



UC DAVIS

VETERINARY MEDICINE

DAIRY TECH NEWS

ISSUE 03 • JUNE 2021



ANIMAL SCIENCE

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources



AMS EXPERIENCE IN TEXAS

T&K DAIRY AND WOLF'S LEGENDARY DAIRIES OPEN THEIR DOORS TO SHARE THEIR EXPERIENCE MILKING IN AMS

Greetings, dairy enthusiasts! We are excited to share with you the experiences of two large Texan dairies milking cows under automatic milking systems (AMS). We had the pleasure of joining Assistant Professors and Extension Dairy Specialists of Texas A&M Juan Piñero and Jennifer Spencer on this field trip in which we had the opportunity to dive into the challenges and opportunities of transitioning partially or fully from the milking parlor to robotic milking. We hope you enjoy this edition!

DAIRY TECH
NEWSLETTER

TABLE OF CONTENTS

Update on AMS project • P. 2

Visit to T&K Dairy • P. 3

Visit to Wolf's Legendary
Dairy • P. 4

You can collaborate • P. 6

UPDATE ON THE AMS PROJECT

BY FERNANDA FERREIRA

This newsletter is part of a collaboration between UC Davis School of Veterinary Medicine, UC Agriculture and Natural Resources, and the University of Minnesota. This project is funded by the California Dairy Research Foundation. Our objective is to better understand the decision-making process when transitioning to AMS, and the most important aspects related to management before, during, and after installing the AMS. We are surveying and interviewing producers from large dairy farms across the US who have implemented AMS, and so far our survey has respondents from 9 states in the US, averaging 888 cows milked in AMS. **As a first insight of our survey, the most important reasons to adopt the AMS cited by the respondents were to improve cow's welfare (81.3% of respondents) and reduce labor cost (81.3% of respondents) followed by improving overall herd performance (75% of respondents) and reduce the number of employees (75% of res).** Overall, producers reported that AMS has met their expectations about improving animal production and welfare; however, the economic aspect of the investment is still not clear and would benefit from further investigation.

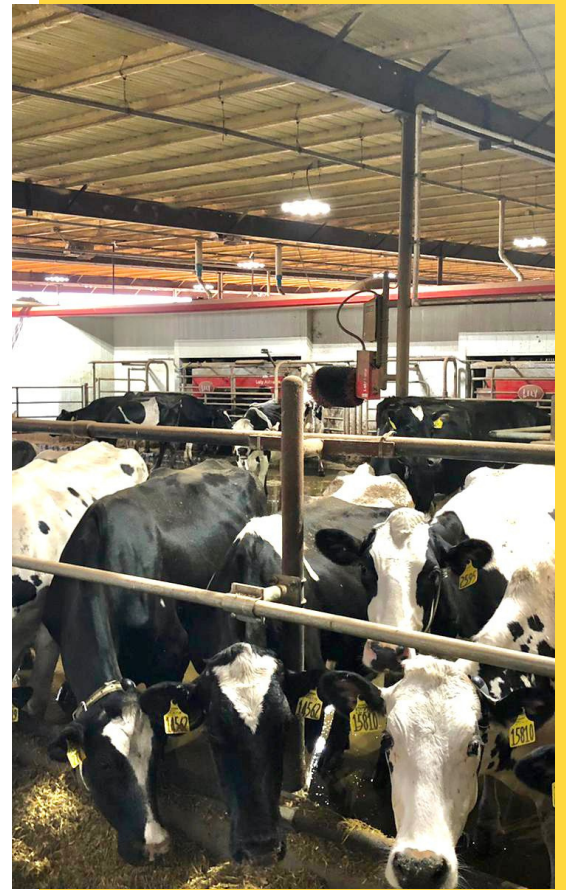


For the fall (September-December), we are organizing a webinar series to address topics of interest for farmers using AMS and for those thinking about transitioning to AMS. We will also present the results of our research and we are looking forward to having you participate with us. We will send more details soon. Stay tuned!

T&K DAIRY- FIRST LARGE AMS OPERATION IN TEXAS

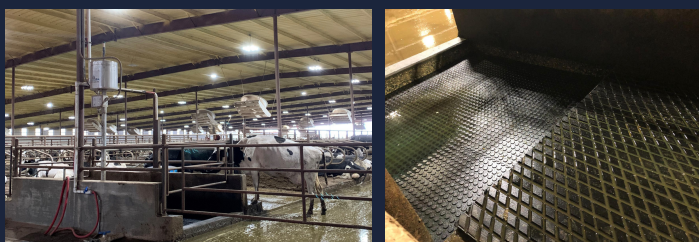
BY CAMILA LAGE

T&K Dairy, located in Snyder, Texas, is owned by Will Collier. The Colliers' dairy is a third-generation operation that started in 1982. The operation milks 3000 cows, of which 1070 are milked on a free flow AMS barn that started operating in August of 2019. Will was always interested in the latest technology and had already adopted rumination collars on his farm, which according to him, helped a lot to better manage reproductive and health management. When it was time to replace an older barn, the Colliers started looking at possibilities and when deciding between a carousel parlor and the AMS boxes, the latest won the battle because of the labor savings aspects. When asked how challenging was the transitioning process for the cows, Will said it did not take long for the cows to acclimate. The barn was designed to improve cow comfort and the cows love it.



"SUMMER TIME IN TEXAS CAN BE VERY CHALLENGING FOR THE COWS"

According to Will, cows can suffer a lot with the heat stress when the temperature increases in Texas and the new barn includes a tunnel of ventilation and misting system that can keep the environment near-optimal the whole year, which reduced a lot the seasonality of production in his farm. We asked Will about a challenge he had during the adaptation process and he said that small teats can be a problem for cows milked on the robot. So, if you are thinking about transitioning to AMS, including teat characteristics in advance on your breeding program would be a great deal! A point that caught our attention in the T&K AMS barn was the footbath management. Since the cows are on a free-flow system, a footbath system was installed at the end of each pen, and cows are guided to it twice a week. This time cows are moved from the main area are also used to do bed management. Combined management on AMS is a great strategy to optimize time and guarantee that cows have as much time as possible free to go get milked.



Footbath system at T&K AMS barn

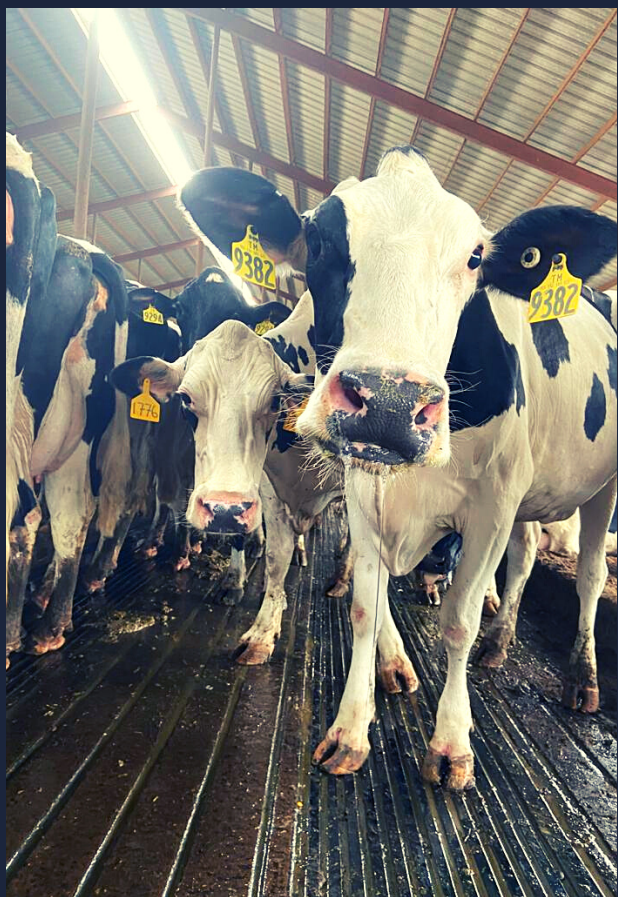
WOLF'S LEGENDARY DAIRY - FULLY ROBOTIC

BY FERNANDA FERREIRA

Wolf's Legendary dairy, located in Windthorst - TX is owned and managed by Adam Wolf. He was raised on a dairy farm and decided to start his farm in 2008. In August 2020, they transitioned to AMS and, are currently milking 720 cows on 12 Lely robots on a hybrid tunnel vent barn. All lactating cows are managed on the AMS, including fresh and sick cows. When asked about how he decided to adopt this new technology he said: **"I was always interested in the robotic technology but for it to work in Texas I was concerned if the cows would visit the robots during the summer. So, I choose a design that would reduce heat stress and flies for cows to be as comfortable as possible throughout the year"**. Adam was always interested in how the AMS could maximize the genetic potential of his cows and the benefits of having more accurate data to market the genetics of bulls born from his cows. He said that they have been using artificial insemination for at least 60 years on his dad's farm and he knew his cows could perform better in an optimal environment and if they were milked 3x/day, which was not possible because of labor constraint. They have been milking cows in the new system for just 6 months, but he already can see benefits: **"The first benefit I see is feet health. This barn is a comfortable barn that allows the cows to lay down as much as they can. So, they stay laying down 13-14 hours. If the cows are off their feet, their feet stay healthier. We are also starting to see the cows that are having a 2nd lactation in this barn thigh off, they seem to reach their peak milk earlier and higher than in the conventional system."**



Adam believes that a person that is considering transitioning to AMS cannot be afraid of technology and must use all the available tools. **"I honestly can operate the whole dairy through my phone. A lot of people think there is less work involved in operating a robotic dairy but that's not true. It just provides more flexibility on my day."** Adam thinks the initial training program is a challenge and he thinks farmers that are considering transitioning have to **make sure they have enough help training cows not just for weeks but for at least 6 months after transitioning.** An interesting point of Wolf's Legendary dairy is their management with sick and cows right before the dry period. Since Adam decided to transition 100% to AMS, he heavily relies on the sorting pen to help him with that. A week before the cows need to be dried, the robot will gradually start reducing their pellets until the last milking when this cow will be sorted and directed to a management center to have their hoof trimming and dry cow therapy medications. Cows with mastitis or other diseases are sorted and, stay on the special needs pen while on treatment. The robot can be programmed to separate the milk of the sick cows as far as necessary and the cows can be observed closely by the employees.



CONTACT US!

Fernanda Ferreira
fcferreira@ucdavis.edu

Daniela Bruno
dfbruno@ucanr.edu

Marcia Endres
miendres@umn.edu

Camila Lage
cdeassislage@ucdavis.edu





YOU CAN COLLABORATE!

We need your help with this project!

We would love to hear from dairy farmers, veterinarians, nutritionists, robot dealers, or consultants who have been working with AMS. If you know a large dairy that has at least 7 AMS units or is implementing AMS, please contact us and learn how you can collaborate with us on this project.

fcferreira@ucdavis.edu

