

EMERGING TIMES

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CALIFORNIA



Farming in California right now is 'farmageddon'

Our first stop on the production tour was one of my favorites. George Chiala Farms was founded in 1972 and is known for providing premiere IQF (individual quick freezing) services, including ready-to-eat options. These growing and marketing technologies have helped George Chiala Farms produce quick-grab dinner options for families while still providing fresh, great-tasting vegetables.

During the field tour, we viewed several key crops, including kale, serrano peppers, habanero peppers, carrots, poblano peppers and tomatillos. These crops are grown on bare ground compared to our standard practices here in Florida. An interesting take-home was that kale is picked multiple times based upon



By **Anthony Cannon**
Sakata Seeds

demand and market, where a few leaves are taken off the stalk at a time instead of one large harvest like other leafy vegetables.

The specialty peppers are fertilized using a special nitrogen program so the Scoville heat units are consistent throughout harvests and fields to ensure the same quality pepper to the consumer. The carrots when dug can be two to three feet long but are broken down and shaped into the tiny bite-size carrots we see in grocery stores. With the vast amounts of crops grown at George Chiala Farms, fifth-generation farmer and farm manager Ian Teresi said that between the coronavirus pandemic, the hot and dry weather, and the raging wildfires, farming every day in the valley felt like "farmageddon."



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First stop: Tomatillos and poblano peppers



By **Kim Burman**
Glades Crop Care

Ian Teresi, farm manager of George Chiala Farms, provided Class 9's first look at California production. He manages about 2,100 acres comprising

more than 20 commodities. Class 9 visited several, including poblano peppers. It was a great year for poblanos and harvest was in full swing. Sometimes they are picked with a retrofitted tomato machine. Then they are brought to the plant, where a water knife shoots each pepper to remove the cap. However, this process wastes part of the cap that is already paid for. While the labor expense of hand harvesting is more, there is some benefit.



Teresi demonstrated how the poblanos are capped by hand during harvest. Reincorporating the caps' organic matter into the field adds value.

George Chiala Farms also has the largest single plot of organic tomatillos in the United States, measuring 65 acres. Teresi shared why tomatillos are the easiest and hardest crop to grow. Their fast growth quickly creates shade to deter weeds. This year, they endured dramatic temperatures from the 20s up to nearly 115 degrees. Tomatillos don't like too much water and are susceptible to blossom end rot, which renders the fruit useless. Soil monitoring, especially for calcium, is key. Teresi boosts the soil with limitless compost from their mushroom farm. An April planting will yield multiple harvests. But this year's crop will be picked one time since they planted in July due to the timing of the garlic season. The tomatillos will be de-husked in the field and brought to the plant, where most will be puréed or diced for use in salsas.

Agritourism at its finest at Gizdich Ranch



By **Luke Davis**
**Southern Gardens
Groves**

Nestled below the grassy mountains just outside of Watsonville, CA, lies Gizdich Ranch. This multi-generational family-owned apple orchard and berry farm was a very memorable stop on our tour. The farm, originally purchased in 1937 as a 10-acre parcel by Vincent Gizdich, has blossomed into a 200-acre agritourism destination for many California visitors.

Vince Gizdich III now presides over the operation and led us on a tour of the farm. As we ate lunch and had delicious homemade pie from the pie shop, Gizdich gave us an overview of his family's farm. In addition to the U-pick apple orchard, the operation features a gift shop to purchase unique items and a pie shop where all the pies are homemade at the farm. There is a playground in the picnic area along with a vintage tractor where visitors can take pictures. Gizdich's mom, Miss Nita, regaled us with stories of how the farm developed. She still works there every day.

Of the many stops Class 9 has made throughout the year, Gizdich Ranch will definitely be one of the most memorable. The old-school family farm approach that Gizdich and his family have combined with a new agritourism business model is a perfect example of how smaller farms can be successful for generations to come.





Wish Farms' expansion in California allows year-round supply



By **Jeffrey Hancock**
Peace River Packing

We visited the Hilltop Ranch strawberry fields of Wish Farms, which featured a tour by Darwin Reich. He explained how Wish Farms expanded operations from

Florida into California 10 years ago to provide year-round supply of strawberries to satisfy large retail customers. Originally, Wish purchased fruit from other California growers. Two years ago, they started their own growing operation and currently have a total of 1,000 acres scattered in the three strawberry regions of California: Watsonville/Salinas, Santa Maria and Oxnard.

In California, Wish grows two varieties of strawberries, the Monterey and Cabrillo



varieties. The Monterey is the most common variety in the area and is slightly sweeter than the Cabrillo. The Cabrillo is a newer and larger variety. The harvest season for the strawberries runs from March, with significant volumes beginning in April and going until the rains begin in the late fall, sometimes until Thanksgiving. Like other farms ELDP visited during the trip, the largest issue they face is labor shortages, particularly with domestic labor because harvesters will leave once their earned income threatens to cut off their state benefits about mid-season.





The plants in the DiMare field had been sprayed with a product to protect them from the intense heat.

Tour of DiMare Co. highlights benefits, challenges of CA production

Class 9 had an amazing time touring California fruit and vegetable operations. After we landed in a smoky San Jose, we took off to see the beautiful farms and ranches that Monterey and the surrounding valleys had to offer. One of our stops was in Newman in the San Joaquin Valley. We met with Jeff Dolan, field operations manager for DiMare Co. The company is a vegetable grower-shipper with operations all over the United States, including Florida.

Dolan took us around one of the tomato harvesting operations and discussed the challenges and differences between California and Florida growing operations. He discussed the extra precautions DiMare Co. is taking to ensure food safety and worker safety during the COVID-19 pandemic.



By **Ethan Basore**
TKM Bengard

This includes checking workers' temperatures every morning, increased hand washing, and cleaning and sanitizing bathrooms after each use. Because of the increased safety protocols, Dolan said production has not slowed.

There are many challenges of growing in California compared with Florida, but there also are benefits, including a perfect climate. Also, weed pressure is low to non-existent in some places. That was why the farm we visited did not have plastic over the beds. DiMare also benefits from a strong domestic workforce in California. Dolan pointed out the unique RFID card that each worker carries to help keep track of their piece rate. The average picker can harvest a full bucket in under two minutes, which equals about 200 buckets a day.

Another challenge, Dolan said, is California's water rights and laws. He explained that the impending California 2022 Water Law could take, for example, 350,000 acres of almonds out of production.



Bengard Ranch packs its produce at peak freshness



By **Anthony Cannon**
Sakata Seeds

Class 9 made a stop at Bengard Ranch to learn from John Barrington. Bengard Ranch was established in 1961 by Tom Bengard. Bengard Ranch is a large producer of leafy crops on premium farmland based in the Salinas Valley of California.

The operation has a network of growing regions

that include Salinas and Huron in California; Yuma, AZ; Belle Glade and Mexico. It produces iceberg, romaine, green leaf and red leaf lettuces, celery, cauliflower and broccoli. Bengard's

farmland is located within seven miles of its cooling and distribution facilities, which is important for product freshness and food safety.

Class 9 was able to see Bengard's state-of-the-art

hydro-cooled line. Each pallet is wrapped and boxed and placed on a chain-driven conveyer. From there, the pallet enters the hydro cooler, which rapidly lowers the temperature of the produce. From there the pallets are topped with fresh ice and placed in trucks for shipment to retail stores throughout the country. I was very impressed at the quick turnaround for a head of lettuce to be cut, wrapped, boxed, cooled and shipped all within a matter of minutes. This ensures peak freshness from the farm to the table.



Western Growers Innovation Center matches tech start-ups with growers



By **Tim Cuellar**
Duda Ranches

On our second full day in California, Class 9 visited the Western Growers Center for Innovation and Technology. The facility was located in the elegant Taylor Farms building in downtown Salinas. There, we met with Dennis Donohue, who has served as the center director since 2016. The facility opened its doors in 2015 with a main focus to accelerate the development of technology in agriculture.

Donohue emphasized the importance of efficiency in farming operations. He

explained that it will take technology advancements and the innovation of new ideas for growers to be more efficient in their operations. That is where the Western Growers Center for Innovation and Technology comes into play. Donohue and his team assist new ag technology companies by fostering a relationship between the start-up company and the right growers who could use their product or service. They also serve as a platform for networking, training and collaboration for growers.

The center has hosted 60 different start-up companies that are involved in almost every aspect of farming. From food safety to precision agriculture, the center is there to assist in business development. Donohue said they plan to expand their scope and develop a group

of Florida growers to observe some of the new technology and offer input as well.



Batti discusses history, challenges for Taylor Farms



By **Jeffrey Hancock**
Peace River Packing

We enjoyed a delicious lunch from Portobello's restaurant and discussed the history and challenges faced by Taylor Farms with company Vice President Leonard Batti. Taylor Farms was founded in 1995 by Bruce Taylor, a third-generation fresh produce grower. Taylor initially focused on food service, providing salad and leafy vegetable kits for fast-food restaurants. The company gradually expanded to salad kits for retail, from salad combinations with deli and seafood at grocery stores to grab-and-go salad and snack trays.

Taylor Farms is headquartered in Salinas, CA, but it has 15 regional processing facilities scattered throughout North America, including one in Orlando. Notable locations include three production facilities in California that are certified more than 90% off the utility grid with solar and wind generation, and a new protected leafy vegetable farm in Florida.

In 2019, Taylor Farms posted \$4.5 billion in sales, Batti said. However, their food service business and some retail sales have suffered as a result of the COVID-19 pandemic, with a 30% reduction in operations. Specifically, the grab-and-go salad kit retail sales diminished because of the increase in people working from home.



Castroville: The Artichoke Capital of the World



By **Kim Burman**
Glades Crop Care

Pezzini Farms, spanning 100 acres, has been growing heirloom globe artichokes in Castroville, CA, since 1929. Mary Aleman shared 25 years of Pezzini expertise with us with a spirited rendition of Artichoke 101. Castroville, known as the Artichoke Capital of the World, boasts an ideal climate. Aleman taught us how weather affects production, starting with the plant's failure to produce in temperatures exceeding 80 degrees. Hot weather also causes loose bud leaves, which compromises quality. Weather permitting, the same plant produces all year, with a spring peak. One plant will produce up to five years, providing two harvests per week.

Harvesting artichokes is tricky business. Aleman showed us necessary harvest gloves and shared, "If it doesn't poke you, it's not a good artichoke." Early morning harvest avoids sun-induced wilting. Men primarily harvest artichokes because of the extreme weight of the filling basket, which must be carried until the end of the row. The basket is emptied into a bin. Artichokes are then graded by size as jumbo, large, small or baby before being transported to the packer. We were surprised to learn that size is not a function of age. Each plant produces one jumbo artichoke at the top. Farther down, shaded by the upper leaves, the smaller artichokes grow.

Next to the Pezzini farmer's market was The Choke Coach food truck. Class 9 enjoyed fresh fried artichoke hearts straight from the farm.



PlantTape increases efficiency through innovation



By **Luke Davis**
Southern Gardens Groves

Labor is an issue at every agricultural operation no matter the crop. On our trip to California, Class 9 was able to see how grower Tanimura & Antle is combatting the labor issues that we all face through their subsidiary PlantTape.

PlantTape has developed an automated transplanting system to help Tanimura & Antle, as well as other growers, increase efficiency and productivity across their farms. As we toured the PlantTape sowing facility in Hollister, we were able to see just how the transplanting process works. PlantTape is provided seed by the customer, and it is sown into the actual tape. The tape is made of biodegradable paper and after it is sown, it is cut and folded into trays holding 840 seeds each.

After the sowing process, the material is palletized and sent to the nursery for controlled-environment growing. Once out of the nursery, the tape is ready to be put into the field. PlantTape has developed a machine that only requires two or three employees to plant fields and can operate around 5 miles per hour. Using this technology, PlantTape can plant up to seven acres per hour, drastically reducing labor costs and increasing productivity.

As agriculture's labor problems continue to increase, it will be innovation and technology companies such as PlantTape that are the driving force to keep the industry sustainable for the future.





Bear Flag Robotics develops autonomous tractor



By **Jay Johnston**
Deseret Farms of Ruskin

A unique stop on our tour was Bear Flag Robotics, which has developed a fully autonomous tractor that can be monitored and controlled by an operator using an iPad. Our visit was hosted by Daniel Carmichael.

The operator has access to real time 360-degree live video feeds and can control up to eight machines at once. In addition to the live video feeds the machines also use lidar (light detection and ranging) and radar technology to have all-around situational awareness. The units monitor the tractor's health and relay any faults or changes immediately to the operator. If the machine senses any abnormalities within its work area such as a person or animal, it triggers a loud warning and shuts itself down immediately.

Bear Flag Robotics was founded to help reduce the cost of growing food while increasing food production through automation technology. Their first machine showed up in the Central Valley area of California mowing orchards three years ago. Since then, the company has moved into row crop production, and growers have been very receptive of the technology. The machine is for hire only on a per-acre basis, being used for tillage, mowing and land leveling. The company is very close to having the capabilities of spraying and planting as well.





Kirk Williams shares pride, passion for agriculture



By **Perry Mason**
Maury L. Carter & Associates

The moment we drove through the gate of Kirk Williams Ranch, it felt like home. The driveway was lined with lemon and avocado trees that were protected by smudge pots, which provide heat for crops when temperatures drop to freezing. These pots were used in Florida as one of the largest preventive measures against freezes before the invention of microjet irrigation.

As our bus wound through the rolling hills of Williams' ranch, we found ourselves surrounded by a lemon grove. The grove was lush and full of life (like our trees pre-greening). As Williams spoke, it was clear he is a man who has passion and profound respect for the land and its heritage. The more the details of his operation he shared, the more questions we had. For example, we found it astonishing that they topped 800 acres of lemons by hand, and he only sprayed four times a year. We also were surprised to learn that the entire grove was watered by drip irrigation.

The ranch was diversified with many crops, including 125 acres of grapes. The grapes are harvested for wine and normally produce approximately 500 tons. Because approximately 3 million acres are burning in the state right now, the ranch will produce only 50 tons of grapes this year. We learned that the grapes absorb the smoke, which can alter their flavor. Although I sampled several and could not detect the smoke, he assured us that this year would be awful.

Williams was an inspiration to me and many others in our class. His qualities of stewardship and hospitality along with his work ethic made his ranch one of my favorite visits. Our visit to Kirk Williams Ranch was the perfect ending to a beautiful week in California.





Tanimura & Antle shows what innovation looks like



By **Johnny Lunsford**
L&M Farms

When you think of California lettuce farming, Tanimura & Antle is a name that is renowned as a leader of the pack, and ELDP Class 9 had the pleasure of seeing firsthand what this amazing company is doing to keep it that way.

If you really want to know what it takes, Brian Antle is the one to ask. In a whirlwind tour of their massive operation in Salinas Valley, our class took an up-close and personal dive into the new and exciting “tools” that Antle gets to see working on his farm every day. More than just investing in state-of-the-art harvesting equipment, Antle and his team are taking radical new approaches

to how they care for their crops through innovative weed control.

At a glance, their newest weeder resembled a typical tractor attachment, but watching this new piece of equipment eradicate weeds in a young field of lettuce was a highlight. The work and processes that led to the development of this new equipment really show their dedication to finding solutions to age-old farming issues. We concluded our field tours with a visit to an artisan lettuce harvest. True lettuce-growing experts bring this four-pack of six varieties of artisan lettuce to consumers year-round. The process took nearly 10 years of breeding and requires 25 varieties through the seasons. The morning was capped off with a steak sandwich lunch on their patio overlooking the mountains.

“Lettuce” see what the future holds, but there’s no doubt it will be more exciting with innovations from Tanimura & Antle.



A 'grape' time at Kori Wines



By **Taylor Sewell**
Yara North America

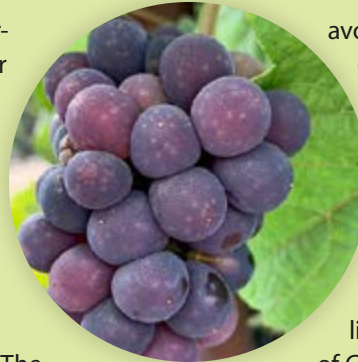
In the Santa Lucia Highlands, grapevines stretch as far as the eye can see. Class 9 met with grower Kirk Williams and his step-daughter, Kori Violini, to learn about wine grape production. The first vines on the ranch were planted in 1998, and the first grapes were seen three years later.

Wine grapes are harvested mechanically and by hand and yield three to four tons per acre. One unique challenge facing the vineyard right now is smoke coming from the millions of acres of wildfires in California. This exposure to

smoke can cause undesirable impacts to the flavor of the wine. It is still too early to determine the extent of the current smoke taint in the vineyard.

Twelve acres make up the vineyard, with Pinot Noir and Syrah being the primary varieties grown. The father-daughter duo also have a tasting room in Carmel-by-the-Sea to showcase the fruits of their labor.

Amid the coronavirus pandemic, the winery offers "tailgate tastings" so guests can enjoy wine in the vineyard where it is grown while following proper social-distancing protocols. Guests also can enjoy homemade SLH (Santa Lucia Highlands) guacamole featuring



avocados and lemons grown on the ranch along with the grapes.

2020 has certainly provided many obstacles for our industry and nation.

Although Williams and Violini could have easily lingered on the challenges of COVID-19 and the sur-

rounding fires, it was refreshing to witness their agility and resilience. Perhaps we should all follow suit and choose to complain a little less and "wine" a little more.

Kori Wines is offering a 15% discount to FFVA members if they want to order directly. Go to www.koriwines.com and at checkout enter code FFVA. It will automatically discount 15%.



Because Tony Kalogridis was unable to make the trip, "Flat Tony" accompanied the class on each of their stops.



ELDP News

1 Jamie Lang (Class 3) was appointed treasurer of Florida Agri-Women for 2020-21.

2 Clayton Norman (Class 3) was promoted at Bayer Crop Science to Southeast sales lead for Seminis Vegetable Seeds. Previously, he was senior customer business advisor on the crop protection side of the business.

3 Dustin Grooms (Class 4) was named Florida Department of Agriculture and Consumer Services' Veteran of the Month for August. The program recognizes veterans who have excelled in agriculture or in service to fellow Floridians.

4 Adam Roe (Class 7) and his wife, Brittaney, welcomed daughter No. 2 on April 14. Amena Bel Roe joins big sister Bliss Roe.

5 Breanna Lawyer (Class 8) and Austin Thompson were married on Sept. 19.

6 Alison Sizemore Smith (Class 8), husband Brett and stepson Brandon welcomed Eleanor June Smith on Aug. 1. She weighed 8 pounds, 3 ounces and was 21 inches long.

7 Tim (Class 9) and Emily Cuellar were married on July 25.

