefficacy for childhood obesity-protective behaviors at post survey. The HomeStyles program for families with preschool children promoted improvements in an array of obesity-preventive behaviors overall. **Conclusion:** Through the Homestyles program there was increased delivery of healthy lifestyle education among preschool families in the county. With the program being web-based it is was sustainable even during COVID-19.

### Let's Walk Florida! Western Panhandle Cohort: A Comparison of Programing During an **Emerging and an Established Pandemic** Breslawski, J.\*, UF/IFAS Extension Okaloosa and Walton Counties, Hinkle, A.\*, UF/IFAS Extension Escambia County, Hinton, G.\*, UF/IFAS Extension Santa Rosa County, Lee, D.\*, **UF/IFAS Extension Escambia County**

Initially during the pandemic, gyms, parks, beaches, and other physical fitness/recreational areas were closed to limit the spread of COVID-19. Objective: This 10-week program, designed to educate and motivate participants to increase their physical activity, was adapted to a virtual format to accommodate needs during the shutdown. Methods: Let's Walk Florida! was created by a Health and Wellness state specialist. The four westernmost panhandle counties collaborated on the LWF! virtual program during the onset of the pandemic. Agents used specialist-developed educational materials as the baseline for their program and created a unique, private Facebook group page to personalize the program to their client's needs and create a social atmosphere. Agents shared daily educational posts, recipe-making videos, minichallenges, and live Zoom chats through e-mail and the group page. After the program's success in 2020, Agents added additional components, including an agent-produced weekly newsletter and educational walks led by Natural Resource Agents. Eleven walks were offered at no cost to the participants and scheduled at local open-air locations such as a demonstration garden, a natural spring, the Florida Trail, and a strawberry farm. Results: In 2020, we saw regular interaction between participants using Facebook to share experiences and successes. Although participants in 2021 walked and logged minutes, they interacted less through the Facebook page and contact with agents. We have seen very little social media involvement and very few registrants for educational walks. **Conclusion:** Agents are still learning how the effects of the pandemic impact program delivery methods and results.

### Growing and Cooking Webinars: Connecting Programs and People to Meet Needs and Improve Health During the COVID-19 Pandemic Nikolai, A.\*, UF/IFAS Extension Polk County and Yasalonis, A., UF/IFAS Extension Polk County

Circumstances surrounding the COVID-19 pandemic, such as food safety, sheltering in place, and the return to home gardening contributed to increased interest in growing and cooking vegetables and herbs. **Objective:** Objective were to increase likelihood that participants will prepare and eat healthier foods, increase the likelihood that they will grow herbs and vegetables in their landscape, and meet participant needs with satisfaction. Methods: UF/IFAS Extension Polk Residential Horticulture and Family and Consumer Sciences agents have partnered since 2019 to teach people how to grow, prepare, and preserve seasonal produce. In 2020, this collaboration turned virtual to meet the growing community interest in these topics. **Results:** Over 600 participants attended webinars from May through November. Ninety-one percent (n=344) said they were extremely or somewhat likely to prepare healthier foods, 83% (n=302) said they were extremely or somewhat likely to eat more fruits and vegetables, 92% (n=333) said they were extremely or somewhat likely to plant herbs and/or vegetables in their landscape, and 98% (n=361) of survey respondents indicated that they were slightly to extremely satisfied with the webinars. **Conclusion:** These webinars combined agents' expertise to meet the burgeoning community interest of how to grow and then use garden produce. Participants reported satisfaction with the webinars and also indicated likelihood to use what they learned to plant herbs or vegetables, prepare healthier foods, and eat more fruits and vegetables. These outcomes are important to help reduce trips to the store, save costs, and improve health, all of critical importance during COVID-19's physically and financially stressful time.

#### Housing In Florida, A Team Approach

Osgood, L.\*, UF/IFAS Gadsden County, Hamilton, L.\*, UF/IFAS Volusia County, Parks, N., UF/IFAS Duval County, Gomez, J., UF/IFAS Osceola County, Rodriguez, J., UF/IFAS Orange County, Duncan, L., UF/IFAS Sumter County, Corbus, J., UF/IFAS Washington County, Longley, C., UF/IFAS Palm Beach County, Straughter, D., Keith, T., UF/IFAS Jackson County, Marin, K., UF/IFAS Miami-Dade County

**Objective:** To make informed housing choices and implement financial practices that promote stability. **Methods:** Many agents provided in-person housing classes in their individual counties; however, COVID-19 created a demand for online housing education. Without the Extension HUD-certified homebuyer classes, many first-time, low-income participants would not be able to access financing programs like the USDA Rural Development's low interest loans, housing bonds or the down payment assistance programs. The housing team's new online, interactive first-time homebuyer workshop, expanded from five counties to thirteen counties. Marketing efforts consisted of various counties' Facebook postings, newsletters, Eventbrite, email blasts, etc. Volunteer speakers included realtors, lenders, title agents, environmental education speakers and home inspectors. Results: In 2020, 12 Extension agents delivered 14 online homebuyer workshops to 759 participants. End of class Qualtrics evaluations indicate that 97.6% (n=459) of surveyed participants reported learning how to determine their debt-toincome ratio and how to calculate the amount of affordable home purchase price. Participants reported a better understanding of the impact debt-to-income ratio has on approving a loan, and 80% of respondents reported they would take steps to improve their debt-to-income ratio prior to contacting a lender to apply for a home mortgage loan. **Conclusion:** The UF/IFAS Housing team has created an online homebuyer education class that has helped expand our capacity to offer the homebuyer education program across the state. This program has enabled the housing team to greatly expand the number of Florida residents who seek to achieve the American dream of home ownership.

### Building a Multi-generational Poultry Project in a Pandemic Tomlinson, P.\*, UF/IFAS Extension Columbia County, Janney, H.\*, UF/IFAS Extension Columbia County

Youth and their parents lack basic knowledge of the development of poultry for showing at the local fair. To provide needed education, a poultry project has been supported for the last 25 years. This past year the pandemic threatened to eliminate or severely hamper this program. **Objective:** Our objective became – to provide the same quality program as in years past. **Methods:** In order to provide the education, we needed to teach the youth and parents about

Zoom, Eventbrite, and the Remind.com app. These online tools as well as a Facebook group, were used to provide the teaching and keep youth actively engaged in their poultry projects. Monthly meetings were held providing the education necessary to raise the chicks to full grown laying hens. **Results:** From agent observation 100% (n=18) of youth participants in the 2020 laying hen project increased their knowledge of poultry as measured by vocal presentations, social media posts, and record books. 100% (n=18) of youth shared their project through vocal presentations either prepared or through questioning during the meetings. 100% (n=18) of youth turned in record books and showed their projects and 94% (n=18) participated in showmanship at the county fair. Agent also observed the adults actively spending time with their youth during meetings and asking questions or posting pictures and/or video on Facebook or through the Remind app. **Conclusion:** The pandemic allowed for a more family presence than had been observed in the past. Adults learned alongside their kids and participated throughout the rearing timeframe.

#### Commercial Kitchen Food Incubator: A Model for Business Success Elmore, W., UF/IFAS Extension Pasco County

Objective: The Pasco Incubator Kitchen was created between Pasco County, Pasco Economic Development Council, Welbilt, Inc., and University of Florida/IFAS Extension. The incubator kitchen is a result of community needs assessments which demonstrated demand for licensed commercial kitchen space and entrepreneurial training for food-based businesses. Methods: Pasco Extension redesigned a county building to host the kitchen with donated commercial kitchen equipment from Welbilt, Inc. Pasco SMARTstart Small Business entrepreneurial classes are offered at the location as well. The goal was to help citizens start new food-based businesses while removing many of the identified barriers. The strategies incorporated: certifying new food business owners and ensuring compliance with state and local regulations, entrepreneurial training, resource sharing and commercial kitchen space. Performance indicators include the number of new businesses started, number of new jobs created, and number of professionals certified in food safety. Results: The commercial kitchen opened in August 2019. To date, 13 new businesses have been started; nine since the pandemic began. Six new businesses are in development for 2021. One business has opened a store front, one started a food truck, and six citizens are back to work after losing jobs due to the pandemic. Eight of the new business owners operate online sales and five owners have been certified in food safety. It is estimated that 20 new jobs have been started with thousands of dollars infused into the local economy. **Conclusion:** Even during a pandemic, the partnerships built through Extension networking and educational opportunities are critical for economic recovery and sustainability.

### Educational Technology, Leadership, and Innovation Sponsored by ESP

Virtual Room Hosts: Qingren Wang, Samantha Kennedy, and Jeff Wasielewski

### 2020 Virtual Summer Adventures Day Camp: Beautiful Invaders and Native Beauties Cash, L.\*, UF/IFAS Extension Volusia County, Ward, M.\*, UF/IFAS Extension Citrus County, and Lara Colley, L., UF/IFAS Florida Invasive Plant Education Initiative Coordinator

**Situation:** Most Floridians do not understand how invasive species impact our native ecosystems. By educating the youth enrolled in the day camp, we hoped that they, in turn, would educate their parents and neighbors. **Objective:** The Objective were: (1) to educate youth about invasive and native plants in Florida's ecosystems; (2) to create experiential lessons that would be available on the *Google* site and through daily *Zoom* sessions; (3) and to include a community service component. **Educational Methods:** The camp was designed to be a weeklong camp. Each day had a *Zoom* meeting that included a variety of educational materials, crafts, community service, activities, journaling, and a review. Youth were able to complete the five asynchronous sections, available on the *Google* site:

<u>https://sites.google.com/ufl.edu/environmentaleducation/home?authuser=1</u>, at their convenience. A special aspect of the program were the interviews with environmental scientists and professionals. **Results:** Fifty-three youth registered for this camp. Five to ten youth attended each day's *Zoom* session and both formal and informal evaluation demonstrated knowledge gain, attitude change, and behavior change. Daily reporting from the youth showed that they were outside investigating, identifying plants using their apps, and eradicating invasive plants in their yards. **Conclusion:** The authors and creators of "Beautiful Invaders and Native Beauties" have made the program available to other youth and agents in the state through the link and have begun using analytics. In addition, the group is working on a curriculum through Florida 4-H about invasive and native species.

### Beginning *Better Impact:* Lessons Learned From A Training Website For A New Master Gardener Volunteer Management System Hobbs, W., UF/IFAS Extension Clay County

**Objective:** To develop and evaluate an online training for Master Gardener Volunteers using a new management software. **Methods:** When a new volunteer management software, known as Better Impact, was made available in late February 2021 a need to train volunteers in its use was identified. To aid this transition, I developed a series of educational videos, hosted on a Google sites page (<u>https://sites.google.com/view/mgbetterimpactclaydocs/</u>), to provide an easy to access resource to provide training and support. This online training was used along with webinars since many volunteers are still unable to attend in-person activities. **Results:** 

This site launched on March 6th, 2021 and has since been accessed by 564 distinct users and training videos have been watched 1261 times. A survey was linked to the page to evaluate its effectiveness and has been completed by 22 individuals from a total of 8 counties. 95% of all respondents rated it as effective with 78% rating that it was more or as effective as an inperson class. Users lauded the convenience and ease of access for review of the site but did see a drawback in the inability to get immediate responses to questions. **Conclusion:** Data shows that this site was a popular and effective method for Master Gardener Volunteers that was utilized statewide while further applications using a similar format could be used to provided support for many different subject areas adopting new software.

### Using Technology to Enhance 4-H Educational Fieldtrips Binafif, T., UF/IFAS Extension St. Lucie County

**Objective:** To enhance the educational experience with youth who have participated in the 4-H School Enrichment Program on the Indian River Lagoon. By using technology based educational activities to allow students to take the information given to them by the teacher and apply it to real life, hands-on-learning activities. Using drones, iPads, and an interactive app to enhance the overall educational experience. Making it a lesson that will always be remembered. **Methods:** Groups of students are provided with an iPad, which contain a short aerial drone video of the city park they are visiting. The video shows a bird's eye view of the cities BMP's (Best Management Practices), habitats, and various species which live at the city park. After watching the video, students are then sent on a scavenger hunt, guided by the Actionbound app on the iPad in search of the BMP's and habitats. Results: Test scores from the scavenger hunt are collected through the Actionbound app. Students average scores for the scavenger hunt are 85% or higher. Discussions after the hunt shows an understanding of the BMPs, habitats, and specie. As a result of implementing this type of alternative educational method, we have found that this can be adapted to many different types of educational topics. **Conclusion:** Feedback from participants of the program conclude that youth gain experience, share experience with peers, process knowledge, generalize the knowledge, and apply the knowledge to real life experience which help them become better stewards of the Indian River Lagoon.

### Epsilon Sigma Phi (ESP) Global Relations: Fostering Connections Between Land Grant Institutions and International Initiatives

Bhadha, J.\*, State Extension Specialist, Everglades Research and Education Center, Gentry, T., County Extension Agent, University of Kentucky, Vreyens, J., Director Global Initiatives, Extension, University of Minnesota

**Objective:** The Global Relations Committee of the National ESP association includes more than a dozen ESP members from across the country working together to encourage ESP members to increase their cultural competency and global connections, to support participation in international opportunities, and to promote collaborations between ESP and international organizations. This presentation will highlight (i) What We Do; (ii) How You Can Become Globally Engaged; (iii) Benefits of Engaging Globally; (iv) What to Expect as a Global Relations Committee Member; and (v) Current Opportunities and Projects. **Methods:** The Global Relations Committee has outlined a 2019-2022 Strategic Action Plan that includes seven goals, and the daily workings of the committee is driven by achieving these set goals. To have a presence at the ESP National Conference and connect with the Extension Committee on Policy (ECOP) are some of the goals that will be discussed. **Results:** The National Global Relations Committee sponsors and manages the International and Global Programs Interest Group which currently has over 60 members from nearly 20 institutions nationwide. Over the years the Global Relations Committee have led international projects with the goal of promoting outreach in agricultural and life sciences. **Conclusion:** Being a member of National ESP and serving on the Global Relations Committee, personally, has been extremely fruitful in making inter-state contacts and connections, enhance leadership skills, and promote collaborations with ESP and International organizations.

#### Spreading Care through Social Media with Superb Teamwork

Janney, H.\*, UF/IFAS Extension Columbia County, Crawson, N.\*, UF/IFAS Extension Holmes County, Davis, P.\* UF/IFAS Extension Bay County, Gonzalez, D.\*, UF/IFAS Extension Palm Beach County, Jackson, M.\*, UF/IFAS Extension Lafayette County, Pienta, R.\*, UF/IFAS Extension Wakulla County, and Sarver, K., UF/IFAS Extension Miami-Dade County

According to search engine optimization experts (Dean, 2021), social media use world-wide is calculated at 58.11% of the world's population. In North America, that number grows to 82% of the population. **Objective:** The 4-H Cares Virtual Program (VP) is designed to 1) Deliver 4-H programming with an emphasis on positive character education; 2) Address the need for a creative, age appropriate, hands-on learning style methodology; 3) Improve youth mental health and decrease anxiety by teaching coping mechanisms and strategies encouraging youth and families to communicate and express their feelings in a positive manner; and 4) Raise awareness of community resources, highlighting the power of 4-H Extension programming. Methods: 4-H Cares VP is based on a school enrichment program that transitioned to the Facebook social media platform. The program highlights one-character trait a month. Weekly, a video and engagement challenge are presented on the month's character trait. Team members develop the ideas for each month's product. Weekly, a member records, edits, uploads and crossposts the message to Facebook. Crossposting enables all counties to have a one click share that mirrors the original post. Results: In only three months, over 8,000 were reached in on Facebook with 12 videos. Action research led us to condense the message, shorten video segment length, provide a reflection on the messages on the last week of the month, and design EDIS support documents to enhance the messages and offer implementation strategies. Conclusion: The next phase is to develop on-demand volunteer training related to subject matter.

### County Extension Director Calendar Altum Cooper, J.\*, UF/IFAS Extension Gilchrist County and Sanders, C.\*, UF/IFAS Extension Alachua County

**Objective:** The objective of the NE District County Extension Director (CED) calendar was to try to put all important monthly and annual deadlines for CEDs in one place. In addition, the calendar was made by designing a template that can be modified to include all deadlines for the county as well. **Methods:** The calendar was built in Canva, by developing a new template with various shapes and paper to resemble sticky notes in an easy to read, eye appealing format. All CEDs in the NE district are able to edit and add projects or deadlines to fit their needs. **Results:** The calendar was developed by Cindy Sanders and Jessica Altum Cooper, then presented to the CEDs at the March NE District CED meeting. **Conclusion:** As CEDs we understand the volume of assignments and deadlines can be overwhelming. For newer CEDs the information for deadlines are not found in one location, so hopefully this tool can serve as a start for CEDs to use and add as well as adapt to their own counties. Thus far, the calendar has been shared with 4 of the 5 districts for use beyond the NE by all county extension directors and district level staff.

### Building 4-H Program Capacity for Under-Served Youth Souers, M., UF/IFAS Extension Orange County

**Objective:** More than 200,000 children ages 5-18 reside in Orange County, and of these, 32.6% live in households receiving public assistance with 22.5% living below the poverty line. This translates to approximately 65,000 at-risk children and teens that are likely not being reached by traditional 4-H programs. A systematic approach was needed to develop county-wide partnerships to serve these youth. Objectives were: (1) Identify organizations that serve targeted youth, (2) Market 4-H programs that specifically meet the needs of those organizations, and (3) Support these partnerships thereby building capacity to reach more youth. Methods: Intentional efforts over a period of two years has led to partnerships with key community organizations that have complementary goals, but lack the expertise, staff and/or funding to deliver quality youth development programs. Roles and responsibilities for 4-H and partners were clearly identified and communicated. Program communication, delivery and quality was a priority to ensure partner organizations viewed programs as valuable for participants. Results: Systematic efforts at targeted partnerships has created youth development opportunities for thousands of previously unreached youth in Orange County. As a result of these efforts at building partnerships, there are currently more than 9,000 new school enrichment participants across the county and 140 new youth in weekly after-school programs that serve zip codes in Orange County with high percentages of at-risk children. Existing partnerships allowed programs to continue when in-person access was limited or prohibited. **Conclusions:** Given time, systematic and intentional partnership building creates increased program capacity for reaching under-represented audiences.

### Don't Burn Your Bridges! Janney, H.\*, UF/IFAS Extension Columbia County, and Tomlinson, P.\*, UF/IFAS Extension **Columbia County**

We have all heard the cliché, "don't burn your bridges" because bridges allow us to get from one side to the other. In Extension, we build bridges with a single person or group to help reach more people or groups. These bridges are essential to impacts and can go beyond our county borders. Objective: To identify non-traditional partnership opportunities and develop mutually beneficial working relationships; partner with regional and multi-county organizations to provide programming; and evaluate and ensure the sustainability of existing partnerships. **Methods:** A new county and new position brings opportunities, as will integrating such with established frameworks. Agents in Columbia County recognized The Ichetucknee Partnership (TIP) an opportunity to collaborate. After discussion of their efforts and those involved, an "old bridge" was recognized. From there, future meetings of TIP's outreach efforts and what Extension could bring to the group were realized and simplified through previously built trust. To enhance and solidify TIP's efforts, Extension proposed that TIP's mascot, Bellamy Beaver, "join 4-H." Results: As a result of this collaboration, Extension received \$12,000 to provide programming for water quality and conservation. Agents were installed on the TIP Board providing direction to programs. Under Extension's direction, Bellamy visited local elementary schools, was included on websites, and appeared in the fair booth. **Conclusion:** The Bellamy Beaver program will continue to be provided to Columbia County residents through the collaboration of Extension and TIP. The entities will investigate funding for programmatic supplies collaboratively and continue to strengthen their "bridge" of working together.

#### Live Landscape University Virtual CEU Series

Wooten, H.\*, UF/IFAS Extension Orange County, Pinkerton, M.\*, UF/IFAS Extension Seminole County, and Moffis, B.\*, UF/IFAS Extension Lake County

**Objective:** The landscape industry-maintained properties while the world closed during the COVID-19 pandemic in Spring 2020. Many landscapers hold FDACS pesticide applicator licenses and apply pesticides professionally. They are required to obtain continuing education units (CEUs) to maintain and renew their licenses to legally perform chemical pest control. Normally, applicators obtain CEUs by attending annual in-person trainings. Methods: Due to social distancing restrictions, a virtual, multi- county, six- week CEU series called "Landscape University" was planned. Three Central District Agents each taught two, one-hour lessons covering landscaping basics, pest identification, and ornamental and turf IPM. Each lesson was approved for one CEU in various categories. Integrated polls monitored participation and maintained engagement. Post class surveys sent after each lesson evaluated knowledge gain and intent to adopt practices. Results: A total of 295 participants attended the "Landscape University" series via zoom webinar and half requested CEUs. Post class surveys (n= 272) indicate 92% of respondents reported knowledge gained on integrated pest management strategies and on pest identification. Moreover, results showed 98% of respondents intended to adopt at least one practice related to landscape sustainability. Classes were competitively priced, and revenues were shared equally among instructors' revenue enhancement accounts. 49 **Conclusion:** Feedback from participants suggests that the virtual format accommodates the busy professional, allowing them to learn and obtain CEU credits from the comfort of their office or home. Overall, the virtual series format with this team was very successful for both participants and extension educators.

### Open Space Technology Sparks Ideas, Collaboration, and Growth Ellison, S.\*, Sale, D.\*, and Hensley, S.\*, Florida 4-H Youth Development

**Objective:** Attendees will: (1) Consider programs which may benefit from using Open Space Technology (OST); (2) Understand the "Four Rules and One Law" of OST; (3) Reflect on challenges related to using OST and consider ways to overcome challenges; (4) Learn special considerations for moving OST to a virtual platform; (5) Consider ways in which they can implement strategies for both in-person and virtual experiences; (6) Examine differences between using OST with adult audiences vs. youth audiences. Methods: Two Florida 4-H conferences (one for faculty/staff and one for youth and adult volunteers) utilized OST. This new format allows participants to create and manage their own agenda as they discuss a central theme of strategic importance. Results: As a result of employing OST for two state-wide conferences participants reported new collaborations, new ideas to follow up on, and identified other opportunities in which OST might be beneficial. Additionally, two working groups formed after the adult conference to collaborate and act on new ideas. Negative qualitative responses indicated that even after front-loading participants with the goals of OST, some were uncomfortable and/or unsatisfied with the format and referenced items that were not in line with the goals of this format. **Conclusion:** We will share implications of the findings and best practices for both audiences, how to prepare participants most effectively in advance, and limitations discovered by conference facilitators.

### Are You LinkedIn? Agent Meets Extension Audience on Popular Professional App Carnahan, L., Pinellas County

**Objective:** In February 2020, the Agent initiated a pilot study of increased use of the LinkedIn platform. Launched on May 5, 2003, LinkedIn is mainly used for professional networking and job seekers. However, 18 years later, LinkedIn has grown as the network of users has multiplied. The Agent's objective was to engage with the online service, that operates via websites and mobile apps, over a year and determine its function and efficacy as an outreach tool. **Methods:** The Agent made 59 posts on the following topics: 2 obituaries, 5 coronavirus information sharing, 10 topical issue discussion post, 7 other issue informational post, 5 hurricane preparedness information, 5 UF/IFAS or Pinellas job postings. She also created 2 online events in LinkedIn, and 15 posts to promote those and other educational programs. Additionally, she joined 2 groups. **Results:** In 2020, the Agent increased peer-to-peer connections from 430 to 573. **Conclusion:** Unlike Twitter, the agent is experiencing real world connections build and grow into programs as a result of LinkedIn use. The Agent has learned that government and agency employees, in addition to private contracts seem to be the most engaged audience she works with on LinkedIn. For these reasons, the Agent concludes that this is an appropriate and effective outreach tool for Agents with these audience types.

# Broadcasting Webinars/In-Person Events Live to Social Media Platforms to Increase Reach Waters, K., UF/IFAS Holmes County Extension

The inability to provide traditional programming in the past 18 months created the need to develop new communication channels. Integrating social media platforms such as Facebook LIVE can be a key to increasing impact. **Objective:** The Objective of using Facebook LIVE to broadcast pre-slated programming to educate producers were 1) to use live social media broadcast pre-slated webinars or in-person events with attendance limits 2) use live-broadcast to increase reach and while reaching producers who would not typically be exposed to Extension programming, and 3) develop a model for agents to use that is effective at increasing the reach of their programming in an efficient manner. Method: Multiple county, district and state Extension Webinars or in-person events with attendance limits were broadcast live to preexisting social media platforms in 2020. These webinars were developed as stand-alone events. In addition to their traditional delivery method, they were broadcast live to Facebook. **Results:** Two examples of the benefits of this practice are the Forage Legume Conference (FLC) and the Florida Bull Test Sale (FBTS). The FBTS was a live event had limited attendance of 50 people but was broadcast LIVE on social media and viewed 2,800 times and while the FLC was well attended as a webinar, 4,237 additional clients viewed due to live broadcast. Conclusion: LIVE broadcast is an effective tool that allows agents to increase their reach to clientele in an effective way and should be implemented into all social media programming to remain as a relevant platform today.

### Florida Extension Agents' Perceived Level of Trust with Their County Extension Director Cash, E.\*, Florida-Friendly Landscaping<sup>™</sup> Program and Benge, M.\*, Department of Agricultural Education and Communication

CEDs must have the appropriate leadership skillset to be successful in their own programming, and local leadership and administrative responsibilities. The leadership and Extension literature have identified trust as a necessary leadership competency, but trust has not been studied between agents and CEDs in the context of Extension. **Objective:** The objective of the study was to describe the level of trust between Florida Extension agents and CEDs. Methods: A quantitative methodology was used to examine the perceptions of trust antecedents between Florida Extension agents and CEDs. The population of interest was county Extension agents that report to a CED (n = 246). The Trust in Leaders Scale (TLS) consists of 20 items that measure trust between leaders and followers through four constructs: benevolence, integrity, competence, and predictability. Six demographic questions were added and the survey was distributed via Qualtrics. Results: Participants tended to feel moderate trust with their CED across all four trust antecedents. Benevolence was the trust antecedent with the highest reported mean and predictability had the lowest. There were no statistically significant differences or correlations between the trust antecedents and participant demographic characteristics. **Conclusion:** Because participants reported moderately high levels of trust across all four antecedents and demographics, there is work to do within Florida Extension. It is recommended that trust measurements be considered in leadership hiring practices.

Leadership education should address the importance of strong trust behaviors and relationships. In addition, the TLS can be modified for other areas within Extension, such as other supervisor-employee relationships, as well as agent-volunteer relationships.

#### **Empowering the Resilient Paraprofessional**

### Hinkle, A.\*, UF/IFAS Extension Escambia County, Biderman, R.\*, UF/IFAS Extension Miami-Dade County, Bradford, P.\*, UF/IFAS Extension Hillsborough County, and De Vries-Navarro, D.\*, UF/IFAS Extension Palm Beach County

Due to pandemic social-distancing restrictions, community partners expressed desire for virtual nutrition education. EFNEP paraprofessionals lacked technological proficiency to provide remote nutrition education. **Objective:** Increase paraprofessional technology skills for successful remote nutrition program delivery and keep paraprofessionals positively engaged during challenging times. Methods: "EFNEP Connections" and "Technology Tuesdays" trainings included trending topics and step-by-step remote delivery technology skills like on-camera teaching and screen-sharing. After viewing demonstrations and receiving training materials, hands-on activities allowed them to practice newly learned skills. Self-efficacy increased through homework assignments. Agents used comment boards, success stories, skills demonstrations, surveys, and paraprofessional self-report measures to gauge paraprofessional engagement. Through "Meetups", paraprofessionals set up remote meetings with other EFNEP paraprofessionals throughout the state, which brought the entire EFNEP state team together, increasing their sense of community by getting to know each other, encouraging and supporting each other, and practicing new technology-based teaching skills and behaviors with each other. Results: A retrospective pre- post-survey was completed by paraprofessionals identifying knowledge increases and behavior change with the following skills measured: use of Zoom, Outlook, and Microsoft Teams and successful delivery of online EFNEP classes. Paraprofessionals gained necessary skills to overcome unique COVID-19 obstacles and successfully delivered remote programming, reaching 472 limited-resource participants, who attended multiple virtual lessons in EFNEP series-based nutrition education. Conclusion: Shortterm impacts revealed knowledge increases. Medium-term impacts exhibited increases in teaching skills. Long-term impacts included improved behaviors and confidence of paraprofessionals to continue teaching nutrition both remotely and in-person, expanding the reach of EFNEP to more participants.

# EmpowerU: Advocacy Training Program Teaches Communication and Leadership Skills Johnson, S., UF/IFAS Extension Natural Resources

**Objective:** EmpowerU is a new program designed to teach extension volunteers and the informed public how to use science-based information to meaningfully engage decision-makers about issues they are concerned about. This program is also being implemented in Florida to enhance competency of faculty in the areas of interpersonal leadership, effective communication skills, and development of volunteers. **Methods:** This training uses a flipped classroom model with 8 hours on asynchronous online learning and 7 hours of live workshop activities. Participants learn to find reliable information, identify decision-makers, understand

influence, power and persuasion, effectively listen and question, how to frame an issue, and develop a personal engagement plan on an issue of their choice. The program was offered as an In-Service Training to UF/IFAS Extension faculty in October 2020 (n=13) and March 2021 (n=12). **Results:** Of those who completed the training, 75% strongly agreed they plan to apply a skill, technique, or knowledge from the training in their professional or personal life; 81% strongly agreed they would recommend the training to other extension agents, professionals, extension volunteers and/or program participants; 43% are interested in collaborating to teach EmpowerU to their local extension participants. **Conclusion:** The program was developed around natural resources, but the content is not subject specific and can be used in any area of extension and applied to any of the high-priority initiatives on the Extension Roadmap. Agents from across the state are encouraged to participants in the future.

### 2021 EPAF Poster Presenters-at-a-Glance POSTER SESSION CHANNEL

September 14-16, 2021

Open at 8:00 a.m. each day

Anderson, Jana	Milk Run 5K: Promoting Physical Activity in a
	Virtual World
Bailey, Mark	Supplying Local Growers Directly Leads to
	Food Production Success
Byron, Lee	Capturing and Using Data Through Eventbrite
	Qualtrics and Other Tools
Cannon, Emma	The Victory 2020 Garden Community Project
Cannon, Emma	4-H Wreath Making Workshop: Crafting with
	Florida-Friendly Landscaping™
Capasso, Jay	On-Farm BMP Demonstrations: Facilitating
	the Adoption of BMP's and Agricultural Cost
	Share in North Florida
Carnahan, Elizabeth	UF Introduces Technologies, Methods,
	Networks to Improve Resilience of Affordable
	Housing
Carter, Ethan	Panhandle Ag Extension Team Offers the
	2021 Panhandle Row Crops Update Series
Carter, Ethan	UF/IFAS Industrial Hemp Pilot Project:
	Extension Experiences for North Florida
Davis, James	Distance Education to Florida Residents
	about Medically Important Pests
Dillard, Julie	Exploring Resources for Florida 4-H
	Volunteers
Estevez, Brian	Virtual Volunteer Leadership Academy: On-
	Demand Access to Support 4-H Volunteers
Freeman, Terra	Expanding Community Partnerships and
	Clientele Outreach Through Virtual
	Programming
Frey, Craig	Multiplying Research and Extension Efforts
	Through Stakeholder Participation
Gonzalez, Daniel	Strengthening Positive Youth Development
Guay, Noelle	Equity in Summer Camp Programming
Guay, Noelle	Tri-County Cooperation to Improve 4-H
	District Youth Council Inclusiveness
Haddock, Susan	Virtual Education Improve Limited
	Commercial Landscape Maintenance

Haddock, Susan	Teamwork Makes Dream Work
Hickey, Lisa	Community Benefits from Local Agriculture
	Behavior Changes as a Result of the
	Pandemic
Justesen, Brittany	Building Partnerships with Mounted Patrol
	Unites in North America
Kelly, Julia	Youth Learn to Appreciate Nature in their
	County Through Video Series
Kent, Heather	Building Youth Capacity for Florida-Friendly
	Landscaping
Kent, Heather	Building Capacity for Environmental
	Stewardship
Leonard, Daniel	Gardening in the Panhandle: LIVE!
Marty-Jimenez, Brenda	Developing a Targeted, Collaborative Military
	Educational FCS Series Via Video Education
Mussoline, Wendy	Eggplant Coproducts: An Alternative
	Feedstock for Beef Cattle
Nikolai, Andrea	Growing and Cooking Webinars to Meet
	Needs and Improve Health
Osgood, Laurie	Home Maintenance Education
Parkell, Natalie	It's Tomato Time
Pelham, Jennifer	Changing the Norm During COVID-19 to
	Better Serve Clients Long-Term
Rotindo, Kate	Your Yard in the Sunshine State
Sanderson, Lisa	Facebook Live in the Garden Creates Garden
	Change 2021
Silvasy, Tiare	Using Virtual Tours to Reach Extension
	Audiences
Souers, Melinda	Creating Belonging in a Virtual 4-H Program
Sprain, Jessica	Meeting Community Needs Through a 4-H
	Family Sewing Project
VanWeelden, Matthew	Range Expansion of the Invasive Mexican
	Rice Borer (Lepidoptera: Crambidae)
Vinson, Alyssa	Evaluating Skills Direct Observation
Vreeland, Mimi	Increase Impact of FFL
Waters, Kalyn	EVENTS Extension Software
Wells, Bonnie	Improving Wildlife Habitats on Golf Course
	Out-of-Play Areas for Enhanced System
	Sustainability

### Milk Run 5K: Promoting Physical Activity in a Virtual World Anderson J.\*, Zabala, V.\*, Rodriguez J.\*, UF/IFAS Extension Orange County

In 2016 Orange County reported, 62.2% of the adult population had overweight or obesity and 56.9% were inactive or insufficiently active (Department of Health, 2016) also 84% of middle and high school students were not meeting physical activity recommendations (Department of Health, 2020). Obesity is a risk factor for chronic diseases, and sedentary lifestyles can lead to overweight and obesity. **Objectives:** Our objective was to intervene in the family circle by promoting physical activity and helping prevent the increased prevalence of obesity using a virtual platform. Methods: The Milk Run 5K is an event typically held in person to promote physical activity while marketing Extension Services. The goals of the program this year used an online approach to reach and encourage participants to train and complete the race using a fitness app and location of their choice. Each participant was given the flexibility to post race results with in a 2 week period, and received finisher medals once posted. **Results:** There were a total of 303 registered participants with 125 finishers. Evaluation is performed on outcome data. Outcome data is collected from registrants, race completion rates, and funds raised from registration. Impact data is based on intent to change, with individuals completing a postsurvey indicating if they planned to increase weekly physical activity after participating in the milk run. **Conclusion:** This program can be used in any program area nationwide and has proved to help increase physical activity in county residents and market to non-traditional extension audiences.

# Supplying Local Growers Directly Leads to Food Production Success Bailey, M., UF/IFAS Extension Marion County

**Background:** Food insecurity is an ever-present concern for many people. Crop failures and supply chains breaking down can cause a reliable food system to break down. Building the local food system is essential to durable food security. Objective: North Central Florida's climate and pests create a challenge for both small farmers and gardeners alike. A lack of actionable knowledge and limited availability of well-adapted plants further compound the challenge local growers experience. The objective is for local growers to acquire and implement knowledge as well as make available plants directly from the extension agent that otherwise would not be available. Methods: Over the past year, ten programs were offered which consisted of a presentation and time for questions and answers. Topics detailed key variables associated with food crop production. The agent made bulk purchases of sweet potato slips and passion fruit plants to be distributed to local growers. A sweet potato guide was provided to everyone who purchased sweet potato slips. An EDIS publication was created about passion fruit production. Conclusions: Programs were well attended (n=2,275). Complete post-program surveys (n=105) indicated that all participants gained knowledge and 92% specifically stated at least one aspect of the program they had implemented. A total of 332 passion fruit plants were purchased, most of which by local small farms. More than 5,000 sweet potato slips were distributed to approximately 95 individuals. Completed post-harvest surveys (n=27) indicated three and a half pounds of sweet potatoes per slip planted. This programmatic effort successfully helped participants gain and implement knowledge to begin fruit and vegetable

production with plants supplied directly by the agent. Due to the high demand and program participant adoption of program objectives, this effort has helped to grow the local food system.

### Capturing and Using Data Through Eventbrite, Qualtrics, and Other Tools: From Reporting Requirements to Efficiency & Diversity Improvements Byron, L.H., O'Horan, K., UF/IFAS Extension Sarasota County

Background: Nationwide, Extension is required to track demographic data of their clients. But, that's easier said than done. Over the past several years, Sarasota County Extension has been working to standardize and automate data collection, and to use that data to inform program priorities and Diversity, Equity and Inclusion (DEI) efforts. **Objectives/Purpose:** Data collection and reporting can be overwhelming for Extension Agents. So, the goal of these efforts has been to centralize and standardize data collection using various tools. Additionally, this centralized approach has allowed for data analysis, which identified useful trends and opportunities to better target programs and locations to meet identified priorities, like DEI. Method: Since 2018, Eventbrite listings have included fields asking registrants for data on their demographics, previous participation in Extension programs, and other information. Since 2019, agents have used a Qualtrics survey to record their contacts, with in-depth details that allow for reporting at the level needed for the ROA. Through use of programs like Access and Tableau, Python coding, and other tools, Sarasota's communications and marketing coordinator has analyzed the diversity and geographic distribution of registrants over time, identified facilities in areas with more diverse populations, calculated the percent of nonlocal participants in virtual programming and the percent of new Extension clients, and more. The Qualtrics reporting platform has been adopted by about half the agents, who have found the online platform and immediate reporting capability works well for them. **Conclusion:** Through adoption of these technological solutions, Sarasota County Extension has more information on which to plan future programs and is better positioned to develop strategies to meet priorities, like DEI. No technology platform is perfect, however. So, information will be shared on lessons learned and barriers. Experiences may inform what other counties might want to consider to enhance their data collection, analysis, and reporting efficiency.

### The Victory 2020 Garden Community Project

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

**Background**: Due to food insecurity in both Marion (14.4%) and Columbia (15.2%) counties ranking above the statewide average in Florida, a need to provide educational resources on

becoming self-sufficient in growing food became increasingly important in response to COVID-19. Objective/Purpose: The Victory2020 Garden Community was a multi-agent project developed to address food insecurity concerns, a lack of gardening knowledge, and to improve holistic wellbeing of the public amidst the COVID-19 pandemic. Method: The program ran March - December 2020. Knowledge gain, behavior change, and relevant outcomes were captured through a survey at the conclusion of the program. The program was delivered via an eight module self-paced online course, social media, a book club, weekly one-hour workshops, and more than 5,000 hand-packaged seed packets mailed to participants. Results: 2,400 participants joined the Victory2020 Garden Community, representing over 40 US states, two US territories, and five countries worldwide. Survey respondents (n=285) reported the following: Their first 'serious experience' with gardening and growing food at home (70%), increased gardening knowledge (88%), consumed more fresh produce (73%), increased use of food safety techniques (82%), mental health improved (76%), physical activity improved (80%), saved money on fruits and vegetables (57%), reduced stress level (79%), an interest in future gardening (98%), and 3,000 pounds of food was grown. Conclusions: The program created a collaborative global network of gardeners that reached over 225,000 individuals and families. This impactful program helped to create community and experiences that met all program objectives. This continues to serve as a way for people to connect locally and across great distances. Further research could help to understand extension's long-lasting benefits of locally relevant programming during a crisis.

### 4-H Wreath Making Workshop: Crafting with Florida-Friendly Landscaping<sup>™</sup> Cannon, E., UF/IFAS Extension Marion County, Marek, A., UF/IFAS Extension Marion County, Nobles, L., UF/IFAS Extension Marion County

Background: Due to a lack of holiday gatherings with food options because of COVID-19 restrictions, to introduce youth to Florida Friendly Landscaping<sup>™</sup> principals and encourage participation in the upcoming Florida 4-H Forest Ecology Contest, Marion County 4-H found an alternative way to bring holiday cheer to 4-H members as well as the entire office faculty and staff. **Objective/Purpose:** The 4-H Wreath Making Workshop was a program that allowed 4-H members to learn about trees and plants native to Florida and entrepreneurship while making a holiday wreath. Additionally, this event was a kickoff to gain interest in the Forest Ecology Judging Contest. Method: 4-H partnered with other UF/IFAS Extension faculty programs to create a collaborative learning environment for 4-H youth. 4-H worked with plant science-based faculty members to identify native plants and trees in Florida which could be used to make wreaths. The Florida Friendly Landscaping<sup>™</sup> agent provided a matching game for participants to play to become familiar with the plant foliage used to make a holiday wreath before participants selected their materials. The Community and Resource Development agent provided an entrepreneurship opportunity to youth by teaching how to make bows for wreaths. **Results:** Twenty-six 4-H members and their families attended the wreath making program and played the Florida Friendly matching card game. This positive in person interaction sparked three youth's interest in beginning a bow making business around the holiday season. Three club leaders expressed their interest in replicating this for a club community service activity the following year. Conclusions: Marion County 4-H member and

extension faculty were able to have a holiday gathering that did not require food and followed COVID-19 safety regulations. Collaboration among extension faculty can provide a holistic learning experience to youth that can spark an interest for future project ideas. 4-H was able to create new community partnerships by contacting a tree farm that donated cuttings for youth to use in making wreaths

# On-Farm BMP Demonstrations – Facilitating the Adoption of BMPs and Agricultural Cost Share in North Florida.

#### Capasso, J., UF/IFAS Columbia County Extension

Field corn is an important commodity in the Suwannee Valley region of North Florida. Compared to other row crops grown in the region, field corn requires considerable Nitrogen fertilizer inputs to obtain an optimal yield. In this program, on-farm demonstrations were conducted to compare fertilizer application methods (banding vs broadcasting) and sources (control release vs conventional fertilizer) and educate growers on the use of soil moisture sensors. **Objectives:** To educate growers on Best Management Practices (BMPs) for sustainable nutrient and irrigation management and associated agricultural cost share opportunities. **Methods**: Over \$25,000 in grant funds were obtained through BMP mini-grants (2019 and 2021 seasons) and the Stetson Sustainable Farming Fund (2020 season) to transport fertilizer application equipment, purchase control release fertilizer, and for soil and plant tissue analysis. Soil moisture sensors were provided to growers through grant funds or the soil moisture sensor loaner program at the North Florida Research and Education Center – Suwannee Valley. **Results:** Project results were disseminated through virtual and in person educational presentations (153 attendees). Two educational videos were

created "Agricultural Cost Share Opportunities" (92 views) and "BMP Farm Series - Ronald Norris Farms" (246 views). An educational blog post "Field Corn Nutrient Management On-Farm Trial" was also created (39 views). **Conclusions**: Grower cooperators participated in BMP demonstrations leading to the adoption of agricultural cost share on side dressing equipment and soil moisture sensors. Yield, soil nitrate, and plant tissue data was collected to evaluate the use of control release fertilizer in field corn production.

UF Introduces Technologies, Methods, Networks to Improve Resilience of Affordable Housing Carnahan, L., UF/IFAS Extension Pinellas County, Galinski, A., Department of Landscape Architecture & Shimberg Center for Housing Studies, Srinivasa, R., UF College of Design, Construction, and Landscaping, Liu, R., M.E. Rinker, Sr. School of Construction Management, Hawkins, R.

**Background:** Florida ranks first in the nation for estimated potential residential exposure to hurricane storm surge damage. However, the flood exposure of Florida's affordable housing stock is not being adequately considered. This project explores the challenges to creating more resilient affordable housing. **Objectives/Purpose:** Housing and flood practitioners will engage in UF/IAS-facilitated workshops to co-define the dynamic facets of the issue and brainstorm solutions that are both effective and useful to the community. This work explores Flood Hazard Management and Practitioner Information

Network for Florida Coastal Communities to establish the foundation for future pre- and postdisaster management as well as strengthening technological and social/planning issues related to coastal communities. **Methods:** Researchers are exploring the efficacy of a new Practitioner Information Network. University of Florida collaborated with Pinellas County and two Regional Planning Councils which can be scaled across broader regions. The project team conducted two field trials, a series of stakeholder zoom sessions, and 2, 2-hour workshops. **Conclusions:** There is an urgent need for housing practitioners and floodplain managers to be able to leverage each other's information, skills, and experience to develop forward-looking strategies to create a more resilient affordable housing system. Results of field trials and community-based participatory workshops (Feb, June 2021) will be shared.

# Panhandle Ag Extension Team Offers the 2021 Panhandle Row Crops Update Series: A Virtual Education Opportunity

Carter, E., UF/IFAS Extension Jackson County, Johnson, L., UF/IFAS Escambia County, Bearden, J., UF/IFAS Extension Okaloosa County, Atkins, J., UF/IFAS Santa Rosa County, Sprague, D., UF/IFAS Extension Jefferson County

**Background/Situation**: The project aimed to move traditional, in class educational opportunities to a virtual world for producers due to Covid 19. By offering four winter educational row crop production programs through Zoom, UF/IFAS Extension agents wanted to continue to teach farmers in a safe way. The weekly February series covered the following topics: Cotton, Peanuts, Corn/Soybeans, and Precision Agriculture. Agents filmed videos with Florida, Auburn, and Georgia specialists in Fall/Winter, then edited them to show for the winter meetings. Objectives/Purpose: To educate 125-200 producers on row crop management practices and acquire skills related to integrated pest management and best management practices (at least 80% of participants will increase knowledge); at least 50% of participants will adopt behavior changes in one or more of these areas; 100-125 producers and industry personnel would receive training in utilizing restricted use pesticides (80% of participants would receive certification through FDACS or

CCA). **Methods/Evaluation**: Educational four session series offered through the online Zoom platform; an initial survey was developed before the series began to be used at the very end of each learning session to gather baseline data for the project. A follow up Qualtrics survey has been developed and will be distributed to growers who participated in mid-

Summer. **Results**: <u>Webpage</u> with 24 YouTube videos and presentations for farmers to review the series, 284 people from 17 Florida, 3, Georgia, and 4 Alabama Counties, 263 pesticide applicators for points, 15 CCA CEUs, 229/231 (99%) of respondents reported a knowledge gain, 168/232 (72%) of respondents reported an anticipated practice change, 11/43 (26%) of survey respondents expect cost reductions on farm from their anticipated change. **Conclusion**: Ag business representatives were pleased with the opportunity to address clientele through this innovative meeting approach. Farmers sent texts and emails relaying that it was good to see what new research had come out from 2020 work. The people who needed CCAs were particularly satisfied in the ease of the process. Extension agents were pleased with the number of participants who used Zoom for the first time to get the information.

### UF/IFAS Industrial Hemp Pilot Project: Extension Experiences for North Florida Carter, E., UF/IFAS Jackson County Extension, Broughton, D., UF/IFAS NFREC Suwannee Valley, Brym, Z., UF/IFAS Tropical Research and Education Center, Kelly-Begazo, C., UF/IFAS Indian River County Extension

**Background**: Florida initiated a state hemp program for commercial cultivation in 2020. Florida is a very large diverse state, and we recognize that there are different environmental conditions across regions, as well as different farming operational set-ups. So, we have implemented different farm trials evaluating hemp production in North

Florida. Objectives/Purpose: To increase UF/IFAS collaborations with hemp and strengthen industry relationships with growers and other professionals. To gather production information and help strengthen our infrastructure and knowledge base in order to help future hemp industrialization throughout Florida. **Methods**: Within the scope of this work, five-acre plots were examined under the oversight of UF/IFAS Extension. Two acres were under UF led research and the remaining three acres were farmer and industry motivated projects. Hemp cultivars evaluated included day light sensitive varieties and auto-flower/day light neutral varieties. Additionally, land prep and row configurations (bare ground, beds, etc.) were integrated into these tests. Results: Routine trips were made to on-farm locations by extension personnel to talk with the host collaborator and see field trials firsthand. Harvest data collected over the duration of the trials included plant height, total whole plant biomass, and flower biomass. All management data was documented as well stand establishment, approved pesticide use etc., fertilization, and irrigation. Conclusion: There were many successes and challenges experienced last season, future incorporation will be an integral part of our trials moving forward to determine how hemp can be grown more sustainably in Florida. Data from 2020 is currently being analyzed, it will be available later this summer. All on-farm pilot locations across the state were provided to the state hemp lead to be aggregated and have a statewide report generated for Florida as a whole.

### Distance Education to Florida Residents about Medically Important Pests Davis, J.E., UF/IFAS Extension Sumter and Hernando Counties, Oi, F., UF/IFAS Department of Entomology and Nematology, Buckner, E., UF/IFAS Florida Medical Entomology Laboratory

**Background**: Mosquito-borne and tick-borne diseases are an ongoing threat to Florida residents. Florida has the perfect environment to breed multiple species of mosquitoes and ticks, capable of transmitting harmful diseases to livestock, pets, and humans. **Objective/Purpose**: The objective of this virtual webinar series was to provide access of participants to state specialists and faculty knowledgeable in the biology of mosquitoes and ticks, along with the diseases they may carry. Surveyed participants will demonstrate at least a 50% increase in knowledge gain and demonstrate at least a 40% gain of intent to practice integrated pest management practices, as measured by pre and posttests. **Methods:** Three webinars were conducted in Spring of 2021. Webinars were held various days at 1:00 pm. Speakers consisted of Extension faculty and Extension specialists. Zoom Webinar platform was utilized. Webinars are one-hour long and provide an opportunity for attendees to ask questions. Pre and posttests were delivered via polling. Questions consisted of 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. Webinars also utilized closed captioning. **Conclusion:** A total of 121 participants attended the webinars. 102 pretest/86 posttest attendees participated in the polling process. Topics included the biology of mosquitoes and ticks, genetically modified mosquitoes, and arthropod diseases. Each presentation taught Integrated Pest Management (IPM) practices. Surveyed participants demonstrated a 60% gain in knowledge measured by pre and posttests. Surveyed participants demonstrated a 41% gain of intent to practice integrated pest management practices. Recorded webinars have received 141 YouTube views. A 6-month and 12-month follow-up survey will be delivered to measure behavior change.

#### Exploring Resources for Florida 4-H Volunteers Dillard, J., UF/IFAS Extension Washington County

**Background:** Volunteers are critical to the success of non-profit organizations like Florida 4-H and have a long and storied history with the nationwide Cooperative Extension Service. Volunteers broaden the scope of the county 4-H program with their expertise, skills, and experiences and provide opportunities and activities beyond the capacity of an individual 4-H faculty member. Thus, the success of the 4-H program's ability to deliver positive youth development programming could depend on how well volunteers are trained and supported (Arnold, Dolenc & Rennekamp, 2009). Empirical research documenting why people volunteer, intrinsic and extrinsic benefits of volunteers provide for organizations exists in current literature. However, there is little research documenting what resources volunteer use, find helpful, and need or want to fulfill their roles and responsibilities. Also missing is research on how we can support volunteers in their learning process. **Objective/Purpose:** The purpose of this poster is to present a research project currently in progress with Florida 4-H volunteers and 4-H faculty members. The research will explore the following questions:

1) What resources does Florida 4-H provide for its volunteers? 2) What resources do Florida 4-H volunteers use most frequently? 3) What resources do Florida 4-H volunteers identify as helpful in fulfilling their roles and responsibilities? 4) What resources do Florida 4-H faculty members identify as helpful for volunteers to successfully fulfill their roles and responsibilities? 5) How do the beliefs of Florida 4-H volunteers and Florida 4-H faculty members differ related to resources helpful in successfully fulfilling volunteer roles and

responsibilities? **Method**: To explore this phenomenon, the researcher performed a document analysis of EDIS resources used to create a resource matrix in the online questionnaire. All current 4-H volunteers and 4-H faculty received invitations to participate in an online questionnaire. Follow-up interviews were conducted after preliminary data was received from questionnaire participants. **Conclusions:** Preliminary data research data collected via online questionnaires over a four-week period in June-July 2021 will be presented. Virtual Volunteer Leadership Academy: On-Demand Access to Support 4-H Volunteers B. Estevez, UF/IFAS Extension Escambia County H. Kent\*, UF/IFAS Extension RSA P. Davis, UF/IFAS Extension Bay County N. Crawson, UF/IFAS Extension Holmes County C. Chappell, UF/IFAS Extension Jackson County A. Schortinghouse, UF/IFAS Extension Escambia County Z. Jackson, UF/IFAS Extension Bay County Intern, D. Brock, UF/IFAS Extension Escambia County Intern

Background: Consistent, quality volunteer training is essential for the success of the 4-H program and having on-demand access allows for more flexibility, particularly during the recent restrictions for COVID-19. Our team planned, implemented, and evaluated a volunteer leadership academy to support volunteer capacity for communication, organization, program management, and positive youth development. This program was delivered virtually via webinars, blogs, videos, social media posts, and job aids. More than 125 volunteers participated in the program in 2020/2021. This format allowed opportunities for volunteers to curate and share knowledge. Volunteers were also able to earn microcredentials based on their participation. Objectives: Provide 4-H volunteers with: 1.) consistent, quality, on-demand training on foundational 2.) positive youth development strategies. **Methods**: Topics were based on volunteer needs, generated from both a retention study in Florida and the Volunteer Knowledge and Research Competencies (VKRC). Presenters were solicited for each topic (four sessions in spring 2020, four sessions in fall 2020, and five session in spring 2021). Zoom webinar was used to host registration and on-demand access to sessions. The series was supported through blogs, videos, and social media. The program was evaluated with an end of program survey and a follow up survey four months later to measure behavior change. Volunteers participating in three or more sessions earned a digital badge. Results: One hundred and twenty-eight volunteers registered for the webinar series. As only 12% attended the live session, adjustments were made to the time based on formative evaluations. While many volunteers could not participate live, they appreciated the ability to view the session at their convenience and one-third of the participants earned a digital badge. More than 70% of the participants felt that the information was relevant to their volunteer role and planned to adopt one or more of the strategies offered. Conclusions: Not only is consistent, quality volunteer training essential for the success of the 4-H program, having on-demand access for volunteers allows for more flexibility. This program also provided an opportunity for faculty to share expertise across county lines and provided recognition opportunities for volunteers through digital credentialing.

# Expanding Community Partnerships and Clientele Outreach Through Virtual Interviews Freeman, T. UF/IFAS Extension St. Johns County

**Background:** The COVID-19 pandemic altered the means by which extension faculty could effectively educate clientele. With temporary suspension of in-person programming, we needed to get creative and expand our educational outreach methods. With virtual programming being the safest way to present programs, I partnered with several organizations and/or news media sources to produce educational interviews. **Objective/Purpose**: My objective was to expand clientele outreach and educational <sub>63</sub>

opportunities by partnering with other organizations and news media outlets to provide virtual educational programming on horticulture related topics. **Method:** I Partnered with 4 community organizations and/or news media outlets including St. Johns County Naturalists, Librarian, Solid Waste Authority, First Coast News and First Coast Living to provide educational programming in interview format. Topics included native plant identification, compost production, a monthly segment called *Edible Gardening in St. Johns County*, Florida-Friendly Landscaping<sup>™</sup>, right plant right place, native plants, and gardening for health and wellness. **Conclusion:** I produced 15 videos with community partners that were shared on social media including Facebook and YouTube, and 4 television interviews for First Coast News and First Coast Living via zoom; viewed by over 636 viewers. I continue to develop virtual educational programming with community partnerships which expands my clientele outreach and provides additional educational platforms.

### Multiplying Research and Extension Efforts Through Stakeholder Participation Frey, C., UF/IFAS Extension Hendry, Glades, Charlotte, Lee, and Collier Counties

Background: Florida ranks #1 in the U.S. for snap bean production, producing more than 1/3 of the total U.S. production. Florida has 28,000 acres of snap beans, with 7,500 acres in Miami-Dade County, 6,600 in Palm Beach County, and 6,500 in Hendry and Collier Counties. Florida snap bean growers will gross about \$5,400 per acre, have production costs of \$4,000 to \$4,700 per acre, and net returns from \$700-1,400 per acre. In March 2020, a new invasive species, the Asian bean thrips, was identified in Homestead, FL, and 30% losses were reported. This amounts to a reduction of \$1,620 per acre, resulting in net losses. Across South Florida, this could amount to \$33.6 million dollars of losses. **Objective:** The first objective was to partner with stakeholders to establish a regional scouting and reporting network. The second objective was to leverage stakeholder participation to identify management practices that reduce pest damage. Method: Meetings were initiated to train growers, scouts, and extension agents, and to foster the sharing of information across farms and production areas. A regional scouting effort was initiated in Palm Beach, Hendry, and Collier Counties to identify population level dynamics throughout the 2020-2021 growing season. This included 4 scouts, a thrips ID specialist, and the extension agent. Weekly scouting covered 50 locations on 12 farms by the extension agent, grossing 12,000 acres, and an additional 13 farm by collaborating partners. Weekly updates were distributed with population levels throughout South Florida. Conclusions: Stakeholder participation increased the breadth and effectiveness of this extension program. Scouting reduces insecticide applications, and by reducing 1-2 preventative insecticide sprays prior to the pest's arrival, growers may have saved \$0.4 to \$0.8 million across the growing season. Once the pest arrived, selecting effective insecticides was imperative and timing of insecticide application was critical to minimize losses. This would not have been possible without a regional network and stakeholder participation. It is estimated that the regional scouting effort will continue to minimize grower losses, and therefore save growers potential losses of \$1,500 per acre, or \$19.8 million per cropping cycle across the region.

### Strengthening Positive Youth Development through Existing Partnerships Gonzalez, D., UF/IFAS Extension Palm Beach County; Marois, E., UF/IFAS Extension Palm Beach County; and Dowdle, F., UF/IFAS Extension Palm Beach County

**Background:** An environmental education program was designed, developed, and implemented targeting students involved with the Glades Central Community High School Agriculture program. The goals of this extension program was to foster a greater interest in agriculture, and expand agricultural literacy. **Objectives/Purpose**: Program objectives focused on STEM knowledge gain in areas of plants, gardening, agriculture, and agricultural literacy. **Methods**: This program involved in-school direct education and hands on learning for all students enrolled in agriculture classes at Glades Central Community High School. In doing so, Extension Agents from different disciplines shared their expertise with students and faculty. UF/IFAS Extension Palm Beach County ensured the design and construction of a pollinator garden can be used for future coursework. Pre and post surveys were administered to youth involved with the program. **Conclusions**: Of all youth respondents, 11% (n=43) self-reported an increase in interest of plant science. Also, 30% (n=43) increased their interest in science and agriculture. This goes to show, collaborating with existing frameworks to enhance programming maintains the relevance and strengthens the impact of UF/IFAS Extension, and allows us to better serve as an available, and accessible resource.

# Expanding Equity in 4-H Summer Programming with Camp to Go Kits Guay, N., Gonzalez, D., Hernandez, M., and Lorenzo, Bostrom, C.

**Purpose:** Palm Beach County is expansive, with over 1.4 million residents and 39 municipalities. Despite being the wealthiest county in Florida heartbeat is economically diverse and many have license lack the funds for traditional summer camps are technology to purchase a key in virtual camp activities. Camp to Go kits are Palm Beach County 4-H's solution to engaging nontraditional 4-H youth in hands-on 4-H camp activities. According to the US Census's American Community Survey data from 2017, 55,843 or 1/5 of the children in Palm Beach County live in poverty and according to the homeless coalition of Palm Beach as of May 2019, 4405 students enrolled in Palm Beach County schools are homeless. Methods: Palm Beach County staff created 275 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 and camp participants enable youth to feel connected to other youth in the county through 4-H. The kits were made available free of charge and including all camp materials from scissors to balloons to popsicle sticks, insured equity across all participants. Kids were distributed on both sides of the county and on a Saturday to increase accessibility for families. Outcomes: all 275 kids were distributed with 30 families on the waiting list. 65% of the kits were distributed to underserved, underrepresented youth. Qualitative positive feedback was acquired through family photo and video submissions, social media posts, and emails. Quantitative data will be collected with pre post reflective evaluations. This program created three new partnerships with local organizations and will implement additional 4-H programming. **Conclusion:** As youth development professionals, it is our responsibility to be asking questions about our contributions and building equity in our programs. Palm Beach County 4-H values creating and delivering programs that reach all youth 65 ages 5 through 18 and is intentional in developing programs that are accessible to all youth in the county. Camp to Go kits meet Extension's goal of reaching all audiences and ensures youth can grow through 4-H, despite their financial ability location or background.

# Tri-County Cooperation to Improve 4-H District Youth Council Inclusiveness Guay, N., Spero, V., Sarver, K., Thames, W., Rice-David, K., and Broaddus, B.

**Purpose/Objectives:** This program will realign Florida 4-H District XIII with positive youth development practices. In addition, we will shift district leadership to 4-H staff and retrained volunteers focusing on inclusion and youth led programming. This program will engage new members and increase participation, sense of belonging, and inclusion. In addition, we will be able to remove burdensome requirements that hinder participation and inclusion and restructure youth leadership requirements in the constitution and bylaws to remove barriers to participation. Methods: In order to achieve these goals, it will be necessary to restructure the district's organization to reinstate PYD guidelines. Youth be actively engaged in their own development and are considered participants rather than recipients. Youth will provided guidance through the five C's of positive youth development these include competence, confidence, connection, character, and caring/compassion. Finally, youth in adults will be trained to foster a culture of inclusion and understand the benefit of new ideas and members. **Results:** Through this program council leadership changes from parent volunteers to 4H staff. This will result in the revision to council constitution and bylaws to remove exclusionary language and requirements. There will be a focus on service learning activities versus fund raising for external entities and reduction in quantity of council events. We will focus on youth led projects. There will now be a rotation of meeting locations across all three counties. Active District Council will be under new changes they are now growing a sense of inclusion and belonging amongst old and new members. There are now stronger interactions between county members. **Conclusion:** throughout this process the agents and regional specialized agents are still actively working with District XIII youth and families to foster more inclusive activities. Overall the youth and families have been receptive to the change but still struggle with the reduction in number of activities and parental involvement. The revisions to the constitution and bylaws are complete and the council is moving forward as a functioning entity.

### Virtual Education Prompts Innovative Methods to Improve Limited Commercial Landscape Maintenance (LCLM) Program Experience and Results Haddock, S., UF/IFAS Extension Hillsborough County and Harlow, E., UF/IFAS Extension Columbia County

**Objectives:** The pandemic changed the way Extension provided programming in 2020. Unlike in-person training with testing the same day, virtual training attendees received training, took exams another day, and had no access to supplemental materials. Regardless of training platform, attendees did not have access to materials in advance. Innovative methods were developed to provide program attendees training materials in advance in an easily accessible format that traditionally would have been provided in-person, with the objective of improving exam pass rates. **Methods:** Agents from Columbia and

Hillsborough Counties utilized Google Sites to build websites housing program information and materials. Websites contain multiple pages providing program information, resource links, presentations, workbooks, and contact information. Presentations can auto run, be advanced manually, or viewed full screen. Study guides, pesticide labels and exercises can be viewed full screen, or downloaded and saved or printed. The website can be public or remain private. Google Sites provides a unique website hyperlink that is shared with program attendees in advance of training to ensure access to program study materials. **Results:** Providing program materials in advance of educational programs regardless of teaching platform improved exam pass rates. So far in 2021, Hillsborough County exam pass rates have increased 18% from previous years. **Conclusions:** Attendees expressed satisfaction with the delivery method and are thankful to have program materials to peruse in advance of training, to follow during training, and for additional study after training before exams.

#### **Teamwork Makes Dream Work**

### Haddock, S., UF/IFAS Extension Hillsborough County, Atkinson, M., UF/IFAS Extension Manatee County, Beckford, M., UF/IFAS Extension Sarasota County, Brown, S., UF/IFAS Extension Lee County, Robinson, S., UF/IFAS Extension Pinellas County

**Objective:** Pesticide applicators seeking continuing education units (CEUs) for license renewal were stymied in the spring of 2020 due to COVID19 restrictions closing Extension offices. Southwest District Agents acted quickly transitioning traditional in-person workshops to live webinars. Agent objectives were to implement webinar technology, maintain client attention in four-hour live webinars, assist clients with technology access issues, and utilize a teamwork approach. Methods: Six agents from Collier, Hillsborough, Lee, Manatee, Sarasota, and Pinellas counties collaborated to develop interesting webinar learning events utilizing Zoom. The Agents developed themed programs featuring a host and a different agent presenting during each of four 50-minute sessions per training. Polls were utilized to engage attendees and capture knowledge gain. The chat feature was utilized to promote involvement and establish connections. Polls and chat also facilitated the Agent's ability, as CEU providers, to assure that each registered attendee actually attended and remained engaged. Results: Post participation surveys revealed that 89% of responding attendees (n=249) liked the on-line training format. Polls reflected that over 90% of attendees, depending on program, demonstrated knowledge gain and learned practices that they would implement in the future. Conclusions: Collaboration, creativity and team work not only served the clientele to acquire the necessary education to obtain and retain pesticide licenses, but also helped agents to connect and learn from each other during an uncertain time. During practice sessions and in live webinars agents laughed and shared light-hearted jokes with each other and clientele, easing everyone's tension.

## Community Benefits from Local Agriculture Behavior Changes as a Result of the Pandemic Hickey, L., UF/IFAS Extension Manatee County

Typical agricultural distribution systems and venues ceased temporarily during the pandemic. Commodities were dumped into or turned under in fields or left behind for wildlife 67

to pilferage while food banks became food deserts. Objectives: Utilizing advisory board membership, wholesale producers will connect with retail outlets to provide their commodities. In addition, producers will work with local organizations providing their unsaleable produce to food banks. Through an online system, local produce will be identified. Methods: A farmer's market started a Community Supported Agriculture (CSA) venue for wholesale producers to sell their crops retail. Extension created a list of producers with available or excess crops and a volunteer organization gathered unsaleable commodities and delivered them to food banks. With the assistance of the county GIS team, extension created an interactive map of local agriculture commodities and venues of available crops. (eg. restaurants, farms, farmer's markets, etc.) Results: The volunteer group organized 50+ gleaning events in nine months. Two producers created a CSA model based on the farmer's market model and offer their produce to additional venues than their previous restaurant venue. As a result of pandemic changes, four wholesale producers now sell to non-traditional retail venues. The GIS map includes over 100 local agriculture producers searchable by locale and commodity types. Conclusion: Through extension efforts, the GIS map has escalated awareness of local agriculture commodities. Wholesale producers utilized alternative marketing venues to help rebound from pandemic deficits. Gleaning events provide local fresh, healthy fruits and vegetables to food banks.

### Building Partnerships with Mounted Patrol Units in North America Justesen, B. UF/IFAS Extension Osceola County, Yarborough, J., UF/IFAS Extension Orange County, Strickland, J., UF/IFAS Extension Osceola County, Wickens, C., UF Animal Science, DeNotta, S., UF College of Veterinary Medicine, McQuagge, J., UF Animal Science

Background: Mounted police units patrol on horseback and are utilized for crowd control, search and rescue, special events, and community outreach. North American Mounted Unit Commanders Association (NAMUCA) is comprised of 300 commanders of mounted units all over North America. In 2020 their national meeting was canceled due to COVID-19. UF/IFAS Extension partnered with North American Mounted Commanders Association to help host their national meeting virtually and provide commanders with research-based education. **Objective:** Mounted units will learn recommended practices that will improve their horse's health and safety. Method: UF/IFAS Extension Osceola and Orange County Agents worked together with North American Mounted Commanders Association board members for a year to plan, promote, and develop a virtual platform to host the national meeting. The three-day meeting was held virtually in April 2021 using lectures and demonstrations provided by two County Extension Faculty and three State Extension Specialists. Commanders learned about equine health and first aid, disaster planning, pasture management, saddle fitment, and equine behavior studies. Results: Commanders completed a post program surveys that indicated knowledge gain in equine health and first aid (20%), disaster planning (24%), pasture management (30%), saddle fitment (30%), and equine behavior studies (20%). Conclusion: Based on results and feedback, the national meeting was a success for building relationships with outside partners and providing education in important areas of equine management.

### Youth Learn to Appreciate Nature in Their County Through Video Series Kelly, J.S., UF/IFAS Extension St. Johns County and Helseth-Anderson, K., UF/IFAS Extension St. Johns County

**Objectives:** In the past, youth were most engaged in environmental science-focused summer programming when the programs were outdoors and contained plant and wildlife identification activities. Because of COVID-programming limitations and prior in-person success with environmental science programming, we offered a video series that exposed families to outdoor activities they could do together safely. Our goals were: youth visit local, natural areas and youth learn the value of Florida plants and wildlife. **Methods:** To stay relevant during the cessation of in-person programming, we created an eight-episode, environmental sciencefocused video series filmed at natural areas including parks, forests, beaches, marshes, swamps, and a river in St. Johns County. Throughout the videos, we hiked, cycled, and kayaked to encourage healthy lifestyles. Whenever we pointed out an animal or plant, the video transitioned to a slide with related fun facts. Links to the videos (on YouTube and averaging 28 minutes long) and post-video assessments of related fun facts were in the weekly newsletter and on the county 4-H website. Results: The eight videos have over 500 views. As a result of watching the videos, assessments (n=90) reflected that 96% wanted to visit the video locations and 98% understood the value of Florida plants and wildlife. Additionally, 87% identified characteristics of an average of more than 4 animals per episode and 74% identified characteristics of more than one plant per episode. **Conclusion:** When shown how much fun people can have in outdoor environments, St. Johns County 4-H youth participants want to explore local areas and care more about nature.

### Building Youth's Capacity for Florida-Friendly Landscaping™

Kent, H., Regional Specialized 4-H Agent, Northwest District, Marvin, J., Florida Yards and Neighborhoods Statewide Coordinator, Momol, E., Florida Friendly Landscaping Program Director, McCazzio, C., UF/IFAS Extension Putnam County, Cash, L., UF IFAS Extension Volusia County, Wichman, T., Green Industries Best Management Practices Statewide Coordinator

Background: The UF/IFAS Florida-Friendly Landscaping<sup>™</sup> (FFL) program has a rich history of helping citizens, landscape professionals, and communities conserve Florida's natural resources through the science-based nine principles of Florida-Friendly Landscaping<sup>™</sup>. Objectives/Purpose: The purpose of the Florida-Friendly Landscaping<sup>™</sup> Youth Guide is to engage youth in environmental stewardship and prepare them for careers related to the landscape and conservation industry. This new guide will be available statewide fall 2021. Method: Our team is planning to introduce this new curriculum through a series of in person and virtual "train-the-trainer" sessions to prepare faculty and volunteers to implement the program locally. Conclusion: This comprehensive curriculum encourages collaboration between horticulture, natural resources, and 4-H and FFL faculty and volunteers to achieve educational outcomes related to environmental stewardship and civic engagement.

### **Building Capacity for Environmental Science & Stewardship**

Kent, H., UF/IFAS Extension NW District; Gill,A., UF/IFAS Extension Highlands County; Cash, L., UF/IFAS Extension Volusia County; Danford, B., UF/IFAS Extension Jefferson County; Davis, S., UF/IFAS Extension Sarasota County; Dillard, J., UF/IFAS Extension Washington County; Irvine, K., UF/IFAS Extension Nassau County; Kelly, J., UF/IFAS Extension St. Johns County; Kerr, B., UF/IFAS Hamilton County; Lazzari, A., UF/IFAS Extension Brevard County; Prevatt, T., UF IFAS Exension Glades County; Reighter, S., UF/IFAS Extension Pasco County; and Tillett, B., **UF/IFAS 4-H Camp Cloverleaf** 

Background: The Environmental Science Action team is a subcommittee of the UF/IFAS Initiative Seven Priority Workgroup One. This team provides leadership for environmental education and stewardship programs through positive youth development in collaboration with other Extension programs and specialists. **Objectives/Purpose**: The purpose of this committee is to provide pathways for faculty and staff for collaboration and building capacity in their programs and statewide initiatives. We offer professional development opportunities related to curriculum, resource development, evaluation, and scholarship. Faculty with a background or passion for environmental programs are encouraged to join our team to strengthen local programs or be engaged in statewide scholarship opportunities. We will share specific programs and accomplishments over the last year and offer ways to get involved to build capacity for environmental stewardship. Method: Our cross-collaborative team meets monthly via Zoom to review curriculum, EDIS publications, write grants, and implement professional development opportunities related to environmental science and stewardship. The committee has two subcommittes responsible for leading shooting sports and marine science. Conclusion: Join our team to collaborate across programs including Natural Resources, Sea Grant, and 4-H. Faculty and volunteers collaborate to achieve educational outcomes related to environmental stewardship and civic engagement.

### Gardening in the Panhandle: LIVE! A Lesson in Harnessing Teamwork and Technology to **Better Reach Clientele**

Leonard, D., McConnell, J., Lollar, M., Anderson, E., Bodrey, R., Bolles, B., Dunning, S., Greer, S. Orwat, M., Salinas, M., Sprague, D., Tancig, M., Williams, L., Williams, P., Dale, A., Freeman, J., Hylton, T., Jackson, S., Jameson, M., Kalaman, H., Knox, G., Marble, C., Martini, X., Stevenson, C.

Background: As the COVID-19 pandemic unfolded in 2020, UF/IFAS Extension Agents were unable to perform traditional in-person educational programs and needed an innovative way to reach residential horticulture clientele. **Objectives/Purpose**: Inspired by Agents in south Florida offering "Ask an Agent Anything" online seminars, but wanting to focus more on specific, timely topics, the Northwest District Horticulture Program Implementation Team (PIT) collaborated to create a similar program series called Gardening in the Panhandle LIVE! Each session covered a seasonally relevant topic with knowledgeable panelists based on their individual specialties. **Method**: The series was broadcast using both Zoom Webinar videoconferencing technology and Facebook Live to capture the largest possible audience. To comply with ADA guidelines for hearing disabled clientele, episode recordings were edited with closed captioning for YouTube. 70 Delivering each episode requires a team of 7-9 agents in the following roles: 3-4 panelists, an episode "host", a Zoom technician, and several "behind the scenes" moderators. While the episode's host and panelists are answering questions, the moderators are adding resource links to chats, answering pop-up questions, and filtering and forwarding potential on-air questions to the emcee. **Conclusions**: The innovative collaboration created 13 episodes engaged a total of 871 live viewers in 2020 on various social media platforms. Follow up survey participation was completed at a rate of 22% (191/871). 97% (186/191) of respondents reported knowledge gain in at least one Florida-Friendly Landscaping Principle. 88% (168/191) of respondents reported a plan to adopt at least one Florida-Friendly Landscaping Principle as a result of participation in the program.

Developing a Targeted, Collaborative Military Educational FCS Series via Video Education B. Marty-Jimenez, UF/IFAS Extension, Broward County, Davie, FL; V. Zabala, UF/IFAS Extension, Orange County, Orlando, FL; L. Johnson, UF/IFAS Extension, Lake County, Tavares, FL; S. Fundingsland, UF/IFAS Extension, Collier County, Naples FL; K. Griffin, UF/IFAS Extension, Suwannee County, Live Oak, FL; T. Leigh, UF/IFAS Extension, Collier County, Naples, FL; A. Nikolai, UF/IFAS Extension, Polk County, Bartow, FL; A. Mullins, UF/IFAS Extension, Leon County, Tallahassee, FL; K. Shelnutt, UF/IFAS Extension Family, Youth & Community Sciences, Gainesville, FL; W. Dahl, UF/IFAS Extension Food Science & Human Nutrition, Gainesville, FL.

Background: Extension agents are charged with providing education within their county and beyond to sustain and enhance quality of life. Through a 3-way partnership, the newly formed Extension RDN/LDN action team focused on the needs of military forces by developing a nutrition and health virtual educational series-based program, to reach the military reserves in Florida. Partners included: The Building Healthy Military Communities (BHMC) program, the First Coast YMCA and UF/IFAS Extension, Family and Consumer Sciences. Objective/Purpose: To collaborate within UF/IFAS Extension, BHMC, and the YMCA to educate on nutrition, health, and wellness to improve soldier readiness to deploy and decrease the incidence of disease and non-battle injury in Florida. Method: Each member of the action team developed a peerreviewed health and wellness presentation, a recording, and an evaluation. The team shared the final project with the collaborators, who marketed, recruited participants, and shared the videos to educate military forces during two cohorts scheduled for February 2021 and May 2021. Conclusions: The team created curriculum to educate the military reserves in Florida and beyond. This Extension series has helped to break down geographic barriers for the First Coast YMCA and for BHMC. Seventeen Operation Strong and Ready wellness videos reached 51 users with 271 views to date. Upon completion of the pilot cohorts, subsequent programs will be offered several times per year with further expansion expected to reach a broader military audience. As demonstrated by the BHMC collaboration, it is valuable when agents collaborate within action teams for projects with statewide reach. These teams help share the responsibility of research, materials development, program delivery, evaluation tool development, while assuring sustainability, impact, and continued professional success. Given the military bases in Florida and beyond, this partnership has the potential to initiate future Extension activities tailored to reach this population with programming that encourages Florida 71 Friendly Landscape practices (low maintenance plants and environmentally sustainable practices), 4-H collaborations, teaches food safety, targets low-income military families and other interdisciplinary research-based programs

### Eggplant Co-products: An Alternative Feedstock for Beef Cattle W. Mussoline, PhD, UF/IFAS Agriculture Extension Agent, Putnam County

**Background:** Alternative feedstocks such as cull vegetables can be used to supplement nutritional needs for beef cattle if they are readily available and economically feasible. Comarco Products is an eggplant processing facility that initially transported all their organic processing waste (consisting mainly of fresh eggplant peels, eggplant crowns and fried eggplant that is misshapen or unevenly battered) and disposed it in the local landfill. **Objectives:** The primary objective was to facilitate the repurposing of eggplant coproducts as an alternative feedstock for beef cattle in Putnam County. Methods: Samples of both raw and fried eggplant coproducts were analyzed by Dairy One Forage Testing Laboratory in Ithaca, NY. Results were evaluated and compared to common forages and cull vegetables readily available (i.e. potatoes and outer cabbage leaves). The Agent shared the nutritional benefits of eggplant co-products with producers, arranged multiple tours of the Comarco facility, and worked collaboratively to organize logistical details for material transport. **Results/Conclusions:** Dry matter (DM) concentrations of the raw and fried eggplant were 50 and 55%, respectively, which are higher than locally available cabbage (9%), potato (21%), or wet brewer's grain (19%). Higher DM means less water content, which is beneficial for both transport and nutritional uptake by the animal. Crude protein for the fresh eggplant (8.6% as fed basis) was higher than cabbage (2.2%), potato (2.1%), brewer's grain (4.4%), and "jiggs" bermudagrass (4.8%), but lower than pearl millet (13%) and sorghum sudangrass (10%). Total digestible nutrients followed the same trend on an as-fed basis. Comarco agreed to logistical stipulations to facilitate the ease of material handling such as (1) separating their organic waste stream, (2) donating organic co-products for free, and (3) loading the material on flatbed trailers twice a week. From December 2020 through June 2021, three local cattlemen rotated the collection and dispersal of the eggplant. One producer displaced more than half (66%) of his grain with eggplant and saved \$1866 on feed for two months. Comarco saved \$9216 in hauling/disposal fees for six months, and 288,000 lbs of organic waste were diverted from the local landfill and utilized as supplemental livestock feed.

### Growing and Cooking Webinars: Connecting Programs and People to Meet Needs and Improve Health During the Covid-19 Pandemic Nikolai, A., UF/IFAS Extension Polk County, and Yasalonis, A., UF/IFAS Extension Polk County

**Background:** The residential horticulture and family and consumer sciences (FCS) programs at UF/IFAS Extension Polk County have been offering growing and cooking workshops since 2019. In 2020, these fun and interactive classes turned virtual. Circumstances surrounding the Covid-19 pandemic, such as food safety, sheltering in place, and the return to home gardening contributed to an increased interest in growing and cooking vegetables and herbs. **Objective/Purpose:** Objectives were to increase likelihood that participants will prepare<sub>72</sub>
and eat healthier foods, increase the likelihood that they will grow herbs and vegetables in their landscape, and to meet participant needs with satisfaction. **Methods**: The residential horticulture and FCS agents collaborated to teach growing and cooking webinars that taught participants how to grow and then prepare and preserve seasonal produce. **Conclusions:** Over 600 participants attended the webinars from May through November. Ninety-one percent of respondents (n=344) said they were extremely or somewhat likely to prepare healthier foods, 83% (n=302) said they were extremely or somewhat likely to eat more fruits and vegetables, 92% (n=333) said they were extremely or somewhat likely to plant herbs and/or vegetables in their landscape, and 98% (n=361) of survey respondents indicated that they were slightly to extremely satisfied with the

webinars. These webinars combined agents' expertise to meet the burgeoning community interest of how to grow and then use garden produce. In addition to the education provided, webinar participants were able to connect in the chat by sharing recipes, healthy cooking ideas, and easy ways to grow food to supplement trips to the grocery store. Connecting participants in different extension programs through common interests helped make these webinars successful and enjoyable for everyone involved. Participants reported satisfaction with the webinars and also indicated the likelihood to use what they learned to plant herbs or vegetables, prepare healthier foods, and eat more fruits and vegetables. These outcomes were important to help save costs and improve health, both which were of critical importance during COVID's physically and financially stressful time.

### Living Well Wednesday's - Home Maintenance Education Osgood, L., Gadsden County, Corbus, J., Washington/Holmes Counties, Breslawski, J., Walton/Okaloosa Counties, Taylor, M., Bay County, Keith, T., Jackson County, Arick, M., Zamojski, K., NW FCS RSA

Background: Due to the circumstances surrounding COVID-19, the Family and Consumer Sciences agents in the NW District pivoted their efforts towards an online learning format meet the educational needs of clients using Zoom for a guided leaning experience. **Objective:** Agents worked together throughout the district to convert traditional programs into interactive, livestreamed events to offer unique programming about home repair. Agents and a Regional Specialized Agent utilized numerous technologies to accomplish this, including Zoom, Facebook Live, and Qualtrics. Methods: In 2020, Living Well Wednesday's sessions were offered weekly, but converted to a three-part series offered quarterly in 2021. In the second quarter, the FCS agents offered a three-part home maintenance series which focused on basic home maintenance and repairs, homemade cleaners, plumbing, flooring, repairing tiles, home security, lawn and garden maintenance, and energy efficiency. Together Agents planned lessons based on timeliness, client needs, and public health trends. Agents rotated duties throughout the timeframe. The Regional Specialized Agent, along with Agents, produced social media advertisements for recruitment, managed registration and live program production, and survey distribution. During live production, regional FCS agents acted as an expert panel to monitor chat boxes to answer client inquiries, provide conversation starters, interject teachable moments, or relay information to the presenters. The Regional Specialized Agent developed an 73 International Review Board approved survey to distribute post-program containing common measures. This survey was adapted in a limited capacity to each different topic area. **Results:** Forty-eight participants attended the 3-part home maintenance series. Twentyfive participants responded to post-session surveys representing a 52% response rate. One hundred percent of participants increased knowledge on simple home repairs. Twenty-one (84%) participants intended to make at least one practice change including improved home recordkeeping, implementing home maintenance practices, and making simple home repairs. Seven (28%) participants planned to share the information with others, personally or professionally. **Conclusion:** Agents utilizing new technology maintained and grew Extension's presence and provided essential information to clients during the pandemic. Participants intended to improve financial behaviors and practices that will result in improved financial wellbeing.

### It's #TomatoTime! A Virtual Special Interest (SPIN) Club Model to Spark Youth Engagement Parkell, N., UF/IFAS Extension Martin County; Gonzalez, D., UF/IFAS Extension Palm Beach County; Daniel, P., UF/IFAS Extension Okeechobee County

**Background:** During the coronavirus pandemic of 2020, as virtual outreach became the norm, 4-H Agents across four counties (including Broward with former 4-H Agent, Karen Rice-David) drew upon each other's strengths to deliver quality

youth development programming. Keeping experiential learning alive in this virtual format, *#TomatoTime* horticultural club brought members together for ten weeks in hour-long sessions. From songs to "show-n-tell", project books to creative arts, youth engaged safely in 4-H programming while successfully raising determinate tomato plants to mature harvest. Objectives/Purpose: Program objectives focused on STEM knowledge gain in areas of plants, gardening, and agriculture. Additionally, 4-H life skills such as decision making, critical thinking, planning, keeping records, sharing, communication, self-motivation, healthy lifestyle choices, and belonging/inclusivity were targeted for this SPIN club. Method: 4-H youth received a tomato kit, including transplant, pot, soil, and growing guide for southern Florida. They joined weekly meetings via Zoom, participating in interactive games, quizzes, slide shows, virtual farm field trip, mindfulness, and culinary activities. Each week presented a different theme led by alternating Agents. Additionally, a Google site was developed for youth to locate additional resources and post projects and photos for sharing with others. Conclusions: Out of a total enrollment of 48 youth, 100% (n=18) of respondents to a post-club survey reported they gained knowledge because of club involvement, while 100% (n=17) of respondents affirmed elements of belonging and safety. Those same youth self-reported they learned or improved on a mean of 14 life skills (out of a total of 35) as listed in the "Targeting Life Skills" Model from Hendricks (1996, Iowa State University). 24% of Martin County youth (n=9) went on to engage further in 4-H opportunities that year, retaining membership in high quality youth development programming beyond their initial engagement. Additionally, the faculty involved in #TomatoTime Club found the team experience to be a vital mode of professional interaction, communication, and encouragement during an unprecedented year. As the youth reported improved mental states and enjoyment of club activities, the faculty colleagues were able to reap similar personal and professional rewards.

# Changing the Norm During COVID-19 to Better Serve Clients Long-Term J.Pelham, UF/IFAS Extension Martin County

**Background:** The COVID-19 pandemic caused the cancellation of many large Extension events, including Master Gardener Plant Sales. Plant sales are the main fundraiser for many Master Gardener organizations. In Martin County, over 700 people attend the annual plant sale, which raises approximately \$12,000. These funds support educational outreach programs, including community events, school gardens, community gardens, and scholarships. Without this funding, these programs would not be financially supported, at least not to the extent as previous years. In addition, the large plant sale left little opportunity for education. The clients felt rushed to "find the perfect plant" and the volunteers felt like they provided more crowd control than education. The funds raised at the annual plant sale supported the Master Gardener mission of education, but the event itself did not. **Objective:** The objective is to continue to financially support horticulture education in Martin County during the pandemic and thereafter to the same extent as previous years, while also expanding educational outreach at the Master Gardener Plant Sales. Method: With attendance limitations during the pandemic, smaller, more frequent plant sales were scheduled. Participants were required to pre-register on Eventbrite. Master Gardener volunteers were available to provide one-one education to the clients. Safety precautions (face coverings, physical distancing) were enforced when applicable. Thirty plants sales were held from July 2020 through June 2021. **Conclusion:** The shift from one large plant sale to many smaller plant sales during the year was appreciated by both the volunteers and the participants. From post-event evaluations, 100% of the volunteers felt like the smaller plant sales allowed them to better serve the mission of education. Participants also indicated that they preferred the less crowded, educational experience. The smaller plant sales raised nearly \$20,000, exceeding expectations, which not only allowed the Master Gardeners to continue to financially support horticulture education, but also increase their outreach efforts by providing additional garden grants and scholarships. Smaller, more frequent plant sales will be the new norm in Martin County to better serve the clients.

# Your Yard in the Sunshine State Webinar Series – Teaching with Real-life Examples Rotindo,K., UF/IFAS Extension St. Lucie County

**Background:** Initially, as a way to meet the need of continuing education for Master Gardener Volunteers during COVID-19, this webinar series was created to inform help-desk volunteers of what types of residential horticulture issues were being addressed by the Urban Horticulture agent. Site visits, phone calls, and emails to the Urban Horticulture agent from residents each month provided real-life scenarios and examples of residential horticulture issues. **Objective/Purpose:** This monthly webinar approach allows the agent to educate both local residents and Master Gardener Volunteers about current issues in Florida's sub-tropical oriented urban horticulture. This approach equips participants with more regionally specific understanding of what is happening each month in the landscape: plantings, pest and disease issues, and cultural practices. **Method:** Each month, the agent complies photos, notes and topics to create visually stimulating PowerPoint presentations from current issues brought by residents to the agent in St. Lucie County. The webinar event is promoted to the public and presented on a monthly basis. **Conclusions:** This ongoing webinar series has resulted in participant-reported increased knowledge of best management practices in the landscape, insect identification, plant identification, Integrated Pest Management, and proper palm pruning. Survey results also indicated participants' intentions to adopt best management practices, such as proper palm pruning and positive identification of pest versus beneficial insects.

### Facebook Live Program "In the Garden" Creates Garden Change L. Sanderson, UF/IFAS Extension Sumter County

Background: In early Spring 2020, the COVID-19 pandemic led to the rapid creation of alternative educational methods of reaching residents in Sumter County offered by UF/IFAS Extension. Sumter County has a population of almost 140,000 residents who as a result of the pandemic stayed at home and in their gardens. Residents participated in educational programs and plant clinics on the Zoom platform offered by UF/IFAS Extension in Sumter County. Another method of outreach included social media. Facebook Live provided a format to educate those sheltering at home with short garden videos entitled "In the Garden." Objective/Purpose: The objective of offering Facebook Live "In the Garden" was to inspire residents to select and install Florida-Friendly Landscaping<sup>™</sup> plant selections, to select plants that would attract pollinators or birds, to learn sound pruning and maintenance methods for landscape plants among many other topics. **Method:** Facebook Live "In the Garden" was offered each Saturday morning at 9:00 am from April 2020 to March 2021. Posts on Facebook included specific UF/IFAS information on each day's topics following the video upload. Conclusion: As a result of Facebook Live "In the Garden," 23% of respondents (n=3) to a Qualtrics survey noted they added native plants for their area; 23% changed planting practices, 23% changed pruning practices, and 30% (n=4) are attracting pollinators or wildlife to their garden. Viewers watched almost 34 hours of "In the Garden", with 2,361 watching at least 3 seconds, 1,207 watching 10 seconds, and 452 watching one minute. The Facebook Live program "In the Garden" resulted in viewers creating change in their gardens.

### Using Virtual Tours to Reach Extension Audiences Silvasy, T., and Roberts, J.W., UF/IFAS Extension Orange County

**Background:** The UF/IFAS Orange County Extension office has four acres of demonstration gardens with over 200 plant species. Garden tours are a valuable teaching method to allow people to see people, plants and places in person. When in person events are not an available option, virtual tours were created as an alternate method to provide impactful programming. **Objectives/Purpose:** The objectives of the virtual tours were to 1) increase awareness of UF/IFAS facilities, and 2) to educate viewers about Florida-Friendly plant species. In 2020-2021, five virtual tours were offered in place of in person tours due to COVID-19 pandemic restrictions. Virtual tours were created of the FNGLA Flower Trial at the Orange 76

County Extension gardens and the Mid-Florida Research and Education Center's hemp research trials. Virtual tours prerecorded and shown in place of in-person tours scheduled at the American Society of Horticultural Sciences annual conference. A virtual tour of the pollinator garden was created for Ventura Elementary students for Earth Day. A virtual wildflower field day was created for those unable to attend the in-person event. A virtual tour was also offered live on zoom to the University of Tennessee master gardener program. Tours were either recorded and saved and are available for viewing again. **Conclusions:** The virtual tours reached

approximately 1,536 people. Ventura Elementary students (n=213) were surveyed by show of hands and 92% reported increased knowledge of plant names. Virtual wildflower field day respondents (n=78) indicated 94% are likely to plant wildflowers after attending the virtual tour. Virtual tours are an engaging way to reach people of all ages from all over the world and show them what we do and encourage adoption of new practices.

#### **Creating Belonging in a Virtual 4-H Program**

Souers, M., UF/IFAS Extension Orange County

Objective: The 4-H Essential Elements of Belonging, Mastery, Independence and Generosity are central to helping young people thrive (Kress 2004). During 2020, it was particularly important to support belonging for isolated youth. The objective was for at least 50% of youth participating in virtual 4-H camps to report experiencing "belonging" as measured by daily attendance, camper engagement and post-camp parent surveys. Methods: Two, five-day county-level summer camps were delivered through Zoom. Due to the virtual nature, daily program time was reduced to two and a half hours. A box of materials was mailed in advance to ensure youth could follow-along and ask questions while learning. Each day started by welcoming campers and engaging in an ice breaker that would allow youth to share their thoughts with no right or wrong responses. Campers were encouraged by name throughout the camps to support individual value as a member of the group. The days ended with games and polls to allow every youth to actively engage. Results: Thirty youth ages 9-12 participated in the two camps combined. Attendance was between 95-100% daily indicating a high-level of engagement and connection. At the end of both weeks, youth expressed disappointment that camp was ending. A parent survey (n=19) asked if their child experienced belonging, being valued and connectedness of which 63% to 68% of parents checked boxes for these indicators. Sample comment: "Felt valued and would do other camps in a heartbeat." Conclusions: Through intentional practices, online programming can successfully support youth sense of belonging.

#### Meeting Community Needs Through a 4-H Family Sewing Project Sprain, J., UF/IFAS Extension Osceola County, Stump, K., UF/IFAS Extension Osceola County

**Background**: 4-H has a long history of members and volunteers stepping up in times of need to serve their communities. We have been living in one of these times. In many COVID-19 units, along with others, medical personnel have been required to cover their heads/hair. The best way to do this is by wearing a surgical scrub cap. Many hospitals were running out of disposable.

scrub caps and many healthcare professionals did not own one. Objective/Purpose: This project was created to provide all members in a family with an opportunity to help their communities by teaching them how to create surgical caps with buttons to donate to the healthcare industry. Methods: A set of instructions, along with a how-to video were created to guide participants through making the surgical caps with buttons. The instructions included a project key to help identify which parts of the project were appropriate for different age groups within a family. Families were encouraged to use their own materials; however, if they were missing materials, they could request sewing kits. Conclusion: As a result of this project, 25 families from all over Central Florida, created and donated 250 surgical caps with buttons to healthcare professionals in need. Many families who participated in this project were not involved in 4-H. Five of these families joined their local 4-H programs after participating in the project. In addition, every healthcare worker who received a surgical cap was shown appreciation by 4-H families and the 4-H program. 4-H has always stepped up to serve their communities in times of need. This is still true today. This project has shown the power of what 4-H can do to alleviate community needs. More family-based projects will be developed in the future as community needs change.

# Range Expansion of the Invasive Mexican Rice Borer (Lepidoptera: Crambidae) in Central Florida

VanWeelden, M., UF/IFAS Extension Palm Beach County, Beuzelin, J., UF/IFAS Everglades REC, and Swanson, S., UF/IFAS Extension Hendry County

The Mexican rice borer, Eoreuma loftini (Lepidoptera: Crambidae), is a serious pest of sugarcane and rice in the Texas and Louisiana Gulf Coast region, and was first detected in Central Florida in 2012. Objective: Pheromone-trap assisted scouting was conducted in 2019 and 2020 to determine the range expansion of *E. loftini* throughout Central Florida in order to monitor the pest's movement toward Florida's sugarcane and rice production region located in the Everglades Agricultural Area (EAA). Methods: In both 2019 and 2020, plastic bucket traps baited with the E. loftini sex pheromone were distributed across eight counties in Central Florida to determine the pest's current geographic range. Traps were placed adjacent to areas containing graminaceous, non-crop host plants, and were checked bi-weekly from May through September of each year. Specimens collected in traps were submitted to FDACS-DPI for positive identification. **Results:** *E. loftini* specimens were collected from traps in five of eight counties, including Lake, Citrus, Sumter, Marion, and Levy Counties. Using the pest's southernmost detected position from 2013, proactive monitoring efforts from 2019-2020 have determined that the pest's range has moved 25.7 km (3.7 km/year) southward towards Florida's sugarcane and rice production region within the EAA. Conclusions: Results from this study have determined that the invasive E. loftini is slowly moving towards Florida's sugarcane and rice production region. This information will allow sugarcane and rice growers to alter crop management practices to prepare for the arrival of this pest into the EAA.

# Evaluating Skills Learned in a Virtual Learning Environment Through Direct Observation Vinson, A., UF/IFAS Extension Manatee County

Many benefits exist to the delivery of extension programs via a virtual learning environment; however, it can be difficult to evaluate success. Many extension programs aim to encourage the application of skills learned. Objective: In order to effectively evaluate skills learned during virtually delivered extension programs, a method was needed to engage participants in interactive activities, which allowed them to demonstrate those skills. Methods: Using Microsoft Forms, Google Jamboard and Zoom polling, participants in virtual extension programming were engaged in interactive learning and applied learned skills during and after the learning activity. Participants were asked to draw, identify and categorize parts of plants using Google Jamboard, identify locally certified arborists and trees appropriate for their climate zone using Microsoft Forms and identify which branches to remove for appropriate pruning of shrubs using Zoom polling among others. Results: Of the total number of attendees to virtual learning events where these methods were utilized (87) 63 of those (72%) exhibited at least one of the skills identified above. Conclusions: In contrast to pre/post survey data, direct observation tools can be used in the virtual learning environment to evaluate not only knowledge gained but also application of skills learned. These evaluative methods provide a more robust understanding of program success while also providing participants with an interactive learning experience.

# Increasing the Impact of Florida-Friendly Landscaping<sup>™</sup> in a Rapidly Growing County Vreeland, M., UF/IFAS Extension Flagler County

**Background:** Since the Florida-Friendly Landscaping<sup>™</sup> Program (FFL) was developed over twenty years ago, only a few single-family homes have received FFL Recognition in Flagler County. **Objective/Purpose:** The objective of the FFL Yard Advisor Program at UF/IFAS Extension Flagler County is to expand the application of FFL practices by Flagler County residents, with emphasis on reducing irrigation water consumption, preventing nutrient run-off, increasing the diversity of native and appropriate non-native plants, and removing invasive species from their properties. **Method:** After sixteen Master Gardeners (MGs) completed FFL Yard Advisor training in early 2021, they gained experience in the field, with guidance from the MG Coordinator, by inspecting each other's gardens, developing comprehensive summary reports, and obtaining FFL recognition for improving their own

gardens. The MG gardens were distributed throughout Flagler County's suburban sectors for increased visibility. Once the Master Gardeners obtained Silver or Gold recognition for their garden improvements, signs were placed in a noticeable location near the street. By attracting visual attention, they were then able to distribute brochures about

the FFL Recognition Program to friends and neighbors interested in learning more about the benefits of adopting FFL practices. **Conclusion:** Creating a strong team of knowledgeable Yard Advisors, who communicate well and understand the importance of providing good visual examples of a Florida-Friendly Landscape<sup>™</sup>, has helped to fuel the adoption of FFL practices in Flagler County's quickly growing suburban sectors. Due to the MG Yard Advisor collaborative efforts, seven homes received Silver recognition and three received Gold recognition in a six-

month period. By end of 2021, the total number of recognized homes is expected to double. At least six before-and-after photos of each home were selected as photo stock for potential use as educational tools by FFL agents and specialists.

### EVENTS: A Platform for Extension Program Management, Event Registration, and Success! Waters, K., UF/IFAS Extension Holmes County, Dillard. J.P., UF/IFAS Extension Washington County, McConnell. J., Horticulture Agent, UF/IFAS Extension Bay County, Wells, J., Northwest, District IT, UF/IFAS Extension Northwest District and Vergot, P., Northwest District Director, UF/IFAS Extension Northwest District

Background: EVENTS, https://events.ifas.ufl.edu/, is a newly development software platform to be implemented and provide Extension clientele a central location for all Extension programs and activities. Events replaces the need for all current software (like Eventbrite) on a state-wide level for UF/IFAS Extension. Objectives: "Events" software will 1) be used as a registration system for all Extension events, activities, and programs (internal and external), 2) be the single platform to collect and manage program enhancement funds, 3) manage clientele contacts, certifications, and credentials, and 4) provide Extension faculty with direct collection of data into Workload. Methods: The EVENTS software was developed to be a multifunctional tool that will allow Extension faculty and staff to effectively manage event registrations, including accepting payments of any kind and managing of all funding including refunds and deposits into county 182 accounts. Events also provides for complete communications between the instructor and clientele along with integration of all IFAS databases including automatically reporting to Workload. Results: EVENTS will be launched statewide in fall, 2021 and will provide an enhanced statewide experience for Extension. clientele and all Extension faculty. **Conclusion:** EVENTS is a superior tool that will assist Extension faculty across UF/IFSA Extension in day-to-day operations, decrease the cost of collecting revenue enhancement funds, manage all accounting procedures, and provide for a central location for all Event and Activities data.

#### Improving Wildlife Habitats on Golf Course Out-of-Play Areas for Enhanced System Sustainability Wells, B., UF/IFAS Extension Brevard County

Situation: Golf course management combines well-mowed turf, trees and abundant natural areas that provide an environment attractive to wildlife. Wildflower establishments have shown to increase pollinator and beneficial insect populations for pest management. Florida's high densities of golf courses can create a network of connecting natural patches that provide a haven for wildlife affected by urban sprawl. Superintendents can receive certification for wildlife conservation efforts through Audubon International and charge higher greens fees than those without certification. Golf courses can improve their sustainability by implementing wildlife habitat enhancements in out-of-play areas, landscaping with native trees and vegetation, encouraging wetland areas and minimizing chemical applications. **Objective:** Realizing the need for wildlife conservation and the opportunity for golf course superintendents, I created a program to improve the sustainability of golf courses through wildlife conservation. **Methods:** To date, I have delivered 80

five presentations and one workshop on the topic, reaching 243 turf managers. I assisted several superintendents with pollinator and blue-bird habitat enhancement projects and littoral zone plant modification projects on their golf course ponds. **Results:** Post-class self-reflective Likert survey results (n=199) indicated 91% of attendees reported a knowledge increase while 82% reported they intended to adopt at least one of the wildlife

habitat enhancement strategies presented. Three Brevard County golf courses received Audubon International certification for their conservation efforts in 2020-2021 after completing wildlife habitat enhancement projects led by the Extension agent. **Conclusion:** This program is ongoing and highly adaptable to other counties, which would increase the wildlife corridors across the state.

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