



**U.S. Dairy
Sustainability Awards**
Innovation Center for U.S. Dairy®

2018 Winners

May 16 | Suburban Chicago

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Sponsors

From the start, the strength of the U.S. Dairy Sustainability Commitment has been the unprecedented collaboration with leaders and experts from within and outside the dairy industry. The Innovation Center for U.S. Dairy® is pleased to recognize the following organizations for their support of the 2018 awards program:



CHANGING THE EQUATION FOR GOOD BUSINESS

The seventh annual U.S. Dairy Sustainability Awards recognize and honor outstanding dairy farms, businesses and partnerships for socially responsible, economically viable and environmentally sound practices. These practices, large and small, are steps that add up to promote the health and well-being of consumers, communities, cows, employees, the planet and business.

This year's recipients show how innovation and improvements sparked by one farm, one person or one organization can have a ripple effect that goes well beyond their farm gate or front door.

Winners are recognized in the following categories:

- Outstanding Dairy Farm Sustainability
- Outstanding Dairy Processing and Manufacturing Sustainability
- Outstanding Supply Chain Collaboration
- Outstanding Community Impact

An independent panel of judges, which included leading experts on the economic and environmental issues and opportunities of today's dairy industry, evaluated nominations on the following criteria:

- Program or project results as measured by triple-bottom-line success: economic, environmental and social
 - Evidence of shared learning, innovation and improvement
 - Potential for adoption by other dairy farms and businesses
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OUTSTANDING DAIRY FARM SUSTAINABILITY

E-Z Acres Homer, New York



How a delicate water system became a call for environmental stewardship

Neighbor relations and environmental ethics matter greatly to Mike and Peter McMahon, brothers who take their roles as stewards of their neighbors' drinking water seriously. E-Z Acres, their 800-cow dairy in Homer, N.Y., is intimately connected to the community, thanks to a shallow aquifer – the water in an underground layer of glacial outwash – that sits below their land. Because of this connection between the land and water, the McMahons have been on the forefront of sustainability, demonstrated through their willingness to get things right for themselves and their neighbors.

"I tell people that you can be environmentally friendly and be sustainable while also being economically viable," says Mike McMahon.

E-Z Acres is in an environmentally sensitive area. Seventy percent of the farm's 2,500 acres overlays a sole-source aquifer only 30 feet below the surface that provides water to approximately 23,000 people in the village of Homer and city of Cortland. The other 30 percent of land lies within the Skaneateles Lake watershed, which provides unfiltered drinking water to the greater Syracuse area of nearly 240,000 people.

The list of environmentally responsible practices they use is impressive. They have been sampling and testing water quality for over 20 years, managed fertilizers and reduced phosphorus use by 30 percent, built a manure storage facility, protected waterways with buffer strips, and much more. They have been so successful at early-adopting sustainable practices that E-Z Acres is an environmental case study used at Cornell University and has been host to a Cornell farm management class for more than 20 years.

Mike McMahon also actively encourages other farms to be cognizant of their surroundings when it comes to both environmental and community-relations issues. E-Z Acres provides a model for other dairies hoping to get ahead of similar issues and demonstrates their responsible practices.

"Part of being a good environmentalist is recognizing the environment is the community you live in," Mike McMahon said.

Since 1997, E-Z Acres has been a Cornell University dairy farm environmental case study, and it helps train the next generation of agricultural leaders by hosting a class each year.

- Working with Cornell, E-Z Acres was the first New York farm to reduce phosphorus inputs on the dairy by over 30 percent without affecting cow production or health.
- E-Z Acres' standard operating procedures helped inform the development of the National Dairy FARM program, which assures quality animal care.



OUTSTANDING DAIRY FARM SUSTAINABILITY

Reinford Farms Mifflintown, Pennsylvania



Making a more efficient dairy farm and community with food waste

Brett Reinford remembers the moment a new opportunity opened for his family's farm – and for his community's food waste.

Ten years ago, a grocery store representative called to ask if the farm's digester, designed to generate power from the manure of 725 cows, could handle spoiled produce. If so, the grocer said, he was willing to pay the Reinfords to accept food waste on a regular basis.

"We made a bunch of calls to universities and asked, 'Can we put food waste in a digester?'" Reinford recalls. "We tried it, and we made three times as much on gas as we did on manure."

Before long, other companies had contacted Reinford to ask him to take their food waste instead of sending it to landfills. These opportunities now provide another stream of income for the farm, and the digester generates enough electricity to power the dairy and about 100 homes.

But it also created some headaches along the way, as some waste arrived in packaging that could not be processed by the digester. Fragments of metal and other trash got mixed into the compost, which is a beneficial digester byproduct Reinford uses for cow bedding.

Trying to manually remove the packaging from the food waste before it went into the digester was too labor-intensive. So Reinford began exploring technology that could remove the packaging and found a machine appropriately called a depackager.

Any food waste can be loaded into the depackager, where it is pushed through a long pipe. A system of paddles separates the packaging from the food, which falls to the bottom and is piped to the digester. Leftover packaging, such as cans and plastic wrapping, is pushed into a truck for recycling.

"We're not just milking cows, and that's what's pretty cool," Reinford says. "We wouldn't have imagined 10 years ago we'd be doing something like this. The one thing about waste is there's always going to be more. It's a recession-proof business, and it's a critical component to our farm's bottom line."

Reinford Farms is one of only a handful of U.S. dairies that uses a depackager.

- The farm works with 15 grocery stores and food manufacturing companies to recycle 6,000 to 12,000 gallons of food waste a day, in addition to 12,000 gallons of cow manure.
- The farm has kept more than 35,000 tons of waste out of landfills the last 10 years, avoiding the equivalent of 133 million pounds of carbon dioxide that would have otherwise gone into the atmosphere.



OUTSTANDING DAIRY FARM SUSTAINABILITY

Royal Dairy Royal City, Washington



Worms help young farmer reduce greenhouse gases and reuse water

Last summer, Washington farmer Austin Allred deployed millions of worms to work on his dairy. He's glad he did. They're busy processing cow manure day and night – and creating results that are good for his community, the planet and his business.

His farm's cow manure is filtered through worm-dense soil, wood shavings and gravel. The result? Reduced odors and greenhouse-gas emissions.

Allred, who owns Royal Dairy in Royal City, Wash., entered a pilot program with BioFiltro, a Chilean firm that builds worm-based filtration systems for wastewater treatment around the world. Last year, his 6,000-cow operation became the largest U.S. dairy to use the technology.

The results were pleasantly surprising. In just four hours, the system removed more than 90 percent of total nitrogen, suspended solids and total phosphorus. Allred can now treat all the excess water his dairy puts out – a whopping 200,000 gallons per day. This has led to several positive outcomes for his farm, including keeping tanker trucks off the roads, better control over nutrients in irrigation water, and reducing overall emissions and odors.

Here's how it works: Wastewater goes through physical filters and is processed by the worms and microbes. Worms eat manure solids, and as they move through the system they create air channels, an important factor for wastewater treatment. They also maintain a stable environment that allows the microbes to form a biofilm.

The biofilm grows throughout the wood shavings and on the rocks. It's formed by colonies of billions of microbes that capture, retain, digest, and remove contaminants from water.

"It is really a huge advantage for us here to be able to track the water we use and to be able to sustain that and turn it into irrigation and have zero loss on our water usage," says Allred.

Austin Allred, 27, is a first-generation dairy farmer who grew up on a crop farm and worked at the dairy next door as a teenager, where he discovered he enjoyed working with the cows.

- As the system's worms "eat" manure, a film is produced that sticks to the wood shavings and gravel to filter out nitrates and produce cleaner water for re-use on the farm.
- Castings from the worms could add another source of revenue. Allred is testing them on his brother's orchard.



OUTSTANDING DAIRY PROCESSING & MANUFACTURING SUSTAINABILITY

The Kroger Company Cincinnati, Ohio



Kroger's "Zero Waste" initiative is good for environment, good for employees

The Kroger Co.'s manufacturing group began its sustainability journey nearly a decade ago. Along the way, these efforts created an important rallying point for dairy manufacturing plant employees.

"It is definitely our culture," said Erin Sharp, Group Vice President of Manufacturing for Kroger. "You see it when you go into any of our facilities. Our associates see being sustainable as a legacy we can leave to our children and our children's children."

Kroger unveiled its Zero Hunger | Zero Waste initiative in 2017, which is the company's vision to end hunger in its communities by 2025 and eliminate waste across its company by 2025. This bold social impact plan builds on Kroger's impressive work to date, reducing, reusing, and recovering waste streams like cardboard, paper, pallets, packaging and food waste, particularly in its manufacturing operations.

Kroger's 19 dairy plants around the country have diverted more than 1.47 billion pounds of material from landfills over the last several years, reaching a 97 percent diversion rate from landfills last year.

The company's commitment also has created a financial benefit. Kroger's dairy processing facilities have generated \$4.7 million in recycling revenues since 2010. The company greatly reduced its cost of sending trash to landfills and created revenue streams when materials are purchased by end users.

To highlight extraordinary accomplishments among its employees, Kroger has identified sustainability champions who lead efforts at each plant, but Sharp emphasizes that the management team welcomes input from all employees. In fact, some ideas the company adopted came from plant workers who identified opportunities for improvement.

Sharp said associates' ownership of Kroger's sustainability journey makes the common goal rewarding.

"It's become such a part of what we do in the plants nowadays. It's fun to hear our associates talk about how they take these practices from work and apply them at home."

The Kroger Co. is one of the world's largest retailers, operating 2,800 stores across America, with nearly 9 million customers visiting its stores every day and half a million associates uplifting every customer's experience.

- Kroger operates 36 manufacturing facilities, including 19 dairy plants that produce milk, ice cream, novelties, yogurt, and cheese.
- In 2017, Kroger's dairy plants processed more than 518 million gallons of milk and more than 228 million pounds of cheese.
- Kroger's dairy processing plants have been diverting more than 95 percent of waste from landfills since 2011. In 2017, that number reached 97 percent.



OUTSTANDING SUPPLY CHAIN COLLABORATION

Magic Dirt Little Rock, Arkansas



Trust and partnership key to building a new sustainable supply chain

Getting a peat moss replacement made from dairy cow manure into Walmart stores in 43 states is no small feat.

But partners throughout the supply chain – from farm to retail – rose to meet consumers' demand for a more sustainable gardening product. And they did it quickly. In just a few years, Magic Dirt™ was innovated and distributed nationwide thanks to dairy farmers' enterprising spirit and Walmart's logistical and marketing expertise. Here's how.

A patented anaerobic digester produces methane for heat or electricity from dairy manure, and the plant fibers that remain can replace peat moss. Magic Dirt is made up of these fibers and mixed with materials like shredded pine bark to make a uniform consistency. And it's in demand from gardeners across the country. But delivering the product from cow to garden takes work, trust and patience.

The 10 or so farms that supply Magic Dirt with fiber were happy to find a home for their manure and an extra source of income. Farmers have known manure's value for centuries, and there is always potential for innovation. Magic Dirt identified a sustainable, marketable alternative to peat moss and set up the supply chain to support it.

The co-founders of Magic Dirt began by pitching the product to individual stores, but once Walmart became interested in Magic Dirt's sustainability story, the retailer provided key insights about gardening products, as well as how to package the product and get it to store shelves.

Dairies were willing to work with Magic Dirt, a new and untested company, even though demand is seasonal. And landscape supply companies were open to learning about how to handle, process and blend a material they hadn't worked with before.

Magic Dirt's innovation and determination, along with their unique collaboration with Walmart and dairy farmers, is the reason this sustainable dairy byproduct succeeds.

Magic Dirt is available in Walmart stores in 43 states. Availability grew from 28 regional stores in Idaho to 2,800 across the country in just five years.

- Magic Dirt provides a weekly greenhouse gas offset report.
- Selling manure fiber provides a secondary income stream, after energy, from manure digesters.
- Walmart uses its logistical expertise to move the finished product efficiently.



OUTSTANDING COMMUNITY IMPACT

Tillamook Creamery Association

Tillamook, Oregon



Cheesemakers' home brings pride and a desire to help neighbors

Tillamook County Creamery Association, situated on the Oregon coast, does more than provide jobs and create delicious dairy products. The cooperative contributes to its community through donations and volunteer work. In fact, Tillamook's vision includes making a positive impact on housing, education, hunger and more.

There are many reasons Tillamook would extend itself this way. Regional pride in the Tillamook brand is important; the creamery's visitors' center is a top attraction on Oregon's coast. In fact, they're building a state-of-the-art building to educate visitors from around the world.

The creamery's employees take their farmer-owners' work ethic to heart and always apply a problem-solver's view to their surroundings. Tillamook workers regularly use personal, unpaid time to work together at Oregon Food Bank, clean up a beach or support other employee-initiated volunteer programs.

And they're in Tillamook County, where the population is just over 25,000 and the company's reputation for creating high-quality cheese since the turn of the 20th century is legendary. Anyone who drives past the local high school can see it, as the building reads, "Home of the Cheesemakers."

"When you know your neighbor, there's that much more reason to help," says Eva Wilson, Stewardship Associate at Tillamook. The need is there, and this organization of more than 800 people is stepping up.

They're giving gifts that matter – from funding a study on the root causes of the local housing shortage, with an eye toward finding the right solutions, to providing a bigger truck to the local food bank so its operations can be more efficient and more people have access to produce. But they don't exactly see these efforts as donations.

"We don't call it philanthropy or charity. We call it social innovation," said Sarah Beaubien, Senior Director of Stewardship at Tillamook.

Within a year of launching an employee-initiated volunteer program, 118 members of the company volunteered more than 1,200 hours.

- Tillamook committed \$1.5 million to a new food innovation center at Oregon State University.
- Tillamook's gift of \$75,000 to CARE, which provides emergency aid to those in crisis, including the homeless, allowed the charity to continue their mission.
- The creamery partnered with Oregon Food Bank to research the root causes of food insecurity issues with the goal of eventually eliminating hunger statewide.



Meet our Expert Judging Panel

An objective judging panel assessed the nominations and selected this year's winners. This panel included experts from academic institutions, government, dairy science organizations, nongovernmental organizations, business and trade media, and environmental and dairy industry leaders.

Judges

DEB ATWOOD, Executive Director, Agree

SUE BORRA, Executive Director, Food Marketing Institute Foundation

LARRY CLEMENS, Director, North American Agriculture, The Nature Conservancy

JOHN DARDIS, Senior Vice President Group Sustainability & US Corporate Affairs, Glanbia

MICHAEL DYKES, CEO, International Dairy Foods Association

SUZY FRIEDMAN, Senior Director, Agricultural Sustainability, Environmental Defense Fund

GEORGE HURST, Dairy Farmer and Award Winner, Oregon Dairy

JULIA KADISON, CEO, Milk Processor Education Program

AARON LAUSTER, National Sustainable Agriculture Lead, Natural Resources Conservation Service

JOHN LUCEY, Center for Dairy Research Director and Professor of Food Science, University of Wisconsin

STEVE MADDOX, Dairy Farmer and Award Winner, Maddox Dairy, Vice Chair, DMI

JEROD MATTHEWS, National Account Manager, Feeding America

RANDY MOONEY, Board Chairman, National Milk Producers Federation

KEVIN O'DONNELL, Director of Sustainability, General Mills

MIKE OPPERMAN, Dairy Editorial Director, Farm Journal Media

PAUL ROVEY, Dairy Farmer, Innovation Center Board Member, Chair, USDEC

CARLOS SAVIANI, Vice President, Animal Protein Global Food, World Wildlife Fund

MARY ELLEN SHOUP, Correspondent, Dairy Reporter, William Reed Business Media

DENISE SKIDMORE, Director Education and Public Relations, Hilmar Cheese Company

ROD SNYDER, President, Field to Market

JAMIE THORN, Senior Manager, Ethical Sourcing, Starbucks

DEAN WINN, Acting Regional Agriculture Advisor, Environmental Protection Agency



Recent Winners

2017

Kinnard Farms, Casco, Wis.
Rickreall Dairy, Rickreall, Ore.
Kellercrest Registered Holsteins, Inc., Mount Horeb, Wis.
SwissLane Farms, Alto, Mich.
Glanbia Nutritionals, Evanston, Ill.
Oakland View Farms & Midshore Riverkeeper Conservancy, Caroline City, Md.

Honorable Mentions:

Mercer Vu Farms, Mercersburg, Penn.
Michigan Milk Producers Association, Food Bank of Eastern Michigan, The Kroger Co. of Michigan, Michigan State University Extension, Michigan
U.S. Dairy Education & Training Consortium Extension, College Station, Texas

2016

Agri-Mark and Cabot Creamery Cooperative, Waitsfield, Vt.
Bateman's Mosida Farms, Elberta, Utah
Jer-Lindy Farms LLC, Brooten, Minn.
Noblehurst Farms Inc., Linwood, N.Y.
Siemers Holsteins, Newton, Wis.
Yahara Pride Farms Inc., Brooklyn, Wis.

Honorable Mentions:

Central Pennsylvania Food Bank, Harrisburg, Pa.
Foremost Farms USA and Schreiber Foods Inc., Richland Center, Wis.
Homestead Dairy, Plymouth, Ind.

2015

Dorrich Dairy, Glenwood, Minn.
Freund's Farm, East Canaan, Conn.
Hilmar Cheese Company, Hilmar, Calif.
HP Hood LLC and CleanWorld, Sacramento, Calif.
Oregon Dairy Farm, Lititz, Pa.
Nobis Dairy Farms, St. Johns, Mich.

Honorable Mentions:

Alliance Dairies, Trenton, Fla.
T-Bar Dairy and White Gold Dairy, Porterville, Calif.
Northern Ill. Food Bank and Prairie Farms Dairy, Geneva, Ill.

2014

Joseph Gallo Farms, Atwater, Calif.
Maddox Dairy, Riverdale, Calif.
Marshik Dairy, Pierz, Minn.

McCarty Family Farms, Rexford, Kan.
Sensenig Dairy, Kirkwood, Pa.
Vander Haak Dairy, Lynden, Wash.



Share These Stories!

What's the secret to sustainability? According to research conducted on behalf of the Innovation Center for U.S. Dairy, sustainability isn't about the size, age or location of a dairy operation. It's the management practices that make the difference. The most sustainable aspects of the dairy industry come from the way we run our businesses every day. And as more people are interested in learning where their food comes from, telling our stories of good stewardship helps to ensure that they can continue to feel good about choosing their favorite dairy foods and beverages.

Visit USDairy.com/Awards to learn more about how others are implementing sustainable practices and help spread the word by sharing these successes – and yours – with customers, communities and consumers.

