Matt Lollar: Looking into the Future

Jack Payne, UF Senior Vice President for Agriculture and Natural Resources

There’s a humble copse of 18 citrus trees that recently got planted at an agricultural research station in Jay. It’s an experiment into whether Florida’s iconic crop can migrate up to the Panhandle.

It’s also the result of an agricultural agent’s migration, from a suburb where farming was losing a battle against urban encroachment to a place where he believes production agriculture has a better chance of long-term viability. And a place that he calls home.

Citrus just isn’t grown that much in North Florida. In fact, it’s also grown less and less in its traditional strongholds in central and south Florida as a deadly disease takes its toll on groves.

But just by planting the trees, Matt Lollar of the University of Florida’s Institute of Food and Agricultural Sciences is looking at least five years into the future - the time it will take for the trees to bear fruit. And he’s asking a question: Will citrus be a thing in the Panhandle in the future? Can these new breeds stand up to the colder temperatures and different soils of the area?

It’s not the only crop he’s asking questions about. Lollar has his hand in peaches, olives, and even kiwis. Western Florida
farms have succeeded on cotton, peanuts, and cattle. But this is farming, and things can go wrong.

Lollar, the UF/IFAS Extension Santa Rosa County commercial horticulture agent, wants his growers to have options. Communicating those options and encouraging the diversification of farms is how Lollar hopes to prevent growers from choosing an irrevocable option: Cashing out to developers who will pave the Panhandle’s fields of green.

Lollar saw it happen in Seminole County, where he started his career, bought a home and had citrus industry people as his neighbors. But he could see the urbanizing wave wash over his community, and he looked for a place where agriculture had a fighting chance. In other words, the kind of place where he grew up.

He’s come as close as he can to that place without actually leaving Florida. Lollar was raised in Alabama and went to Auburn University. His folks still live there, not even an hour’s drive from his office in Milton.

Lollar brought with him to Milton a record of service and relationships in the industry that make him an invaluable asset to anyone who makes their living off dirt.

The mandarin trees Lollar planted in Jay come from Peter Chaires, who lived down the street from him in Seminole County and is the executive director of the New Varieties Development and Management Corporation. When Chaires had some unsold trees, he bought them and gave them to Lollar.

These aren’t just any trees. Chaires traffics in the very latest varieties, some of which haven’t even been field-tested on a large scale. UF/IFAS breeders are most focused on creating disease-tolerant varieties. What Lollar is hoping is that one of the three varieties he has planted is Panhandle-tolerant.

It’s risky. As Mark Twain is credited with saying, “Farming is simply gambling with dirt.” Extension agents like Lollar are trying to pick trees that are worth gambling on.

A grower can’t afford to roll the dice on much of his or her acreage without some demonstration that it has a chance of working. Lollar’s little clump of mandarins might offer that ray of hope. Or, it could be the warning that saves growers from discovering at their own cost that these aren’t the trees that will change Panhandle agriculture.

Either way, Lollar is settling in to his new role as county’s go-to agent for all fruit and vegetable crops. He’s working on growers’ problems today – from identifying what pest that is on a corn stalk to whether you’re overirrigating your yard.

At the same time, it’s his job to look to the future, to not just solve farmers’ problems but anticipate them. Looking to the future gives you a better chance to adapt what you treasure from your past. In Lollar’s case that means figuring out what grows in Santa Rosa and what will grow.

MEET YOUR SPECIALIST

My name is Rachel Mallinger. I came to the University of Florida from Fargo, North Dakota, where I was a post-doc with the USDA-ARS researching plant-pollinator interactions with sunflowers. I grew up in Saint Paul, Minnesota in an urban environment, but became interested in agriculture, ecology, and conservation in college. After college, I directed programs for a non-profit for two years before starting my joint master’s degree in agroecology and entomology at the University of Wisconsin-Madison. My master’s research focused on pest and natural enemy communities in organic cropping systems, and the use of herbivore-induced plant volatiles to reduce insect pest pressure. After my master’s, I began working on a research project focused on native wild bee communities within fruit orchards, landscape-scale and local management factors that affect their abundance and diversity, and the pollination services that they provide to crop plants. This became the topic of my dissertation, and I have been studying bees and plant-pollinator interactions ever since. I received a Ph.D. in entomology from the University of Wisconsin-Madison in 2015.

My specialties are native wild bee biology, conservation of bees and other pollinators, community ecology, landscape ecology, pollination biology of crop and wild plants. I also take special interest in gardening, sustainable agriculture, social insects, and native wildflowers. My current areas of research include 1) examining the effects of disturbance on wild bee communities, including pesticides, invasive plants, and prescribed fires; 2) exploring how floral traits mediate plant-pollinator interactions; 3) determining best practices for enhancing crop pollination; and 4) identifying attractive and rewarding plants for use in pollinator gardens and bee conservation plans.

When I’m not studying bees and plants, I enjoy exploring all the great parks in Florida with my husband and toddler son, as well as biking, gardening, and curling up with a good book.
4-H INTERNATIONAL EXCHANGE PROGRAM
Shane Michael, RSA II 4-H Youth Development, Central District

Although 4-H has its roots in America, it has expanded to over 80 countries. The States’ 4-H International Exchange program offers an opportunity for youth to explore other cultures and global citizenship. While advancements in technologies have made it easier for youth to study and explore other cultures, the need for in person interactions is still relevant. According to an article by Mary Arnold in the Journal of Extension (Dec 2004), “Personal and Life Skills Development Through Participation in the 4-H Japanese Exchange Program,” studies have shown that participants 4-H international exchange programs gain language skills, cross-cultural understanding, cultural sensitivity, a global perspective, and an increase in tolerance.

In 2015, Florida 4-H opted to join other states in a youth exchange program in partnership with States’ 4-H International and their international partners. Since then, Florida 4-H families have hosted 51 youth and four adults from Japan and 12 youth and one adult from South Korea during the summer in-bound program (July – August). Because of the success of the inbound programming, Florida 4-H has embarked on expanding the exchange program to include full-academic-year exchange students.

In the late summer of 2018, Florida 4-H welcomed four academic-year exchange students: Kano and Madoka from Japan, Gregor from Estonia, and Sali from Tajikistan. Through a series of applications and interviews, these students were matched with host families in Desoto, Suwannee, and Wakulla counties. During this exchange experience, these youth have already fully immersed themselves in the life of an American high school student. While keeping up with their high school classes, these youth have joined extracurricular activities, including 4-H projects and clubs, cheerleading, and model UN.

While this is the first year for this program, Florida 4-H already has plans to continue this adventure and is looking forward to welcoming a new group of exchange students for the 2019-2020 4-H and school year. We will be looking for five host families to host an academic-year exchange student. These students will arrive in July of 2019 and will return to their home country in June 2020.

If you are interested in learning more about this program, contact Georgene Bender, Volunteer Coordinator for the Academic Year Program at gmbender@ufl.edu.

WEBINAR SERIES INCREASES ACCESS TO HYPERTENSION EDUCATION
Julie England, EA III FCS, Seminole County

According to the Centers for Disease Control and Prevention, approximately two thirds of Americans have hypertension or prehypertension. These conditions increase the risk of heart disease, kidney failure, stroke and complications of diabetes. Many risk factors for developing or poorly controlling hypertension can be reduced through changes in behavior. UF/IFAS Extension has long provided education on this topic. Unfortunately, the same hectic lifestyles that contribute to less healthy behaviors also limit time to attend in-person Extension education programs.

A statewide team consisting of Julie England (Seminole County), Wendy Lynch (Putnam County) and Wendy Dahl (UF/IFAS Food Science and Human Nutrition Department) has presented health and nutrition webinars since 2016. These live interactive sessions are presented at lunchtime to reach adults unable or unwilling to attend in-person programming. Sessions were evidence-based and designed to be visually engaging and encourage participant interaction.

In 2018, the team organized the five-part Essentials of Blood Pressure Management webinar series. This multidisciplinary collaboration included team members with additional presenters Jana Anderson (Orange County), Linda Bobroff (FYCS), Michael Gutter (FYCS), Heidi Radunovich (FYCS), Rhonda Cooper-DeHoff (UF College of Pharmacy) and
CITIZEN SCIENCE MONITORING OF STONY CORAL TISSUE LOSS DISEASE
Shelly Krueger, EA I Sea Grant, Monroe County
Ana Zangroniz, EA I Sea Grant, Miami-Dade County

In South Florida, we are fortunate to live next to the third largest barrier reef in the world. The coral reef system in our backyard is called the Florida Reef Tract (FRT), which extends from Martin County south through Palm Beach, Broward, Miami-Dade and Monroe counties, and continues all the way to the Dry Tortugas. Coral reefs are often referred to as “rainforests of the sea” because they support a rich and diverse web of life in the world’s oceans. Even though coral reefs cover less than 1% of the seafloor, they are extremely important for food, fishing, tourism and coastal protection, as well as being a source for many human medicines.

Coral reefs are under direct threat from many different stressors, including land-based sources of pollution, sedimentation from dredging and coastal construction, overfishing and warming temperatures. Reefs worldwide all face these pressures and Florida’s reefs are no different. Today, the FRT faces its latest and biggest threat: an outbreak of a devastating coral disease that has been active since 2014. This disease event has affected more than 20 species of reef-building stony corals, and in some areas, has caused a drastic decline in the abundance of local coral populations.

The disease is called Stony Coral Tissue Loss Disease (SCTLD). Its exact cause is unknown, although it is suspected to be a waterborne bacterial infection. Since this disease event is unprecedented in scale and duration, more than 45 partners have gathered together for a multi-faceted response effort. This effort includes research, monitoring, management, treatment strategies, preservation, education and outreach. UF/IFAS Extension and Florida Sea Grant have joined the Community Engagement team, and are leading the charge in creating disease-response training courses for recreational scuba divers.

Modeled after the Florida Department of Environmental Protection’s Southeast Florida Action Network program, which asks ocean users to report observations of marine disturbances, two Florida Sea Grant agents developed instructional materials and have begun to train divers as citizen scientists. The divers learn how to identify the top-affected corals, identify the disease, and learn a basic monitoring technique that will increase the observer network underwater. These trainings will serve a critical role moving forward, as there are still unaffected reef areas in Monroe County south of Looe Key through Key West and the Dry Tortugas. These scuba divers will assist in monitoring the progression of the disease and document coral recovery in areas where the disease outbreak has already run its course.

If you would like more information about the SCTLD citizen scientist training program, please contact the Shelly Krueger at shellykrueger@ufl.edu (Monroe County Extension) or Ana Zangroniz at azangroniz@ufl.edu (Miami-Dade County Extension).
EXTENSION GROWS WITH SARASOTA COUNTY
Jack Payne, UF Senior Vice President for Agriculture and Natural Resources

The Sarasota you love is changing. Residents arriving. Concern about red tide and water quality rising. Green space shrinking. A heavier lift for the low-income to make it in the new Sarasota.

You’re at a quality-of-life crossroads. The science of sustainability can’t choose your path for you, but it can help you make sense of your options. The University of Florida’s mission as your land-grant university is to deliver that science to your community.

A team of science ambassadors operates out of a satellite office in Twin Lakes Park on Clark Road, across the parking lot from a Baltimore Orioles training facility. The UF/IFAS Extension Sarasota County team is unlike any of the other 66 offices in Florida.

Take for example, the state’s only Extension agent dedicated to waste reduction. Visitors leave more than money in Sarasota. Agent Randy Penn’s work helps to keep traveling fans lifting Sarasota’s economy without sinking the local environment.

The throngs of international visitors to rowing competitions at Nathan Benderson Park discard trash and half-eaten meals like anyone else. Penn organized composting volunteers that diverted 2,500 pounds food waste from the trash to composting bins last year.

In the long term, Penn is working with the UF College of Health and Human Performance to develop an environmental curriculum for the sports management master’s degree program to train future professionals how to make large sporting events into small polluters.

There are fewer homes being tented for termites in Sarasota because of the expertise of the state’s only local chemicals-in-the-environment agent. Carol Wyatt-Evens helped identify some of the first local cases of the Formosan subterranean termites.

Early detection leads to coordinated responses that so far have prevented the kind of swarming that in other cities can be seen from outer space. A pest control operator has relied on identifications from Wyatt-Evens to use an alternative to tenting on multiple homes.

Residents get “energy coaching” from Extension-trained volunteers who can help them save big money on their utility bills without spending big money to do so. Extension sustainability outreach specialist Mary Bishop cited an instance of a resident struggling to pay a $280 monthly power bill.

The problem? A broken thermostat that kept the home at an energy-chugging 60 degrees. Extension helped the resident get it repaired and recommended new air filters and energy-efficient bulbs. The coaches make house calls to low-income homes to share energy hacks, and they’ve partnered with a local utility for before-and-after monthly usage to see if the coaching is helping. Early results are positive.

At the county commission’s request, UF/IFAS Extension Sarasota County helped coordinate a report on what is being done about red tide — and what could be done. Extension agents and volunteers have taught Florida-Friendly Landscaping™ principles to packed houses as well as to Plant Clinic visitors seeking to take personal action. They are teaching landscaping professionals how to get the job done with fewer fertilizers, herbicides, and pesticides.

If these were easy issues, they would have been solved already. Fortunately for Sarasota, its Extension office has more Ph.Ds. than any other in Florida. They now put the creativity and passion they used in earning those degrees into addressing your community’s challenges.

UF/IFAS Extension Sarasota County still runs classic programming, like 4-H and Master Gardeners, and a sustainable agriculture agent will work with local ranchers and farmers.

Extension leads by example, too. When it opened in 2006, the office was certified as the greenest building in the state at the time. To this day it funnels rainwater into a 28,000-gallon cistern that supplies the water to flush the building’s toilets. As one of the first buildings to use this technology, it was obligated to post over the toilets a warning to all those Ph.Ds. not to drink the water! The Extension site also has solar panels and demonstrations of Florida-Friendly Landscaping™ and composting strategies.

So please call, email or visit. You can find out about upcoming events or ask questions by visiting Sarasota.ifas.ufl.edu or calling 941-861-5000.

The object is to help keep the things about Sarasota you love while making it possible for more people to enjoy it. And to put university science and outreach on sustainable living into the service of building a house-by-house ethic of keeping Sarasota clean and beautiful.
There is nothing new about growing edible plants in pots. Nurseries do it all the time with citrus trees, grape vines, herbs, and of course, blueberries. Our gal Wendy Wilber’s M.S. degree was focused on studying blueberries in pots. If you happen to work in the blueberry industry, you are likely aware that there is a growing trend in u-pick and commercial production in this state, and others. Our growers are testing out the application of growing blueberry bushes in large containers, and with the intentions of producing it organically.

Some growers in the state have been operating blueberry farms in pots for years, such as those clients represented by my friends in Lake and Clay counties. Mostly u-pickers were choosing the container method, because the elevated height made picking more ergodynamically friendly. Also, containers can be a good option if your soil is poorly drained, and you can pack them in tightly for a very dense acre of bushes.

While the $84 million Florida blueberry industry may seem like an appetizing place to be, it is struggling with immense competition from Mexico, along with a changing climate and continuous pest pressures. Growers are looking for alternative practices to make their berries more marketable and profitable, one option being the conversion to organic production. One of the requirements of a USDA-certified organic crop is a three-year period without any “prohibited substances” being applied to the land. Since growing blueberries in containers with virgin, soilless media bypasses the “land” part of the requirement, growers can acquire an organic certification quicker. Organic prices are typically higher than conventionally grown blueberries.

While this exciting transition is occurring, growers have many questions about irrigation, potting media, fertilizer sources, pot shape/sizes, and weed management. Tatiana Sanchez and I share Island Grove Ag Products as a client. They have over 200 acres of organic blueberries, much of which is in 15- and 25-gallon plastic pots. Their farm manager has had some creative ideas, such as using a coconut coir mat on top of the media to help manage weeds. He also mentioned how their pots were drying out faster than anticipated in 100% pine bark and would have benefited from an amendment that retains water. This was the inspiration for my on-farm extension demonstration with the help and guidance of Gary England, director of the UF/IFAS Hastings Agricultural Extension Center (HEAC).

As of July 2018, a containerized blueberry production plot was installed in Grandin, Florida at a Clay Ranch Berry Farm. Southern highbush plants (‘Farthing’ and ‘Meadowlark’) averaging one year of age were planted in 15-gallon squat pots with double-lined drip irrigation. This study was funded by grants through HEAC for the purpose of enlightening local growers about the benefits and downfalls of growing blueberry bushes in containers for commercial production. We recently received an FDACS mini-grant and will be digging deeper into the media’s moisture content over time in varying media types using moisture/EC sensors.

The plot contains four quadrants with a total of 496 plants. Each quadrant contains 124 plants and represents one of four media types. The media is either 100% pine bark fines, or 80% pine bark with coconut coir, peat moss or perlite. In February 2019, the blocks will randomly receive either a conventional, synthetic fertilizer or a similarly blended organic fertilizer — both slow-release products based on temperature that have been donated by Harrell’s Fertilizer. Data collected will assess the visual quality of the plant, yield and Brix (TSS). The grower and I plan on recording data for two years, and then monitoring the longevity of the plants over time. There are plans for future field days once we record some preliminary data and calibrate our new weather station. I am looking forward to sharing the results with you all as we approach our first production season! If you find yourself driving through Grandin, give me a shout for a preview of the plot, and maybe even some pick-your-own berries!
Whenever someone asks what working in UF/IFAS Extension is like, I tell them that it’s one of the most rewarding and enlightening careers you can possibly have. But a Monday-to-Friday job it’s not, and if you’re married to an Extension agent, chances are you’re watching the kids on Saturday. Because the purpose of Extension is to serve the public, we make ourselves accessible to people when they’ve got the time to work on a problem, learn new things, or seek out answers to their questions. And many times, that means the weekend.

Take a recent weekend, for example. Friday, January 18, was Florida’s Arbor Day. While many people were winding down or packing for the long weekend, Extension agents throughout the state were putting out hundreds of saplings in 3-gallon pots for free tree giveaways and holding talks about the benefits of urban forests. Master Gardener volunteers were conducting demonstrations on how to plant, prune and care for newly planted trees. In Escambia County, agents and volunteers were also judging entries in the Arbor Day mail art contest, which encourages people young and old to think creatively about the beauty and importance of trees in their everyday lives.

Meanwhile, in Pinellas County, urban horticulture agent Theresa Badurek was welcoming a group of 102 arborists and landscape professionals to the Florida Botanical Gardens for the 9th Annual Roots-to-Shoots program. They were there to learn from UF/IFAS faculty like Jason Smith, who taught a class on fungi in the landscape, and Andrew Koeser, who led an identification tour of native Florida trees. Duval County urban forestry agent Larry Figart demonstrated how to prune trees to resist hurricanes, and natural resources agent Lara Milligan joined Theresa to explain how tree canopies reduce pollution and energy consumption in urban areas.

The next morning in Marianna, cattle ranchers from all over the southeastern U.S. were converging on the sale pavilion at the UF/IFAS North Florida Research and Education Center to bid on bulls during the 19th annual Florida Bull Test Sale. The Bull Test Sale is the culmination of a 112-day program where various breeds of beef cattle bulls are fed a high-nutrition diet specially designed by UF/IFAS researchers and are monitored for growth, performance and breeding soundness. At the end of the testing period, the bulls are put up for auction. Assistant professor of Animal Sciences Nick DiLorenzo and other Extension faculty organized the event. If you’ve never seen a livestock auction before, it’s quite an experience. Each lot up for sale stands in an enclosure on a stage while the auctioneer reis off rapid-fire asking prices and assistants scan the crowd and shout “YEP!” when a bidder gestures. There’s also a live video feed so that buyers can bid by phone or over the internet. The sale grossed $153,650 (an average of $2,604 per lot) this year, with proceeds supporting the program.

Far to the south, UF/IFAS Extension Sea Grant agent Shelly Krueger was running a beverage stand and acting as go-between at the 14th annual Florida Keys Seafood Festival in Key West. The fest was started by UF/IFAS Extension Monroe County in 2006 to bolster local fisheries after Hurricane Wilma. Now it’s organized in collaboration with the Florida Keys Commercial Fishermen’s Association as an event to support sustainable fishing practices. This year about 12,000 people attended the 2-day fest to sample and buy spiny lobster, stone crab, conch fritters and more, with live music, local artwork and booths with information about topics like catch-and-release fishing and reducing invasive lionfish.

On Monday, UF/IFAS Extension offices were closed in observance of Martin Luther King, Jr. Day, but many faculty, staff, volunteers and 4-H clubs were engaged in service projects throughout the state.

This is just a brief cross-section of the many events where UF/IFAS Extension had a presence that weekend. And it’s not exceptional—every weekend and every weekday throughout all 67 Florida counties, you’ll find Extension agents and volunteers working hard at garden shows, field days, county fairs, food festivals, farmers markets and other places where people want to solve a problem, grow something, eat better or take control of their lives.

To find out about where you’ll find UF/IFAS Extension agents and volunteers working hard next weekend, visit the website for your county Extension office at http://sfyl.ifas.ufl.edu/find-your-local-office/ and view their events calendar.
COMINGS AND GOINGS

We would like to welcome the following newly hired 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 faculty are truly the best of the best!

HIRES
Luke Miller, EA I Horticulture/Small Farms, Bradford County
Rhonda (De) Broughton, RSA II Agriculture, District II
Sarah Bostick, EA I Sustainable Ag, Sarasota County
Karla Hernandez Valentin, CED II Ag/Livestock, Desoto County
Alyssa Vinson, EA I Residential Horticulture, Manatee County
D’Alicia Straughter, EA I FCS, Bradford County
Mary (Beth) Kerr, EA I 4-H/FCS, Hamilton County
Richard Guggenheim, EA II Residential Horticulture, Collier County
Halie Corbitt, EA I FCS, Columbia County
Stephen Robinson, EA II Community Development, Pinellas County
Amir Razazadeh, EA II Fruit/Field Crops, St. Lucie and Indian River Counties
Katelyn Mulinix, EA I 4-H, Desoto County
Jean (Marie) Arick, to CED I FCS, Liberty County
Bonnie Wells, to EA II Commercial Horticulture, Brevard County
Caitlin Bainum, to EA I Livestock/Crops, Marion County
Sharon Fox Gamble, to CED IV Agriculture, Volusia County
Linda Seals, to RSA II CRD, District V

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

RETIREMENTS
Jane Morse, EA III Environmental Horticulture, Pinellas County
Deborah Levulis, Program Cty EA I MG, Palm Beach County
Jean Hink, EA IV 4-H, Pasco County

DEPARTURES
Angelic Granger, EA I 4-H, Jackson County
Amy Vu, EA I Residential Horticulture, Orange County
Brianna Swartzfager, EA I 4-H, Marion County