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THE DAIRY TECH PROJECT

BY FERNANDA FERREIRA, DANIELA BRUNO,
MARCIA ENDRES, AND CAMILA LAGE

Greetings, dairy enthusiasts! We are delighted to share with you our new source of information on projects and activities of our group related to new technologies for the dairy industry. Recently, our group got a competitive grant funded by the California Dairy Research Foundation that aims to evaluate the economic feasibility of implementing voluntary milking machines (or milking robots) in large dairies. This project is a collaboration between the UC Davis School of Veterinary Medicine, UC Agriculture and Natural Resources, and the University of Minnesota. Stay tuned for more updated information!

DAIRY TECH
NEWSLETTER

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WHY AUTOMATIC MILKING MACHINES?

BY FERNANDA FERREIRA

Automatic milking systems, specifically single-box systems, have been in use for 27 years in Europe. The US dairy farmers have become more interested in these systems over the past few years. Many farmers, especially small ones, see these so-called AMS systems as an opportunity to improve their lifestyle and give them more freedom as they do not have to milk around the clock. The large farmers have looked into opportunities to decrease labor. **However, there are important factors that need to be considered before deciding on making a (large) investment on these systems.** Our project will look into the risks and opportunities of AMS for large herds.



A LARGE FACTOR AFFECTING THE DECISION TO INSTALL AMS IS THE INCREASE IN LABOR COSTS, FROM 9% IN 2014 TO 12% IN 2017 OF THE TOTAL COST OF MILK PRODUCTION IN CA (CDFA, 2018).

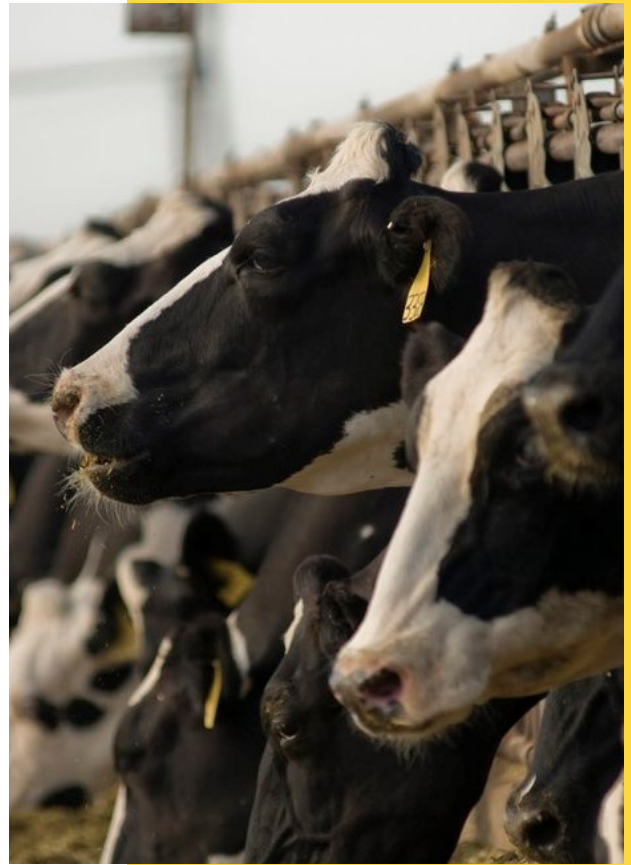
We know that labor costs play an important role on the economic feasibility of investing in AMS. We believe there are great opportunities for farmers to invest in AMS, but there are also risks, and we want dairy farmers to make a well-informed investment decision.

WHAT IS THE IMPORTANCE OF THE PROJECT?

BY DANIELA BRUNO

Dairy production is labor intensive. In California and many other states, the dairy industry is facing not only increasing labor costs, but also a shortage in labor. The dairy industry is a dynamic, forward-thinking industry and it has been eager to adopt many technological advances, and there is an increasing interest on AMS systems, especially in large dairies.

Most studies that investigated the economic feasibility of automatic milking systems were done in small herds. We aim to provide a reliable, scientific-based source of information for large dairy producers so they can make better-informed decisions when considering a transition to new technologies.



WHAT DO WE EXPECT?

- To learn from a critical analysis of past research what the opportunities and risks for implementing AMS in large dairies are.
- To learn from large farms across North America the challenges they faced when transitioning to AMS, and their reason to do so.



- We envision that the information generated will decrease the risks associated with investing in new technologies, especially for California large dairies, as farmers will have more knowledge and have more confidence in the decision-making process.
- In addition, banks and lenders will also have more information on the risks associated with lending money for AMS investments.

FERNANDA FERREIRA, DVM, PHD

Dr. Fernanda Ferreira is an assistant cooperative extension specialist at UC Davis. Ferreira received her Ph.D. from the University of Florida, M.Sc, and a Veterinary Medicine degree from the University Federal of Minas Gerais, Brazil. Her research interests include applied research and extension on dairy cattle production and economics.



WHO WE ARE

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MARCIA ENDRES, DVM, PHD

Dr. Marcia Endres is a Professor in the Department of Animal Science at the University of Minnesota with an extension/research appointment. Endres received her Ph.D. from the University of Minnesota, M.Sc. from Iowa State University, and a Veterinary Medicine degree from the University Federal of Parana, Brazil. Her research interests include dairy management, welfare, precision dairy technologies, especially robotic milking systems.

DANIELA BRUNO, DVM, PHD

Dr. Daniela Bruno is a dairy advisor at UCNAR, for Fresno, Madera and Kings counties. She has a Ph.D. from UC Davis and a Veterinary Medicine degree from the University Federal of Minas Gerais. Her research interests are focused on improvement of animal health and animal welfare in dairy cattle including advanced levels of animal husbandry practices in large herds straightening sustainability of operations especially the use of new technologies.

WHO WE ARE



CAMILA LAGE DVM, PHD

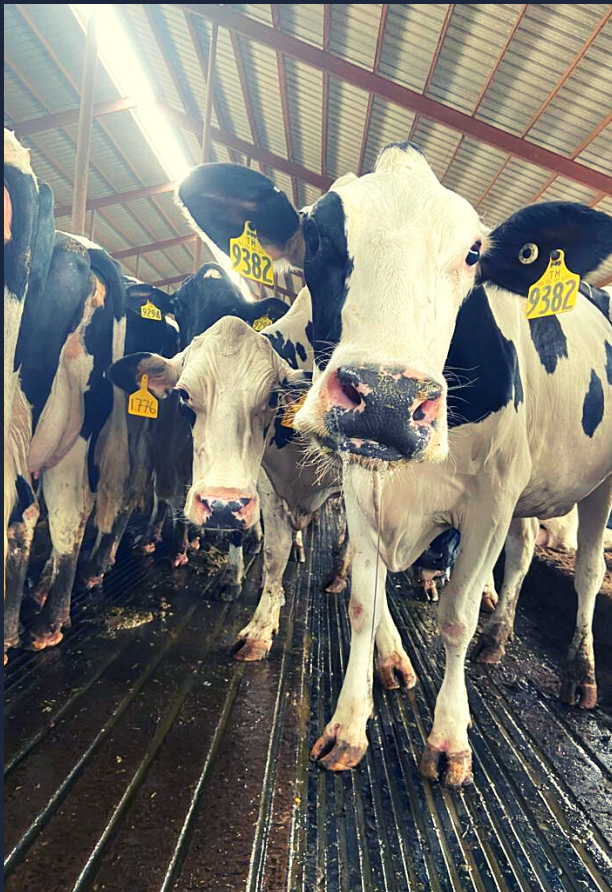
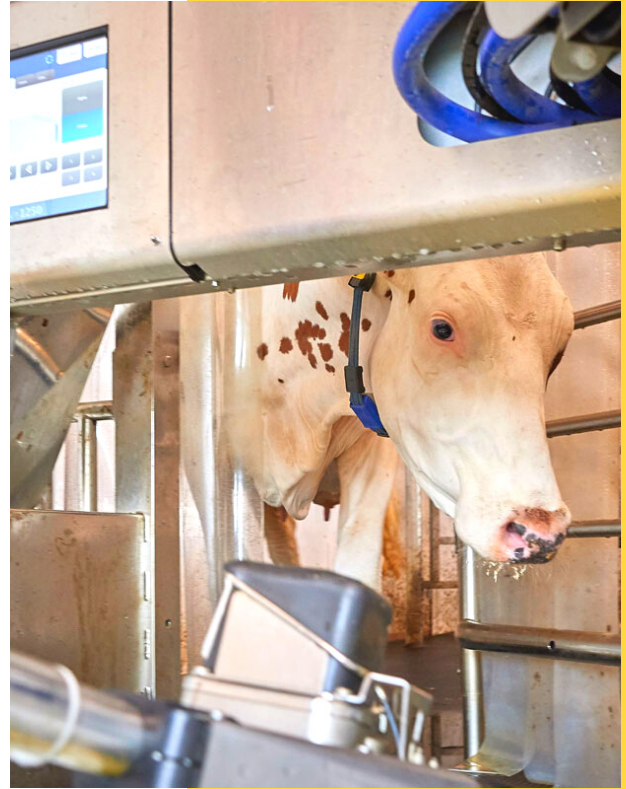
Dr. Camila Lage is a Postdoctoral Scholar in Dr. Ferreira's lab at UC Davis. Lage received her Ph.D., M.Sc, and Veterinary Medicine degree from University Federal of Minas Gerais, Brazil. She did part of her Ph.D. program as a visiting scholar at Pennsylvania State University. Throughout her academic career, she has carried out work related to dairy nutrition and production as well as mammary gland health and milk quality.

YOU CAN COLLABORATE!

BY CAMILA LAGE

In order to execute this project, we will need your help!

If you are a dairy producer, veterinarian, nutritionist, robot dealer, or know a large dairy (> 500 cows) that has or want to implement automatic milking systems please contact us and learn how to be a collaborator!



CONTACT US!

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