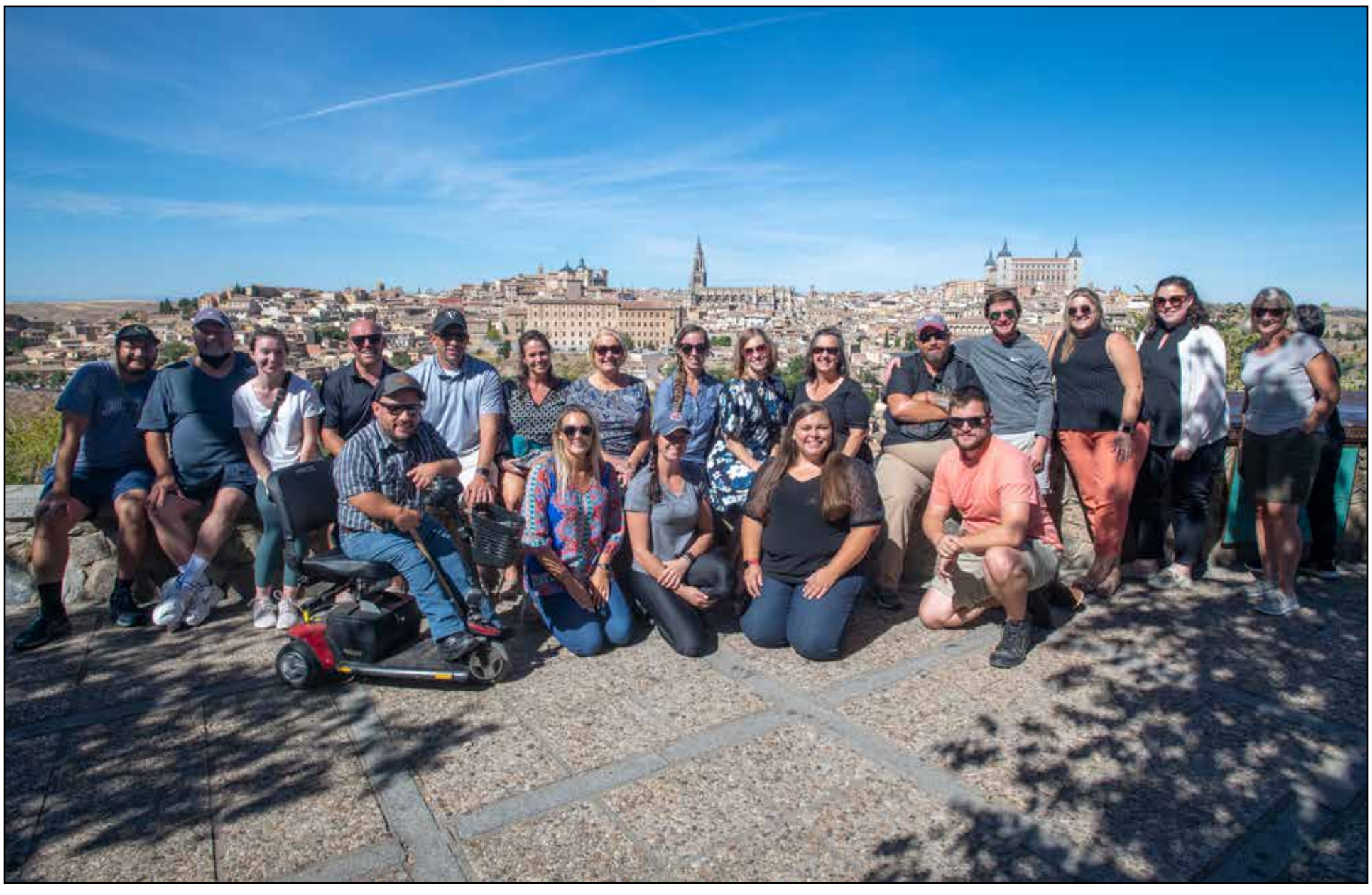
LEAD Maryland

Agriculture • Natural Resources • Rural Communities

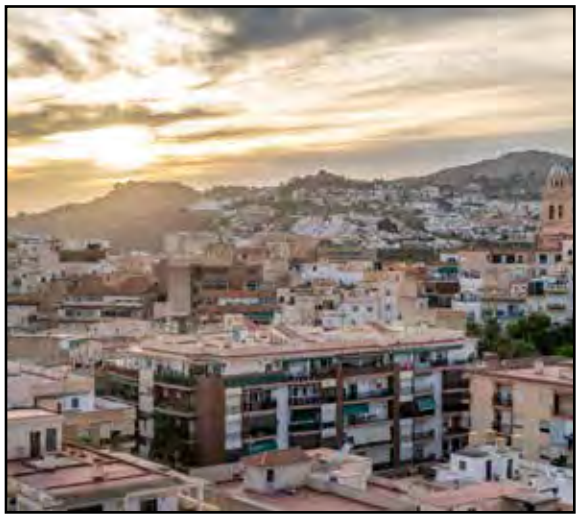
Class XI International Study Tour

Cultural connections across the sea

Leadership Fellows' agricultural-focused trip to Spain dazzles senses, provides inspiration



LEAD Maryland Class XI gathers overlooking the ancient city of Toledo, Spain. Back row from, left is Edward Goodman, Keith Ohlinger, Sarah Butcher, Ryan Snow, Geoff Delamater, Elizabeth Hill, Deana Tice, Allison Sirna, Katherine Crawford, Karen Fedor, Karl Shlagel, Jesse Albright, Allison Roe, Elizabeth Hoffman and LEAD Maryland Foundation President Emily Wilson. Front row from left is Andrew Kness, Katie Luckett, Erika Crowl, Jessica Armacost and Martin Proulx.



Travel Log: Sept. 18-22

LEAD Maryland Class XI traveled to Spain on its international study tour Sept. 18-29. Visiting with farmers and agricultural officials in and around multiple cities, the class experienced a wide variety of Spanish culture. Stops included Seville, Granada, Toledo and Madrid.

Farm visits were just as diverse, touching on olive production, the renowned Iberian ham, tropical fruit beef cattle, dairy, seafood, and greenhouse growing operations.

Upon their return, the fellows penned their reflections and take home messages chronicaling the journey.

These are their stories.

LEAD Maryland Foundation, Inc. is a non-profit organization dedicated to identifying and developing leadership for agriculture, natural resources, and rural communities.
For more information, visit www.leadmaryland.org.

Anticipation, concern high to start trip

By KEITH OHLINGER
Owner, Porch View Farm

September 18 • I found out I was accepted into LEAD Maryland Class XI on Nov. 16, 2018. Little did any of us know that the world would change so much after our Annapolis Seminar in February 2020.

What was meant to be a two-year program has ultimately evolved into a four-year program. Seminars were canceled and rescheduled, and portions of seminars were conducted over Zoom. We held happy hour gatherings over Zoom and played games trying to keep the camaraderie alive. As time wore on Zoom fatigue lessened interest. I called my classmates every two weeks to check in and keep up with how everyone was doing. We had the highs and lows of classmates starting relationships, ending relationships, getting married, having babies, buying homes, and changing jobs. All the while Covid-19 loomed large in everyone's plans.

"Would we go to Spain in September?"

"Will there be a vaccine?"

"What will be open?"

"Will we enjoy the same depth and breadth of experience that previous classes had?" and what about our safety?

My personal challenge was that I had pneumonia four times and severe bronchitis four times in my life and that put me at risk that Covid could end my life. So, every day simple normal human interactions that I would have done without a second thought suddenly had to be weighed with potential severe illness and/or death. I entered the program with a sincere desire to learn and grow and help the next generation to learn and grow as well. How do I balance my health and future, the safety and security of my family, with the commitment I made to LEAD prior to Covid?

Our family switched to a tight protocol of masks and avoiding events, the girls were in virtual school and my wife could work from home. We all got vaccines and boosters as soon as they were available. The trickier part came as things started to open but up. We could only miss a few seminars, but I didn't want to miss any. I did one virtually, but it wasn't the same. I missed my class terribly, it's a fun crew and we always have such a good time together. Every potential date for a seminar brought severe emotional trauma. What were Covid rates in the area where we were heading, and what were the risks? Would we be in restaurants, buses, and vents? Would we have roommates, how strict were they following Covid protocols? The Washington D.C. seminar was scheduled for the height of the delta variant but then was rescheduled. My return to an in-person seminar during Covid was in Baltimore. Thankfully it landed between delta and omicron. It was great to see my classmates and I had received my booster two weeks prior so I was as ready as I could be. It was a great seminar and I didn't get Covid so it was a victory! I received my second booster prior to the rescheduled Washington D.C. seminar and made it through without Covid so another victory. Now came the hard part, June 1 was the cut-off for committing to the September 2022 Spain trip. If you committed and then canceled later you would owe the program thousands of dollars, if you declined now you weren't going to Spain.

I had been to Spain twice before and loved it. Of course, I wanted to go again, especially with my great friends! I knew a new vaccine was being worked on that was projected to be ready for September. If I could get it I would be in as best of shape as I could vaccine-wise, so I committed and worst-case scenario I would have to cancel later and pay the money. Thankfully all the stars aligned and the new bivalent vaccine was released on Sept. 1. I got it the next day so I was as ready as I could be, again.

On Sunday Sept. 18, we all arrived at the airport at various times. Eastern Shore folks had to leave extra early to battle end-of-season beach traffic on the Chesapeake Bay bridge. We boarded our flight and our trip began. It was my first time at an airport and being on a plane since the start of Covid and I was terrified. I was masked and vaccinated so I was as ready as I could be.

The first leg was smooth, we had a nice meal served which I didn't realize airlines did anymore. I had packed everything in a carry-on so I didn't have to worry about checking bags. We had been required to fill out forms regarding Covid and vaccination status but no one seemed to care. Some laughed when we offered them. There were some inconsistencies with checking luggage and what was allowed but everyone made it through.

All photos, unless otherwise designated, were taken by Lena McBean, professional photographer for Remsberg Inc., who traveled with Class XI. Visit www.remsberg.com.

Hot, sweaty and exhausted, but eager to see Seville

By KEITH OHLINGER
Owner, Porch View Farm

September 19 • We landed in Lisbon, Portugal and the first thing that hit you was the heat. I was dressed for airplane air conditioning so immediately I began sweating. The airport was packed and thankfully our flight to Seville was delayed or we would have missed the plane. It took a while to get through customs but we made it through with no problems.

The final leg was a short one-hour flight on a smaller propeller airplane, but we made it safely. Thankfully everyone's luggage made it to Seville and we were met by our wonderful guide, Ismael Aguilera. The various flight delays put us ultimately about three hours behind schedule, so we had lunch and then the walking tour began.

Unfortunately, many hadn't slept in about two days, so we were hot sweaty and exhausted.

We had our first encounter with multiple-course Spanish meals at lunch. We ate in a restaurant at a beautiful plaza.

The food was delicious. When we finished we met our guide for the walking tour through Seville. It was hard to focus on all of the wonderful information with jet lag and exhaustion. Everyone was happy and grateful to be in Spain but I was thrilled to pass out when we finally got to bed.

A postscript for those wondering, thankfully I did not get Covid during the trip and had a wonderful time. Victory!

Tuna facility, salt marshes show dedication land and sea

By SARAH BUTCHER
Natural Resources Planner, Maryland Department of Environment, and
JESSE ALBRIGHT,
Owner, operator, Albright Farms

September 20 • Today we departed to the southwest part of the coast to a fishing port in the beautiful, quaint town of Punta Umbria. This small fishing village is one of the top ports in Spain. We were greeted by our tour guide (and local), Manuela.

We started with a tour of the fish auction market, where about 40 tons of fish are caught and sold each day. The fish are brought in directly off the boats and immediately graded and sorted by quality. This morning being auctioned were sardines, anchovies and mackerel. The afternoon market would have the more expensive fish, such as octopus and shrimp.

The topic of regulations and food safety came up, and it was interesting to learn how similar it was to the U.S. The European Union regulates how much can be harvested as well as when you can fish. The EU also inspects the fish for diseases, similar to the USDA. Also similar to the U.S., the price of fish is driven by supply and demand, and the fisherman gets a percentage of the sale price. Today, the price was 15 euros per box.

Next, we visited the USISA canning fish factory in Isla Cristina. Upon arrival, we dressed in full

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protective gear before entering the processing area, and, Oh, that smell of canning fish hit you like a wall.

First, we visited the tuna room, where there were 250 frozen tuna laying on the floor. All the tuna in that room was scheduled to be cut up on Thursday but was thawing so that it would be workable by Thursday.

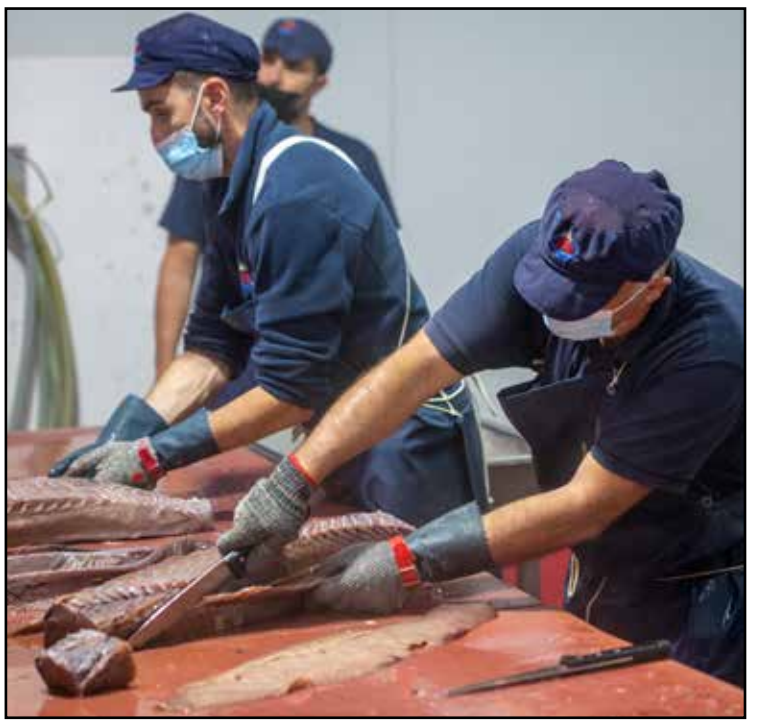
We watched an amazing demonstration of how the tuna is carefully cut to get all the meat off the ribs — this is one of the few remaining artisanal factories in Spain where this is done by hand and not by machine.

Next, we walked through the fish processing area where women were picking the bones out of tuna and mackerel fish by hand and canning them. It surprised all of us to discover they get paid by the hour, not by how many fish they process. Clearly, the quality of the work was what was most valued by this company. It was very interesting that most of the materials used were sourced from the local region, specifically tuna, sea salt, and olive oil.

After an interesting lunch experience in a small town during siesta, (so many establishments were closed), we made our way to the Isla Cristina salt marshes. There were dozens of rows of large pools of water with salt caked on the tops and sides.

We met with the owner's daughter who immediately began passionately telling the story of how her grandparents obtained the salt marshes. Despite us needing a translation of what she was saying, you could still tell the pride she had in maintaining this family tradition. This remains the only artisan salt marsh in the country- the salt is harvested by hand using a skimmer, and all the tools used are handmade. We learned that depending on what stage the salt is harvested at, it holds different properties. Salt in its early stages is more of a foam consistency and has a low sodium content, which makes it great for cooking. Our visit was complete with getting to taste and feel the salt from the pools. It truly was an amazing experience.

Headed back to Seville for dinner where we had a full menu of wonderful tapas, which are normally small plates. In this situation, they rolled out the red carpet as these were not small or few. After many rounds of wonderful food, we were greeted with a large dessert plate which we still managed to be able to eat. The whole day was a wonderful representation of southern Spanish culture and food.



At the USISA canning fish factory in Isla Cristina, tuna is carefully cut to get all the meat off the ribs — this is one of the few remaining artisanal factories in Spain where this is done by hand and not by machine.

Food market, labor strike and a horse girl's dream

By ERIKA CROWL
Senior Agent Associate, Agriculture, University of Maryland Extension

September 21 • On our third morning in Spain, our class was finally settling in to the time change, attempting to adjust to the copious amounts of food and wine, and our long days of traveling. We were still staying in our first city, Seville, but traveling to various parts around the area. Today, our schedule included visiting a local food market, a Carthusian-Andalusian breeding farm, and a sherry winery.

The day before we spent a large portion of the day in a canning fish factory, so the hairs inside my nostrils were still plagued with the terrible smell, so I wasn't so sure what I was about to experience at the local market we were headed out to visit. To my surprise, this was not the local market I had envisioned.

In Maryland when I go to a local market, we have a large area, normally in a parking lot with local farmers selling various vegetables, fruits and meats. Here in San Miguel, the market consisted of women's clothing, underwear, churros, pigs' feet, and fish; if you're raising an eyebrow right now, just know you're not alone. When you first walk up to the market all of the clothing vendors are located outside a large, covered building. Inside this building each food vendor has their own space with their names printed out on a headboard above their food showcase.

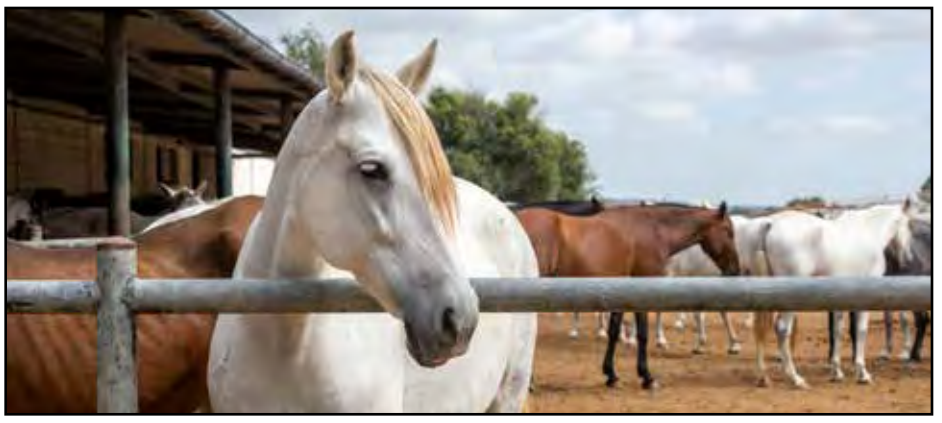
As we headed out of the market back to our bus, we happened to walk through a protest, something I have only witnessed on TV. The rail workers union had gone on strike and were calling for the Spanish government to meet labor law standards and better pay. Since the pandemic, the union has laid off 700 rail workers and this was not sitting well with them.

Once back on our bus, we headed out to a Carthusian horse breeding farm in Jerez called Yeguada de la Cartuja.

As a crazy horse girl, it was a highlight for me to visit this operation, as it is considered the world's largest Spanish purebred horse stud farm. The Carthusian breed is one of the oldest and most important breeds of horses to the Spaniards. Unlike most farms here that are privately owned, this farm is owned by the Spanish government and run by a private entity. At Yeguada de la Cartuja, the staff are committed to preserving a lineage that stems from the 15th century. While this serves as a breeding farm, they also train these horses in different disciplines such as dressage and carriage driving.

Something I thought was very interesting is that coming from the Thoroughbred world, we only allow studs to live cover mares. This is to ensure the breed will stay purebred and the offspring will inherit the strongest genetic traits.

In the Carthusian breeding world, every mare is artificially inseminated. This allows for safer breeding practices and the use of advanced technology to genetically modify the breed to make it stronger and better. It was very cool to see their facilities and compare it to ours in the United States.



The Carthusian breed is one of the oldest and most important breeds of horses to the Spaniards.

The Viña Bristol winery, in the hills of Jerez de la Frontera enjoys over 300 days of sun per year with high rainfall.

Jerez de la Frontera, the perfect place for grapes

By KATIE LUCKETT
Marketing & Communications Manager, Choptank Electric Cooperative

September 21 • Next, we were off to a beautiful sherry winery, Viña Bristol, in the hills of Jerez de la Frontera – the sherry capital of the world! This town is located a few miles inland from the sea between Cadiz and Seville and boasts the perfect climate for growing the types of grapes to make sherry: warm summers and mild winters (over 300 days of sun per year) with high rainfall. Winds from the Atlantic Ocean are humid and winds from the sea are dry, and this area gets both.

The soil there is white, which is very sandy and rocky, but can retain water in the summer like a sponge. This is significant because farmers are not allowed to irrigate vineyards here. A unique tactic the farmers use here is to dig a hole in front of the vine roots so it will hold water for longer (like a small gully). The soil is poor in most nutrients, but rich in nitrogen, so farmers are permitted to use chemical fertilizers.

The winery currently grows 800 hectors of grapes annually (nearly 2,000 acres) and three varieties. The best time to replant vines in the region is December, and pruning occurs in January. This process calls for fermenting the grapes right after harvest and adding alcohol to the wine to take it from 12% to up to 18%.

After learning about the winery and processes to make sherry, the class got to sit outside in the gorgeous courtyard and taste three types of wine. These were quite different from wines we were used to, and some enjoyed the strength and sweetness more than others. The sherry wines we tried were made up of Palomino and Pedro Ximénez grapes – both very popular varieties in the region.

We ended our day returning to our hotel in Seville and enjoying a dinner out on our own for the last night in the city. Many of the class walked around to shop, taste the local tapas, and enjoy the warm weather.

Starting with breakfast, the day did not disappoint

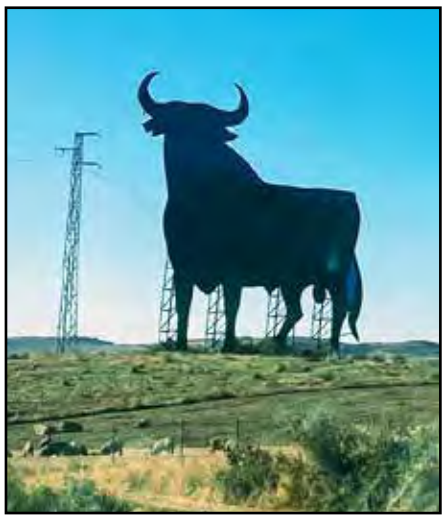
By JESSICA ARMACOST
Owner, Corner Mill Farm and AgGrow Management

September 22 • The alarm clock buzzed early on day 5, it was the first morning we would need to pack our luggage and prepare for a hotel change. I offloaded several speaker gifts to my classmates so I found it quite easy to fit all my belongings into my luggage, I wouldn't be able to say that for long.

The hotel breakfast didn't disappoint, it resembled more of a charcuterie board than the traditional American breakfast with its cheeses, jamón serrano (thinly sliced cured country ham), olives, walnuts, fresh fruit, warm pastries and an assortment of fresh fruit juices. The delayed bus gave everyone an opportunity to grab another espresso and breakfast for those who had overslept or forgot they had to pack. Little did we know that we were about to embark on the longest one-day LEAD seminar in history!

As we traveled the motorway, among the olives groves and mountains is the very memorable sight of huge, black bull silhouettes. What started out in 1956 as an advertisement by Osborne Sherry for their 'Veteran Brandy' has become a Spanish icon.

The once wood but now metal bulls stand 46 feet high and weigh over 8,819 pounds and can be found throughout Spain. In 1994, in effort to crackdown on advertisements on the motorways the Spanish government planned to remove the bulls, but a campaign to "Save the Bull" was successful. In 2005 a judge declared the bull to be a national symbol after the Osborne Group brought a case against five companies for using the bull image. Today only 91 of the original 500 bulls remain integrated into the countryside along the motorway; the artwork is considered an icon of 21st century design.



Advertisement turned icon, metal bulls standing 46 feet high and weigh more than 8,819 pounds can be found throughout Spain.

Photo by Jessica Armacost

The coach zoomed to the Puerto-Gil city in Huelva which is situated 230 miles south-west of Madrid.

The small, whitewashed town is home to Jamónes Eíriz, a favorite with tourists for their gastronomic visits in their agrosilvopastoral pasture and aromatic guided tasting of Iberian ham. We were happy to stretch our legs with a walk up through the Sierra de Aracena Mountains field shaded by the cork and holm oak trees. Class Fellow Beth Hill was excited to hear that the trees hold the key to the black label 100% Acorn-fed Iberian Ham.

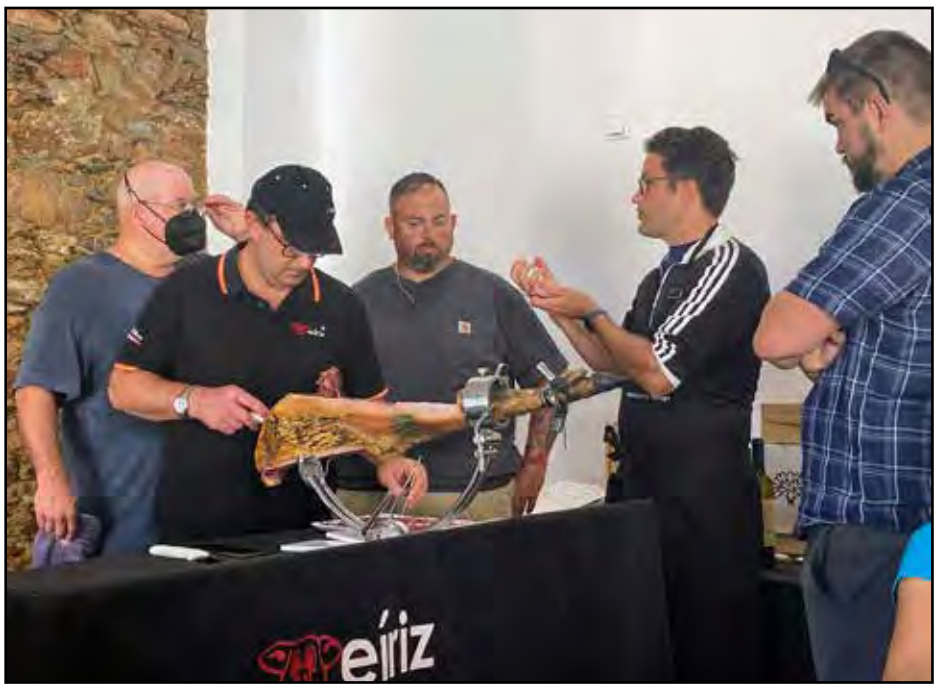
We learned that in addition to the acorns, the cork oak tree provides additional income to the farm when the cork is harvested every six to ten years. In our later shopping adventures, we found a variety of cork bottle stoppers, cork accessories, cork shoes, cork bags and wallets.

The cork and holm oak trees live on average 200 years and provide a beautiful canopy for the hogs. The Iberian pigs are free to roam among the trees and their main diet is the acorns from the trees.

The farm is nestled in the Sierra de Aracena and Picos de Aroche Natural Park which is a protected area in the Sierra de Aracena range, part of the Sierra Morena mountain system in southwestern Spain. The natural park spreads across 454,673 acres.

The 6-acre pasture we walked is home to only six purebred Iberian pigs, a type of agrosilvopastoral system in which trees and crops are integrated into livestock production for sustainability. In the pasture, our guide Manuel explained the production guidelines and inspections established by the government to guarantee both the safety and quality of the hams, which receive a C.O. certification. The acorns are sweeter on the other side or so thought the neighbor's pig who tried to sneak in and enjoy lunch with the home team, but he was mistaken, he was promptly put into his place and sent back home without enjoying even a bit of the midday meal.

Jamónes Eíriz purchases an additional 2,200 hogs a year for curing, depending on how these hogs are raised will determine the colored label they qualify for. For the Iberian pork industry, the authentication of the product is incredibly important, the four-color label system is clear for farmers and consumers, something we could learn from here in the states.



Class XI Fellows Keith Ohlinger, Karl Shlagel and Martin Proulx jumped at the opportunity to learn how to carve the Jamón after it was carefully placed in the ham holder.

Photo by Jessica Armacost

Iberian pigs feed on acorns at Jamónes Eíriz.

The label factors in three components: 1) the breed of the pig: The Iberian pig, the small brown breed native to Spain, is the finest jamón producer. Some pigs will be 100% Iberian, others will be part Iberian mixed with another breed – mother pure Iberian and father mixed; the percentage of Iberian must be specified so its exact genealogy can be traced. 2) What the pig was fed: Acorns, natural grazing and cereal. Finally, 3) Where the pig was raised — free range or penned.

The Black Label Iberico Ham (Black Label Jamón) is the finest available and indicates a pure-bred Iberian pig which has been fed only acorns during the montanero period from October to January when acorns fall from the oaks. The Black Label Jamón is often called "Pata Negra"(Black Hoof) or Jamón Iberico De Bellota, which means Iberico Ham of Acorns. The acorns give the Jamón its distinctive nutty nuance and flavors. Black label pigs must also be free-range on the agrosilvopastoral system, a requirement that is certified by local regulators. The Red Label represents a pig which is 50-75% Iberian and the pig has been allowed to roam free and also fed only acorns during the montanero period. The Green Label is a pig at least 50% Iberian and has been allowed to roam freely, eating both acorns and grain. The White Label Iberian Ham is a pig with at least 50% Iberian but that has been kept enclosed in a pen and grain fed.

After the cool walk in the pasture, we don white hair nets, jackets and shoe coverings to enter the ham dryer where we learned about the salting treatments of hams and the difference the growing conditions had on the final product. At Jamónes Eíriz they use a traditional natural drying method and decades of experience to control the humidity and temperature during the two-year curing process.

We carefully walked through the drying rooms with color tagged Jamón hanging above our heads and on racks to each side of us, it was clear that space in the processing facilities is a premium, just like at home.

Following the tour of the natural drying house we were escorted to a beautiful tasting room with a station for everyone that overlooked the picturesque oak-covered mountain range.

Class Fellow Keith Ohlinger had thoroughly enjoyed learning and comparing their agrosilvopastoral pasture practices with his own but I can say without a doubt his favorite part of the day was the sampling. During the tasting we were given a blind sample of 50% Iberian "Cebo" ham and the 100% Iberian "Bellota" ham C.O. Jabugo.

After looking and smelling the aroma of the thinly sliced Jamón we were encouraged to allow it to sit on our tongue and to feel the texture, flavor and astringency. Since we were asked to keep these journals Grated, I can only describe the sounds Keith made after each sample as euphoric.

We were asked to identify the blind samples and of course after tapping into our five senses on the Jamón, we nailed it! Keith, Karl Shlagel and Martin Proulx jumped at the opportunity to learn how to carve the Jamón after it was carefully placed in the ham holder.

I was surprised to learn that you just need to place the fat layer after slicing and cover the Jamón with plastic wrap to preserve it until you slice it again.

If you want to try your hand at carving your own Iberia Ham you can have your own Altos de Iberia Serrano Ham and Carving Kit with Ham Holder shipped to your home from Sam's Club for a pretty reasonable price.

As you would expect the Black Label is very expensive because of the limited amount that is produced given the acreage and acorn requirement. The Black Label Jamón has the melt-in-your-mouth texture and often looks sweaty because the fat is soft to the touch. If you look closely, you can see small white specs in the meat, this is a chemical reaction that is a result of the acorn diet. While we could see the difference in the Jamón it was clear that everything that was served was delicious, there wasn't a sample to be found at the end of the tasting.

Cooperative tour spurs comparisons with Maryland

By KAREN FEDOR
Program Administrator, Maryland Department of Agriculture

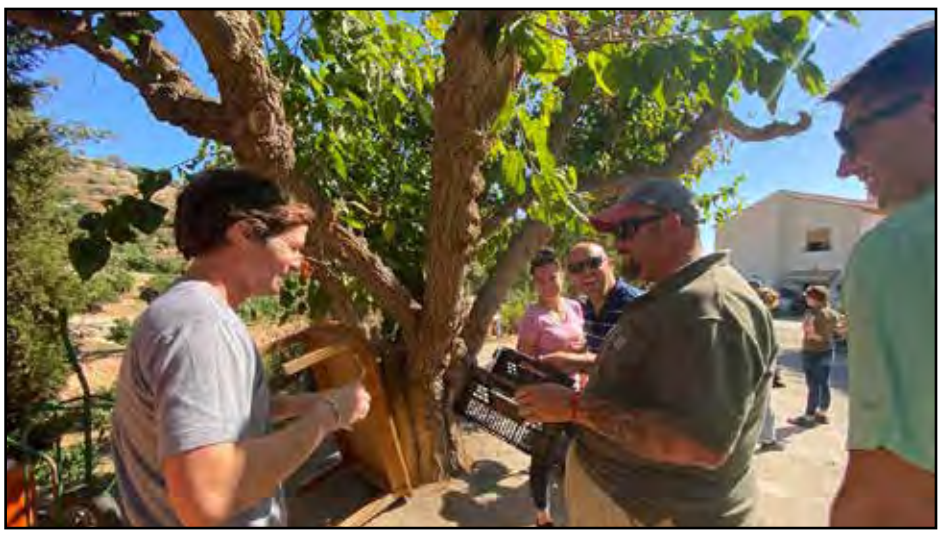
September 22 • It was hard to leave Eíriz after a gastronomic lunch in Spain's mountains. We begrudgingly loaded onto the bus to make our way to the San Sebastian Cooperative. The cooperative is in the Lora del Río region between Seville and Cordoba along the Guadalquivir River.

We met with Rosa Cepeda, general manager of the San Sebastian Cooperative, started in 1963. We were interested to learn about the structure of the cooperative and compare it to the few Maryland cooperatives.

The agricultural cooperative has been linked to the evolution of agriculture in the region. Its beginnings began with the olive grove, which was the main crop in the area, but soon new crops such as corn appeared, building storage of cereals, especially corn, winter cereals, oilseeds and protein crops. It has one of the best grain storage facilities in the province, with a capacity of more than 40,000 MT and a grain drying system.

In 1997 it received recognition as an Organization of Citrus Producers and this commitment to orange cultivation was completed in 2008 with the construction of a citrus and stone fruit manufacturing warehouse. Most of the 1,500 cooperative members own between 8-10 hectares (19-24 acres). The minimum amount of acreage to be a member is 8 hectares. A farmer could have less than 8 hectares but they will still pay their fee based on 8 hectares.

The cooperative provides supplies, services, research and technical assistance to its members. These range from production techniques, seedlings, food safety plans, and harvesting, gasoline, to crop insurance, accountants, and lawyers.



Class XI fellos and produce farmers Shlagel and Jesse Albright and Karl Shlagel discuss basket sizes at the San Sebastian Cooperative.
Photo by Jessica Armacost

It was surprising to learn that there was not an equivalent to University of Maryland Extension agriculture agents for the producers.

We had the opportunity to tour the packing warehouse of the cooperative which was empty since harvest season starts in November. The cooperative exports nearly 30 million kilo's (66 million pounds) of citrus per year.

Ninety-nine percent of the oranges are exported to Canada, China, Africa, Brazil, and Europe. The fellows discussed the types of crops grown in Maryland and we compared the similarities and differences of our crops and insects.

While we were touring the citrus groves, we noticed fencing around the fields. We asked if the farmers had deer pressure. There is no deer pressure for the trees, however, rabbits are the problem. The class was asked, "Why don't you hunt the deer?" and we all had a good laugh. We explained that Maryland has so many deer we can't hunt them all.

The reason for the fences was not because of the animals, it's because of people stealing the fruit. It's frustrating for the farmers since the people stealing the fruit may spend one night in jail but they will be back to stealing the fruit the next day.

In this region, if people steal up to $300 euros worth of something it's considered a minor offense and the police take little notice. It's an ongoing problem for the farmers in the cooperative. Many farmers have installed closed-circuit cameras on their crops to show the authorities who's stealing their product.

Harvest labor is usually done by local villagers for the small acreage crops while farmers may hire immigrant labor for the larger acreage crops.

We had a discussion that the cooperative farmers need to have Global Food Safety Initiative (GFSI) audits since the oranges are exported to other countries. We found commonality with the Spain producers since some of the Fellows in our class also go through the USDA Harmonized GAP Plus+ process which is the equivalent to GFSI audits.

One of the things that we learned in Spain is that there's "Spain time" or "long hour." When our guide, Ismael Aguilera, would say "it'll be a long hour," we knew that it could be an hour, two or three hours later.

After touring Eíriz and San Sebastian Cooperative, our itinerary said that we were supposed to arrive in Cordoba, check into the hotel, then go on a walking tour of Cordoba's Old Quarter and Great Mosque at 7 p.m. Things didn't go as planned since we were on "Spain time." We didn't arrive at the hotel until 8 p.m. We did eventually have a four-course dinner at a local restaurant.

We were excited to go on a walking tour of Cordoba's Old Quarter and Great Mosque despite the tour starting at 10:30 p.m. and wrapping up at 12:21 a.m. Ismael, our ever-versatile guide, took us around the historic city center and explained the city's history.

The city center was magical at night. Our entire class was exhausted, but no one made a peep until just after midnight when the red light and beeping sounds of Class Fellow Andy Kness's super scooter battery dying said it was time to turn in.

The power of community on display at Levasa dairy

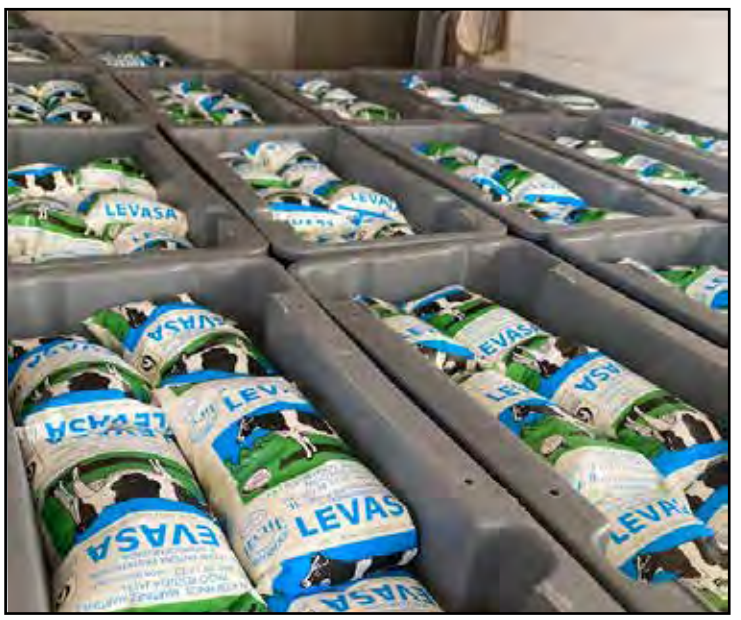
By JESSICA ARMACOST
Owner, Corner Mill Farm and AgGrow Management

September 23 • The late-night tour of Cordoba didn't dim my enthusiasm to hit the road early the next morning, it was Dairy and Olive Day, the day I was looking most forward to after all and it didn't disappoint.

The long bus ride to the dairy farm gave my fellow sleepy classmates the opportunity to catch some extra Zzzz's. The coach continued to travel the winding motorways through the southern Spain region known as Andalusia or the Sea of Olives.

The Andalusia region produces around one-third of the world's olive oil, so massive that it is being considered for a World Heritage site designation in 2023. The forest of olive trees represents a great ancestral heritage of the past, present and future. The landscape of the olive groves of Andalusia demonstrates the ability of the Andalusians to adapt to difficult geographical, climatic conditions and economic trials. After nearly two hours of passing olive trees, I was starting to doubt we would find a dairy farm. Just then the coach took an exit off the motorway and crossed over a bridge which provided enough height over the olive trees to see nearly a perfect square cut from the grove, home to the Southern Spain dairy farm, Levasa.

Class Fellow Erika Crowl and I began to take bets on what breed of cows the farm would have, since the farm produced cheese Erika guessed Jersey, but my guess of the Black and White Holstein cow was confirmed when we started down the farm lane.



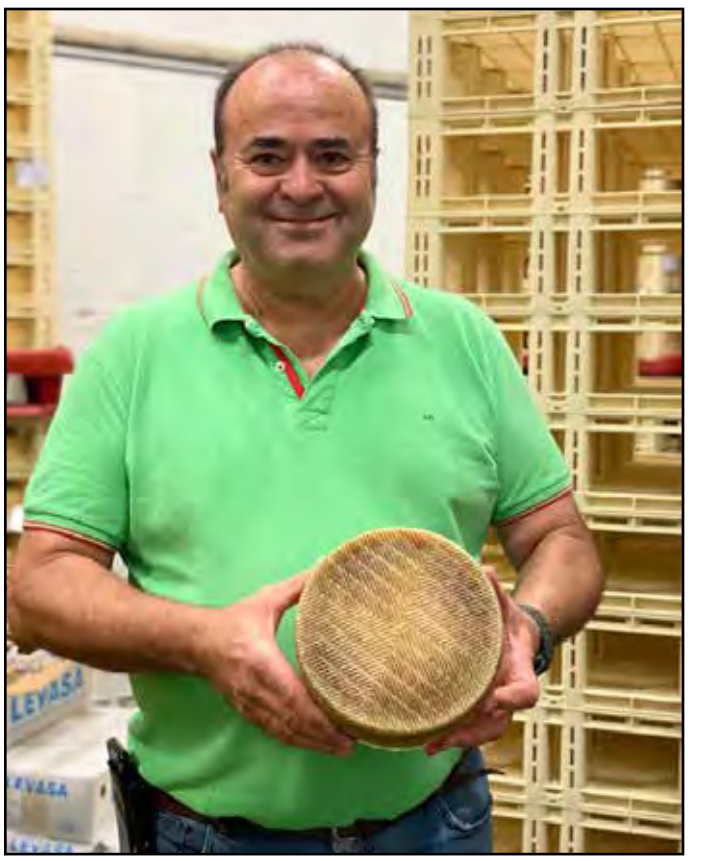
Fresh milk is bagged in 1 liter recyclable bags and served using provided pitchers.

Pulling into Levasa reminded me of the Naval Academy Dairy Farm in its prime. The barns of Holsteins and milking parlor were on the left with a milk pipe running overhead connecting the fresh milk with the white processing buildings on the right.

José Antonio Martínez and his dad José Luis Martínez greeted us with smiles that crossed all language barriers, you could tell they were both eagerly awaiting our arrival.

Levasa was founded in 1975 by the Martínez brothers, and is a brand rooted in Jaén values which focuses on social, economic and cultural growth of the region. They proudly employ more than 25 employees including farm workers, cheese makers and even have an in-house marketing and sales team.

The leadership team is headed by the four Martínez brothers and they continue to employ family members including all the grandchildren.



José Antonio Martínez proudly displays his Mixed Cured Cheese

Photo by Jessica Armacost

Our tour started with an introduction to fresh milk being bagged versus being placed in a gallon jug. Fresh milk is used to refer to milk that has undergone pasteurization and has a shelf life of six days, whereas non-fresh milk or shelf stable milk has undergone ultra-high temperature (UHT) process and can often be found in the European food markets.

Levasa sources all of their raw materials from their province of Jaén including both the sheep's and goat's milk used to make their cheese. They do this to help local small producers and to give added value to the product that is part of the food history of their province.

As we toured the milk bagging facilities, I quickly noticed that the dairymen bagging fresh milk and the cheesemakers were dressed in pure white, carrying on a long-standing tradition in the dairy industry where white represents cleanliness and wholesomeness. The 1985 milk bagging machine is older than half of the LEAD Class XI fellows and is a prime example of how the dairy continues to maintain older equipment to remain debt free, accepting no government assistance.

In addition to the milk that is bagged, they fill traditional cardboard milk cartons which do not contain any PVC and are good for recycling. Once the milk departs the parlor and travels directly across the milk line without coming into contact with any air, when consumers open the bagged milk, it is the first time the milk will have touched air. Levasa offers three milk products, whole milk, semi-skimmed milk and lactose-free milk. Milk that is not bagged is sent to the cheese processing rooms.

When the Covid-19 pandemic hit and the restaurants and cafeteria closed their doors, Levasa pivoted and started additional varieties and longer aged cheeses. Levasa makes a variety of cheese including fresh cheese which is made with solely milk from their cows; a cow and goat semi-cured cheese called barra, which resembles a butter stick shape. They are known for their different variations of the cured and semi-cured cheeses which feature different combinations of cow, goat and sheep milk. These cheeses are shaped into what looks like a perfect 8-inch round white wedding cake topper with a beautiful ripple rind surrounding the outside.

Antonio said their secret to quality products is very simple: having the dairy farm one step away from where the cheese is made means that between one process and another hardly any time elapses. This guar-

Continued on Page 13

Continued from Page 12

antees a quality product, without waiting times that make the milk lose its properties.

Antonio and his team set up a milk and cheese sampling table featuring their fresh milk and all their cheeses. Martin proudly wore the milk mustache so well that I am sure he will be tapped for the Got Milk poster.

It was interesting how slightly changing the ratio of cow, goat and sheep milk could alter the smooth and creamery flavor. After we finished our delicious tasting spread, we headed to the barn to view the black and white bovine beauties!

The Levasa dairy farm is home to 1,200 Holsteins with between 500-520 milking at any given time. If you photoshopped in corn fields over the surrounding olive trees you could have guessed we toured a Maryland dairy farm.

The milk cows were in a free-staff barn just around the corner from the milking carousel. The calves and heifers were divided by age, and they practiced many of the same cow care practices. A quick trip to the office to use the bathroom and I discovered it was a typical dairy farm office filled with bull stud catalogs, Holstein and dairy industry magazines, aerial photos covered the walls and awards lined the top of the bookcase. Antonio shared that the semen used in their breeding program comes from the United States and Canada and that for the past decade they have been breeding for A2 cows. I was surprised to learn that the dairy does not regularly host food or dairymen tours as it is certainly a hidden treasurer in Jaén and should be at the top of any foodie's or farmer's tour list.

As our time quickly came to an end Antonio had a stockpile of questions for us, too. Fellow Ryan Snow shared his experiences of growing up on his family dairy and I explained my love for Holstein's came from raising them through the 4-H leasing program housed on the Naval Academy Dairy Farm. We thanked Antonio for his hospitality and departed with full bellies and smiles in our hearts.

Oh, and for the cherry on top, Antonia gifted Erika and I, clean Levasa milk bags for our home milk bottle collections!

Olive production the cornerstone of Spain's agriculture

By ELIZABETH HOFFMAN
Office of Resource Conservation, Maryland Department of Agriculture

September 23 • After our visit to the dairy, we set off for the Mar de Olivas or Sea of Olives — where 70 million olive trees make up the heart of production, centered in the Spanish province of Jaen.

Olives and olive oil are similar to grapes and wine in that there are many varieties that change the aroma and flavor of the final product. When quizzed on our knowledge of olive varieties, we could only name a few — "green and black" — with some better guesses of Kalamata and Manzanilla – but were assured that many Spaniards could only name a few as well.

In reality, at Oleicola San Francisco, there are over 265 varieties of olives in Spain alone, all with a different smell and taste. That day we harvested Picual, the most commonly grown cultivar for olive oil production, which is also well suited for standing up to the range of temperatures in the region – from 120 degrees F in summer to snow in winter.

To do so, we unfurled a manta or net like blanket that we embraced the base of the tree with. Being careful to protect the main stem and only rake the ends of branches, a long pole was used to swing downward and knock off any olives into the net below.

With the incentive that what we harvested would be what was used for our lunch, a few classmates really went to bat for the group.

The method we used that day was essentially the same one the Roman people used to harvest olives throughout history, but there are now more mechanical options available – including an upside down umbrella shaped net that surrounds the tree, accompanied by machinery that shakes the base of the tree for up to 5 seconds to release the fruit. In our tour guide Anna's family of five, it will take them 8 hours to harvest about 27 trees. In the company, covering the ground of around 7,000 trees, crews can utilize machinery to harvest 500 olive trees in those same 8 hours.

The day we visited, there had not been rain since April yet harvest was set to start within 10 days. Their yields would be challenged this year due to drought, with olives being smaller than ideal or even dry inside. At that point, the olives would not produce any more oil inside if rain did happen to come, but would only fill with more water.

Some producers might try and hold off on harvesting into the coming months but while the fruit may get bigger, the quality would not improve.

The Picual cultivar being harvested in this orchard has a higher oil content, around 15% which is good for oil production, but other varieties such as Gordal contain closer to 5% oil so they are preferred for eating, having a fine, delicate flavor and meaty texture.

While these trees have been around for centuries, with the oldest known olive tree living in Greece for 3,000 years and still producing fruit, changes in climate and weather events are forcing farmers to adapt their practices and the age-old rhythms of pruning and harvesting. This noticeable shift was captured by the award-winning oil we sampled, called November, having been named for when harvest traditionally occurred while it was now beginning earlier into October. Given the deep rooted tradition of these crops, there are efforts underway to help guide the agricultural sector in facing challenges associated with these changes and help producers make improvements to practices as needed.

Spain is the number one producer of olive oil, producing 42% of olive oil in the world, so this crop is a cornerstone of their agricultural heritage.

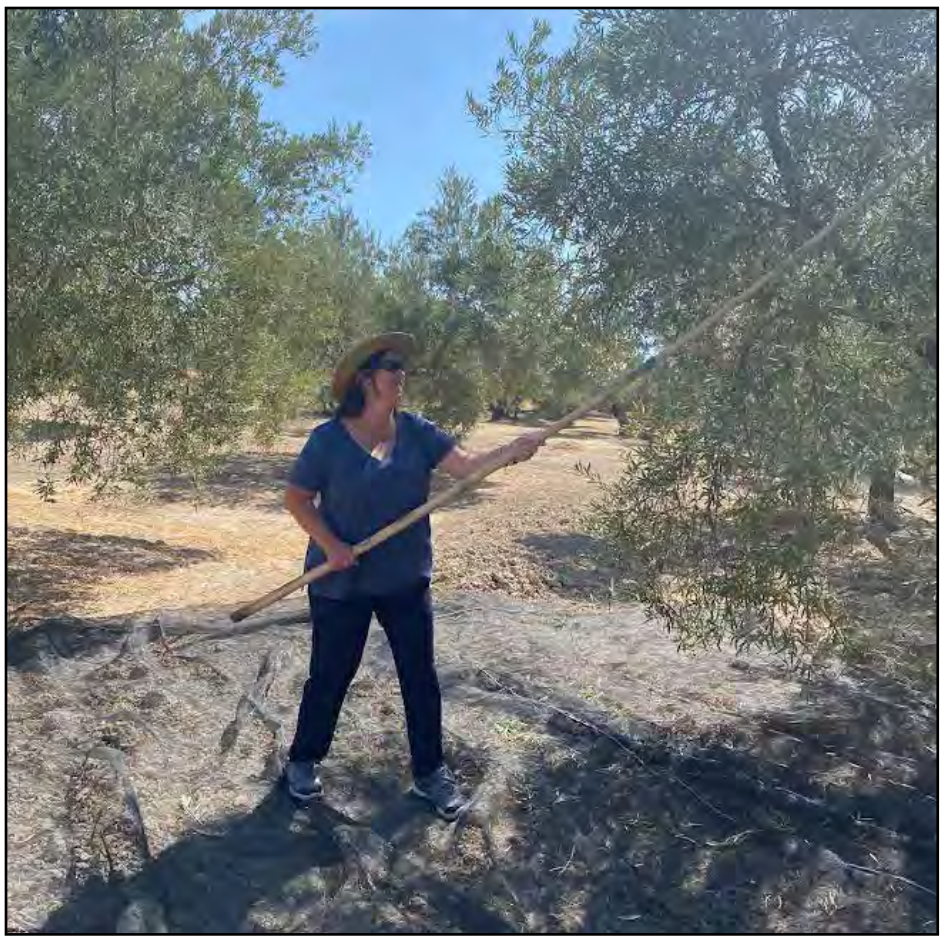
Our time spent harvesting in the hillsides came full circle when touring the olive oil mill, where we learned about the evolution of olive oil processing — from donkeys stomping around in the pressing process to the more streamlined machinery of today. After tasting a variety of oils, we enjoyed a lunch that consisted of ham, cheese and fresh tomatoes with olive oil, a variety of local fish dishes and an apple-filled pastry for dessert.

After our tasting and lunch at the olive oil mill, we boarded the bus and headed for Granada.

Driving for a couple hours, we continued to pass through rolling hills of olive trees as far as the eye could see – with the only comparable vision that comes to mind from back home being waves of grain out west, matching in magnitude and significance.

By this point we had gotten used to some extended travel times but still weren't quite sure what time it should really be, so we opted for a dance party over catching up on sleep. As the proverbial aux cord was passed, we sang and laughed and grounded ourselves in the comfort of being around a group that had grown into a family. Over the course of four years — fireside stories, unprecedented times, marriages, babies, new jobs, new homes, new perspectives; lived moments big and small — we had gotten to know each other's families, each other's dad jokes, what drew us to our fields of work, ways in which we hoped to enact change, and now, who knew all the words to "Shoop."

If any homesickness had kicked in and there was a thought of "I have to go home," it was a quick reminder that "You are home." As we pulled into our next hotel, unpacking and grabbing dinner, all while humming the tune "Day-O," we were ready for the next adventure.



Class XI Fellow Karen Fedor harvests olives by raking the ends of branches with a long pole.

Photo by Jessica Armacost

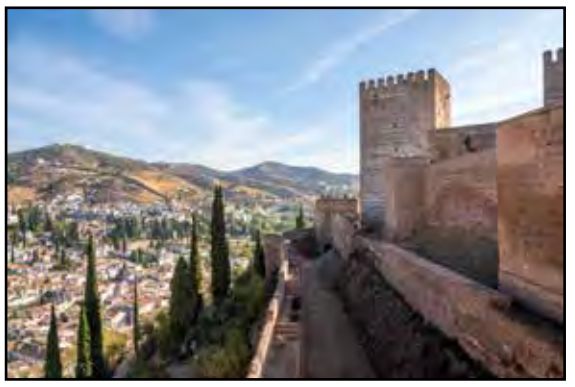
Preserved palace, steep roads speak to history of Granada

By RYAN SNOW
Chief of Staff to Lt. Governor Boyd Rutherford
and
ANDREW KNESS
Agriculture Agent, University of Maryland Extension, Harford County

September 24 • After a night hitting the town and experiencing the Spanish culture at the Discoteca, our day began with a bus ride to the top of a mountain overlooking Granada.

We were going to tour Alhambra Palace and Generalife Gardens. Little did we know that this is known as one of the most preserved palaces in the world.

Alhambra means "The Red House." The viewshed spoke for itself as this is truly one of Spain's treasures and one of the most well-preserved and famous examples of Islamic architecture; the intricate details of their architecture are simply incredible and they seemingly are prepared for anything.



The view from Alhambra Palace overlooks Granada as one of Spain's treasures.

Interestingly, the location in which this palace sits experiences the occasional mild earthquake, but the structure has stood strong for nearly 800 years. This can be partly explained by the design; they integrated lead joints in between the support columns. The lead joints give when the ground beneath it moves.

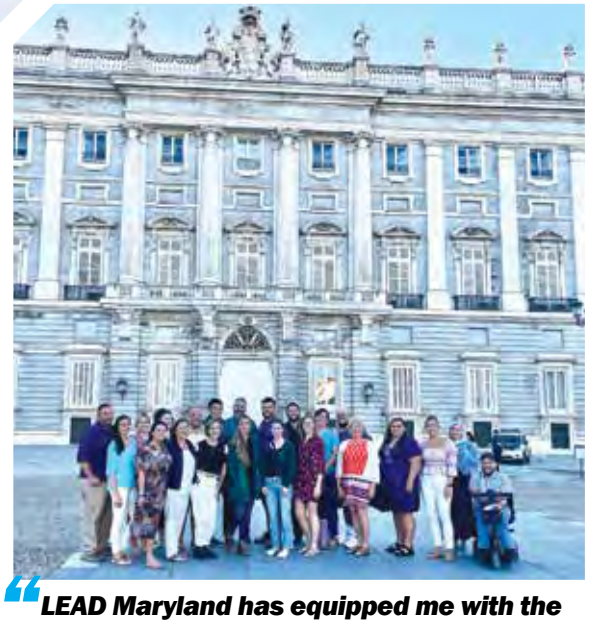
The history is linked to its location in Granada, high up on the mountain overlooking the city and difficult to access so it was safe. It began as a military base in the mid-13th century and continued to grow into a royal residence surrounded by gardens and orchards, palaces, and a fortress.

After the four-hour walking tour of Alhambra, the class then had free time and explored the City of Granada in the afternoon. That evening, we found our way up small, windy roads to a cave on the side of the mountain for dinner and a Flamenco show.

This is a highly expressive form of Spanish dancing characterized by hand clapping, footwork, and intricate movements; sometimes at a very high rate of speed. We felt the culture of Spain as we watched performers dance and receive cheers and claps from the audience with loud guitar playing, singing, and animated dancing. We enjoyed another multi-course meal with lots of seafood and wine (of course).

At the conclusion of the Flamenco show, we climbed further up the narrow, steep roads for a photo op overlooking the town built into the side of the mountain. We were told that these small cave dwellings were (temporary) homes for gypsies.

We then made our way back down the mountain to our bus, which took us the rest of the way down the mountain and out of the town to our hotel. To say the roads are steep and narrow is an understatement — we bottomed the bus out two times and only a couple of our classmates almost lost their dinner!



"LEAD Maryland has equipped me with the knowledge and network to continue serving our state's rural communities as a dynamic leader. I'm grateful for this experience and to graduate with Class XI – a group of motivated leaders and lifetime friends!"

- Katie Luckett
Marketing, Communications, Education Manager

Sierra Nevadas bring awe, beach brings calm

By ELIZABETH HILL
Executive Director, Maryland Forests Association, Inc.
and
ALLISON ROE
Financial Programs Officer, Maryland Agricultural & Resource-Based Industry Development Corporation

September 25 • I opened my eyes after I heard a gasp over the music playing from my headphones. Sure enough, we were making the trek through the Sierra Nevada that our tour guide had refused to explain the day before. I glanced around among my fellows seated near me at the view out the bus window. We were in the Sierra Nevada mountain range. And we were in awe! The view consisted of mountains painting the landscape and if you looked closely, you could see little ledges carved out of the mountainsides for travelers to adventure to the top. It was then, that we understood why our tour guide refused to tell us much about our drive to the Sierra Nevada.

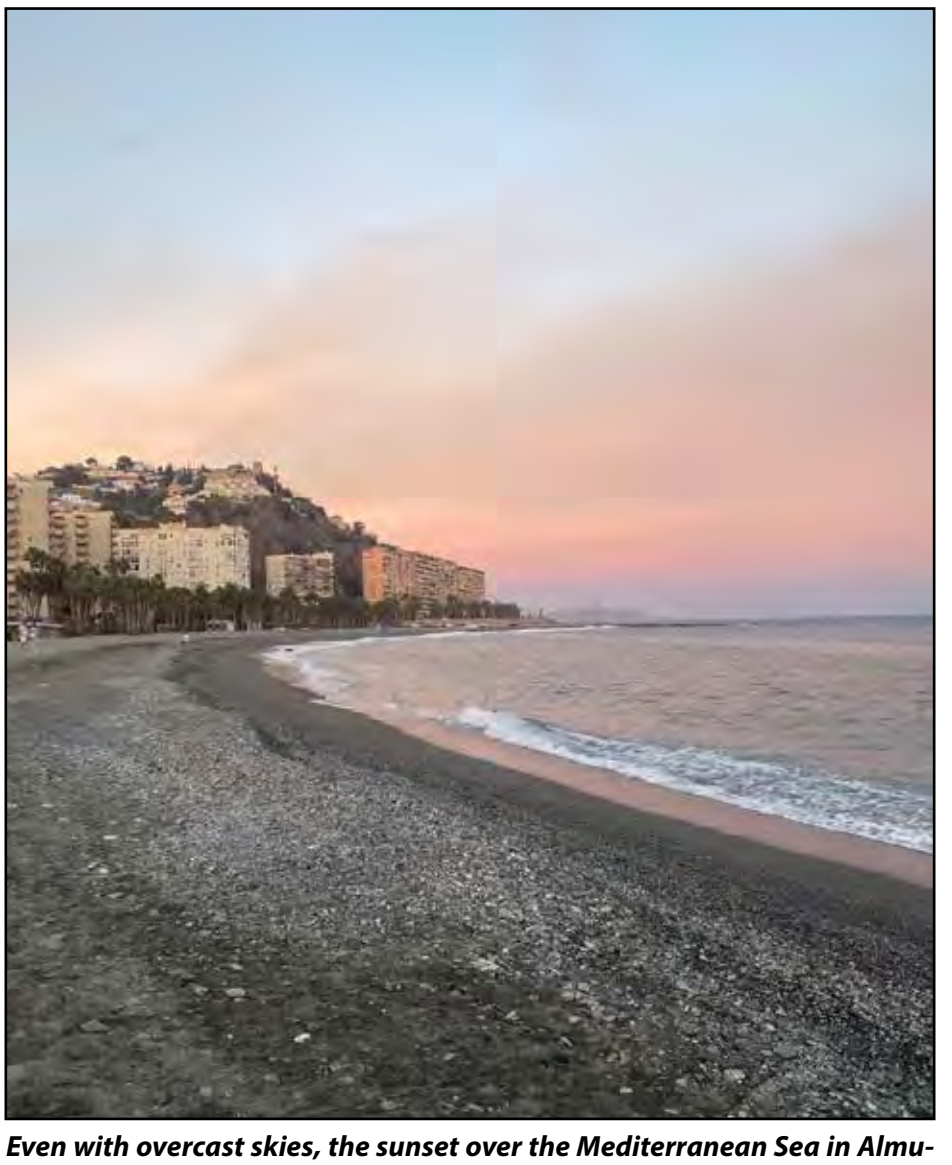
I personally don't know what I was expecting but I would describe it as the image of one of those sports car commercials where the car is weaving through the mountains along carved roads just inches from the edge. Now imagine that was us, but on a coach bus. The laughter and views were sure to take a little bit of the edge off, but when we finally arrived in the little quaint village of Pampaneira for lunch at a local restaurant, it was worth every grip of the seat in front of me to get there.

Over lunch, we chatted and shared stories from that morning, when we had the opportunity to spend a few last moments in Granada before we were to begin our venture to the coast. Some fellows shared about their shopping trip through the town square and pictures of their Spanish souvenirs, while others were overwhelmed with the pure serenity of attending mass at Catedral de Granada, or the Granada Cathedral. And as if our conversation wasn't exciting enough, we were introduced to "morcilla" as part of our last course of lunch. It took one fellow and a smartphone to inform us all about the mystery dish also known as Spanish blood sausage and without hesitation, some were daring to try it. Because when in Spain, right?

After our bellies were full, we were off to our final destination of the day where we would be staying one night in a city along the coast. Although it was quite a ride, we were presented again with a beautiful landscape of rolling land filled with olive trees. In America, we think of the miles and miles of crop fields throughout our country. That day we passed through miles and miles of land filled with some of the 67 million olive trees that are native to Spain.

Next thing we knew, we had arrived in the city of Almuñecar and the bus stopped in front of a hotel a few blocks from the coast. As soon as we stepped off the bus, we could smell the salt in the air. Maybe it was the East Coast in us, but some of us frantically grabbed our luggage, placed it in our hotel room, and dashed to the coast.

They say the beach brings calmness and I think a few of us enjoyed the moment to relax, whether it was plunging into the sea or looking for sea glass along the water's edge. Before heading back for a dinner, a few fellows stayed to see if there would be a sunset on that overcast day. And with an ending to another wonderful day, myself and a few fellows had a moment we would never forget…a beautiful pastel sunset draped across the sky and reflecting into the iconic Mediterranean Sea.



Even with overcast skies, the sunset over the Mediterranean Sea in Almuñecar was a sight to behold.

Photo by Allison Roe

'Sea of plastic' teeming with greenhouse innovation

By EDWARD GOODWIN
Horticulturalist, Maryland-National Capital Park and Planning Commission
and
KATHERINE CRAWFORD
CEO of
Skyward App Company

September 26 • The city of Almeria in southern Spain goes by many names: "The orchard of Europe", "The European Vegetable Garden", "The Sea of Plastic."

The area shimmers white and strange across the rugged landscape, mountains covered with white-washed plastic housing a veritable kaleidoscope of greenery; among the crops you might find peppers, aubergine, courgette, tomatoes, melon, cut flowers and ornamental plants, covering 32,000 hectares (over 79,000 acres). Half of the local economy depends on the greenhouses whose annual harvest of 4 million tons is mostly exported to Scandinavia and the United Kingdom.

Hosting and guiding us through the greenhouses at Clisol Agricultural Tourism was Lola Gómez Ferrón, a third-generation farmer whose sons are now following in her footsteps. She has short steely hair and an honest approach to the practices of the farmers in her area. She discussed the way that the greenhouses were started, and the impact of plastic on production, allowing her grandparents to transition from subsistence farming to enough to sell.

She further described how in the third generation of improvements, she has the resources and knowledge to innovate and take on addressing the impacts of climate change on her farming as well as the impacts of her farming on the environment.

Although Gómez Ferrón is fortunate that her sons have followed in her footsteps, she discussed the challenges of finding a next-generation excited to do the often-intensive work of growing. She explained that, like Maryland's H2A program, frequently Almeria needs to bring in labor from other countries. To help make working conditions better for everyone, in the modern greenhouse a rail system had been created, allowing a person picking the crops to slide easily along the rows while sitting, reducing the harm to the plants and the laborer interacting with them.

Inside the modern greenhouse, the air smells of mint and aromatics, used to attract and house the right insects and repel the wrong ones.

Half of Almeria's economy depends on the greenhouses whose annual harvest of 4 million tons is mostly exported to Scandinavia and the United Kingdom.

Lola Gómez Ferrón, a third-generation farmer, talks about the biological products her family uses in greenhouse crop production.

She uses biologics like predatory wasps and mites to control pests such as thrips, whitefly, or mealy bug instead of the chemicals of her parents' generation that coated people, plastic, and produce alike. Although this practice does exist in the United States, it lags behind many of the advances used in European models.

Gómez Ferrón also notes that plastic was once a negative impact on the area as it could become waste in the landscape, but now describes the material and economic improvements that incentivize recycling and how practices of whitewashing the plastic have brought the net temperature of the region lower than the surrounding area.

She also discussed the drought that is currently impacting Spain; the worst in 1200 years. Since local aquifers are at record lows, water is also sourced from the ocean using desalination stills, with salt and heavy metals being sent back into the ocean. To mitigate this, Gómez Ferrón is a stakeholder working with a coalition of researchers and farmers to make sustainability research applicable in the real world.

The project she is currently working on targets increased efficiency in desalination, as well as capturing the heavy metals for battery manufacture and other renewable energy needs.

The final critique of the greenhouse, according to our tour guide, was that the produce is not flavorful. To show us that this was simply not true, she welcomed us to a tasting of fresh tomatoes, cucumbers, peppers, and honey, garnished with value-added sauces from the same. Along with local olive oil and bread, we quickly came to appreciate all of the potential of this rapidly innovative growing operation.

Leaving Almeria, we were taken to a picturesque farm on a steep hillside called Finca San Ramon, nestled between Almuñécar and La Herradura, where farmers Rita, her husband Paco, and her mother Maria Rita treated the class to a rich chicken and chorizo paella, a rice dish made golden by the saffron used to flavor it.

As a perfect end to a lovely meal, we sampled chirimoya, papaya, mango, starfruit and banana grown on the farm.

The drought conditions were also evident here, where the family has not watered their orchard in 30 days, giving up on some of the crops they would have harvested. The family is trying to pivot by changing their target crops, adding miniature sweet pineapples and prickly pear cactuses, stopping production of the delicious chirimoya, and reducing production on some of the other plants whose demand for water can no longer be satisfied here.

It is a beautiful farm, both an inspiration and a look at how farmers are flexing to ensure that they can continue to do what they love.

We ended the day on a bullet train to another region and our final city, Madrid. Riding the Maglev train, something that has not been brought to the United States, we flew across the landscape without bump or sound, silently exceeding speeds of 120 miles per hour in unpopulated areas.

At Ruigan, cattle quality high, owner's passion even higher

By ALLISON SIRNA
Inside Sales Representative,
Zoetis, Inc.
and
EDWARD GOODWIN
Horticulturalist, Maryland-
National Capital Park and
Planning Commission

September 27 • At the end of a long gravel road that meanders through open fields is Ruigan, a live production company specializing in beef and sheep.

As we unloaded from our bus we were met by the owner of the farm, Luis, who was eager to share his farm with us. It quickly became apparent that he had a wealth of knowledge as well as immense pride in his business which has been operating for over 50 years. Shortly after our arrival, we were joined by Miguel and Andrea. Not only are they his children, but they are also the staff veterinarians. Similar to many farms in Maryland, this is a family affair with shared pride.

Our tour focused on their beef operation — purebred Limousin, Charolais, and a cross of the two. We casually strolled along the pens of his feedlot while he explained their process. Each pen we visited held roughly 150 well-muscled bulls with an average age of 20 months. Luis frequently noted the excellent bone structure, muscle and growth of his cattle which he attributes largely to their good genetics.

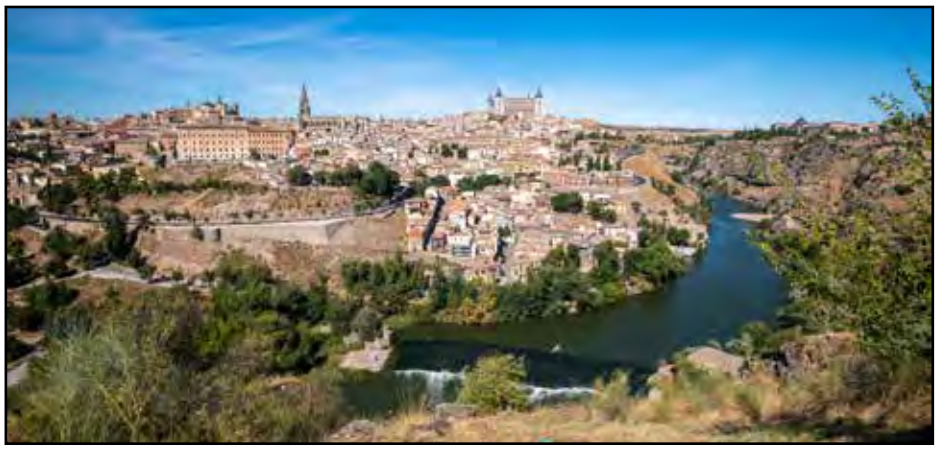
Ruigan has 30 breeding cows, but the majority arrive from other producers as 8-10 month old calves. They spend an initial period at a local company-owned satellite farm where they are quarantined, evaluated and transitioned from grass to grain and hay before arriving to this main site.

We quickly noticed that most of the cattle were not dehorned and all of the cattle were still intact — a stark contrast from most beef operations in the United States. Luis said castrating bulls is only common practice with the Holstein breed, otherwise they are untouched.

Although they are intact, he does not sell breeding stock. They are sold as live cattle for meat. They are primarily purchased by Arab countries, Spain or other European countries. Most are sold in large batches, however some are purchased by small butchers — an industry which has suffered a great decline over the last 20 years due to the inability to compete with larger supermarkets.

We discussed the diet of the cattle at Ruigan which consists of a mix of grain and fiber (hay). Most of the grain is produced in Spain, however they do import some corn from Brazil and the United States. Luis noted the difficulties they have had since the war in Ukraine. The cost of the production of the grain has unexpectedly doubled due to this conflict. He expressed his concerns and collectively as a group we acknowledged the challenges being faced not only by Spain and Maryland but worldwide.

Ruigan specializes in beef cattle and sheep and has been operating for more than 50 years.



Toledo was known as the "City of Three Cultures" with influence from Islamic, Christian and Jewish groups of people occupying space in different areas of the city at different times.

Luis is notably sensitive to the well-being of his livestock. Throughout our tour, we frequently heard him comment on several factors he believes contribute to their success — good genetics, pure feed without any additional by-products, and an abundant source of high-quality water.

Each pen is equipped with an automatic waterer so the cattle are never without. This water feeds from a network of underground wells but not before filtering through a water treatment facility located on the backside of the farm — one of a kind in this area. Luis spent years of his own free time building this plant. He knew of a senior living facility that used the same system to deliver water to its residents. He thought if the water was safe for the vulnerable immune systems of these elderly residents then surely it would be beneficial for his young cattle — a great way to minimize the risk of illness and subsequent spread of disease through his pens.

He stressed the importance of good preparation and how this should not only be applied to one's farm but also to one's life. He believes his farm is one of the few (if not the only) with this type of water treatment as most farmers struggle to understand the importance of a large initial investment for a long-term benefit.

We also frequently heard Luis say "tranquilo" while observing his cattle which translates to "calm". This was not an exaggeration — each pen had a healthy curiosity of their visitors, but were at ease and seemed more than content in their corrals. Ruigan takes pride in mimicking the most natural environment possible with ample space for the cattle to move about freely as well as access to sunny and shaded areas.

Throughout our tour, we commented on the similarities and differences between Spain and the United States. Our group shared the sentiment that animal protein cannot be easily replaced. After visiting the Ruigan farm it is clear why Luis would feel this way. The quality of Ruigan cattle would certainly be hard to replicate, but the passion at this farm would be even harder.

After leaving the beef cattle farm, as a group, we were entertained at a lovely restaurant that afforded panoramic views of the city of Toledo.

After we ate, we continued on the theme of quality vistas as we enjoyed a tour on the bus around some of the most picturesque areas in the city of Toledo. The views were scenic but culturally complicated. After all, Toledo was declared a World Heritage Site by UNESCO in 1986 for its impactful heritage.

Although the city's history is deep it was easily dissected by our lovely tour guide Francesco, who swore he is the second-best tour guide in the city, bested by only his wife for the number one spot. His charisma was second to none and his passion for the history was palpable. He explained that the city was known as the "City of Three Cultures" with influence from Islamic, Christian and Jewish groups of people occupying space in different areas of the city at different times.

Some beautiful pieces of architecture that we toured that stood out among the rest included Alcantara bridge, originally built by the Romans when the city was founded, the Santa Iglesia Catedral Primada de Toledo, a Roman Catholic cathedral, and the Plaza de Zocodover a lovely bright and historic town square where our tour and shopping time ended.

Some interesting things that jumped out to me included the number of swords and knives in almost every shop as we moved through the city streets. Who knew that Toledo is historically known for the manufacture of those items. Also, a treat, marzipan is featured in local shop windows in many different shapes and sizes. There is a legend that the cloistered nuns from Convent San Clemente, in Toledo are said to have invented marzipan in the 11th century after finding there was no wheat for bread and instead combined sugar and almonds to create this delicious confectionary.

From the farm to the culture to the cuisine our group surely enjoyed Toledo and the surrounding region that day.

If you don't see it at MercaMadrid, they don't eat it

By KARL SHLAGEL
Shlagel Farms LLC
and
MARTIN PROULX
Agriculture Business Development Manager, Charles County Economic Development

September 28 • MercaMadrid. It's not a saying, it's a place, and that's where we find ourselves this early Wednesday morning. It's a city within a city as we tour Europe's largest perishable fresh food market sitting on roughly 549 acres, or the size of the U.S. Naval Academy.

The 24-hour market is bustling with activity as a fraction of the 25,000 daily buyers shop for seafood, meat, fruit and vegetables. The hand carts and pallet jacks weave through the market as buyers make their purchases.

It's a lot to take in as we tour the world's 2nd largest fish market, hosting over 300 types of fish both fresh and frozen. From there we brave the constant stream of Sprinter vans as we cross over to the fruit and vegetable warehouses.

Once again, we are amazed by the hustle and bustle as transactions are made and produce is sold. Everything from asparagus to zucchini, and a lot in between; if you don't see it at the market, they don't eat it.

After a much-needed coffee in the fish market cantina, we head back into Madrid to meet with some of our own countrymen. Karisha Kuypers is the Agricultural Attaché assigned by the USDA to the American Embassy. In this position, she is responsible for maintaining trade policy, market development, and data collection and analysis. As we continue to find ourselves more and more in a global market, it is important to understand the key factors that drive the market and or dictate whether American products can enter said market. As such, Spain is like most of Europe where the European Union dictates the market and right now the big issues are ustainability and organics.

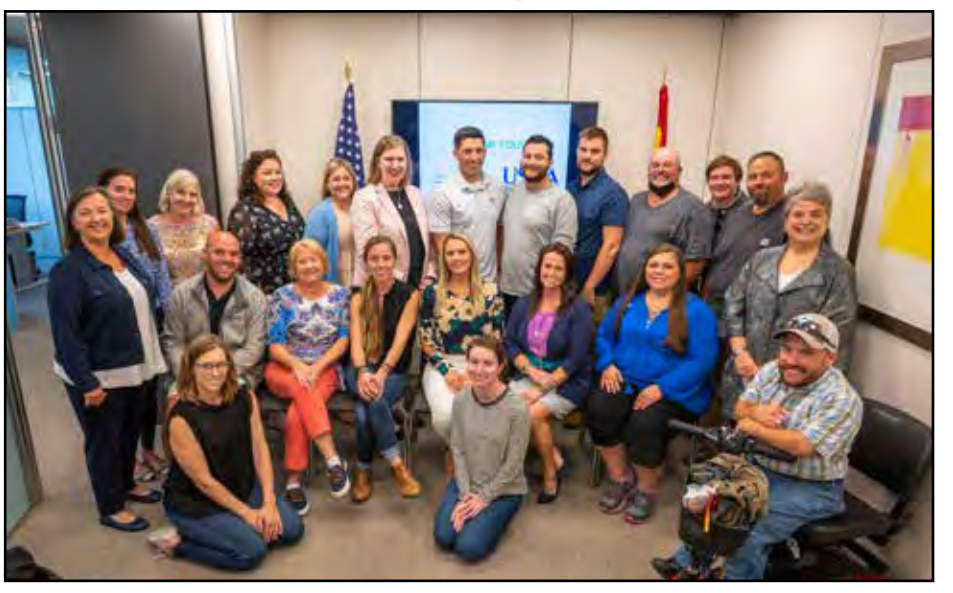
On about 549 acres, MercaMadrid is a city within a city as Europe's largest perishable food market.

To speak more on market development, we met with Linda Caruso, the Commercial Attaché for the U.S. Commercial Service. Part of the International Trade Administrations' vision is to foster economic growth and prosperity through global trade; fancy words that ultimately equal "we know the people that you want to meet". Their job is to help American businesses grow by identifying willing buyers and setting up the introductions, once again proving how the world is getting smaller.

Our last and certainly not least meeting of the trip was with the organization Cedecarne. With over 25,000 butcher and charcuterie shops throughout Spain, Cedecarne is a business organization that represents, educates, trains and lobbies for its members.

One of the most common issues that they encounter is one we in Maryland know all too well: The average shop is owned and operated by men and women in their sixties with no succession plan. The young people aren't there to take over, or they don't find it economically viable too. At the same time the smaller shops are very resistant to change, specifically online sales. As a result, the local corner butcher shop is steadily losing market share to the grocery store.

As we said thanks to our final speakers it was time to head back and get ready for our final meal in Spain.



Class XI visits with Linda Caruso, the Commercial Attaché for the U.S. Commercial Service and Karisha Kuypers, Agricultural Attaché assigned by the USDA to the American Embassy.

'A deeply cultured and diversified part of the world'

By MARTIN PROULX
Agriculture Business Development Manager, Charles County Economic Development
and
KARL SHLAGEL
Shlagel Farms LLC

September 29 • Last night, we formally bid farewell to Spain with our final LEAD Maryland Class XI dinner.

We dined at Los Galayos, a century-plus-old establishment located just outside of Madrid's vibrant main square, Plaza Mayor. Our final Spain meal was as bountiful and eclectic as ever, with numerous courses of Spanish signatures. We relished in good memories with even better company.

In our last farewell to our guide as a full class, we thanked Ismael Aguilera with gifts and tastes from home. Ismael was a patient and flexible host who exuded passion for the culture and history of his homeland, and Class XI would be eager to show him around Maryland's agricultural and culinary landscape.

Toasts were made to acknowledge our gracious LEAD Maryland Foundation Board President, Emily Wilson, and the class fellows that went above and beyond with organizing host gifts and other projects. Although a handful of Class XI fellows made extended plans to continue to Morocco for several more days, most fellows left the farewell dinner prepared for an early rise and long day of homeward travel.

Today, the Class XI fellows traveling back home were shuttled to the airport and sat at the gate for the Lisbon flight before dawn broke. This was the beginning of nearly 24 hours of travel for some and, even with the safe passage a top priority, it was time to unpack and reflect on our experiences. Although much reflection and dialogue will take place stateside among well-rested classmates, it is easy to acknowledge some initial reactions to our invaluable tours and interactions over the past several days. What we did experience was vast and diverse, and there were certainly some noticeable commonalities and differences between the culture and industries of Spain and what we are used to at home.

With Maryland a gold standard in land preservation, conservation, and watershed stewardship, there were some noticeable contrasts with the Spanish agriculture we experienced. The conservation focus seemed to be concentrated on water, as Spain is experiencing a devastating drought that did not seem to be too uncommon. However, the concept of no-till does not seem to be a common practice. Expressed as tactics for weed management and water retention, total disking of fields and prepared olive groves was something noticed along most of our road travels. It is clear priorities and strategies shift when dealing with a constant shortage of a critical resource.

From a tourism standpoint, it appears Spain agriculture leads with a very education-centric approach that seems to open a great deal of flexible and business expansion for the farms and processors we visited. The educational and value-added components of traditional practices transitioned seamlessly, and contrasts differently to the hurdles and barriers facing Maryland's expansion into agritourism. An initial takeaway from our agritourism tours throughout Spain is that we, as leaders and advocates, should continue to express education and public awareness as the underlying foundation of agritourism functions.

Lastly, the cultural differences and contrasts were numerous, far beyond late dinners and tapas. In the larger cities we visited, the history of religion and culture were layered throughout architecture and art. Rather than demolishing and rebuilding, there was evidence of different religions and cultures building on existing influences. Much like the layers found in a historically-rich geological formation, the depth of culture in some of these Spanish cities can make Americans feel somewhat small in the total timeline of history. This perspective can be empowering and encouraging, having visited, and immersed us in such a deeply cultured and diversified part of the world. As emerging leaders, representing an evolving and often challenged industry in a Country that is still young compared to world history, we leave Spain motivated and optimistic about all the positive and impactful history still left to create.

We truly gained a friend in Spain

Arriving in a foreign country there is an initial feeling of unknown and being lost. LEAD Maryland Class XI was certainly that — lost.

We had a lot of people who had not traveled, a lot of people who had, and some who had never traveled with such a large group. But Ismael Aquilera took the role of Tour leader to the next level. You were warm and welcoming, and quickly fit right in with our eclectic crew of agricultural professionals.

Along with being an incredibly knowledgeable and accommodating guide on our tours, you made sure we were immersed in the culture and experiences of your homeland. You were remarkably considerate and invested in the personal interests and passions of class members. Schedules were shifted and adjusted to accommodate the needs and bucket lists of class members. Whenever one asked for your local advice you had a plethora of ideas and locations for us to explore, and if you didn't, you took the time to do the research to find what we were looking for.

Your presentations and narrations oozed enthusiasm and, in getting to know you better, it is apparent that your passion and pride in your home is genuine. You made sure we were visiting the right neighborhoods, sites, and enjoying authentic dishes and libations. Beyond the farming landscape, you ensured our familiarity with Spain's culture, customs and history. Even if it meant you took us on a walking tour at Midnight in Cordoba so that we could get the full cultural experience. You embodied the "When in Rome…I mean Spain" motto and encouraged us that we only get to do this trip once so enjoy all the small things. You gave us all something to go home to and be more proud of representing our country to foreigners, like you did for us.

Ismael Aquilera

You made sure we sampled and ordered food staples in whatever region we were in, even if we didn't like a certain dish. There may be some new favorite foods, such as tortillas de patatas , Jamón Ibérico, tapas or olive beer. And you made sure to tell us what the local beer was or which wines we should taste. You consistently encouraged us to try all the things and don't be afraid.

You supplied us with just enough local insight to keep us from looking too touristy and made sure we got the full Spanish experience and told us not to be scared to get a little lost and find the small local restaurants.

For those that wanted to experience the true nightlife of Spain you pointed us in the right direction of a popular disco. For those of us interested in bringing home gifts, you suggested patience when necessary and pointed us in the right direction to noteworthy destinations.

Even as a seasoned translator with an impeccable grasp of the English language, your eagerness to learn was inspiring and opened the door for a lot of interesting and fun conversations revolving around new words and appropriate translations across language barriers. We were able to teach each other a lot over the course of the almost two weeks we were together. You contributed to some fantastic group pictures, knowing the perfect locations to snap a photo.

You connected with us even though at times we were a lot and you still found a way to be extremely personable. By the end of our time together, we even developed some inside jokes and many have continued to be said and used since being stateside.

We were a curious and enthusiastic group with a ton of questions. You were patient and receptive with your translation duties and always willing to delay a bus departure in order to answer the last few questions.

We could not imagine a more well-rounded host. You ensured we got the full Spanish experience and we truly gained a friend in Spain. We hope one day Class XI fellows can return the favor when you reach Maryland soil.

Adios mi amigo,
Your friends in
LEAD Maryland Class XI

Leaders Who Go Places

LEAD Maryland

The LEAD Maryland Foundation is searching for emerging leaders to apply to be in the next LEAD Maryland Fellowship class. Applications will be available in 2023 for class participation in 2024-25.

The LEAD Maryland Foundation provides scholarships to qualified Fellows. Thank you to the following for funding the scholarships:

- The Rural Maryland Foundation
- The Maryland Cattlemen's Association Ned Sayre Scholarship Fund, and
- Individual Donors

Rural Maryland Foundation

www.leadmaryland.org

Erosion, runoff non-existant amid Spain's five-month drought

By DEANA TICE
Owner and operator,
Enticement Stables

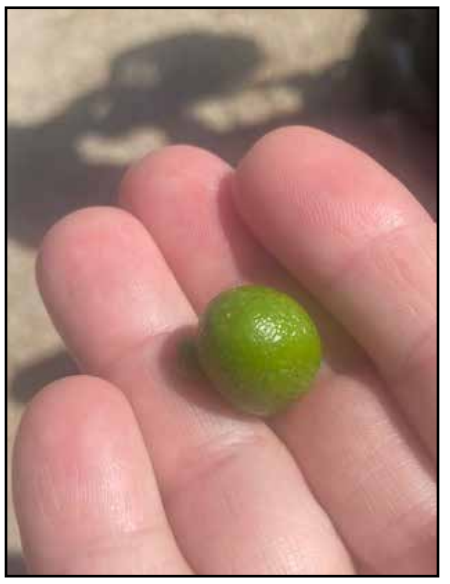
We all know how important water is to our health and the production of agricultural products. That became very evident on our trip to Spain.

As we landed in Spain, I was very excited to see the countryside. I saw bare fields and brown vegetation. This surprised me as we Marylanders maintain our fields with crops and cover crops to prevent erosion. I could not wait to get to a farm to find out about their erosion control methods to prevent water runoff.

On our first farm tour we visited the breeding farm of the original reserves of Andalusian horses which is the Cartujano lineage. The horses were beautiful, but my eye kept going to their fields which were on slopes with not much vegetation. I asked about runoff and was told they did not have a problem with runoff, which I found very suspect. So, I continued to search for evidence of erosion while enjoying the beautiful horses, too. I left that farm not finding much evidence, but my curiosity was still piqued.

On the same day we traveled to an 18th century vineyard that made world-renowned Sherry wine. They had 1,000 acres of grape vines, as far as the eye could see. The tasting room was on top of the highest hill so we could see all the vines on the slopes. We watched them fertilize the vines with trenched in method on bare dirt between the rows.

I again went looking for signs of erosion but could not find any. Again, I asked about soil erosion and was met with a look of surprise as if they did not know what that was. They said no we don't have that problem here. However, later in the conversation, they said they had not had rain since April. So, the light



bulb went off; no wonder I am not seeing any erosion they have not had any rain.

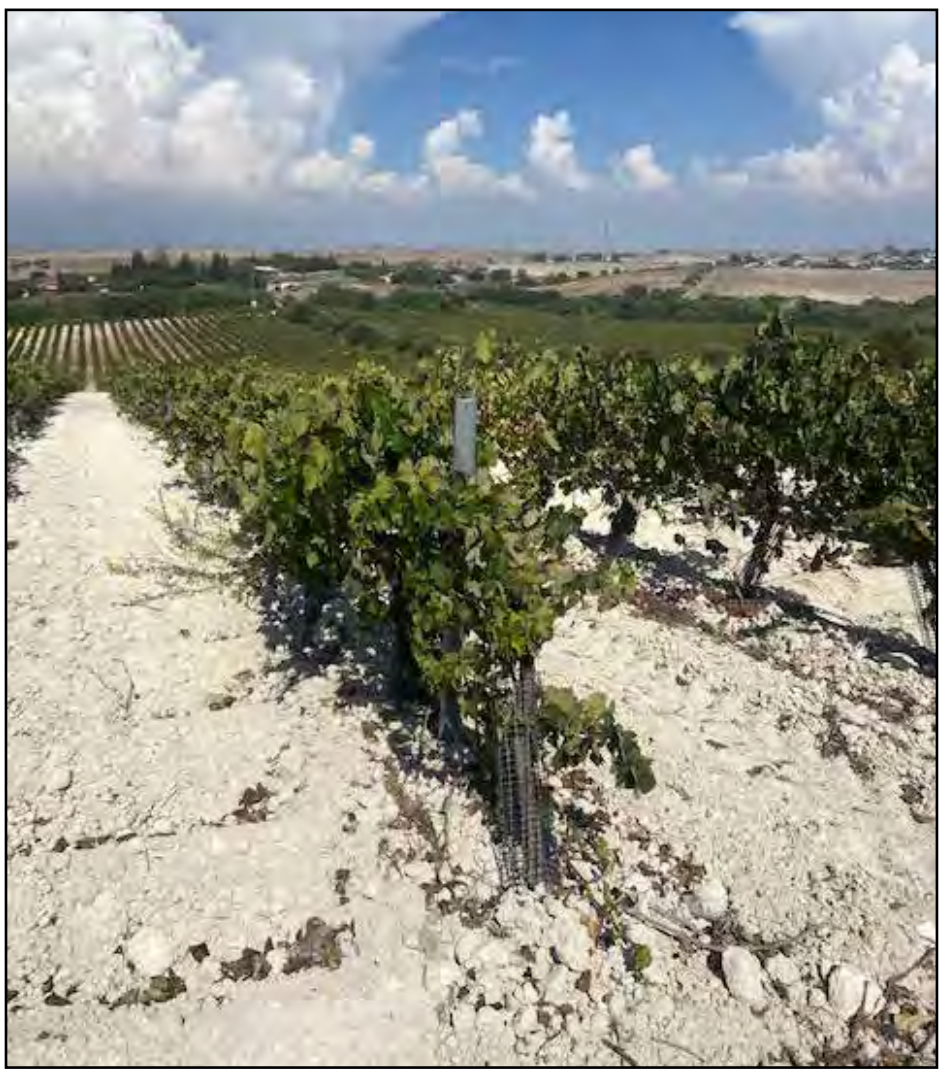
Over dinner that night, we discussed the lack of rain at our table. The discussion got me to continue thinking about water but now the lack of it.

Our next farm was the world famous jamon (ham) farm. We toured their field of oak trees that produce the acorns for the hogs to grow the perfect amount of fat and produce cork from the bark of the trees. The trees seemed to be doing fine as their root systems were deep but again the grass was dry and crunched under our feet.

The small town had a water system that the processing plant used mainly for cleaning as the meat processing did not require much water. During our tasting, I noticed that bottled water was given to us. The jamon was wonderful and so was the wine.

The next stop was the citrus cooperative that worked with many fruit tree farmers to coordinate the harvests to export the crop to get the most financial reward for their producers.

The ground in the orange groves also was bare, but they explained they kept the soil tilted so that the trees did not have to compete with the grass for water. Again, the farmers were doing what it took to produce the best crop under the drought conditions. Water was



With no rain in parts of Spain for five months, crops are smaller than normal and plans are dying off.

Photos by Deana Tice

available on a metered system, but most farmers had used up their allotment for the year.

The next day brought us to a dairy farm that processed its milk for direct sales, but their main production was in cheese.

There seemed to be ample water at this farm until you got out back and look at their fields. The hay and silage production were way down for the year. I found the farmer to be an open book and he showed us his entire farm. I wish I had asked more questions about his water supply.

Did you know Spain produces more olives and olive oil than any other country? Our next visit was to an olive tree farm and processing plant. They did admit that Italy does a better job marketing its olive oil than Spain does, but Spain is No. 1 in production as of last year.

As we got to harvest a tree of olives, we saw firsthand that the production was low and what olives we did harvest were very small and dry. The lack of rain will significantly decrease the olive harvest this year in Spain.

After some wonderful tours of the Granada palace and city life, we traveled to the Sierra Nevada region which was a mountain area where we finally saw running water in the streets from the mountaintops. This gave me some hope for the southern region to be able to have some water. After a nice lunch, we traveled down the other side of the mountain and came upon the water reservoir for the Granada region. My hopes were dashed then as I saw the water level at a much lower level than it should be and realized again how bad the situation is in Spain.

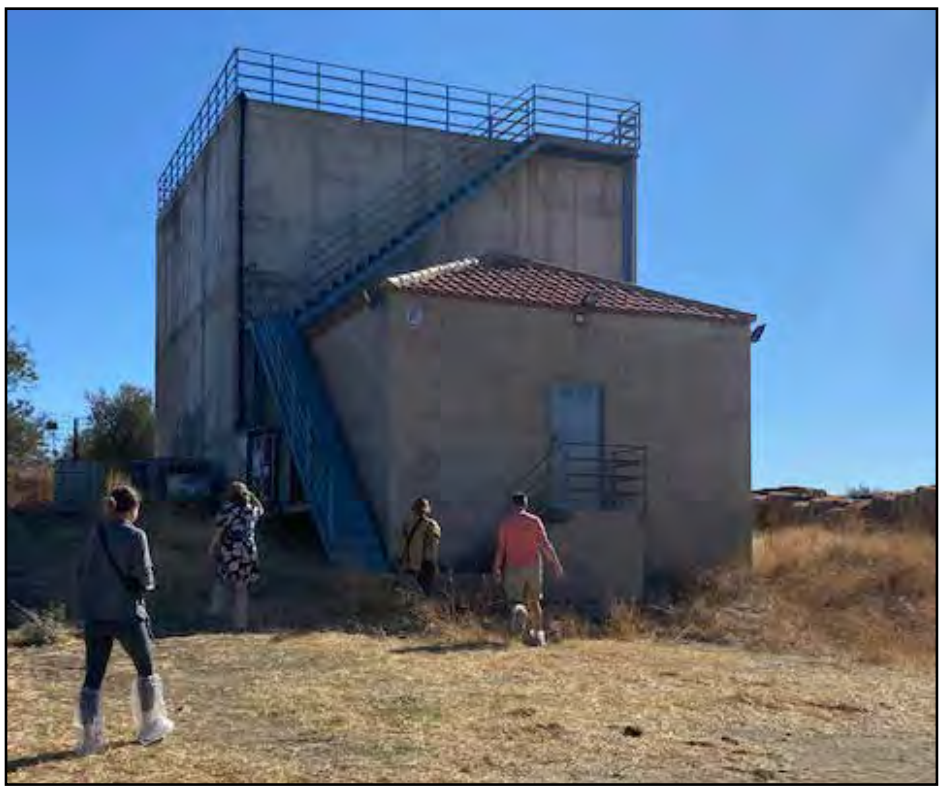
We then traveled to the coast of Spain and saw the beautiful views of the Mediterranean Sea; so much water and beauty, while farmers'

crops are suffering.

The next day we visited a tropical fruit farm that overlooked the Mediterranean Sea. However, when we asked about some dead trees, the farmer told us that her well is testing high in selenium (salt) due to the lack of rain so she cannot use her well to water the trees. The selenium will kill the trees anyway and the high level of selenium will stay in her soils for up to 3 years. She felt it best to let the trees die and replant next year in hopes of more rain. She also explained that water treatment plants are too expensive to build.

While in the same region, we visited the sea of plastics which is an area that has so many greenhouses it can be identified from space. The farmers who gave us the grand tour had drip line systems that got the right amount of water to the exact location of the plants, making the best use of their water allotment as well as having a recycled water system.

I was impressed with their use of water and the great produce they



At left, the cork oak trees seemed to be doing fine as their root systems were deep but the grass was dry and crunched underfoot. Above, the Ruigan feedlot uses a water treatment facility that would be comparable to what is built to service small towns in Maryland.

Photos by Deana Tice

grew. It showed the great amount of work and expense they had to make every ounce of water work for them.

The next day we visited a cattle farm that holds about 6,000 head of cattle at a time. Now my interested is piqued, since I know how much water a steer will drink in a day.

We found each pen to have automatic waterers, so it appeared that water was plentiful. Upon walking to the back of the farm, we found a water treatment building that would be comparable to buildings we see that service small towns in Maryland.

It was a very impressive system that filters the water to make sure the many wells on the farm are not contaminated before going into the automatic watering system for the cattle. I was very impressed with the lengths they had to go to have water for their herd.

Our time in Spain was wonderful and a trip of a lifetime, learning so much about the country's agriculture, history and culture.

Their pride of their country was so evident in everyone we met. They will forever be in my thoughts and prayers for plentiful rain. I am an older Marylander and have farmed through several droughts, but they have never been as bad as I witnessed in Spain.