

EMERGING TIMES

...growing toward the future

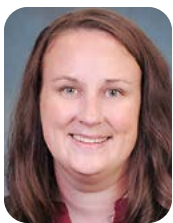
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HILLSBOROUGH/POLK PRODUCTION

In February, Class 10 of FFVA's Emerging Leader Development Program toured several farm operations in Hillsborough and Polk counties to learn about production practices for a variety of crops, including blueberries, citrus, raspberries, strawberries and tomatoes. Class members heard from FFVA board members and others on the many opportunities and challenges ahead for growers. During the visit, the class delivered cash and in-kind donations collected as part of ELDP's annual food drive to support RCMA in Dover. The stories that follow are the personal recounts of these visits and experiences by Class 10.



Wheeler Farms diversifies with leap into peach production



By Kelly Smekens
Bonduelle Fresh Americas

If you ask David Wheeler what he does for a living, he will tell you with pride that he is a Florida citrus grower. Like many in the Florida citrus industry, the Wheelers are in a position of being creative, innovative and outside-the-box thinkers as they battle the challenges in front of them due in large part to citrus greening, which has decimated the fresh crop industry.

While the citrus industry works to find innovative solutions to rebound and bring the fresh citrus market

back heavily to Florida, David, along with his son David (fourth generation) and Wheeler Farms COO Paul Koukos, is finding new ways to use the land they have and find a small niche in the specialty crop industry.

The Wheelers now have 75 acres of Florida peach production here in Florida, with another 40 acres that will be coming online soon. Florida peaches offer a great alternative in their citrus growing area, with similar row spacing and the harvest time. While more labor intensive, the Wheelers have seen a good outcome with their leap into peaches and look forward to what they will see from their new trees in the ground that came from their own tree stock.

The Wheelers are Florida citrus growers and proud to continue to push agriculture forward. Buy Florida citrus and Florida peaches!



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SUSTAINING SPONSOR

Southern Citrus Nursery bets on hydroponic



By **Morgan Stuckert**
Lipman Family Farms

To kick off the two-and-a-half days of touring the agriculture counties of Hillsborough and Polk, we arrived at Southern Citrus Nursery to meet with Tommy Thayer, Jr., generational owner. His father started his agriculture journey in the early 1950s and “pioneered the irrigation industry,” according to Thayer.

On this warm Wednesday morning, we visited 12 berry hoop houses, harvesting strawberries, raspberries, blackberries, and blueberries as a Driscoll’s growing partner. Thayer spoke candidly to us about their struggles and future outlooks on the newly developed hoop house tunnels, and their overall attitude was optimistic.

They envision long-term successes with

these innovative structures and have plans to expand their 12 tunnels into 52 by next year, with hope that they have a 20-plus year lifespan. The benefits of these hoop houses include less water usage (approximately by 80% compared to soil production), less labor, and stronger protection from weathering, holding up against 80 mph wind speeds.

With each minute Thayer spoke came a new quick fact about their growing practices: their berries grew hydroponically, avoiding certain pathogens and allowing for better EC (electrical conductivity) and nutrient flow. They grew with coconut mulch, a sustainable option for their several acres of land. Their hoop houses contained strategically placed trays in or around beehives that contained botrytis fungicide. These trays were made to attract the worker bees to safely land on the fungicide then carry it to the plant they intend to pollinate, properly delivering the compound directly to the plant without the use of sprays.

Our late February visit encountered the tail end of their harvest season, which is typically mid-October through February, but we were still fortunate to see some great varieties being picked. One of which was Driscoll’s proprietary, limited-edition (as listed on their packaged clamshells) raspberries. These berries were said to only grow and harvest from Southern Citrus’ hoop houses and were distributed to 10 Publix stores across the state, making them just as exclusive as their packaging claims!

They shared samples of these raspberries, just picked, so we could see for ourselves the excitement behind this limited edition variety. The Brix and flavor were like no other raspberry I’ve had, and I finally realized where candy research and development departments get their raspberry-flavored inspiration. These fresh fruits resembled the flavor of a Starburst gummy, and ever since, I’ve been on the search for these nutritious candies in my local Publix.





Dundee CGA adapts, diversifies to stay in the citrus game

Along the rolling hills of the ridge lies Dundee Citrus Growers Association's packing facility. CEO Steven Callaham led our tour and explained all the issues and hardships they are faced with in today's evolving world of agriculture. Dundee currently has over 200 members encompassing more than 10,000 acres. To stay in the game you must adapt, and Dundee has done just that. They have diversified into packing domestic and imported citrus, blueberries, peaches, and even avocados.

Their gourmet gift fruit packages remain center stage, but have advanced throughout the years. What began with a large call center for direct-to-consumer calls has shifted to a more online business. This allows them to sell direct



By **Shane Mart**
H&A Farms

to consumers or wholesalers alike. Our group had the pleasure of observing two dedicated lines packing the gift fruit. Presenting beautiful fruit is no easy task, as the citrus goes through a washer with food-grade detergent and is brushed, sanitized, and graded for wholesomeness. The fruit that make it this far are then sprayed with a food-grade dye, run through a dryer, then polished with a carnauba-based wax. The finished product is then stored in one of their massive coolers before coming to a home near you.

In an attempt to expand upon their Florida-grown citrus, the CUPS (Citrus Under Protective Screen) program is being employed to produce a beautiful fruit from healthy trees free of devastating citrus greening. Fresh pack-out remains a challenge with greening as it extends bloom and increases immature fruit. It is evident the Dundee Citrus Growers Association remains at the forefront of the Florida citrus industry, and will continue to persevere.

Innovative CUPS program offers new tool in fight against citrus greening



By **Nathan Carson**
Chemical Dynamics, Inc.

Since the discovery of citrus greening in 2005, the Florida citrus industry has sought remedies to this threat. Despite notable successes in nutritional treatments and grove management practices, a cure remains elusive. Currently, the citrus industry is experimenting with farming techniques that prevent the establishment of the Asian citrus psyllid, greening's primary vector.

With its Citrus Under Protective Screen (CUPS) program, the Dundee Citrus Growers Association is introducing a new growing system that combines covered production and precision agriculture technologies to grow fresh-market citrus that is free of

greening. Featuring a fully enclosed production area with multiple doors, CUPS can prevent the Asian psyllid from entering a grove.

There are several other notable benefits to CUPS. For instance, the same screen that protects against the Asian psyllid also protects against other pest vectors thus reducing the need for pesticides. Because the screen also provides shade protection and reduces sun stress, it is estimated that the growth of a citrus tree is accelerated by 2½ times. CUPS utilizes the latest advancements in soil moisture sensors and micro-jet irrigation, enabling the facilities to reduce overall water consumption. Combining these factors results in a fruit yield that is projected to be four times higher compared to open-air citrus.

The CUPS program is being rolled out in three stages: Stage 1 with 110 acres under

cover; Stage 2 with 113.2 acres under cover; and Stage 3 with 72.3 acres under cover. Stage 2 is in the final stages of completion with Stage 3 in the early stage of construction. Full completion is likely to occur sometime in 2022.

While full-scale CUPS production is still a few years away, the Dundee Citrus Growers Association is already noting significant interest from overseas buyers of fresh citrus in markets such as Europe and Japan. With its innovative CUPS program, the Dundee Citrus Growers Association appears to be well-positioned to provide high-quality citrus in an environmentally sustainable manner.



FSGA highlights strawberry production in Hillsborough



By **Eric Greenhow**
Optimum Equity Partners

Class 10 had the pleasure of visiting the offices and farm of the Florida Strawberry Growers Association (FSGA). We enjoyed an excellent lunch by Johnson's BBQ, and were able to gain insight into the current state of the FSGA thanks to presentations by Kenneth Parker, Sue Harrell, Tiffany Dale and Sarah Williams.

Strawberry production in east Hillsborough County, mainly Plant City and Dover, has an



astounding \$1 billion dollar impact on the local economy thanks to roughly 60 farms in the area who belong to the FSGA. In a radius of approximately 20 miles from Plant City, there are 10,000 acres of strawberries planted, producing approximately 280 million pounds per season, making the region the second largest in production in the United States (following California as the top producer).

FSGA works hand-in-hand with the Florida Strawberry Patent Service Corp. and the Florida Strawberry Research and Education Foundation Corp. to develop, patent, grow and market new varieties of strawberries in conjunction with the University of Florida Gulf Coast Research and Education Center in Wimauma, Fla.

One new variety with particularly high hopes and interest is the white strawberry. As a specialty product, its demand in the marketplace is yet to be seen, but our class found it interesting how there is a never-ending effort to produce more unique, sweeter, larger strawberries to keep up with consumer demands. I'd recommend picking up a copy of FSGA's *Florida Strawberries* cookbook here: <https://floridastrawberry.org/>



For Lipman Family Farms, details make the difference



By **Frederico Boscolo**
Cultiva Farms USA

Lipman Family Farms is a leader in the Florida tomato industry with headquarters in Immokalee and growing operations directly managed, or in partnership, all over North America. Jeremy Melvin, farm manager, and Wayne Heller, sustainability and IPM manager, gave some interesting insights as they hosted the ELDP group for a tour of their farm in Duette.

Roma, cherry, grape and round tomatoes are all part of Lipman production. Of the total 9,000 acres farmed in the

U.S., 600 acres in the fall and 900 in the spring are farmed in Duette. The spring is a more profitable season because they can pick the crop six times versus three in the fall.

Details make differences: for example, a specific, double-color plastic is set on the beds with reflective sides to keep insects away and a black central stripe adjacent to the plant to maintain warmth. Tomatoes love heat!

Another interesting detail the growers showed us has been the switch from wooden stakes to fiberglass stakes. They last longer, and the rougher, more textured surface makes it easier for operators to pull the strings off the stakes.

The tomato sector in Florida has been suffering lately from lower-cost imports and from high-tech greenhouse produc-



tion. Getting back what has been lost is difficult, and the massive investments made on hydroponic farms are a big barrier. But, attention to detail is equally important, and Lipman is being innovative and giving it the proper importance.



GCREC: A sneak peek of agriculture's future



By **Ariel Bauer**
Hardee Fresh LLC

Starting in 1925, the Gulf Coast Research and Education Center (GCREC) began as one of the 12 University of Florida facilities that have played a pivotal role in keeping Florida growers competitive with an ever-changing agriculture industry. Well-known for its breeding program, GCREC is continuously developing new varieties in the tomato and strawberry industry using traditional cross-breeding methods and new CRISPR technology that can specifically target and delete unwanted genes. These new varieties give farmers another tool to use against emerging pests and diseases, and with changing consumer demands. Trials on other smaller alternative crops like hops, pomegranate, and blackberry can open new markets for growers to move into.

GCREC is also working toward meeting the labor needs of Florida growers. The center's robotics research has led to an artificial intelligence device that could eliminate hand weeding in fields. This device is inputted with thousands of images of problematic weeds so that it can recognize specific weeds as it passes over them in the field. After recognition, the robot sprays only the weeds while leaving the crop unscathed. Similarly, they have

developed a robot that targets pathogens and uses UV lighting to control diseases. Once on the market, these tools will play a vital role in the reduction of labor cost.

Not only is GCREC a resource for growers but also for students. Its facilities offer hands-on experience and training for students as they enter the agriculture industry. GCREC alone employs over 200 individuals who aid in the development of new products and practices.

Stepping onto the GCREC property is like a sneak peek of the future of agriculture. Many of the varieties and technology will soon be used on a farm near you! Many thanks to the GCREC staff for sharing their technology with our class.



Florida Pacific Farms highlights challenges faced in the berry market



During a recent production tour in the berry market of Hillsborough County, Andy Brownlee, farm manager with Florida Pacific Farms, gave ELDP Class 10 a tour and discussion about the



By **Michelle Hayes**
Corteva
Agriscience

current challenges of growing strawberries and blueberries. Andy has experience in growing strawberries, blueberries, raspberries, blackberries and tomatoes. The farm he manages now has 900 acres of strawberries and 30 acres of blueberries. One of the biggest challenges this year has been COVID-19. Notwithstanding, managing the requirements for using H-2A labor is already challenging, so the additional precautions and safety measures that are required to ensure the workers stay healthy has been a lot.

The strawberry market has not been great this year but started to turn around toward the end of February. They have also successfully grown blueberries for 15 years, despite market prices facing headwinds. He also talked about the challenges with fumigation safety, new disease pressure from pestalotiopsis in strawberries, year-round thrips pressure in blueberries and winter-dwelling cedar waxwings that help themselves to their share of fruit. The challenges are many, but they continue to successfully overcome and produce beautiful, fresh and safe berries.





RCMA's care and dedication helps migrant families



By **Sasha Burgin**
Burgin Farms

Elizabeth Ruiz and Clay Hollencamp welcomed us to the Dover RCMA location and gave us a tour as well as explained how they serve migrant families. While there, ELDP Class 10 delivered a large amount of food donations and \$775 in cash collected by class members to present to RCMA.

RCMA's Dover location is one of 66 facilities dedicated to providing child care services and education as well as family support for seasonal migrant workers and their families. It is dedicated to making sure there is room for all

children in need.

The Dover location has two buildings designed for different age groups. Dover 1 can accommodate 160 infants and toddlers, while Dover 2 welcomes 80 preschool-age children. Other RCMA locations around Florida offer different things, such as two charter schools and several afterschool facilities that educate older children.

Donations are a big part of the success of RCMA and providing for families in need. They are able to offer food, diapers, clothes, and services that families might need in order to stay out of deep poverty. RCMA strives to keep their families from falling into debt because they cannot get basic needs by going so far as to provide assistance with getting to and from doctor visits,

applying for social services, and offering rent and utility assistance.

RCMA is an incredible resource for migrant families, helping to ensure they are able to work by caring for their children. But, they need all of our help to be able to do this, and we can support through donations at rcma.org or by signing up to volunteer.





Fancy Farms' father-son duo shares history, challenges

Fancy Farms is run by a father-and-son team, Carl and Dustin Grooms. The farm was started in 1974 by Carl and his wife, Dee Dee. They started with 15 acres and doubled in their second year to 30 acres. Today, they have approximately 125 acres of berries. Dustin was born and raised in Plant City. He left for 8½ years to serve as a drill sergeant in the U.S. Army and returned to Plant City in 2007 to farm with his parents.

Carl said that when asked, "Why do you farm?" He replied, "If we don't farm, when you sit down for a meal, you wouldn't have anything to eat."

The most abundant varieties of strawberries on the farm are Florida Sweet Sensation and Florida Brilliance. Berry



By **Sarah Hillard**
A. Duda & Sons

plants are purchased from California, Idaho, North Carolina, South Carolina and Nova Scotia. An average yield for an acre of strawberries is 24,000 pounds which is 3,000 flats per acre with each flat weighing 8 pounds.

There are pest and disease issues as with any farming operation. The most common are mites and pestalotiopsis. The spider mites are challenging but these are controlled with predator mites and spraying. Three years ago, there was a flare-up of pestalotiopsis, a fungus that attaches to the leaf and spreads with water and heat.

Dustin and his sister Kristi recently opened a produce stand where they sell different kinds of local produce and products and offer many strawberry desserts, including shortcakes, cookies and milkshakes. They are also offering u-pick events for families and friends to come to the farm and spend an afternoon picking their strawberries.

Growers find a partner in berry marketer



By **Jennifer Schaal**
Dundee Citrus Growers
Association

Imagine a perfectly raised dough crust covered with deliciously sweet strawberries in a creamy filling and topped with whipped cream... oh, so good... but we will get to that in a minute.

Strawberries are traditionally grown in the ground without cover, but Michelle Williamson, manager of G&F Farms in Dover, is trying a new approach. FFVA's ELDP Class 10 recently visited G&F Farms to learn more. Using hoop houses and a hanging system, strawberries are suspended in long gutters, off the ground. It is not just any hoop house either. This design allows rainwater to be captured and recycled and can automatically raise or lower the plastic quickly based on weather needs. There are many advantages to this growing method including less inputs, lower carbon footprint, lower temperature of the berries, two to three times more production, ability to double crop, and less intensive harvesting as explained by Williamson and Sambhav, research manager at Driscoll's.

G&F Farms grows exclusively for Driscoll's, allowing G&F to utilize Driscoll's proprietary varieties, proving to be a very good partnership between the two.

A short bus ride away, the class visited a Driscoll's research site where new varieties of strawberries, raspberries and blackberries are being trialed. After several years of careful examination at this site, the best varieties are trialed commercially at Driscoll's growers' farms for further examination. If the varieties meet the growers' expectations, only then will the varieties be offered in full to Driscoll's growers.

Before we parted, Williamson treated us to a special family recipe of Strawberry Pizza. It was fantastic. She has been so generous in providing us the recipe. I highly recommend you try your hand at it and enjoy!



Strawberry Pizza

Class 10 was treated to homemade strawberry pizza by FFVA Board Member Michelle Williamson during its tour throughout Hillsborough and Polk counties. The class wanted to share with our readers. Enjoy!



Step 1: Crust

2 sticks butter (softened)
2 cups plain flour
½ cup powdered sugar

Mix and roll/pat on to pan. Bake at 350 degrees for 15 minutes. Allow to cool completely.

Step 2: Filling

8 oz. cream cheese (softened)
1 cup powdered sugar
1 package of Dream Whip mix or Cool Whip

Mix cream cheese and powdered sugar. Fold in the Cool Whip. Set aside.

Step 3: Topping

1 pint mashed berries
1 cup sugar
3 tbs. cornstarch
3 tbs. water
1 tsp. vanilla

Cook on stove until thick. Allow to cool completely.

Once steps 1 through 3 are complete and everything is cool, place the Cool Whip filling on top of the crust. Top with the strawberry mixture and extra Cool Whip, if desired.

Innovation on full display at Wish Farms



By **Clay Pederson**
Agromillora Florida

What better way to start the day than with a tour of Wish Farms' new headquarters, which includes a treehouse conference room, an indoor slide for adults, and a state-of-the-art warehouse, processing, and cooling facility. Gary Wishnatzki, Nick Wishnatzki (ELDP Class 8), and Director of Marketing Amber Maloney (ELDP Class 2) were our guides.

Wish Farms, whose roots to Plant City strawberry production date back to the 1920s, is a year-round supplier of blueberries, strawberries, raspberries and blackberries. The new 130,000-square-foot warehouse was bustling with action during the end of the Florida strawberry season. Class 10 saw Wish Farms' new MACS cooler (Modular Automated Cooling System), which more efficiently and uniformly cools the berries versus the standard forced-air systems.

We watched the strawberry puree processing line run and saw innovation on full display in the form of Pixie Snax, which stemmed from a solution to food waste! This new item takes strawberries with low Brix and mixes them with other fruits such as bananas, creating a freeze-dried snack that is sweet and crispy.

Gary Wishnatzki started the office tour in grand fashion. The Wish Farms leader looked down at the group from the second floor, then proceeded to slide down a large wooden slide to meet everyone. The slide and other features throughout the 24,000-square-foot office were made from trees that were removed during



construction. The office comes with a Pixie theme that stems from the Wish Farms mascot, Misty the Garden Pixie. This Pixie theme was showcased in the treehouse conference room, which is a must-see. The tour wrapped up with one activity: going down the slide of course!





ELDP News

- 1 Elizabeth Malek (Class 1)** and husband Aaron welcomed a baby boy, Leo Joseph Malek IV, on Dec. 3, 2020.
- 2 Philip Grigsby (Class 7)** and wife Emily welcomed a baby boy, Ronald Philip Grigsby III, on Jan. 23, 2021. Pictured is Ronald with his 18-month-old sister Esther.
- 3 Daniel Rifa (Class 7)** and his wife Tonya welcomed a baby girl, Havana Grace Rifa, on March 12, 2021.
- 4 Justin Newsome (Class 8)** recently accepted the position of crop protection sales representative for the southwest Florida territory with Syngenta. This new role began Jan. 18 and has Justin covering Charlotte, Glades, Lee, Hendry, and Collier counties. He and his wife, Bethany, will continue to reside in Wauchula.

