The Central Valley is always changing, and with agriculture at its heart, the valley’s agriculture is always changing too. One of the biggest changes is in technology. With the challenges of labor shortages, employee safety, and increasing wages, farmers have to look for intuitive ways to harvest grapes. That’s where the Burro comes in.

By Emanuel Ferreyra,
Ranfery Solorzano
Victor Orozco, Juan Quiroz,
Reyes, Christopher Andrade,
Yovanny Ramirez, Anthony
By Jose Maldonado,
Veyann Ramirez, Victor Orozco, Juan Quiroz, Faustino Olea, and the Burro.

When warm weather hits, DCC Dual Chamber Cow Waterbeds, spoke to us at the World Ag Expo in Tulare. She told us more about the Cow Waterbeds for cows seems like a great solution for such a big problem the farmers and cows face on those hot days in the Valley. As a result, their field operation is based in Kingsburg, California.

The Burro’s primary area of operation is in vineyards. Harvesting table grapes is extremely labor intensive and that’s where the Burro’s benefits can really be seen. Typically, a grape picker will pick the grapes and place them into a tub. Once the tub is filled, the picker will push the tub and place it into a wheelbarrow. When the wheelbarrow is full, the picker will manually push the wheelbarrow a great distance to the grape packing station. After the grapes have been delivered, the grape picker will pull the empty wheelbarrow back into the row of grapes, and continue the process all over again.

One of the many benefits of using the Burro is that it alleviates the amount of time spent walking for pickers. The most challenging task for the picker was pushing the heavy wheelbarrow through rough soil for a long period of time. The Burro eliminates that task. Another benefit is that the Burro is always at work and ready to go. It is estimated that the Burro can save up to 48% in labor yield per picker for a crew of about 10 people. It also increases efficiency and improves safety in the workplace. Not surprisingly, the Burro was a winner in the World Ag Expo’s 2022 Top 10 New Products Competition. It has won many other awards, and is also one of the answers to the question, “How is Ag Changing in the Valley?”

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However, with the Burro, the grape picker will place the full tubs of grapes onto the Burro. When the Burro is full, it will automatically drive itself through an autonomous route to the grape packing station. Once it’s unloaded, it will automatically drive itself back to the grape picker.

On February 9, 2022, Jefferson Elementary Journalism Class at Dinuba had the opportunity to attend the 2022 World Ag Expo in Tulare, California. Our mission was simple, find out, “How is Ag Changing in the Valley?” That’s where the Burro comes in. First, we needed to find it. We had previewed videos of it in action but wanted to know more. The Burro is basically an automated trailer that operates like a tractor. As we journeyed through the World Ag Expo, our mission began to wane by the exposure to more and more new and exciting farm equipment. After making our way through the exhibits, we finally found the Burro. We were kindly greeted by Angel Robles, an August Robotics representative. We had the opportunity to ask him, “How is ag changing in the valley?” He responded, “Right now there is a labor shortage, specifically in grape vineyards. To help with that, we are helping put those robots into the fields to automate the process.” Mr. Robles continued by saying, “Chances are you have a picker that goes into the grape fields and picks all the grapes and then has to wheelbarrow them out of there. Instead of doing that, we have the Burro that autonomously goes inside the rows so that it can go and help the picker load up all the grapes onto the robot and then send it back out to the pack table, instead of having to wheelbarrow out the grapes.”

We went on to learn that the Burro is an automated cart designed to transport sensitive fruit through an autonomous route. It functions as a small trailer that replaces traditional wheelbarrows. It can carry up to 500 pounds and tow up to 3,500 pounds. The Burro is manufactured by August Robotics in Philadelphia, but has most of its business in the Central Valley. As a result, their field operation is based in Kingsburg, California.

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DCC Waterbeds has been in business since 1999. Being one of a kind, the waterbeds for cows are manufactured and sold worldwide to help the agricultural industry around the globe. The Waterbed offers comfort to the cows and peace of mind to the farmer that their cows will be in tip-top shape for the milking process. Daily cleaning was explained as being fast and simple, which is less stressful for the cows and less work for the farmer in the barn as well. This means less material in the manure stream along with less wear and tear on all of the expensive equipment for the farmers.

Cows are very heavy! Have you been wondering if the cows can break or rupture one of these waterbeds? We wondered the same thing! So, we asked Amy Thord- sen if one of the waterbeds has ever been damaged by a cow. Typical cow use will not tear down a DCC Waterbed. They can however be damaged by improper use of the equipment,” responded Amy Thord- sen. So there you have it. This is the new way to cool down all the cows you see at the dairy farms when you’re driving down those country roads. DCC Dual Chamber Cow Waterbeds for cows seems like a great solution for such a big problem the farmers and cows face on those hot days in the withering heat.
BABY COWS!! On February 9, 2022, we went to the World Ag Expo in Tulare and had the opportunity to interview Michael Cohen, President of SunDown Magnetics located in New York. He talked to us about cow magnets. As most people know, magnets hold papers on metal surfaces such as refrigerators and white boards, but cow magnets hold metals inside a cow’s stomach.

So, what exactly are cow magnets? These are magnets that go inside a cow’s stomach to protect them from getting sick when they eat metals. For instance, when cows are out in the fields grazing, they might eat metals such as wires and nails — this will hurt their bodies and cause the cows to become sick with an illness called hardware disease. Mr. Cohen explained that some dairy farms can have hundreds or thousands of cows. When cows get sick, they can die. If they die, it becomes very expensive for the dairy farmers. This is why the farmers use cow magnets, which saves them money, their cows, and keeps their farms running efficiently. Most importantly, cow magnets have been improved over the years to make them more technologically advanced. Mr. Cohen expressed that modern magnets are much better in comparison to the old-fashioned ones, which were much simpler. He said, “Some of the more advanced magnets that we design are very special and we control the direction of the magnetic field.” This means that when they construct the magnets, they make them in such a way that the center of the magnet is very strong. So, when cows eat a wire or a nail, these metals are attracted to the center of the magnet, and cows will not get hurt. As a result, using magnets helps improve how farmers do agriculture.

In conclusion, during our interview we learned that cow magnets are, how they work, and how they help farmers keep their cows safe and healthy. We also learned that magnets are important for farmers and cows. Lastly, we learned that cow magnets are helping improve agriculture in general.

Saving Baby Cows: CALF HERO

By Santiago Ramirez Diaz, Guadalupe Francisco Peralta

WANT TO KNOW ABOUT THE Calf Hero five-step management system.Checkpoint: A Trip to the WORLD AG EXPO

By Kendra Villareal and Emmanuell Zepeda

Calf Hero is from Wisconsin and is available throughout the U.S.

By Julissa Canela, Sixto Mendoza, and Destiny Mateos, Joel Mateos, Yvettia Cortes, Brianna Huerta, and Camilla Quintana.

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Calf Hero tests the colostrum and provides storage that allows the farmer to feed the calves. When Mrs. Beckel was asked, “What makes your product important with respect to technology in dairy farming?” She responded, “There is new research on colostrum as a healthy. We also learned that magnets are healthy. We also learned that magnets are important for farmers and cows. Lastly, we learned that cow magnets are helping improve agriculture in general.

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Elementary Students Discover the Scientific Innovation of Gut Bacteria at the World Ag Expo

By Francisco Javier Garcia Lopez, Oscar Josue Jimenez, Aashiyah Lopez, Erik Uriel Verdin Torres and Cecily Gonzalez Garcia

The Significance of the World Ag Expo

“Holy moly,” whispers Kevin Gonzalez, as we enter through gate 12. Kevin is a fifth-grade student at Roosevelt Elementary and it is his first time at the World Ag Expo. His eyes widen, as he sees rows and rows of vendors, exhibitors, heavy machinery, and hundreds of people walking from booth to booth. “Welcome to the World Ag Expo!” exclaims a vendor as we pass his station.

According to the official World Ag Expo website, there were 93,387 visitors that attended this year’s Expo. The World Ag Expo is a farm equipment show that is open to the public. It is the largest exhibition of its kind in the United States. The Expo displays the latest technologies in all agricultural fields, ranging from dairy equipment and products to self-driving robots that are capable of harvesting fruit from orchards. People from all over the world and country attend and hold exhibitions at the Expo. According to our greater, every state except the state of South Dakota had an exhibition at the Expo.

The significance of the World Ag Expo is astronomical. Not only does the Expo bring in large amounts of revenue for the city of Tulare and the state of California, but the Expo also grants the public the opportunity to learn about the latest agricultural research, technological advancements and practices in a face-to-face setting. Having the World Ag Expo in Tulare, also places the Central Valley on the map. As a result, the Central Valley has become the spot for students focused in the field of agriculture to come and study.

Micro Basics

Out of all the exhibitions housed at the Expo, Roosevelt Elementary students were drawn to a booth that was about maintaining a dairy cow’s health. The exhibitor ran by a very kind man named Mr. Opperman. Mr. Opperman was very eager to share his knowledge with the students. The first question Mr. Opperman asked us was, “What is an immune system?” As the students thought of answers to his question, he enthusiastically began to explain the name of the company he was representing and what they are about. The name of the company is Micro Basics. Their mission is to provide farmers with nutritional products that boost the immune systems of their dairy cows. Micro Basics’ products are derived from bacteria gathered from mushrooms. The bacteria then focus on triggering the appropriate immune response of the cow to fight off any illnesses.

Micro Basics’ Impact

The impressive significance of Micro Basics’ products does not solely lie on its natural mushroom origins. The natural origins of the company’s products also create the fantastic ability for Micro Basics to be a socially and environmentally responsible company. Micro Basics’ products are of great importance to farmers because they have the ability to reduce and potentially eliminate the use of antibiotics. In eliminating antibiotics in dairy cows, Micro Basics is granting the opportunity for farmers to reduce the amount of toxic chemicals that seep into the soil and destroy nearby ecosystems. In reducing the use of antibiotics, Micro Basics is maintaining the integrity of foods, and creating the possibility for farmers to return to a self-sustaining way of life.

In the face of the stark reality, Micro Basics is providing dairy farmers with a socially and environmentally responsible tool. Mr. Opperman explained how farmers can use Micro Basics’ products to help improve the dairy cows’ health, as well as provide farmers with nutritional products that boost the immune systems of their dairy cows. Farmers can use Micro Basics’ products not only to improve dairy cows’ health, but also to keep dairy cows healthy and productive.

In conclusion, we found out that Burro is helping agriculture by preventing field workers from carrying heavy loads in the heat, and reducing the need for farmers to use harmful pesticides and chemicals.

The Migrant Voice

SPRING 2022

Burro: The Autonomous Vehicle

By Brianna Huerta and Yuriria Contreras

On February 9, 2022, our journalism class went to the World Ag Expo in Tulare to interview a sales representative named Daniel Villadolid about an autonomous vehicle, at the Expo. We found out that Burro helps change agriculture in many ways.

To begin with, Burro helps by having people not walk back and forth in the heat. Mr. Villadolid told us that it prevents workers from having to work in extreme weather conditions. Also, farmers are looking for better ways to harvest their crops, and technology such as Burro is assisting them in this area. For example, farmers can use Burro to harvest their table grapes and berries by just pressing a button. This is important because farmers have to pay lots of money to workers, and technology is also helping them in this way.

Another way Burro is changing agriculture is by attracting a higher number of field workers. By using Burro, more women can work in the fields because they know Burro will do the heavy lifting for them. Mr. Villadolid said, “There have been studies saying there is a decrease of workers in agriculture in the past five years.” Burro can be one way to help keep the shortage of labor down.

In conclusion, we found out that Burro is helping agriculture by preventing field workers from carrying heavy loads in the heat, and potentially eliminating the use of antibiotics. In eliminating antibiotics in dairy cows, Micro Basics is granting the opportunity for farmers to reduce the amount of toxic chemicals that seep into the soil and destroy nearby ecosystems. In reducing the use of antibiotics, Micro Basics is maintaining and preserving a communities’ health for years to come.

Agriculture’s Future in the Central Valley

Here in the Central Valley, agriculture directs the valley’s future and the liveliness of many of its people. As stated by fourth-grade student, Erik Verdin, “While walking through the Expo, I kept thinking of my dad who is a field worker. I know it is a hard job but being able to experience the Expo made me realize the impact my dad’s work has been all these years.” As new technology continues to be invented and implemented in all agriculture fields, the future of our valley is looking brighter than ever. The Expo provides the opportunity for Micro Basics to be a socially and environmentally responsible company.

Students posing with a statue at the World Ag Expo in Tulare.

Students posing with a statue at the World Ag Expo in Tulare.

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Acknowledgments

The Migrant Voice would not have been possible without the exceptional support of the Tulare County Superintendent of Schools, Tim Hire, and the Dinuba Unified School District. In particular we would like to thank Celina Torres, Migrant Education State Director; Anabel González, Migrant Education Program Director, Region VIII; Robert Herman, TCOE Communications Director; Nayirah Dosu; TCOE Communications Specialist; Gina Ramshaw, Director of State and Federal Funds; and Rita Navarro, Administrative Assistant, Elementary Site Administration, DUSD Food Services and Transportation Departments. It takes a huge effort to implement a new curriculum, such as the Migrant Education Journalism Project, and we are grateful to the following DUSD teachers who taught Journalism after school: Severo Romo, RubyAnn Alvarado, Doris Guzman, Jose Perez, Gabriela Santana, and Elvia Alvarado. We would also like to acknowledge the coach for this project Marianne Austin and the Program Manager, Migrant Education Region VIII, Shantall Pecho. We are also thankful for all of our understanding interviewees, parents, and other dynamic support staff. Our migratory children thank all of you and appreciate you taking the time to lend a helping hand. As a result of everyone’s efforts, we may see these students as future journalists.