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If you have any suggestions or would like to submit your own recognition or short article of interest, please send them to Valkyrie Shah.

Please feel free to also forward any questions or comments about this periodical to Valkyrie Shah at valkyrieshah@ufl.edu.

UF/IFAS Extension
Comings & Goings

FROM THE OFFICE OF THE DEAN FOR EXTENSION



BOB HOCHMUTH IS FARM BUREAU'S EXTENSION PROFESSIONAL OF THE YEAR

By Jack Payne | jackpayne@ufl.edu | @JackPayneIFAS



Sometimes I wonder if Bob Hochmuth is secretly on the Farm Bureau's payroll. He is relentless in asking me for resources he can put to use for growers. He throws one

of the biggest Farm Bureau bashes of the year with Suwannee CARES. He's at seemingly every Suwannee County Farm Bureau function.

Now I have evidence that Hochmuth is on the take: He's getting \$500 from the Farm Bureau. I plan to confront him when he gets handed the check in plain sight at this month's Florida Farm Bureau annual meeting at Ponte Vedra Beach.

And I'll give him congratulations of my own.

The \$500 is nice, but (anyone who knows Bob will know I'm not speaking out of

turn here) the public recognition from the Florida Farm Bureau is worth much more to him than the cash. The Farm Bureau will be honoring Bob as its first ever Extension Professional of the Year.

Florida Farm Bureau came up with the idea for the award after considering what President John Hoblick and UF/IFAS Extension Dean Nick Place heard at last year's listening sessions. They heard a lot, but what inspired the creation of the award were the testimonials from farmers about the great relationships they had with their local agents.

The Farm Bureau plans to put a spotlight on one of those relationships every year. The award, coordinated by Kevin Morgan, assistant to the president, gives county Farm Bureau chapters a way to recognize people who contribute to the success of production agriculture and who form strong partnerships with their local Farm Bureau.

Part of what makes Bob's award extra meaningful is that there are many who are

worthy of it. The other nominees are an All-Star Extension lineup: Karen Stauderman (Volusia), Vanessa Campoverde (Miami-Dade), Celeste White (Orange), Jennifer Bearden (Okaloosa), James Fletcher (Osceola), Bradley Burbaugh (Clay), Nicole Walker (Polk), Laurie Hurner (Highlands), Libbie Johnson (Escambia), Jonael Bosques (Hardee), Jena Gilmore (Walton) and Gene McAvoy (Hendry/Glades).

Suwannee County Farm Bureau President Randall Dasher and his daughter Sarah Carte made a great case for Bob. They cited his work bringing technology to the Suwannee Valley Agricultural Extension Center to give farmers a better understanding of irrigation and nutrition efficiency.

“Bob and Florida Farm Bureau’s mission aligns perfectly as they both lead to providing opportunities for financial success as well as improving the environment for rural communities,” they wrote in their nomination.

Just as important, they highlighted Bob’s personal qualities: Great listener. Comfortable talking to farmer and R&D expert alike. Always follows up. Works hard for the success of youth ag days, farm-city week and annual meetings.

The Suwannee County Farm Bureau gets \$500 for nominating the award winner.

Bob’s been at this for a long time. He can drop names of Farm Bureau legends like George Poucher and Dan Buchanan. This is a bit like a lifetime achievement award that recognizes decades of service. It’s meaningful, he says, because it comes from the people he serves.

When someone tells me an Extension agent is doing a good job, that’s music to my ears. When it’s Randall Dasher, Sarah Carte and Kevin Morgan telling me, it’s a symphony. I’m looking forward to hearing more of it in the years to come.

MEET YOUR SPECIALIST

Marcello Wallau, Assistant Professor | Agronomy Department, Forages

I am Marcelo Wallau, the new forages Extension specialist in the agronomy department, recently arrived from Brazil. I grew up in the Pampas grasslands (the Gaucho people), on our family ranch, herding cattle from early ages and learning the practical aspects of cattle and pasture production. Afterwards, in school (BS and MS in Agronomy, PhD in Animal Sciences) I was able to fit a theoretical framework to that practical background, further improving it with experiences in Texas (Texas Tech), Florida (UF) and California (UC Davis). In those five years, I was able to visit many production systems, learning from ranchers many aspects of the American cattle industry in the main producing states; and from researchers, the scientific aspects that make the US one of the most efficient countries in animal production. But there is always room for improvement, especially with new emerging needs and increasing costs. I hope I can be of great value for you, being able to interact closely and help out producers to achieve their goals and expectations.

It is a great honor for me joining the Gator Nation, especially now for being able to serve this great state and its agriculture as Extension faculty.

Some personal notes: As I grew up on a ranch, I really enjoy being out on the farm, working cattle, riding horses and doing other farm work. It’s a second nature for me, a lifestyle. Besides that, I really enjoy cooking and playing the guitar, which means I always have friends over for cookouts. And, surely, nothing like a good, sure-footed, well-fed horse and a good, tight handshake from a friend. Those are values country people learn from early ages.

Tara Wade, Assistant Professor | Southwest Florida REC – Immokalee Agricultural Resource Economics

Tara Wade specializes in determining the economic factors that affect choices to adopt environmentally benign agricultural practices. Dr. Wade’s research interests include costs of ecosystem services, conservation policy design and climate change adaptation. Her Extension and research programs focus on helping farmers to reach their conservation goals in economically efficient ways.

Before coming to SWREC Tara was a postdoctoral research associate with North Carolina A&T State University and the USDA, Economic Research Service. There she specialized in the economic factors that affect farmers’ choices to adopt conservation practices.

Dr. Wade received a master’s in mathematics and a Ph.D. in energy and environmental systems and Economics from North Carolina A&T State University. Her graduate work dealt with estimating the cost of conservation tillage adoption by corn and soybean farmers.



MODERNIZING THE PESTICIDE EXAM PROCESS

Erin Harlow, Commercial Horticulture EA II, Duval County

Fred Fishel, Professor in Agronomy and Director of the UF Pesticide Information Office, UF Main Campus

Administering pesticide exams is part of the daily responsibilities of many Extension agents. A license or certificate to legally handle pesticides is an employment contingency for thousands of Floridians and is estimated to generate more than \$2.5 billion for the state's economy. In 2011, Pesticide Information Office (PIO) director Dr. Fred Fishel received a grant to modernize the exam process to improve the experience for both clientele and administrators. Since then, UF's Pesticide Information Office has provided around 200 computers to exam administrators in the state. With 7,350 pesticide exams provided by UF administrators in 2016 (Florida Department of Agriculture and Consumer Services), the move to modernizing the exam process has been no easy task.

To assist in the transition, the Pesticide Exam Reporting Working Group was formed by Dr. Saqib Mukhtar in 2016 to help revamp the reporting system. Team members include Erin Harlow (Chair), Julie McConnell (secretary), Frank Dowdle, Fred Fishel, Tamara James (FDACS), Carol Kavalan (IT) and Christy Huntley. The team has made several changes to the reporting system that are outlined below. Since 2016, ten in-service trainings have been provided around the state, updates have been provided at EPAF and the Extension Symposium and provided through the Pesticide Exam Administrator listserv. But in case you missed them here they are again, plus a few new updates:

- **Everyone needs a voucher number:** All examinees that are given pesticide exams, either on the computer or by paper, should have a voucher number prior to taking their exam. This can be done before the examinee comes to the office or during check-in. Many will do it on their phones. If they don't have an email or computer, you can log them in on exam day under your credentials. Voucher numbers replace the Notification of Exam Result forms that were traditionally given to clients when they took a paper exam. Now the application is on the computer instead of paper. This reduces chances for data entry error and speeds up the time that the examinee can receive results.
- **Signing in an examinee on exam day:** Both paper and computer exams have to be activated the day of the exam on the pesticide exam website (<https://pesticideexam.ifas.ufl.edu>). A voucher number is needed to activate the exam along with the applicant's last name. If you are using the scheduling feature you can download the report for your exam day and everyone is listed for you. To learn how to activate an exam, visit the training videos on the PIO website or the FAQs on the pesticide exam website. Activation must happen immediately before a computer exam and the same day for a paper exam.

- **Paper and computer scheduling feature:** An office can now use the scheduling feature for computer, paper, or both exams. When setting up your schedule, you have the choice of whether you have computer or paper seats available and how many for each.
- **Reporting features:** Requiring a voucher number to take an exam makes quarterly reporting easy for an office. Just download your exams given for the quarter needed and copy and paste into the form from the Dean's Office.
- **Exams restart feature:** If you are giving computer exams and were worried about a computer dying in the middle of an exam, worry no more! An examinee can now access their exam from another pesticide computer and begin where they left off.
- **Administrator training:** To provide a consistent testing experience throughout the state, administrators need to be aware of and follow Standard Operating Procedures (SOPs) put forth by the PIO. Each exam administrator will be asked to complete an annual quiz based on the SOPs to maintain their administrator status. The SOPs are provided to you and a score of 100% will be required. You can take the quiz as many times as you need. It is meant to make sure that everyone is aware of exam site expectations and procedures.
- **New resources for administrators:** We are excited to introduce several new resources that have been created for administrators and examinees. We are constantly updating these based on your feedback, so if you don't see something that you need, please let the PIO or working group know.
 - » New one-stop website - For more information on these new processes, visit the Pesticide Information Office website at <http://pested.ifas.ufl.edu>. To access the pesticide administrator page, scroll to the bottom. It has helpful handouts, forms, training videos, and FAQs.
 - » Handouts for getting a voucher number, paying for an LCLM with a check, and more - There are handouts available for your office lobbies and classes that explain how to get a voucher number and more. Find them on the PIO website under the administrator tab at the bottom.
 - » Training Videos - Short 2- to 5-minute training videos on using the exam pesticide website, reporting, and other questions are available on the PIO website. These are especially helpful for new administrators, admins using the system for the first time, or county staff that are unable to attend in-service trainings.
 - » FAQs - The FAQs are located on the pesticide exam website at <https://pesticideexam.ifas.ufl.edu>. They are extremely helpful and would be a good companion to the training videos. Consider printing these out for staff or new administrators.

USING DRONES IN EXTENSION PROGRAMS

Jim Fletcher, Water Resources RSA IV, Central District

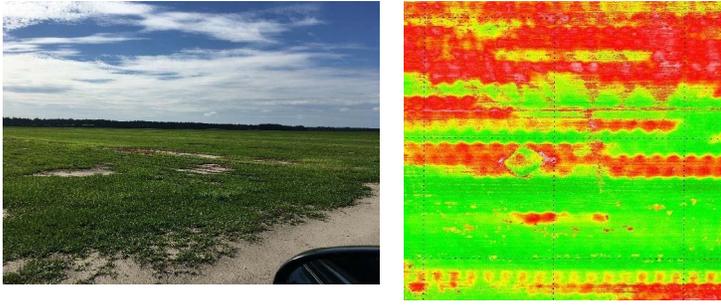


Figure 1: Post emergence weed application: visual image (l); multispectral image (r).

Drones, or sUAS (small unmanned aircraft systems) — it's the new buzzword in agriculture. Drones can help survey crops and provide useful details about plant health and growth characteristics. At UF/IFAS we are working to develop algorithms for irrigation management, nutrient demand, and many other areas. Currently, we are working with sod producers to develop baseline maps using multispectral sensors to identify plant health by looking at image coloring, better known as normalized differential vegetative index or NDVI.

However, first we need to understand the requirements of using drones at UF. In August 2016, FAA released new rules about the use of drones for commercial use. These rules apply to drones weighing more than 0.55 lbs and less than 55 lbs. Among other things, requirements include passing an exam to receive your remote pilot airman certificate. UF requires faculty members using drones in their work to have this certificate. Contact David Eyerly at 352-392-1591 or visit <http://www.ehs.ufl.edu/programs/rm/uas/uas-operations/> for more information. There are many resources available to you to help pass the exam. Start with visiting FAA's website at https://www.faa.gov/uas/getting_started/. Feel free to contact me for additional resources to help prepare you for the exam.

There are many different types of drones to choose from, including quadcopters, hexacopters and fixed wing craft. The more important and expensive item is the sensor or camera. Some of the more common sensors for use in your Extension program include visual, multispectral, and thermal. A visual sensor is basically a camera not much different than the camera on your cell phone. Visual and multispectral cameras have very high resolution, producing images that are 4K or 3840x2160 pixels. Multispectral sensors can produce NDVI images used to quantify the photosynthetic capacity in a plant by looking at the amount of green in the image. The



Figure 2: Herbicide trial: visual sensor (l) showing control (1) and treatment (2); NDVI sensor shows photosynthetic activity (1), moderate activity (2) and low or no activity (3).

image produced provides information the human eye cannot see. Multispectral imaging uses bandwidth between 450 and 700 nm.

Thermal imaging can be used to detect plant water stress and irrigation management. Resolution is not as good as the visual sensor (e.g. 640 x 512 pixels). Thermal imaging uses bandwidth from 9000 to 14000 nm. It operates by converting infrared radiation (IR) into a visual image that shows temperature variations in a plant. These plant temperature variations correlate to water stress in the plant.

How am I using this new technology in my program? Seen below are visual and multispectral images in a sod field showing damage due to a post-emergence weed application in St. Augustine grass.

Looking closely at the visual picture on the left, we can see the yellowing effects on the grass (figure 1, left). Using a multispectral sensor, the image produced shows the details of damage much better in yellow and red (figure 1, right).

The next two pictures are a project in Immokalee looking at efficacy of herbicide treatments in cucumber. The visual sensor in figure 2 (left) shows the field with markers for control (green) and a treatment (brown). The multispectral sensor in figure 2, right, gives a clearer picture about the efficacy of the treatments. The control green indicates photosynthetic activity, yellow indicates moderate photosynthetic activity, and red indicates low or no photosynthetic activity.

Currently, the data produced by sensors has not been quantified. However, we have developed a cohort from ABE, Hort, and Extension to develop algorithms for both multispectral and thermal imaging in an effort to quantify results and make recommendations for both fertilizer and water applications. The work has just begun and we hope to have initial results over the next two years. Please contact me if you are interested in more information (jhfr@ufl.edu).

WHAT'S COOKING IN 4-H HEALTHY LIVING?

Vanessa Spero-Swingle, 4-H RSA II, Southeast District

Aaron joined 4-H three years ago as a camper in the 4-H GOAL (Great Opportunities for Achieving Leadership) summer camp in Osceola County. The camp focused on healthy living by using soccer as an incentive to get physically active, learn how to eat healthier, and find an outlet for stress to ensure mental health. The next year Aaron approached the agent and asked if he could lead the summer camp. An independent, responsible, goal-oriented, and sometimes shy young man, Aaron was excited about the opportunity to serve as a mentor to younger youth. Through Teen Ambassador training, Aaron became a Healthy Living Teen Ambassador/Advocate in Osceola and learned the skills he would need to be a successful educator to younger youth as well as his peers.

Now in his third year, Aaron has participated in summer camps, health fairs, 4-H University, and the National 4-H Healthy Living Summit. After his first trip to the 4-H National Conference Center, Aaron returned excited, invigorated, and ready to plan for the summer. He looked forward to offering more healthy living summer camps and infusing some new things he learned from the summit into his summer programming.

As an active teen who enjoys teaching others what he has learned to keep himself healthy. Aaron is the face of what 4-H Healthy Living (HL) looks like in Florida.

One of the fundamental components of many of the healthy living programs across the state is the use of Teen Ambassadors to help deliver the message, thereby providing leadership activities for youth in their communities.

4-H National Council offered multiple HL grants this past year and 4-H was able to secure close to \$200,000 in funding from notable corporate sponsors such as UnitedHealthCare (Food Smart Families Grant), the Walmart Foundation (Nutrition Education Grant) and Target (Wellness 360 Grant). Eight counties are specifically being targeted for these grants (Miami-Dade, Duval, Alachua, Manatee, Seminole, Taylor, Brevard, and Osceola) with opportunities for youth to participate in statewide workshops at 4-H University and agents to participate in statewide trainings held throughout the year.

Each grant requires a minimum number of youth participation hours and Teen Ambassadors are a major component. The model has been successful in offering youth opportunities to teach HL in a way that inspires them. They can choose from a wealth of programs including soccer camp, cooking camps, farmer's market field trips, mindfulness, cross-fit, gardening and more.

But 4-H can't do it alone! Working in collaboration with FCS, FNP and EFNEP is essential to reach diverse audiences and use resources wisely. The partnerships allow Extension to benefit as a whole while sharing successes and troubleshooting the increasing demand to reach families more effectively.

Is this model working? As a result of participating in a HL program from 2015-2017 (n=1,757), youth reported that 94% learned what foods to eat every day, 88% learned what makes up a balanced diet, and 93% learned why it was important to eat a healthy diet. More importantly: 91% learned how to make healthy food choices, 74% ate more fruit and vegetables, 78% ate more whole grains, 60% ate less junk food, 87% drank more water, and 62% encouraged their family to eat meals together.

Through 4-H programs such as afterschool clubs, teen ambassador/advocate training and opportunities for youth to share what they have learned with their families, 4-H takes a multidimensional, targeted approach to youth development. Cultural, social and economic barriers are considered and addressed to create an effective program. By utilizing local resources at each site, the probability of success and positive impacts has been even more attainable.

Are we having successes? We sure are! Just ask Aaron.

INCREASE IN ALACHUA COUNTY 4-H PROGRAMMING BUDGET

Cindy Sanders, Livestock CED III, Alachua County

After a new Alachua County manager started in 2015, UF/IFAS Extension was made a standalone department in the county. Through the continued education of Extension to our county administration, we have been afforded a full-time, county-funded 4-H program coordinator position. This position will work with afterschool programming and the underserved areas of the county to promote 4-H Healthy Living and Lifestyles. This results in a \$45,000 increase in FY 2018 county budget.

In addition, Alachua County is serving as a pilot program for the 4-H Life Ready program. Through this program, Alachua County Extension was able to hire an OPS position. This program assistant will visit two at-risk schools 2 days per week and deliver a class to 15-20 youth at each school. The program will begin with a healthy living project, then evolve into other 4-H projects based on youth's interests. 4-H has curriculum in every subject from astronomy to zoology. These projects are used as "bait" to reel in interest, but are infused with learn-by-doing activities and life skills. There would be incentives in place along with capstone opportunities for sharing or learning more, such as participating in the Alachua County Youth Fair or summer camps (day camps, residential camps and 4-H leadership camps). We will be pulling in university and county Extension experts to facilitate research-based education and evaluation. Through the program, an effort will be put in to connect other ongoing programs to these schools, including but are not limited to Master Gardener, the Food and Nutrition Program and 21st Century.

EXTENSION INFORMATION: JUST THE FACTS

Carolyn Saft, Horticulture EA II, Suwannee County

There are many myths and much misinformation about landscape maintenance. Many people are overwhelmed by the enormous amount of information that can be obtained by talking to friends, neighbors or searching the web. A gentleman named Ron was totally confused by the gardening information he found on the internet and was unsure as to what information he should follow. A neighbor referred him to our UF/IFAS Extension office in Suwannee County. On his first visit to us, he wanted to get several plants from his property identified. Satisfied with the service he received, he came back with insects he found on his camellia. Information was shared about Florida Friendly Landscaping™ and the importance of air circulation to keep the foliage drier and reduce the potential for scale insects. He also learned about the benefits of low-volume irrigation and was encouraged to install it in his plant beds and vegetable garden. On another visit, he shared that his plants were doing much better since he changed his irrigation practices.

By the time he was ready to replace his lawn, our office had become a trusted source of information. While waiting for soil test results, Ron read through EDIS publications and became interested in centipedegrass. After the results came back, we discussed that his soil pH was too high for a centipedegrass lawn to thrive. Ron said that we helped him save about \$2,000 by planting the right lawn; he continues to use our service and refers us to his friends and neighbors. He admits he is not one to attend a lot of classes so he is appreciative that he is able to come to our office with landscaping issues and get his questions answered in a timely manner. He told the agent, “My tax dollars are being put to good use when I come here because I am getting information that has been researched.” He also shared that his wife was happy because their grandkids had a nice area to play when they came to visit. “When my wife is happy, I am happy”, Ron said. Whether our clients attend a field day, workshops or a one-on-one meeting, UF/IFAS Extension agents deliver research-based solutions – just the facts, not myths.

THE 4-H HORSE PROGRAM: MORE THAN HORSE SHOWS

Stephanie Conner, 4-H YD EA II, Clay County

Horse shows are great for giving youth an opportunity to showcase their skills and compete, but should they be the main focus of our horse program? The Clay County 4-H Horse Program has hosted multiple horse shows over the years, and similar to most counties, our 4-H shows were competing with money shows and the economy. With these variables and more, the Clay County 4-H Horse Program Committee took a hard look at the mission of the committee, the program and the situation as a whole. As a result they noted declining attendance, stagnant volunteer support, barely breaking

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HOLMES COUNTY HOSTS FARM SHARE 2017

Kalyn Waters, Agriculture CED II, Holmes County



Nearly 16,000 pounds of household goods and groceries were divided up and bagged to be handed out to residents.

It is no secret that poverty has a strong grip on the lives of many Holmes County residents. According to the last census, 22.6% of the population lived below the poverty level – that’s 8% above the national average. Many residents living in poverty struggle to provide basic household essentials to their families on a day-to-day basis.

In an effort to combat hunger in the county, Kalyn Waters, UF/IFAS Holmes County Extension Director and Judy Corbus, UF/IFAS Holmes County FCS Agent, partnered with volunteer and Holmes County resident Clifton Cruze to bring Farm Share to Bonifay, FL. On July 15th at the Holmes County Agricultural Center, 32 volunteers gathered at seven in the morning to begin sorting and bagging more than 16,000 pounds of food to be distributed to residents. By noon, 425 households had participated in the program, representing nearly 1,000 residents of the county.

Farm Share is a charitable organization that uses inmate labor and volunteers to re-sort and package an abundance of surplus foods that are culled from the food industry, typically for cosmetic flaws. According to the Farm Share website (<http://farmshare.org>), “Farm Share distributes more than 6 million household food packages — totaling 40 million pounds of food – each year to Florida families in need. More than 15 million pounds of fresh and nutritious fruits and vegetables are trucked each year to participating community groups throughout Florida.”

Not only did the residents receive valuable groceries, but also educational materials. Panhandle Produce Pointers factsheets and recipe cards were distributed with the food items to provide consumers with nutrition education and storage and preparation information. The factsheets and recipe cards were developed as a part of the multi-county FDACS Specialty Crop Block Grant Connecting Specialty Crop Producers with Consumers: Maximizing Resource Development and Maximizing Production Practices.



Educational lesson with Dr. Bess Darrow (Veterinarian Equine Dentistry). Youth were able to explore a mobile dentistry trailer, tools and skulls.

even (if not losing money), participants not interacting with each other, a rise in “barn wars”, and participants leaving rings/shows unclear on strengths or weaknesses.

These results gave the advisory team and the knowledge that they also

were not promoting the program committee’s mission prompted the agent and team to shift the focus of horse show structures and how they could be made educational. The new format would be one that promoted purposeful education; self-confidence and self-efficacy; communication between peers, professionals, and parents; positive relationships; skills development; core volunteer support; community partnerships; and program enhancement. The result was a two-day event that featured horseless Olympics, a 4-H family dinner, and seven different equine riding clinics. Participants worked with professionals to build their horse and personal knowledge and skills. Communication, speaking and listening was a big part of this event as participants had to engage with peers as well as the clinicians to successfully maneuver through all the clinics. At the close of the weekend, youth were provided with a goody bag that included educational materials, promotional materials, and donated products.

The new focus and event were a success.

- **55%** of participants indicated that they feel more confident engaging with judges, clinicians and fellow riders.
- **45%** increased knowledge of their horses’ strengths, weaknesses and abilities.
- **40%** increased their ability to interpret and read patterns.
- **55%** indicated they felt confident they could successfully verbalize thoughts and questions when seeking guidance with adults and professionals.
- **85%** reported they would participate in a similar activity again.

“This was fun and educational!”

- WWH youth participant, 2017

“I would change nothing. It was awesome.”

- WWH youth participant, 2017

“It was a great experience for kids, far exceeded my expectations.”

- WWH parent, 2017

FROM MENTEE TO MENTOR

Alicia Lamborn, Environmental Horticulture EA II, Baker County



Participants from the “make and take” pollinator workshop are seen here stuffing their bee nest boxes.

With only 11 active volunteers, the Baker County Master Gardener Program places a strong focus on mentoring for volunteer retention. In

addition to the horticulture agent, each new volunteer is assigned two mentors (a primary and secondary) to ensure their establishment within the group and improve comfort levels when developing and implementing programs and projects. For Ruth, one recent Master Gardener graduate, the mentoring program has allowed her to discover her passion and almost immediately blossom into a mentor in her own right for other seasoned volunteers, new volunteer mentees, and Extension clientele.

Ruth found her passion in native pollinators, initially working with the agent to develop a poster display as part of her Master Gardener training project. She then built several types of bee nest boxes and worked with her volunteer mentors to present the information during a community event. These experiences built her confidence, which then led to a co-authored brochure on the topic and hosting a large exhibit during the local Spring Garden Festival.

Ruth’s enthusiasm was contagious, and her mentors (now mentees) immediately caught the native pollinator “bug”, using her educational materials during the annual Ag Ventures event and county fair display. One of Ruth’s original mentors recently constructed a large “bee hotel,” which is now displayed in the Extension Office butterfly/pollinator garden. Ruth has also begun mentoring the newest Master Gardener trainees, one of whom built bee houses for a “make-and-take” pollinator workshop. The workshop identified native pollinators, discussed ways to protect pollinators and allowed 12 participants to create their own bee nest box by stuffing the provided house with a variety of supplied natural materials.

These types of workshops, displays, and educational materials would not have been possible without Ruth’s mentoring and drive to teach others about her new passion. Likewise, Ruth’s passion and success in the Master Gardener Program would not have been achieved without the existing mentoring program. This example of a mentee quickly becoming a mentor for other established mentors is a true testament to the value of a quality program.

A HOMEBUYER AT 19?! NOT SURPRISING FOR A 4-H'ER!

Lisa Hamilton, FCS EA I, Volusia County
Laura Cash, 4-H YD EA I, Volusia County



Ryan McGrath

Ryan McGrath started in the Barn Bratz 4-H club at age 11 because he wanted to show livestock. Now at the age of 19, Ryan has completed a series of courses to obtain a first-time homebuyer certificate needed to access down payment assistance in Volusia County. Classes are designed for low- to moderate-income residents seeking to buy a house. The highly successful

program exists because of UF/IFAS Extension, local realtors and lenders, in addition to the primary partners, the County of Volusia and City of Deltona.

Ryan's drive to succeed in 4-H livestock projects helped him develop the self-confidence and goal-setting skills he needed to buy a house. "The show ring taught me everything," he says. "It taught me patience and perseverance, enough to make it through eight hours of the homebuyer class and a search lasting 66 days, looking at 42 houses, and preparing 15 offers to get one house that is my little slice of heaven. I mow my lawn every five days and that is my favorite part. You can't succeed in anything without learning, and Extension is the only place I'd want to come. It is my home."

In her classes, Lisa Hamilton, the UF/IFAS Volusia County FCS agent, stresses how to increase credit scores, how to obtain the best financing for a home loan, and how to budget for

home ownership. As a youth, Ryan had to learn the terminology related to the raising of livestock; as a young adult, he's added interest rates, escrow, and closing costs to his vocabulary. Ryan's success illustrates how the different parts of Extension work together and complement each other. Over the years, thousands of 4-Hers in Volusia County have acquired the life skills they need to become productive, successful citizens in society, and over 600 participants of homebuyer education courses have been supplied with the resources they need to purchase a home. Ryan's ties to Extension do not end with the purchase of his home – he is giving back by sponsoring a 4-Her showing a pig for this year's fair. Ryan hopes to become an agricultural inspector for the USDA. He attributes his career interest and love of agriculture to the 4-H program.

Ryan's story is like that of thousands of others. They have grown up thinking of Extension as their home for learning.

4-H DEVELOPS WORKFORCE READINESS

Geralyn Sachs, 4-H YD EA III, St. Johns County



(Left to Right) Javier Bermeo, Miguel Bermeo, AJ Kulp and Calya Smith. Four of the five youth from St. Johns County who are National 4-H Award trip winners.

The St. Johns County 4-H Program has developed a successful two-prong workforce preparation program for youth, involving senior portfolios and summer day camp assistantships. The need for this effort was identified by 4-H youth who wanted to improve their written and verbal communication skills, specifically pertaining to the 4-H senior portfolio process,

and adult volunteers who wanted to improve the quality of camper/helper interactions at county-led summer day camps.

The first prong of this program is to mentor teenage youth in completing and submitting a Florida 4-H senior portfolio that earns a 90 or above according to the Florida standards of excellence criteria. The senior portfolio documents 4-H project goals, accomplishments, leadership and service. It also requires a narrative of one's 4-H experience and a professional resume. This year, St. Johns County was one of 29 counties that had youth submit senior portfolios to state. Of the 54 youth applicants statewide, eight were from St. Johns County, of which seven youth qualified for state-level interviews based on the excellence of their portfolios. In August, St. Johns County youth who submitted senior portfolios to the state were interviewed and awarded five national award trips and \$2,500 in college scholarships. Because of the efforts put toward this program, youth have gained the ability to communicate ideas effectively both verbally and in writing, earning them recognition and preparing them for the workforce.

The second prong is the development and implementation of a summer day camp assistantship program for youth 11 - 18, which provides an opportunity for youth to learn and

apply workforce readiness skills (responsibility, personal/ others safety, and communication) in helping adult day camp leaders. Youth who attended the summer day camp assistant training had the opportunity to assist with day camps held at the county office. The program required youth to complete an application of interest, take part in a three-hour training and commit to serving as a day-camp assistant. Eight youth took part in the training, of which seven made a commitment to assist with summer day camps. This year youth served a total of 367 hours assisting with summer day camps. Because of the efforts of this program, our youth assistants felt more

prepared and confident and had a better understanding of their responsibilities as a day camp assistant. After camp this summer, a leader who had challenges with her youth helpers last year, expressed her thankfulness for the training and had all but praise for her camp assistants, some of which she had helping her the previous year.

Taking part in the 4-H senior portfolio process and the summer day camp assistantship program are the types of experiences our youth need to develop marketable and productive skills for work and family life.

CALLING THE AIR POTATO PATROL

William Lester, Residential/Commercial Horticulture EA II, Hernando County



Air potato leaf beetle.

Florida is home to many exotic invasive organisms – everything from plants to insects, and even lizards and fish. One problem plant that residents frequently come across in Florida is *Dioscorea bulbifera*, or the air potato vine. In the past, herbicides and ‘air potato roundups’ were used to help slow its spread, but it seemed that the vines just came back stronger the next spring. In 2012, a leaf beetle native to SE Asia, *Lilioceris cheni*, was released for the first time in Florida as a biological

control agent. Release of the air potato leaf beetle did not occur until the species had been thoroughly tested to ensure it did not eat any vegetation other than the air potato vine. The beetle began to have a positive impact on the volume of air potato plants in many areas, but questions remain to be answered concerning the vine’s growth and distribution. Many residents across the state still do not know about this new biocontrol or how to use it as a part of an Integrated Pest Management (IPM) program.

To better educate Florida residents about this invasive vine and how to control it, a citizen science project, the Air Potato Patrol, was formed. This program was created by Dr. William Lester, UF/IFAS Extension in Hernando County and Dr. Chris Kerr, Florida Department of Agriculture and Consumer Services (FDACS). It was launched in early June of this year. The Air Potato Patrol website (<https://airpotatobeetle.com/>) includes several educational tutorials on how to properly identify the air potato vine along with some common look-alike plants, and the biology and identification of the air potato leaf beetle. Since launching the project, a blog has been added to the site for members to ask questions. Several more videos are being produced to answer participants’ most common queries. Occasional surveys will be sent asking the members to collect data on the plants and beetles on their property.

In the first month, almost 400 Florida residents have enrolled in the program, with almost 200 returning surveys with valuable data based on their location. The educational videos have received over 2,500 views, and news outlets from Florida to Texas have helped to promote the site. Participants will be surveyed this coming fall to determine how helpful and effective this information has been in their own personal battle with the exotic invasive air potato vine.

TEACHING AGRICULTURE THROUGH STEM

Yilin Zhuang, Community Resource Efficiency EA I, Marion County
Margaret Carden, 4-H YD EA I, Marion County
William Lester, Residential/ Commercial Horticulture EA II, Hernando County
Ashley Stewart, 4-H YD EA I, Marion County

Agriculture closely interacts with STEM disciplines, but this connection is not always reflected in youth education. Studies indicate that methods beyond simply delivering content are essential for STEM learning, and Extension programs can play a vital role in improving STEM achievement. Therefore, UF/IFAS Extension Marion County has collaborated with Hernando County to develop a one-day program to engage fourth grade students in agriculture through hands-on STEM activities. A team of UF/IFAS Extension agents from the Marion and Hernando counties, FAWN staff, local farmers, beekeepers, Master Gardener volunteers, and Florida Department of Agriculture and Consumer Services (FDACS) staff assist with providing instruction.

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HEAD START YOUNGSTERS LEARN ABOUT AG

Ed Thralls, Urban Horticulture EA III, Orange County



During the early summer months of 2016, UF/IFAS Extension Orange County Horticulture Agent Ed Thralls was invited to meet with members of the Orange County Head Start Program and the Nemours National Early Care and Education Learning Collaborative (EELC) to discuss how Extension might assist with a collaborative effort

Teaching Agriculture through STEM, continued

During the program, students attend an introductory session, together then rotate through nine stations every 15 minutes: garden design, soils, irrigation, weather, plant selection, garden recycling, bee basics, good bug/bad bug, and careers in agriculture. All the teaching materials and activities incorporate STEM concepts relevant to agriculture and meet the Florida Sunshine State Standards for fourth grade. This program has been implemented in Marion County from 2014 to 2017. A total of 1,521 students participated in last three years. More than 87% of the students (n=599) showed a knowledge gain of food systems and 70% improved the connection between STEM and agriculture. Teachers included many positive comments in their post event evaluation, including “excellent way to relate the concepts in the classroom to real life.” One teacher mentioned “I didn’t realize I would get information that could be useful for me in my own garden.” Several students indicated at the event they want to start a garden at home. The Marion County Public Schools Curriculum Specialist attended the event in 2015. She said she had received lots of good feedback from the teachers in 2014 and wanted to experience the event herself. Her impression was that “it’s an outstanding event.” The program was featured in the Ocala Star Banner Newspaper twice. This demonstrates the importance of relational and contextual understanding of STEM and benefits of connecting STEM education to Extension programs.

to help 3- to 4-year-old Head Start youngsters learn where their food comes from.

Head Start is a fifty-year-old federally funded USDA child care program created as part of the “war on poverty”. This program is designed to help youngsters overcome some of the disadvantages of poverty before they start formal schooling in kindergarten or first grade. The Orange County Head Start program currently has 20 sites with 99 classrooms and 1,538 students between the ages of 3 and 4 years old.

Starting in the fall of 2016, 20 Orange County Master Gardener volunteers agreed to provide vegetable garden educational guidance (counseling and mentoring) to the 20 Orange County Head Start sites. Additionally, the Orange County Master Gardener Advisory Committee agreed to provide \$1,000 from the proceeds of their Plant and Garden Festival as “Seed Scholarships” to purchase seeds for each Head Start site.

The Ferry Morse Seed Company (<http://www.plantationproducts.com/pages/cfHome.cfm>) provided vegetable and herb seeds to the Orange County Master Gardener program at a sizable discount. Master Gardener volunteers were provided with a set of basic vegetable gardening educational materials designed provide basic gardening education to the youngsters, their teachers, and hopefully the youngsters’ parents. This educational material included an 11-lesson course for Head Start youngsters, and an 8-lesson course for teachers and parents. Each course included handouts covering planning the garden, planting seeds and transplants, feeding plants with fertilizer and other nutrients, identifying beneficial and pest insects, maintaining the garden using Integrated Pest Management (IPM) techniques (no pesticides were permitted), weeding, watering appropriately and composting plant material.

Now entering the second year of the collaborative effort, the results of the first year were very encouraging:

- Increased the visibility of Master Gardener Program in Orange County.
- 85% sites (17 of 20) have a garden with vegetables growing each season.
- 93% youth (1,427 of 1,538) know where their food comes from.
- 170 Orange County Head Start staff and volunteers have participated in the garden program.

ORANGE COUNTY “FARM TO TABLE” YOUTH CAMP

Amy Vu, Urban Horticulture/MG Coordinator EA I, Orange County



Participants learning about “Parts of the Plant We Eat”.



A fun activity to identify different vegetables.

In previous years, the Orange County 4-H Garden Explorers Youth Camp has won national awards by teaching various subjects in horticulture. In 2017, the camp began focusing specifically on food systems (4-H Farm-to-Table) to teach participants where their food comes from. This five-day interdisciplinary camp catered to 20 children, ages 9-11. It’s a collaborative effort between UF/IFAS Orange County Master Gardeners and Master Food & Nutrition Volunteers; Extension agents LuAnn Duncan, Elver Pardo, Ed Thralls, Kelly Greer, J.K. Yarborough, Jana Griffin, Celeste White and Amy Vu; Family Nutrition Program Central District Farm-to-School and Community Coordinator Caitlyn Glattig; and County Extension Director Richard Tyson.

Some of the topics participants learned about included seed propagation, microgreens, pollinators, “The Story of Steak”, “Parts of a Plant We Eat”, “Fun with Fruits”, “Basics of Vegetable Gardening”, and herbs. Every day, the youth were involved in both an exercise and nutrition component. All activities were implemented as a chance to get outside, have fun, and get to know each other. During the nutrition component, the youth were encouraged to try new healthy vegetables and use healthy produce in many recipes. Reusable water bottles were used as a means to introduce the concept of reduce, reuse and recycle.

Education methods included hands-on demonstrations, educational games, discussion and presentations. Before dismissal each day, the youth participants had 15 minutes to reflect on what they had learned. A focus group followed the 15-minute reflection time for participants to share their thoughts. From the focus groups, 100% of the participants

had a better idea where their food comes from every day. When asked how to describe the camp in one word, many of the responses were “Introducing!”, “Tasty!”, “Awesome!”, “Delicious!”, “Super!”, “Knowledgeable!”, “Surprising!”, “Yummy!”. Every evening, photos were uploaded onto the 4-H Farm-to-Table Camp Facebook page to keep parents updated. Parents were e-mailed after the camp was over and the responses were positive. One parent stated, “My daughter was eager to go to the grocery store to buy healthier food. She is making better choices with her meals/snacks and is having fun trying new foods. As a result of this camp, she likes wraps with vegetables now”. Another parent responded with “My son had an amazing time and asked if I could sign him up for next year already. He also wanted to sign up for some clubs during the school year if there were any at this location. Thank

you so much for an amazing week of camp.” Not only did the youth attend camp, but they had the desire to become involved in other programs in UF/IFAS Extension. Some youth encouraged their parents, grandparents and friends to start taking our Residential Horticulture and Family Consumer Sciences classes, while others wanted to join a 4-H club. To this day, we still have grandparents and parents attending our classes and their children will stop by to say “hi”. A post-camp survey will be sent out before the end of the year. When asked if the camp should be held again in the future, 100% of the youth and their parents responded “Yes!”.



Youth in the garden after learning how to use microscopes to scout for pests.

4-H INTERNATIONAL EXCHANGE ORGANIZATION

Shane Michael, 4-H RSA, Central District



Shane Michael teaching the exchange students about animals they may encounter in Florida.

4-H is a global phenomenon, best expressed in the 4-H pledge of to better living “for my club, my community, my country and my world”. The opportunities for youth to explore the world through 4-H is somewhat limited. Through the advancements in technology, our world has become smaller and the ability to interact with others from the other side of the globe can be done by the push of a button.

However, the tolerance and openness of other cultures may not always be present. To increase this tolerance and openness through global citizenship programs.

In 2015, Florida 4-H opted to revive a summer youth exchange program in partnership with the States’ 4-H International Exchange organization. Over the past three summers, Florida 4-H families have hosted 46 youth from Japan and South Korea, as well as four adult chaperones. For about three and half weeks each summer, Florida 4-H families open their homes and their daily lives to an exchange youth. These youth are members of a language learning organization in their home countries and want to immerse themselves in American culture and language. Each exchange youth is paired with a host “sibling” who is of similar age and shared interests. During the summer, the exchange youth become part of the family, participating in every aspect of family life. In addition to experiencing American family life, exchange youth also take time to share their own culture by showing pictures

of their family, school life, and hobbies; some even cook their favorite meal for the host family.

Based on surveys of both host and exchange families, the youth have gained awareness and acceptance of other cultures. Many of the host siblings reported that they were surprised at how similar their interests are compared to the exchange students. Host parents reported that they were excited to see how quickly the youth bonded. Even with language and cultural barriers, families mentioned how laughter brought the youth together. Finally, the survey results showed that host siblings felt they developed a new awareness and tolerance of different cultures.

Plans for the 2018 summer exchange program are already underway. Japanese partner organizations are currently accepting applications to send more than 600 youth to the United States, and 12 of those youth will be lucky enough to spend their summer in Florida.

FABRIC FRENZY YOUTH DAY CAMP

Wendy Lynch, FCS EA II, Putnam County

Youth participating in “Fabric Frenzy”, Putnam County’s 4-H Life Skill Development day camp, learned the basics of sewing, and “sew” much more! The three-day camp was designed to follow the 4-H mission of “learn by doing” and emphasize the four H’s in the 4-H Clover: Head, Heart, Hands, and Health.

HEAD: Youth were responsible for learning sewing machine parts, tools and equipment. Three of the four projects required youth to read and follow a sewing pattern, utilizing planning and organization skills. Throughout the progression of each project, youth demonstrated decision making (fabric and thread selection, tension and stitch length dial settings, and seam allowance width), critical thinking (pattern placement), and problem solving (troubleshooting the sewing machine).

HEART: Camp participants cooperated with and helped one another. They also excelled in active listening. This allowed youth to communicate more effectively with one another. As with other 4-H camp experiences, youth established new relationships, interacted socially, and strengthened friendships.

HANDS: The four projects the youth completed included a basic pincushion, an emoji backpack pull, Mod Podge® fabric

letters and a wall pocket organizer.

Youth gained confidence in their creative abilities and in the use of a sewing machine. During discussion, youth expressed their desire to participate in a future camp and complete a service learning project, such as Ryan’s Case for Smiles.

HEALTH: During the camp, fitness breaks were scheduled to help youth meet the physical activity requirement and encourage healthy lifestyle behaviors. Youth selected which snacks would help to fill in their “food group gaps” using MyPlate as guidance. Youth explored supporting skills in each of the H’s in the 4-H clover – Head, Heart, Hands, and Health during the three-day camp. It provided youth with a fun, engaging experience to learn both subject specific and lifelong skills.



EXTENSION HELPS FIRST-TIME HOMEBUYERS

Shanika Preston, Certified Housing Counseling Manager, Seminole County



The Perez family.



The Perez' first home.

The Perez family were first-time homebuyers with two young children. They had outgrown their two-bedroom apartment and were really needing to have stability in their housing situation. They wanted to purchase a home, but did not know where to start. They didn't know about down payment assistance and thought that they needed to have all the funds for the down payment and closing costs. After they registered and completed UF/IFAS Seminole County Extension's eight-hour first-time homebuyers class, things began to turn around for them.

In the class they were made aware of down payment assistance and other ways to close a transaction, such as seller credit, lender specials, lender credit and Fannie Mae Home Path. After the class they started the homebuying process with a lender and a realtor, while participating in one-on-one counseling with their HUD Housing Counselor, Shanika Preston. In their price range of under \$200,000, homes were under contract within a few days and not many came on the market. Finally they called their housing counselor and let her know about a home that they really wanted but were skeptical about, due to all the other interest in the property.

At that time, Shanika advised them to add a personal letter with any other offer, because it may make all the difference. That is exactly what they did and the house went under contract. The sellers even agreed to pay all of their closing costs when requested, which is something else they learned in the class. They were so excited to see how fast the process went. They were able to get in to their first home — which they love — over two months ahead of their schedule! Congratulations to the Perez family!

We would like to welcome the following new and transferring faculty. These individuals were hired following a highly-competitive search, screening and selection process. In some cases, candidates interviewed both on the UF campus in Gainesville and in a county Extension office. Selection was often difficult because we typically have two or three suitable candidates. These new faculty are truly the best of the best!

ARRIVALS

Natasha Parks, FCS EA III, Duval County

Matthew Smith, Sustainable Ag/Food Systems EA I, Sumter County

Taylor Davis, Ag/Natural Resources EA I, Highlands County

Rachel Pienta, 4-H EA II, Wakulla County

We would like to wish the following agents the best of luck in their future endeavors.

DEPARTURES

Jamila Lepore, FCS EA I,
Hillsborough County

RETIREMENTS

Carolyn Wyatt, 4-H EA III,
Hardee County