



# The Faces of a Sustainable Industry

*The U.S. dairy industry is ahead of the curve in sustainability. How are we leading the way? And how can we address sustainability on a global level?*

By Christy Couch Lee



Frank Mitloehner, University of California, Davis, says several areas of the dairy industry will enhance its sustainability in the future. Animal welfare, he says, will be a major contributing factor.

Sustainability. It's not an easy concept to define, either for us in the U.S. dairy industry, or the consumers we serve. But, oh, is it ever important.

What many consumers may not realize? The U.S. dairy industry is ahead of the curve globally, and it's up to us to share the good news of what producers and the great minds of the industry are doing to create an even more sustainable industry in the years and decades to come.

Frank Mitloehner has spent more than a decade studying the impacts livestock has on the environment, as well as finding ways to mitigate these impacts, as a University of California, Davis, professor of animal science and air quality extension specialist.

He has even been called into action as chairman of a United Nations Food and Agriculture Organization committee to develop methods to quantify livestock's carbon footprint on the worldwide level.

At a base level, "sustainability" can be defined as the ability to endure, and to remain diverse and productive indefinitely.

But Mitloehner says the definition isn't nearly as critical as understanding the five main pillars that contribute to sustainability as it relates to a dairy operation.

"Most importantly within animal agriculture are the areas of animal welfare; environmental quality, including air, water and climate; worker health and their safety and training; food safety and instilling the belief in the consumer; and economic viability, because if the practices aren't viable, they are not sustainable," he says. "We can't just change a housing system, for example, and be more sustainable. If the operation has higher incidents with mastitis or hoof problems, then welfare isn't really improved. We can't just look at one pillar; we must look at all of them."

Leading scientists and the U.S. Environmental Protection Agency have quantified the effects of U.S. livestock production on greenhouse gas (GHG) emissions. And what did they find? Livestock accounts for 4.2% of all GHG emissions, compared to 26% from the transportation sector and 31% from the energy sector.

And of that 4.2% by livestock species, beef cattle account for 2.2%; dairy cattle 1.37%; swine 0.47%; and poultry 0.08%; with sheep, goats and other species making up the remainder.

So, why does the U.S. consumer sometimes have a different view of the situation? Likely, it's due to disconnect, Mitloehner says.

## BRIDGING THE GAP.

As we all know, the average U.S. consumer is becoming increasingly separated from production agriculture.

"I teach a class of 300 students from San Francisco to Los Angeles, most of whom are largely disconnected from agriculture and where their food comes from," Mitloehner says. "When asked how their food should be produced, they answered with less chemicals and less technology. Then, I showed them two cars.

### INCREASING SUSTAINABILITY OF THE U.S. DAIRY COW

	1950	2015
Total Dairy Cows	22 million	9 million (-59%)
Milk Production	117 million tons	209 million tons (+79%)
Carbon Footprint		1/3 that of 1950

Source: Livestock's Contributions to Climate Change: Facts and Fiction, Frank Mitloehner, University of California



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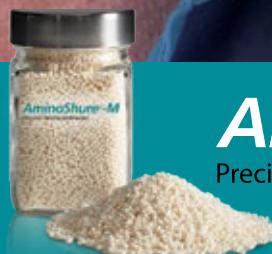
**Frank Mitloehner**  
**University of California, Davis**

Today's cows are more comfortable, more productive and the industry more sustainable than at any time in history. And it's up to all of us to share that message with consumers that are increasingly removed from food production.

At Balchem, we salute those that support the dairy industry's quest for a sustainable future and provide the tools to strengthen our message of animal care, environmental stewardship and food safety.

Visit [realfacesofdairy.com](http://realfacesofdairy.com) to see more sustainability facts you can share with your neighbors and other ways to be a part of the Real Faces of Dairy Celebration.

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## REAL FACES of DAIRY



### REAL FACES OF DAIRY

*The Faces of Dairy campaign is a year-long project designed to honor and celebrate the past, present and future people—well known and lesser known—shaping the American dairy industry through their personal stories. It provides a forum to highlight the many advancements creating an exciting and vibrant industry serving a global market.*



#realfacesofdairy



*Although the livestock industry is often attacked for its contributions to greenhouse gas (GHG) emissions, Mitloehner says livestock accounts for only 4.2% of all GHG emissions.*

### SHARE YOUR STORY

*Throughout 2016, the Real Faces of Dairy project encourages everyone to share their dairy story and upload pictures of what dairy means to them. The dedicated website features interactive activities, including photo and essay contests. Visit [www.realfacesofdairy.com](http://www.realfacesofdairy.com).*

*Brought to you by a grant from Balchem.*

One was a 1960 Chevy, a beautiful old-timer car. The second was a 2015 Chevy, looking like any car on the road today. I asked which they'd like, if I would give them one for free. Ninety-five percent chose the 1960s car, because it was great looking. But when I explained that the car had no safety belt, no airbags, no catalytic converter, and horrible fuel efficiency, and then I asked the question again, 95% chose the newer car. That was very telling."

Mitloehner says it is the dairy industry's responsibility to tell their story to the consumer, to tell of the benefits of technology being used every day in all sectors of life, not just in agriculture.

"If you want to benefit your cause, don't promote your business as the red barn farm of the 1960s, otherwise, they will hold you to this standard," he says. "Healthcare providers are held in such high regard. I reminded those 300 students that when they wake up with a headache, they take a pill. When they go to the dentist, they ask for something to prevent pain. When their dad has a heart attack, they much appreciate technology and medicine to save their dad's life. Technology and medicine help make our lives healthier and longer. When it comes to food choices, those same people, who appreciate medical progress, are extremely critical. How has the food sector failed and gone so wrong?"

If the consumer doesn't have the information he or she needs, it's the responsibility of the dairy producer to address it, Mitloehner says.

"The public is immune to public relations," he says. "It's up to the dairyman to be the authentic voice and to talk to neighbors and church members and communities. My business is providing the public and farming community with scientific information. Telling your story is your business, not mine. There is a lot at stake in today's agriculture. I just don't see enough reflection on that."

And the dairy industry has many positive stories to tell.

Mitloehner says the great minds of the dairy industry are continually working to improve the sustainability of the industry for years to come.

"Land-grant universities, companies and trade associations are all rallying around what needs to be done," he says. "We are all working to define sustainability and create sustainability programs, without creating situations to overwhelm the producer. We have to work together and be patient."

These advancements are working. Mitloehner believes the dairy industry has made great strides in food safety, and other areas, as they relate to sustainability.

However, one of the greatest challenges to the dairy industry's sustainability is in the workforce, he says.

"It's not as much of an issue now as it will be in years to come," Mitloehner says. "Many immigrant workers will stay put and not come to the United States to work on farms and ranches if conditions don't change. And workers are a critical component of sustainability. If your workforce is lacking, you will face problems with animal welfare, environmental stewardship, financing and food safety, as these areas will not be addressed as they should be."

## 5 PILLARS OF SUSTAINABILITY

- Animal Welfare
- Environmental Quality
- Worker Health
- Food Safety
- Economic Viability

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And what is the greatest area to give the industry a black eye, and offer the greatest risk to the dairy industry's sustainability? Animal welfare, Mitloehner says.

"It's easy to get those negative images out to the public with a simple video camera," he says. "There are still black sheep out there, and they give the entire industry a black eye. Those bad actors need to leave the industry — if all [else] fails, via self-policing within the farming community. Every dairy farm should have a policy outlined very clearly to everyone — abuse is never tolerated. Period."

Mitloehner's research focuses primarily on air quality, as it relates to the livestock industry. And he says this component will also affect the dairy industry's sustainability in years to come.

"Dairy odors simply will never go away," he says. "And it can be a big topic in dairy regions and their neighboring communities."

The overriding key, he says, is to maintain focus on all five pillars at all times.

"All issues need to be addressed, and we can't simply work on fixing one problem while ignoring the next," Mitloehner says. "They're not separate issues. We need to work on them concurrently and aggressively. We simply have to, as our industry is under a microscope."

Another area not to be ignored is the challenge of feeding a growing world population, and the dairy industry's role in meeting that challenge.

## FOCUSED ON 2050.

"I am in my mid-'40s, and when I was a little boy, we had 3 billion people in the world; now we have more than twice that: 7 billion people," he says. "When I am an old man, we will have 9.5 billion people in the world. The human population will have tripled, but the natural resources — the water, land and fertilizer — will not have tripled. The question becomes, if we already have 1 billion hungry people today who make less than \$1 a day, how will that be in the year 2050?"

Some consumers believe the best way of production could be found in the 1960s, Mitloehner says.

"But back then, we produced half the amount of food with twice as many animals," he says. "Today, we produce two times more milk per cow in the U.S. than in Mexico; nine times more than in India; and more than 20 times more than in Africa. We have to help those places who are inefficient in agriculture, in general, to get up to speed quickly."

Mitloehner says we cannot simply look at the dairy industry on a national scale. Rather, we must focus on the worldwide situation.

"We are totally interconnected with the rest of the globe, and we have an ethical choice to make," he says. "How do we produce our food in the future? The answer: we become a heck of a lot more efficient than we are today. In the U.S., we are world champions in respect to efficiency in livestock production. But in other parts of the world, it's antiquated."

For the sustainability of the dairy industry and the future of feeding a growing worldwide population, dairy producers must speak up and tell their stories.

"It's a beautiful thing for consumers to see how their food is produced," Mitloehner says. "Why don't you share how you care for your animals and the land? This stewardship is your legacy. This is your hallmark of sustainability. If you don't tell your story, who shall?"



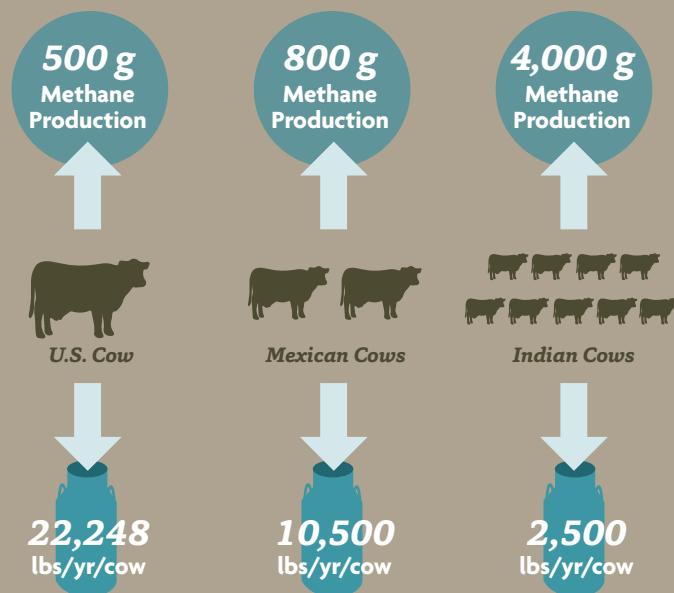
### ABOUT THE AUTHOR

Christy Couch Lee combines a background and passion for agriculture, and has owned Cee Lee Communications, Hoopston, Ill., for six years, specializing in freelance writing and photography in the agricultural industry. You can read more about Christy at [www.realfacesofdairy.com](http://www.realfacesofdairy.com).

View the interview with Frank Mitloehner at <https://vimeo.com/171480605>

We value your input; please take our survey at <http://bit.ly/253HCaa>

## THE U.S. DAIRY COW'S SUSTAINABILITY AND ITS GLOBAL COUNTERPARTS



Source: USDA, Comparison in World Farming

**NEXT MONTH:** The faces of a global dairy market. Dairy export is the future of the industry. In the August issue, we will look at who is shaping the industry and how each of us in the dairy industry can play an active role.