

EMERGING TIMES

...growing toward the future

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CALIFORNIA



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Emerging Leaders' California trip broadens horizons

Class 6 of FFVA's Emerging Leader Development Program finished its year with a tour of farming and packing operations in California's Salinas Valley. The group visited large-scale operations of crops that many had not seen before, including artichokes and mushrooms.

The annual trip broadens the perspective of class members and allows them to hear

from others – many of them CEOs of the companies visited – about pressing issues.

The packed agenda included tours of Uesugi Farms, DiMare Company, Gizdich Ranch, Monterey Mushroom, Driscoll's, Ocean Mist Farms, DUDA, the Grower-Shipper Association of Central California, Taylor Farms, Bengard Ranch, D'Arrigo Bros., Tanimura & Antle, Ramsay Highlander and Pisoni Vineyards.

"The California trip is the highlight of the year," said Sonia Tighe, ELDP program director. "We are very grateful for our partnerships with Western Growers Association, the Grower-Shipper Association of Central California, and United Fresh Produce Association who assist us in locating innovative stops. The growers are extremely gracious with their time and tours, providing forthright information on their industries."



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Uesugi Farms springs from a handshake deal



By **Andrew Bryan**
Syngenta

Seldom do we find ourselves faced with an opportunity that would change the outcome of our lives beyond imagination. In the early 1970s, Joe Aiello was faced with a once-in-a-lifetime opportunity that would do just that.

In that opportunity, a farmer of 50 acres named George Uesugi saw something in an eager young man that he knew was special. So with a handshake, Uesugi and Aiello struck a deal. This opportunity would evolve from 50 acres and a handshake to more than 5,000 acres and worldwide distribution.

Today, Aiello's son Pete runs the day-to-day operations, but the Uesugi legacy is as strong as ever.



Pete Aiello of Uesugi Farms (far right) talks about the challenges of farming in California.



Producing more than 20 varieties of produce spanning from California to Arizona and down to Mexico, Uesugi is recognized as one of the premier growers, packers and shippers in the industry.

Innovation and sustainability are top priorities at Uesugi Farms. Pete told the story of how the company's state-of-the-art, 40,000-square-foot cold storage facility was literally sketched out on a cocktail napkin. He also explained that the company's solar power grid provides enough electricity to power it 365 days of the year.

Even though worldwide success and exposure has taken the operation to new heights, the Aiellos keep their local ties strong by always showing appreciation to their employees and local community. Joe and Pete have a firm understanding that the produce industry is not an output-only industry. One of their mottos is, "We know if we take care of the land, the land will take care of us."

California tomato production differs greatly from Florida



By **John McIntyre**
H. M. Clause, Inc.

One of the first stops the ELDP Class 6 made on the California production tour was to see a tomato field and learn about tomato production with Jeff Dolan of the DiMare Company. We quickly realized that growing tomatoes in California was totally different from growing tomatoes in Florida. In Florida and most of the Southeast, fresh market tomatoes are typically grown on raised beds covered with plastic mulch.

They're staked and tied and usually harvested three or more times. So you can imagine that we were somewhat surprised when we pulled up to a tomato field in California that was being grown in bare ground with no stakes.

In California's arid climate there is no need to use plastic mulch or to stake and tie fresh market tomatoes. In the absence of rain and humidity, the tomatoes can come in contact with the ground without the risk of rot or decay. Fresh market tomatoes in California are grown on bare ground with drip tape. The soil is not fumigated and the drip tape is taken up each year and reused for three consecutive years. Tomatoes are hand harvested just once. Dolan told us that they

probably harvest and utilize one-third of the crop's potential yield. However, because they do not have the expenses of fumigation, plastic mulch and staking and tying, their break-even prices are much lower than ours.

The DiMare Company produces tomatoes in California, Arizona and Florida. By growing in these different locations, they are able to ensure year-round production and supply. Dolan said some of the greatest challenges are the mounting number of regulations and paperwork. He said he probably spends, on average, two days a week in the office on paperwork and still has a hard time staying caught up. This challenge is the same one that we heard from many of the growers we visited in California.





Taylor Farms takes quality and efficiency to a new level

On the second day of our California adventure we visited Taylor Farms, a retail packing facility in the Salinas area. We were warmly greeted by their operations manager, Rigo



By **Rachel Giles Bedner**
Growers, Inc.

Ramirez, and taken inside for an up-close look at how they turn locally grown vegetables into packaged products for grocery store shelves across the United States. This facility alone packs about 6 million pounds of product per week and employs around 1,000 people. Throughout our visit in California, the main topic of concern was labor shortages, and even with the size of this operation, Taylor Farms has also seen a decline in labor availability.

After our introduction, we were ready to get geared up and head inside the operating area. Taylor Farms has high standards in many areas, especially food safety, which it takes seriously. We were given earplugs, gloves, a hard hat, hair net and protective smocks to wear. After making our way into the massive operating area, we watched the fresh produce coming into the facility, the wash lines and the processing lines. Taylor Farms uses robotics to help cut down on the extremely strenuous activities and to see things the naked eye cannot. A very interesting piece of machinery is the optical sorter, which is able to detect undesirable items and discard them within seconds.

The company's goal is to run all of the produce within two days of receipt, which can be quite a task when you are receiving around 150,000 cases of produce a day. Taylor Farms is a leader in ingenuity; its dedication to the industry and its workers set it apart.



Designer's goal is to keep equipment simple

Jose Torres, the lead mechanical engineer for Ramsay Highlander, greeted us and discussed how imaging is becoming prominent in the agriculture industry. Growers prefer to keep equipment as simple as possible, he said. That



By **Jordan Yancy Driscoll's**

sentiment was echoed by Ramsay President and CEO Frank Maconachy, who said, "Our goal is to give the growers a turn-key piece of equipment, similar to when you buy a new car." Torres showed our class a lettuce-packaging machine that is new to the industry. The machine will package iceberg lettuce in the field and cut the workforce by 10 laborers, giving growers significant savings and efficiency. Almost all of the Ramsay products are designed and built in-house. Most machines start with an idea or problem for a grower, and then a prototype is built and tested until it is a final product.

Maconachy is a fascinating individual with a background in aerospace and building missiles for the government. He bought the business from his father-in-law about 30 years ago and has built some fantastic machines and equipment for the agriculture industry. Ramsay Highlander holds the patent on the lettuce-cutter being used by Taylor Farms that is powered by high-pressured water. Ramsay Highlander has built countless machines such as lettuce, tomato and watermelon harvesting aids. One of the more innovative projects underway is a field scanner that can detect bird waste in spinach.

From the lettuce packaging machines that can save a farmer the salary of 10 men to the walk-behind lettuce-harvesting aids, to the state-of-the-art imaging machines, the Ramsay team is passionate about bringing solutions to the agriculture industry. With the labor shortages and regulations in California, the work Ramsay Highlander is doing is more important than ever to the California agriculture industry.

Harvester demo shows need for more automation



By **Tony Flottesch**
Lipman Family Farms

We got the opportunity to see Taylor Farms' automated lettuce harvester in action as Chris Rotticci showed us around and explained how valuable this machine is to them and why our industry needs to become more automated. Rotticci and his team designed the machine with the goal of finding a sustainable solution for labor issues. The week before our tour, they harvested 1.27 million pounds of lettuce with the machine.

This machine has reduced the harvest crew from 30 to 16 people and lowered workers' comp insurance (machine harvesting is better ergonomically as there is no bending over). From a food safety perspective, it uses a water jet at



15,000 psi to cut the lettuce, which eliminates pathogens at the soil level. Because there is no knife, there is no cross-contamination and improved shelf life. The water for the machine comes from reverse osmosis, so there is no algae growth, and the 325-gallon water tank on the machine uses about 3.5 gallons per minute and 1,000 gallons a day. That reduction is key because of the water scarcity in California.

Keeping up with the harvest schedule has not been a problem as this machine can harvest 2.5 acres a day, or about 210,000 pounds (700 pounds per man hour). This machine has been a success operationally and financially as it has paid for itself in 56 weeks. Now Rotticci and his team are working on two new machines and testing a machine for celery.





Ag leaders discuss issues, highlight Monterey County production



By **Jordan Yancy Driscoll's**

After a long morning in the field, our class arrived in a revived downtown Salinas to meet with several agriculture leaders to discuss industry issues. We met at the Taylor Farms headquarters, a beautifully renovated building decorated with large images of Taylor products.

First up was Jim Bogart, president and general counsel for the Grower-Shipper Association of Central California. Bogart came to Salinas 30 years ago as a lawyer to help deal with labor unions and contracts. Founded in 1930, the association has a staff of four and board of 13. It represents 400 growers, shippers, packers and others in Central California. It provides legal representation, education and training and advocacy, very similar to the Florida Fruit & Vegetable Association.

Each year the association surveys its members and the results set its agenda. Bogart discussed the top 10 issues, which were very familiar to much of the industry, including our class. The

labor shortage is number one, and labor and employment regulations are number two. Throughout our trip in California, we heard the words "regulation" and "compliance" quite a bit, so it is no surprise that these are the top two issues. Bogart and host from Taylor Farms Leonard Batti discussed how a great deal of the legislation and regulations are based on emotions alone and not facts or science.



GROWER-SHIPPER ASSOCIATION

of Central California

Since 1930

Our next two speakers were Monterey County Agriculture Commissioner Eric Lauritzen and Kim Stemler, executive director of the Monterey County Vintners and Growers Association. The two had just

come from their media conference releasing the 2016 Monterey County Crop Report. The Monterey County Agriculture Commissioner's office is a regulatory agency in California that reports directly to the Secretary of Agriculture, with an annual budget of over \$10 million. The commissioner's office is responsible for pesticide use enforcement, weights and measures, certifying products and more. Lauritzen discussed the issues in Monterey County and discussed the crop report in detail. Key issues were pesticide use, fumigants for strawberries, water, and the farmworker advisory committee. Monterey County had a gross production value of over \$4.2 billion in 2016, down slightly from \$4.7 billion in 2015. The county produces 70 percent of our nation's lettuce.

Stemler gave a brief history of wine growing in Monterey County. During the early 1960s, Monterey County was named one of the promising regions to grow grapes. The two most-planted grapes in the region are chardonnay and pinot noir. Monterey County had 25,000 acres of wine grapes planted by 1980 and now has over 45,000 acres with a crop value of \$239 million. The Santa Lucia Highlands growing region has been named Best in California the last few years in a row.



Proprietary varieties give DUDA the edge on celery

Sammy Duda took us on a tour of a DUDA celery field that was being harvested and shared information about the company's California-based operations. The celery was being cut by hand, washed, boxed and palletized right in the field using a custom piece of harvesting equipment. We learned that DUDA is one of the leading celery producers in the country and that it even has its own in-house breeding program.



By
John McIntyre
H. M. Clause, Inc.

DUDA employs three full-time PhDs dedicated to seed research. The celery breeding program is geared toward breeding for flavor and developing a sweeter celery. As a result, DUDA has eight to 10 proprietary varieties that only it and its partners are allowed to grow. These varieties give DUDA its biggest advantage over the competition and are

the main reason why the company has such a high market share in celery (32 percent overall and 63 percent of the celery stick market).

Although DUDA does a lot of value-added and fresh-cut celery packaging, whole stalk celery is still its biggest seller.

In addition to celery, we learned that DUDA grows 10,000 to 11,000 acres of vegetables in California, 90 percent of which are grown by partners or through contract growers. Crops that DUDA produces in California include celery, romaine, romaine hearts, iceberg, leaf lettuce, broccoli and cauliflower.

Sammy Duda also discussed some of their greatest challenges to producing crops in California – particularly regulations and the labor shortage. Building housing for H-2A labor in Salinas was almost impossible, he said, adding that in a couple of years the minimum wage in California will be \$15 an hour.



Gizdich Farms finds success in selling directly to consumers



By **Kyle Hill**
Southern Hill Farms

Welcome to Gizdich Farms, where the term "home-made" is as real as it gets.

We arrived at the farm at lunchtime and were greeted by Vince Gizdich, the owner of the fourth-generation farm who treated us to an outstanding meal. We were served freshly squeezed lemonade, sandwiches from the deli and homemade pies from the farm. After lunch we had a tour of the grounds and got a brief history of the farm.

Gizdich Farms was started in the 1930s on 10 acres growing apples. The owners struggled to stay in the black until the 1950s, when they decided to bring the public to the farm. They learned that their crop had much more value when they sold directly to the consumer. That is when they began the U-pick experience.

Today, Gizdich Farms is just under 100 acres with its main crops being apples and berries. They also have an antique shop, a pie bakery, a deli, a small juice plant and a gift shop. We ended the tour with Gizdich taking us



through the juicing plant. He served up some of his famous freshly pressed apple juice for everybody to try.

Of all the farms we visited, Gizdich Farms stood out the most due to its success with such small acreage. They are able to add such value to their crop by selling directly to the public and finding their niche.

Monterey Mushroom grows 52 million pounds a year



By **Simon Bollin**
Hillsborough
County Economic
Development Council

Two things we don't have much of in Florida are hills and commercial mushroom production. We got to see both at Monterey Mushroom in Watsonville. After our tour bus had crept up the side of a mountain on a narrow road, our host Matt Fuller joined us to give a tour of the operation.

Monterey Mushroom is the largest mushroom producer in North America,

with 10 farms across the country. The Watsonville location covers 270 acres and produces 120,000 pounds a day – 52 million pounds a year – of shiitake and baby bella mushrooms.

Mushrooms are produced in three phases. The first step is composting, which includes dried horse waste and straw, along with other bulking agents such as alfalfa or cocoa bean hulls. These are blended together in aerated windrows. Composting takes 35 days for completion. The next step



is pasteurization, in which wooden trays are filled with finished compost and steam-pasteurized for four to five days. Finally, there is inoculation and fruiting. Once compost trays are inoculated, they are covered in a layer of peat to retain water. They will remain in the spawn rooms for 10 to 12 days, during which time the ventilation system will be shut off. This will cause carbon dioxide levels to increase, stimulating mushroom growth. There are three harvests, each lasting about five days. Used compost is again sterilized and given to local farmers to use on their vegetable and orchard crops. The entire mushroom growing process takes about 30 days.



Kyle Hill gets a look at the mushrooms, which are harvested in three five-day intervals.



D'Arrigo Brothers were pioneers in branded fresh produce



By **Jeff Searcy**
Helena Chemical Co.

D'Arrigo Brothers was started by two brothers, Stephen and Andrew, who were on a visit to California to purchase grapes for wine. They noticed the fertile farmland and perfect growing climate that Central California offered. When a small package of broccoli seeds arrived by mail, the two brothers were in the vegetable growing business with a 28-acre farm. They quickly realized there was a demand for quality vegetables in the eastern United States and became the first in the industry to ship their produce across the country by rail. As their business grew, they realized they needed to separate themselves from the competition, leading to the first-ever branded fresh produce. Their trademark brand Andy Boy was formed in 1927 and is still in stores throughout the country. Today, they have more than 30,000 acres that include broccoli, broccoli rabe, cauliflower, artichokes, fennel and more.

Mark Houle met us at the cooling facility and after a brief history of the company we entered the cooler, which covers more than 150,000 square feet and has 43 loading bays. He gave us an overview of the different cooling systems in the facility, including the hydro cooler, the hydro-vac and the forced air

system. Each cooling system is designed to package specific products to ensure their superior quality standards are met at the store and consumer levels. Their goal is to have all products out of the cooler within three days of arrival, and the systems they have

in place to accomplish this are truly a sight to see.

With about 400 truckloads per day shipping out of the facility, it was fascinating to see what goes on behind the scenes to make the company run smoothly.



Ocean Mist Farms: Long in history and food safety

At nearly every stop of the California tour, Class 6 was amazed at the vast differences in growing culture and production practices of our western counterparts.



By
Zach Sweat
TriEst Ag
Group Inc.

While the group saw nearly everything the state had to offer, one stop was quintessential California: Ocean Mist Farms.

Ocean Mist, located in Castroville (the Artichoke Capital of the World), is the world's largest producer of artichokes, accounting for more than 90 percent of the market share. On Day Two of farm tours, Glen Alameda of Ocean Mist offered an in-depth look at the company history and field operations.

Although Ocean Mist has expanded to provide over 30 different fresh vegetable lines, artichokes are still king. Of the 7,000 acres Ocean Mist has in production, two varieties of artichokes – perennials and annuals – make up around 3,500 acres. The annuals are planted every year, and there are some perennial fields that have been in production for 17 years and are derived from the original heirloom rootstocks.

Mark Reasons continued the tour in the company's equally impressive processing plant and cooler. While showing the full process from unloading to cooling and shipping, Reasons emphasized the company's commitment to food safety.

As part of the food safety program, Ocean Mist has a strict four-hour cut-to-cool policy and a six-day aging policy. The aging policy rarely needs to be enforced because most products are shipped within two days of harvest. Reasons was happy to report that the company received a 98 percent rating on its last Primus GFS audit, placing Ocean Mist in the top tier of superior.

"Food safety is paramount," Reasons said. "We are the last eyes before the consumer."

With its market position and strong commitment to consumer health and happiness, Ocean Mist is sure to remain an industry leader for years to come.





Driscoll's commitment to innovation is evident

Driscoll's proved to be as equally adept at hosting tours as they are at selling delicious berries during our visit to their Watsonville office and nearby producer-partners. Craig Wyatt, northern crop production manager, spent time educating us on protected agriculture in the form of high-tunnel blackberry production. The investment in bringing a crop to market (\$45,000 per acre a year plus initial infrastructure) and the high-maintenance nature of blackberries makes necessary Driscoll's – and its growers' – commitment to innovation.



By
Travis Kuhn
Spring Valley
Farms

Parker Weiss, applied research manager, and his teammate Erik Espinoza showed the dire nature of hand labor in California. The situation has become so challenging growers are rethinking their production. Driscoll's is partnering with one particularly pioneering grower who is trying to grow strawberries in what could most simply be described as an open-air hydroponic system. Think elevated, waist-high rails of strawberry plants with delicious red goodness hanging from the plant ready to pick ... and that's what we were observing (and tasting). The idea is simple: minimize harvester strain while increasing harvesting efficiency and the pickers will come. Everything, including equipment, nutrition, infrastructure and irrigation, must be reinvented in this new system. But all that is the challenge, and the thrill, of being on the cutting edge of the game.

As if seeing two crops wasn't enough, to wrap up the tour we were treated by Lucia Rocha and Zach Silva to a tour of their organic raspberry production with an all-you-can-eat invitation. Special thanks to Emmett Linder for dinner and a crash course of Driscoll's history via its Driscoll's University program. The commitment to excellence and innovation certainly has brought Driscoll's a long way from its humble beginnings in the Pajaro Valley.



Bengard visit highlights labor shortage

On our final day, we met with Bridget Bengard Rotticci, daughter of company president and CEO Barden Bengard. Rotticci gave us a brief history of how the company got



By **Kyle Hill**
Southern Hill
Farms

started and a little about the family. Bengard Ranch was founded in the late 1800s in the Salinas Valley and now grows around 15,000 acres of vegetables. The company primarily grows broccoli, but it also produces iceberg and romaine lettuce, celery, cauliflower and other leafy vegetables. Outside of Salinas, Bengard grows crops in Arizona and Mexico and is in a partnership in Florida with TKM Bengard Farms in Belle Glade.

After our visit to the company's headquarters, Rotticci took us on a short bus ride to one of their broccoli farms. It was late in the afternoon and the wind was blowing upwards of 30 mph with the temperature in the 60s. In the field, we watched a crew harvesting broccoli. One of the operating managers, Marco Villanueva, demonstrated how the broccoli is harvested. One of the problems they are having is finding sufficient labor. Like Florida, labor is a very big issue that is getting worse every year, and something must be done to remedy it.



Tanimura & Antle tackles labor issue with housing



By
Zach Sweat
TriEst Ag Group Inc.

Because of California's high cost of living and competitive markets, a readily available and adequate labor force is at the top of every grower's wish list. One of our tour stops was Tanimura & Antle, a leading fresh market producer whose groundbreaking housing facility has helped insulate them from the growing labor crisis.

After losing substantial acres of valuable cropland because of the labor shortage in recent years, T&A decided

to invest in a one-of-a-kind housing community, dubbed Spreckles Crossing. Opened in 2016, the 100-unit facility houses up to 800 seasonal employees. Complete with its own grocery store, community center and recreational athletic fields, it's easy to see how T&A has a leg up on its competition.

"Our housing is an incentive. Because of it, we do not have the labor shortage that many farms face," said Nick Sgheiza of T&A.

Unlike most employee housing, Spreckles Crossing resembles a college campus more than a labor camp. With reasonable rates – \$125 a month per employee for a shared room – T&A isn't looking to make money on the venture; rather, it is breaking even ev-

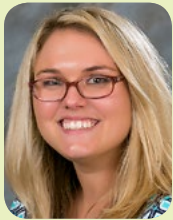


ery month. The certainty of a domestic labor source to plant, tend and harvest is all the payback the company needs to justify the building. In fact, allowing them to avoid having to use the H-2A labor program has been a huge bonus.

"It would be cheaper for us to offer housing for free to domestic workers than to use the H-2A program," Sgheiza said.

On its website, T&A says it hopes its housing program will set a standard for the rest of the industry. With dependable seasonal labor guaranteed to continue to be an issue, T&A will surely be an interesting case study for all to follow and possibly emulate.

Vineyard produces prime grapes from mountaintop perch



By
Emily Duda Buckley
Jones Walker LLP

The final stop on Class 6's California production trip was the family-owned and operated Pisoni Winery. Run by the second-generation Mark Pisoni and his brother, the winery is nestled in the highest part of the Santa Lucia Highlands. The Pisonis grow pinot noir and chardonnay grapes at an elevation of 1,400 feet, which Pisoni said is the best spot to grow grapes in the valley.

The company targets the high-end wine market at about \$25 to \$100 a bottle. Because of this, the family

takes extra care with its grapes. Lean soils and stressed grapes make the best wines, so while there is very little input required, it is still a labor-intensive crop. According to Pisoni, all the flavor of the grapes is in the skin and seeds, so to maximize their flavor the vines are touched every seven to 14 days. Wine grapes in this region have very low yields, he explained. He expects the vineyard to yield two to three tons per acre, compared with table grapes, which yield 10 to 15 tons per acre. It's not surprising that bottles of wine can be quite expensive.

Hand-harvested in the dead of night to preserve flavor and freshness, Pisoni's grapes make a delicious selection of wines that Class 6 enjoyed



sampling. With its flavors of citrus, the chardonnay is known for its acidity, while the pinot noir was pleasantly fruity and had a nice spice. The stop at Pisoni Vineyards was the highlight of a wonderful California trip that we won't soon forget.



ELDP News

- 1 Carden Nicolas Beuttenmuller was born on June 6 to **John Beuttenmuller (Class 4)** and his wife, Kelly. Carden weighed 8 pounds, 3 ounces and was 20 inches long.
- 2 Nolan Robert Roe was born on March 29 to **Geoff Roe (Class 3)** and his wife, Nicole. Nolan is son number three for the Roes.
- 3 **Jessica Kerstein (Class 2)** and Max Press announced their wedding, which was July 30 in Beaver Creek, CO.
- 4 **Clayton Norman (Class 3)** and his wife, Candice, announced they are expecting their first child in December.
- 5 Clark Everett Porter was born June 1 to **April Roe Porter (Class 1)** and her husband, Kyle. Big sister Brooklyn helped welcome Clark to the family.
- 6 **John Alderman (Class 4)** and **Jonathan Allen (Class 2)** were both named to the 40 Under 40 Class of 2017 by *Produce Business*.

