



**2018 U.S. DAIRY
SUSTAINABILITY REPORT**

U.S. DAIRY SUSTAINABILITY
COMMITMENT



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About This Report

The 2018 U.S. Dairy Sustainability Report is the seventh progress report published by the Innovation Center for U.S. Dairy® (Innovation Center). The reporting period covers calendar years 2017 and 2018, except where clearly noted. The principles in the GRI Sustainability Reporting Standards informed report development. Future reporting is expected to occur biennially. This report and past ones are available at USDairy.com/Report. We welcome your feedback on this report and the U.S. dairy industry's sustainability efforts. Please contact us at InnovationCenter@USDairy.com.



Welcome

2018 saw the launch of the U.S. Dairy Stewardship Commitment, a fitting milestone for the first decade of the Innovation Center for U.S. Dairy and a clear signal of dairy's ongoing shared progress.

We are conducting business in unprecedented times. The pace and scale of change and the interconnected economic, political, societal and technological forces at play are impacting the everyday practices of our farmers and manufacturers, like all others. Amid these dynamics, conversations and expectations about food choices continue to evolve and deepen as people try to understand what is good for them and good for the planet.

The U.S. dairy community is committed to providing the world with responsibly produced, nutritious dairy foods that nourish people, strengthen communities and foster a sustainable future. This deep-rooted dedication led to the creation of the Innovation Center and the inaugural U.S. Dairy Sustainability Summit in 2008.

To a passerby, the gathering might have looked like any other conference, with people at round tables and flip charts and markers at the ready. **Leaders from across the dairy community met to create a new way of working together pre-competitively to advance dairy's sustainability.** They charted a bold path forward.

For an industry as large and diverse as ours, that was no small undertaking. However, dairy farmers and companies recognized that certain areas are better addressed through cooperation and collaboration - priorities like food safety, animal care and environmental stewardship that the dairy community, our customers and consumers all care about. Only together can we meet the challenge of nourishing a growing population within a resource-constrained world in need of strong climate action.

Ten years in, we've elevated our ability to act as a unified industry. For example, 98% of U.S. milk production comes from dairy farms participating in the National Dairy Farmers Assuring Responsible Management™ (FARM) Animal Care Program, demonstrating to customers and consumers that the dairy community holds itself to the highest standards. Over the years, the National Dairy FARM Program, administered by the National Milk Producers Federation (NMPF), has added program areas for Environmental Stewardship, Antibiotic Stewardship and, most recently, Workforce Development.

Through the Innovation Center, we have built an exceptional food safety program in which top dairy plant professionals train their peers to ensure the safety of all dairy products. Processors representing more than 80% of U.S. milk production have voluntarily implemented best practices outlined in the U.S. Dairy Traceability Guidelines.

Industry-wide, stakeholder-informed initiatives like these fueled the development of the U.S. Dairy Stewardship Commitment, dairy's social responsibility pledge to consumers, customers and other stakeholders. **The Stewardship Commitment is the platform from which we will demonstrate our collective progress over the next decade.**

Within the short period from the launch in November 2018 to the end of the year, dairy cooperatives and companies representing approximately 60% of U.S. milk production formally signed on. This inspires confidence in our joint efforts and in the strides we will take to accelerate and increase adoption and positive impact.

People are more interested than ever to learn about where their food comes from and to get to know the farmers and producers who supply the food they eat. **Dairy farmers and companies are bringing U.S. dairy's story to life,** engaging with consumers in a proud, unified voice to communicate authentically and transparently about who we are, what we stand for and how we work.

Given the challenges the world faces and growing global competition, the pressure to act has never been stronger. But neither has our commitment to positive impact been so united, that is - along with the dairy community's spirit and grit - will make all the difference.

We will continue on this path together, providing the nutrient-rich, responsibly produced dairy foods people love and strengthening trust that we are caring for the land, our animals and communities.

Thank you for your interest in this report; we welcome your feedback.



Barbara O'Brien
President, Innovation Center for U.S. Dairy,
and Dairy Management Inc.



Mike Haddad
Chair, Innovation Center for U.S. Dairy Board of
Directors, and President/CEO, Schreiber Foods

About the Innovation Center for U.S. Dairy

VISION | People trust dairy as essential to their lives.

As a leadership organization that leverages the collective strengths of the dairy community, the Innovation Center for U.S. Dairy is focused on ensuring an economically viable and socially responsible U.S. dairy community.

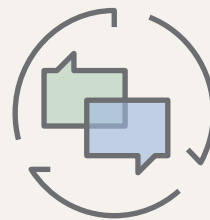
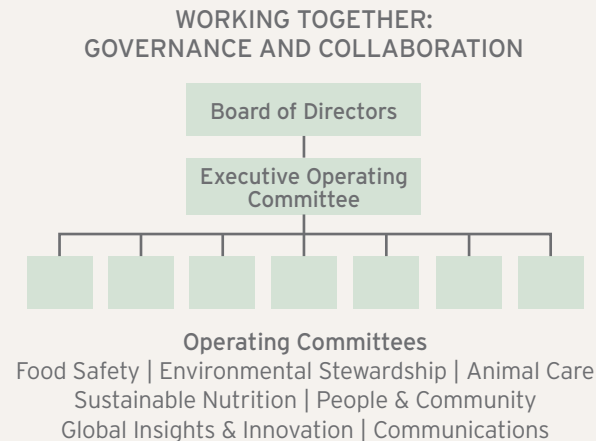
Initiated in 2008 by America's dairy farmers through the dairy checkoff, the Innovation Center brings together dairy farmers, companies and organizations as well as other key stakeholders to work pre-competitively on important efforts.

Through the Innovation Center, the dairy community initiates and supports programs and best-in-class practices from farm to table that build trust and promote the current and future health and well-being of consumers, communities, our cows, employees, businesses and the planet.

Dairy-Led Governance Bodies: Board of Directors and Committees

CEOs and chairs of leading dairy cooperatives, farmer organizations, processors and retailers serve on the Innovation Center's Board of Directors. The board sets priorities and serves as the organization's highest governing body. The Executive Operating Committee, a subgroup of the board, oversees the efforts of seven operating committees that correspond to the core areas of focus for the Innovation Center: Food Safety, Environmental Stewardship, Animal Care, Sustainable Nutrition, People & Community, Global Insights & Innovation, and Communications.

Committee members concentrate on priority topics within their areas of focus (pg. 7) and align efforts on best and next practices to promote industry-wide improvement. The work of the first five operating committees is covered in the Progress on Our Priorities section starting on pg. 8. The Global Insights & Innovation Committee and the Communications Committee (pg. 19) play integrative roles to inform and support efforts in each area. The Global Insights & Innovation Committee provides insights and early indicators that help the U.S. dairy community address emerging issues and opportunities.



The **Dairy Sustainability Alliance**[®] brings together **370+ professionals from 100+ member organizations** from the dairy community and beyond to share knowledge, provide input and stimulate action.

Multi-Stakeholder Involvement: Dairy Sustainability Alliance[®]

The Dairy Sustainability Alliance[®] (Sustainability Alliance) is a collaborative forum that leverages diverse experience and perspectives along the dairy value chain and beyond. Members include 40 dairy farmer representatives from across the country, along with industry suppliers, cooperatives, processors, brands and retailers, and representatives from the dairy checkoff program, academia, government and advocacy groups – each with a stake in advancing dairy sustainability.

The Sustainability Alliance provides a pre-competitive environment in which members can share knowledge and collaborate on issues affecting the industry at large. Through involvement in the Sustainability Alliance, the dairy community gains regular and ongoing opportunities to engage with customers, nonprofits and other key stakeholders to advance shared social responsibility priorities, including the U.S. Dairy Stewardship Commitment (pg. 5). All efforts and outcomes of the Innovation Center and the Dairy Sustainability Alliance's work are voluntary, technology-neutral and made available to the entire industry.

LEARN MORE at [USDairy.com](https://www.usdairy.com).

A Decade of Progress

For 10 years, the Innovation Center for U.S. Dairy has been harnessing the power of many to advance mutual priorities. This timeline highlights some of the collaborative and pre-competitive initiatives across and within the Innovation Center's areas of focus that have advanced U.S. dairy's journey of progress.

America's dairy farmers and leading dairy companies form the



Setting the vision:
U.S. Dairy Sustainability Summit
250 participants

| Sustainability Measurement and Reporting Framework is developed and evolves into the **U.S. Dairy Stewardship Commitment** | From the launch in Nov. 2018 to year-end, adoption by 60% of U.S. milk production ▶

| **U.S. Dairy Sustainability Awards** program launches | 54 award winners from 2011 to 2018 ▶

| The Sustainability Council (initially named the Carbon Council) forms and evolves into the **Dairy Sustainability Alliance®** in 2015 | ~100 organizations and 370+ professionals ▶

| **Impact of Globalization on U.S. Dairy** report published | U.S. dairy advances strategies to help U.S. dairy become a consistent supplier in the global market ▶

| **Life cycle assessment research** studies conducted 2008 to 2011, with publication of results beginning in 2010

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
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| **National Dairy Council® (NDC)** continues to fund research on dairy's role in **health, nutrition and sustainable food systems** ▶

| Industry-wide voluntary **greenhouse gas (GHG) reduction goal** is set, followed by the launch of GHG reduction projects | 650+ stakeholders involved ▶

| **Fuel Up to Play 60** endorsed as an industry-wide youth initiative | Nearly 73,000 schools involved ▶

| **FARM Animal Care** launches version 1 in 2011, with updated versions in 2014 and 2017 | Enrolled farms represent 98% of milk supply by 2016 ▶

| **FARM Antibiotic Stewardship** evolves from the annual publication of the Milk and Dairy Beef Residue Avoidance manual started around 1990 ▶

| Innovation Center-led **food safety training** begins | 3,500+ training participants from 2011 to 2018 ▶

| **U.S. Dairy Traceability Guidelines** | Voluntary adoption grows from 25% of milk production at 2013 launch to more than 80% ▶

| First-of-its-kind **Listeria Control Guide** for U.S. dairy published

| **Newtrient LLC** forms to create environmental and economic value through manure management technologies ▶

| **Dairy Nourishes America** | From 2016 to 2018, close to 750 million pounds of dairy distributed in the Feeding America network ▶

| **FARM Environmental Stewardship** ▶
Participants from launch to 2018 represent ~60% of the U.S. milk supply

| **FARM Workforce Development** launches ▶

Leveraging the Power of Partnerships

Collaboration is a foundational element of the Innovation Center's work. Partnerships with organizations within and outside the dairy community accelerate the discovery, development and adoption of shared solutions that deliver environmental, social and economic benefits. The following list highlights partnerships with which the Innovation Center has formal agreements and those that contributed to efforts mentioned in this report:

Environmental Defense Fund, Feeding America, Field to Market: The Alliance for Sustainable Agriculture, GENYOUth Foundation, U.S. Department of Agriculture (USDA) and USDA's Agricultural Research Service and Natural Resources Conservation Service, World Wildlife Fund, and numerous academic institutions and scientific organizations.

Areas of Focus

- Food Safety
- Environmental Stewardship
- Animal Care
- Sustainable Nutrition
- People & Community



DAIRY'S SOCIAL RESPONSIBILITY: OUR PLEDGE AND PRIORITIES

U.S. dairy's social responsibility pledge to consumers, customers and other stakeholders is embodied in the U.S. Dairy Stewardship Commitment. It affirms and demonstrates U.S. dairy's long-standing values of responsible production, nourishing communities and progress across a range of shared environmental, social and economic priorities.

U.S. Dairy Stewardship Commitment

The U.S. Dairy Stewardship Commitment unites the U.S. dairy industry and demonstrates its positive impact from farm to table.

The Innovation Center for U.S. Dairy developed the Stewardship Commitment as a voluntary, stakeholder-informed platform to bring together the dairy industry and to support dairy farmers, cooperatives and processors who voluntarily choose to participate in industry initiatives and report progress.

The Stewardship Commitment aligns and quantifies industry action on important areas like the environment and animal care to affirm and illustrate U.S. dairy's long-standing values of responsible production and nourishing communities. It defines indicators (what is measured) and metrics (how they are measured) that enable the dairy community to set baselines, document progress and demonstrate impact (see Priority Summary table at far right).

Dairy Cooperative and Processor Adoption

Adoption of the Stewardship Commitment, which occurs at the dairy cooperative and processor levels, helps earn the trust of dairy's stakeholders. Adopting companies agree to the specific terms of adoption and to work collaboratively with diverse stakeholders through the Dairy Sustainability Alliance to demonstrate positive impact. Retailers, food service and other dairy customers can use the Stewardship Commitment to demonstrate their suppliers' sustainability efforts and to share dairy's story with consumers.

On a broader scale, companies that adopt the Stewardship Commitment contribute to U.S. dairy's ability to track, aggregate and report on national progress. This collective reporting builds credibility and support in the global marketplace, adding value to the entire U.S. dairy industry. It also provides a baseline for setting meaningful shared goals.

The Stewardship Commitment is an ongoing pledge to:

WORK COLLECTIVELY

- Pre-competitive collaboration across the U.S. dairy industry
- Customer and third-party engagement and support
- Partnerships with peer initiatives and key thought leaders

CONTINUOUSLY IMPROVE

- Measurement through trusted tools and resources
- Incorporation of latest science and insights
- Reflection of dairy's long-standing values

TRANSPARENTLY REPORT PROGRESS

- Credible and consistent metrics
- Company and national reporting
- Demonstrated impact

LEARN MORE at commitment.usdairy.com

From the November 2018 launch to year-end, **15 dairy cooperatives and companies, representing 60% of U.S. milk production, adopted the Stewardship Commitment.**

Involvement and Governance

The strength of the Stewardship Commitment depends on the active participation of dairy farmers, cooperatives and processors, along with key stakeholders within and beyond the dairy value chain, such as industry suppliers, dairy brands, food service, retailers, nonprofits and scientific experts.

Through an open and transparent process, the Innovation Center's operating committees (pg. 2) guide the ongoing development of the Stewardship Commitment and its priorities and metrics. The Dairy Sustainability Alliance participates in the overall process, with members providing feedback to ensure credible, meaningful metrics.

The Executive Operating Committee of the Innovation Center Board of Directors provides oversight and final approval on metrics and decides which are mandatory for adoption. It also oversees a Stewardship Commitment Task Force of 16 cross-sector leaders - including three CEOs on the Innovation Center Board - charged with advancing the adoption, reporting and credibility of the Stewardship Commitment.

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

The Progress on Our Priorities section starting on pg. 8 features a summary table for each priority and its components within the Stewardship Commitment.

Priority Summary

INDICATORS AND METRICS (LEVEL)

The heading indicates the level at which the indicator applies (Field, Dairy Farm and/or Processor).

- **Indicator:** Each priority has one or more indicators.
- **Metric:** Each indicator has one or more associated metrics.

TERMS OF ADOPTION

When applicable, terms of adoption related to the priority or its associated metric(s) are described.

Assessing Dairy's Social Responsibility Priorities

For the past decade, the Innovation Center has led efforts to help the dairy community understand its most significant social, environmental and economic impacts. In 2018, the Innovation Center conducted a materiality assessment to confirm and prioritize the sustainability areas where the U.S. dairy industry should focus its efforts and resources. The results show where the dairy community has the greatest potential to amplify positive impacts and demonstrate improvements over time.

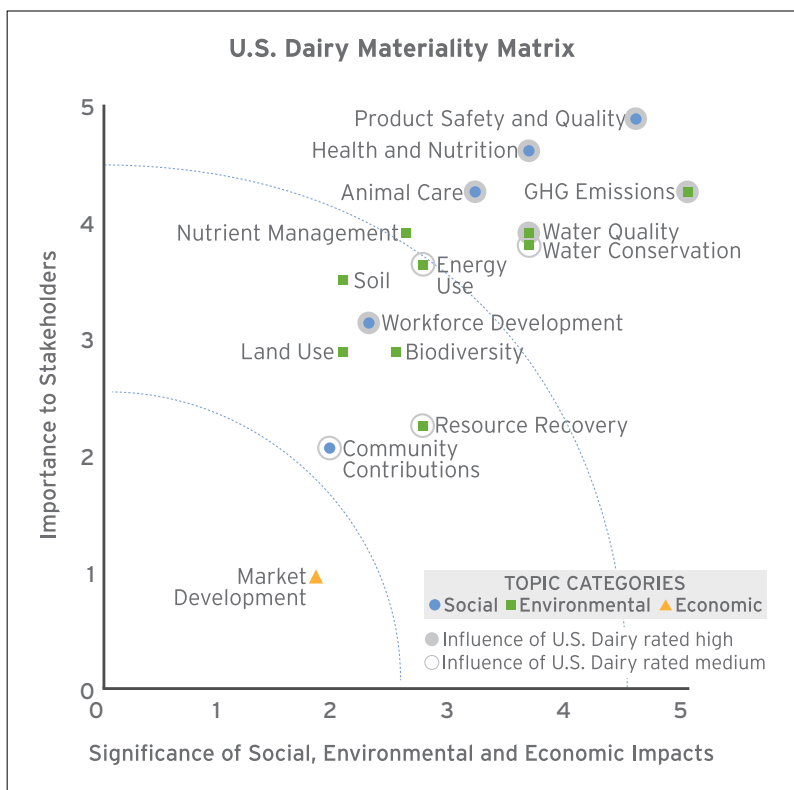
The scope of the materiality assessment was limited to dairy production and processing within the United States. The process was informed by the Global Reporting Initiative's GRI Sustainability Reporting Standards, the most widely used framework for sustainability reporting worldwide. The Stewardship Commitment priorities were mapped to the 11 Global Criteria of the Dairy Sustainability Framework (DSF) with health and nutrition, energy use and land use also included as relevant topics for U.S. dairy.

The Innovation Center defines materiality according to two dimensions: (1) significance of social, environmental and economic impacts and (2) importance to stakeholders. Each topic was reviewed and rated along these two aspects, with the resulting coordinates plotted on a materiality matrix, as shown. A third dimension, influence of U.S. dairy, was also included.

The assessment's iterative development and vetting process considered a range of input and involved internal and external stakeholders. A targeted, third-party review of a draft version included representatives from Environmental Defense Fund, GRI Global Sustainability Standards Board, The Nature Conservancy, SAI Platform and World Wildlife Fund. Subsequent internal reviews validated the updated matrix before final review and approval by the Executive Operating Committee and Board of Directors.

U.S. Dairy 2018 Materiality Matrix

The materiality matrix presents relevant topics based on significance of economic, environmental and social impact and importance to stakeholders. While the main objective of the materiality assessment was to prioritize topics for strategic purposes, the results also guide the content in this report.



THRESHOLDS FOR MATERIALITY

The Innovation Center set two thresholds for materiality (the curves on the matrix):

- The first is at 2.5; topics beyond this curve are material for reporting.
- Topics beyond the upper threshold, which is set at 4.5, represent the highest-rated priorities: Product Safety and Quality, Health and Nutrition, GHG Emissions, Animal Care, Water Quality, Water Conservation and Nutrient Management.

INFLUENCE OF U.S. DAIRY

This additional dimension highlights topics for which the operational control or influence that dairy farmers, cooperatives and processors have was rated medium or high.

The assessment reinforced the work that the Innovation Center has been doing over the years, including the priorities within the Stewardship Commitment (discussed next), and will inform future strategic planning. The Innovation Center plans to reassess materiality every three years or as needed to consider changes relevant to the industry, marketplace and/or consumer, to respond to shifts in stakeholder interests, and to maintain alignment with the latest available science, standards and expert opinions.

LEARN MORE in the *U.S. Dairy Stewardship Commitment Materiality Assessment and Progress* report available at USDairy.com.

Shared Priorities for Collective Action

The U.S. Dairy Stewardship Commitment aligns and quantifies industry action and shared progress on key priorities. The materiality assessment (pg. 6) prioritized the Dairy Sustainability Framework Global Criteria along with health and nutrition, energy use and land use as additional relevant topics for U.S. dairy. Of those, all but market development were deemed material for reporting and represent the current priorities within the Stewardship Commitment. Each priority falls within one of the Innovation Center areas of focus, as shown in the table below.

Innovation Center Areas of Focus	Dairy Sustainability Framework Criteria	Topics in the Materiality Assessment	Priorities in the U.S. Dairy Stewardship Commitment
FOOD SAFETY	Product Safety and Quality	Product Safety and Quality	Product Safety and Quality Ensuring the safety, quality and traceability of dairy products from grass to glass
ENVIRONMENTAL STEWARDSHIP	Greenhouse Gas Emissions	GHG Emissions	GHG Emissions Reducing dairy's footprint to mitigate climate change
	–	Energy Use	Energy Use Conserving energy and lowering production costs
	Water	Water Conservation	Water Conservation Optimizing water use
		Water Quality	Water Quality Protecting water quality
	Soil Nutrients	Nutrient Management	Nutrient Management Managing nutrients to maximize growth and safeguard ecosystems
	Waste	Resource Recovery	Resource Recovery Maximizing benefits from products and minimizing waste
	Soil	Soil	Feed Impact Minimizing crop production impacts on water, soil, biodiversity, land use, GHG emissions and energy
	Biodiversity	Biodiversity	
	Land Use	Land Use	
ANIMAL CARE	Animal Care	Animal Care	Animal Care Ensuring the well-being of the animals in our care
SUSTAINABLE NUTRITION	–	Health and Nutrition	Health and Nutrition Promoting dairy's contribution to health and nutrition within sustainable food systems
PEOPLE & COMMUNITY	Rural Economies	Workforce Development	Workforce Development Creating positive and safe work environments
	Working Conditions	Community Contributions	Community Contributions Supporting healthy, vibrant communities
	Market Development	Market Development	<i>Relevant topic below threshold for reporting (pg. 6)</i>

Alignment with Leading Standards

The Stewardship Commitment draws upon globally recognized best practices and guidance in sustainability standards and report development, including those issued by the **Global Reporting Initiative (GRI)**, the **Greenhouse Gas Protocol**, **CDP** and **ISO (International Organization for Standardization)**.

On behalf of the U.S. market, the Innovation Center is an Aggregating Member of the Dairy Sustainability Framework, a widely adopted global platform for sustainable dairy.

Contributions to the UN SDGs



The United Nations (UN) Sustainable Development Goals (SDGs) are a powerful call to action to all actors in society to achieve a more just, peaceful, prosperous and sustainable future. While the dairy community directly or indirectly connects to all 17 goals, the U.S. dairy community is uniquely qualified to contribute to the achievement of the following SDGs:

2. Zero Hunger
3. Good Health and Well-Being
6. Clean Water and Sanitation
8. Decent Work and Economic Growth
12. Responsible Consumption and Production
13. Climate Action
17. Partnerships for Goals

PROGRESS ON OUR PRIORITIES

The following sections provide a brief overview of industry-wide efforts to promote progress across the U.S. Dairy Stewardship Commitment priorities within five areas of focus:

FOOD SAFETY

ENVIRONMENTAL STEWARDSHIP

ANIMAL CARE

SUSTAINABLE NUTRITION

PEOPLE & COMMUNITY

More detail can be found in the *U.S. Dairy Stewardship Commitment Materiality Assessment and Progress* report available at [USDairy.com](https://www.usdairy.com).



PRODUCT SAFETY AND QUALITY

Ensuring the quality and safety of dairy products from grass to glass is an unwavering priority for the entire dairy community.

Milk and other dairy foods, which are highly regulated at the state and federal levels, have been a safe, healthy and important part of the American diet for generations. Through the Innovation Center's Food Safety Committee, the dairy community promotes research, develops science-based food safety tools, designs and coordinates food safety training, and develops guidance, assessment materials and metrics for dairy processors. Efforts across all aspects of milk production and processing aim to diminish food safety risks and help ensure that dairy products are safe.

80 active volunteers from over 30 dairy cooperatives and companies contribute to Innovation Center-led food safety efforts.

More than 80% of U.S. milk production is covered by the U.S. Dairy Traceability Guidelines.

Traceability is the ability to track a product through all stages of production, processing and distribution.

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: Product Safety and Quality

INDICATORS AND METRICS (PROCESSOR)

Food safety

- Do you have validated, verifiable food safety programs and management systems in place?
- Do you frequently reassess your food safety programs to ensure efficacy and to reflect new food safety tools/practices and ensure continuous improvement?

Traceability

- Commitment to voluntary U.S. Dairy Traceability Guidelines

TERMS OF ADOPTION

Dairy cooperatives and processors adopt and apply the U.S. Dairy Traceability Guidelines.

2017-2018 Progress

Education: The Innovation Center helps strengthen manufacturing practices in dairy processing facilities – from large processors to small farmstead and artisan cheese facilities.

- **More than 3,500 dairy industry employees have completed Innovation Center-led food safety training from 2011 to 2018.**
- In 2017 and 2018, 857 individuals participated in in-person and online courses, including Dairy Plant Food Safety and Supplier Food Safety Management workshops and a new online Food Safety Basics for Artisan Cheesemakers.
- In 2017, the National Institute of Food and Agriculture (NIFA) awarded the Innovation Center and its university partners a three-year, \$400,000 grant to help artisan and farmstead cheesemakers write their own food safety plans.

Resources: The committee shares guidance and best practices through food safety materials.

- Launched in 2017 by the American Cheese Society, the **Safe Cheesemaking Hub** provides a searchable collection of food safety materials in English and Spanish, co-developed with the Innovation Center.
- A Spanish version of the 2015 publication **Control of *Listeria monocytogenes*: Guidance for the U.S. Dairy Industry** was published in 2017.
- Development of a broader pathogen control guidance document began in 2018.

Research: A priority for food safety research is the control of *Listeria monocytogenes*. In 2015, the Innovation Center initiated an industry-funded **Listeria Research Consortium** to advance scientific

knowledge and support the development of new tools for use in dairy plants.

- **At the end of 2018, 10 consortium-funded research projects were underway.**

Antibiotic Stewardship: The dairy community is committed to the prudent and responsible use of antibiotics in dairy animals. Each year, the U.S. dairy community conducts nearly 4 million tests on all milk that enters dairy plants to ensure that antibiotics are kept out of the nation's milk supply. FARM Antibiotic Stewardship, a program area within the National Dairy Farmers Assuring Responsible Management (FARM) Program, provides ongoing education on the responsible use of antibiotics to keep cows healthy and our milk supply safe. FARM's **Milk and Dairy Beef Drug Residue Prevention Reference Manual**, published annually for the past 30 years, is the primary educational tool for dairy farms throughout the country.

- **Since 1995, there has been a 90% decrease in bulk milk tanker antibiotic residues**, with the lowest ever incidence in 2018: 99.99% of the nearly 3.6 million bulk milk tankers tested free of antibiotics.¹
- In 2017, no antibiotic residues were found in more than 33,511 random samples of post-pasteurized fluid milk and milk products tested before leaving the processing plant, as has been the case since 2011. In 2018, 4 positive samples were identified in a total of 32,847 samples.² Dairy's goal is zero incidence, and the dairy community continually works to strengthen the system to reach and maintain this goal.
- Any milk that tests positive for antibiotic residues is destroyed and cannot be sold for human consumption.

OUR PRIORITIES TO PROTECT THE PLANET

The dairy community is committed to preserving natural resources and reducing the environmental footprint of dairy products.

Dairy farmers and companies rely on science, innovation and efficiency to help nourish the world's growing global population while protecting the environment. Environmental stewardship encompasses a wide range of topics, from the soil that grows crops for animal feed to greenhouse gas (GHG) emissions and resource recovery.

Overview

The life cycle assessment (LCA) research for milk and cheese conducted in 2008-2011 for the U.S. dairy industry was unprecedented in size and scope, and the peer-review process ensured credible results to establish baselines and identify areas for improvement across the dairy value chain. While the dairy community supports advances from grass to glass, the Stewardship Commitment concentrates on topics at the field, dairy farm and processor levels. The following table highlights where impacts associated with each priority occur (○) and where metrics are also currently in place (●).

Priorities	FIELD	DAIRY FARM	PROCESSOR
Feed Impact	●		
GHG Emissions	●	●	●
Energy Use	●	●	●
Water Conservation	●	●	●
Water Quality	○	○	●
Nutrient Management	○	●	
Resource Recovery	○	○	●

KEY:

- Impacts occur at this step of the value chain.
- Impacts occur and metrics are in place.

2017-2018 Progress

Industry-wide efforts coordinated through the Innovation Center and its Environmental Stewardship Committee follow a deliberate, inclusive approach: start with scientific research to measure and understand a topic, then engage a broad group of stakeholders to develop guidance, resources, metrics and tools to improve performance and increase business value.

The launch of **FARM Environmental Stewardship** (FARM ES) in 2017 exemplifies this approach. Administered and managed by the National Milk Producers Federation (NMPF) under the National Dairy Farmers Assuring Responsible Management (FARM) Program, FARM ES provides dairy producers, cooperatives and companies with a streamlined, single source for voluntary assessment and reporting of GHG emissions and energy use on dairy farms.

Researchers regularly review the model that powers FARM ES to ensure that it remains robust and relevant. Updates in 2018 incorporated the latest available crop production data and manure management technologies.

- **20 cooperatives and processors, representing approximately 60% of the U.S. milk supply, are participating in FARM ES.**
- From the 2017 launch through 2018, more than 750 FARM ES evaluations were conducted by participating organizations.

FEED IMPACT

Dairy's environmental stewardship begins in the fields that grow feed crops.

The Feed Impact priority covers multiple topics: water, soil, land use, biodiversity, and energy and GHG emissions intensity.

On average, **35% of feed is produced by U.S. dairy farmers. The remaining 65% is sourced from feed suppliers.**³

2017-2018 Progress



Field to Market

To help understand and promote reductions in the field-level environmental impact of feed production, the Innovation Center works in partnership with Field to Market: The Alliance for Sustainable Agriculture. Field to Market is a diverse collaboration working to advance the sustainability of U.S. commodity crop production.

The Innovation Center participates in all of Field to Market's standing committees and provided financial support to enable the addition of two key dairy feed crops into version 3.0 of the Fieldprint® Platform, which launched in 2018. Field to Market's assessment framework empowers brands, retailers, suppliers and farmers to measure the environmental impacts of commodity crop production and identify opportunities for improvement. The updates for corn silage and alfalfa will provide more relevant metrics for farmers and cooperatives to track sustainable production of these crops.

LEARN MORE at fieldtomarket.org.

GREENHOUSE GAS EMISSIONS

Reducing GHG emissions to mitigate climate change is a global priority.

The agricultural sector can play an important role in mitigating GHG emissions. In 2009, the U.S. dairy industry set a voluntary goal to reduce GHG emissions for fluid milk by 25% by 2020 from a 2007-2008 baseline. Since then, the dairy community has been tracking progress using an intensity metric calculated as GHG emissions per unit of production.

2017-2018 Progress

U.S. dairy's collective efforts focus on enhancing resources to help individual dairy companies measure, report and improve their GHG emissions performance.

- The GHG Protocol Corporate Accounting and Reporting Standard is the most widely accepted and adopted GHG standard in the world. Comprehensive guidance to prepare a GHG Protocol-aligned inventory and quantify emissions was completed in 2018 for FARM ES and the *Dairy Processor Handbook*.
- NMPF and the Innovation Center are collaborating with EDF Climate Corps, (Environmental Defense Fund's fellowship program), to ensure that FARM ES and accompanying resources align with CDP (formerly Carbon Disclosure Project) Scope 3 reporting to credibly track progress toward science-based targets and other GHG reduction goals.

In 2018, researchers began to assess progress toward achieving the industry's 2020 GHG emissions reduction goal. This process has entailed independent, expert, third-party review of both the underlying LCA model and the analysis of progress. A status report is expected to be released in 2019.

North America has the lowest dairy-related GHG emissions intensity globally.⁴



U.S. GHG Emissions Intensity for Fluid Milk
**17.6 lbs. of carbon dioxide
equivalents (CO₂e)
per gallon of milk consumed.**⁵

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: GHG Emissions

INDICATOR AND METRICS (DAIRY FARM AND PROCESSOR)

GHG intensity

- DAIRY FARM: Total GHG emissions (lb. CO₂e)/lb. of milk (fat and protein corrected milk [FPCM])
- PROCESSOR: Total GHG emissions (lb. CO₂e, Scope 1 and 2)/lb. of production output

TERMS OF ADOPTION

Dairy cooperatives use or plan to use the FARM ES Sampling Protocol to enroll farms in FARM ES to measure the on-farm GHG metric (or they enroll 100% of farms). Processors use the GHG Protocol for reporting.

Priority Summary: Energy Use

INDICATOR AND METRICS (DAIRY FARM AND PROCESSOR)

Energy intensity

- DAIRY FARM: Total energy use (converted to million British thermal units [MMBTU])/lb. of milk (FPCM)
- PROCESSOR: Total energy use (converted to MMBTU)/lb. of production output

TERMS OF ADOPTION

Dairy cooperatives use or plan to use the FARM ES Sampling Protocol to enroll farms in FARM ES to measure the on-farm energy metric (or they enroll 100% of farms). Processors report using methodologies outlined in the *Dairy Processor Handbook*.

~2% of the total U.S. GHG emissions is attributed to the U.S. dairy industry.⁶



**36% of U.S. dairy's total
GHG emissions** is from energy use
across the dairy value chain - from feed
production to the end consumer.⁷

ENERGY USE

Opportunities to reduce energy use, associated emissions and costs occur at every step from farm to fridge.

Energy efficiency and conservation often serve as entry points to other sustainable practices and can provide an immediate cost benefit to quantify return on investments.

2017-2018 Progress

- The 2017 launch of FARM ES (pg. 10) supports dairy producers, cooperatives and companies with on-farm energy use reporting and reduction efforts.
- The National Dairy FARM Program worked with World Wildlife Fund to assemble an independent technical review panel of academics, farmers, NGOs and industry specialists to create and review the *Environmental Stewardship Continuous Improvement Reference Manual*. This guide provides a comprehensive suite of on-farm management practices, including energy efficiency strategies, to reduce a farm's environmental footprint and improve its profitability.

WATER CONSERVATION AND QUALITY

Conserving water and ensuring water quality form the basis of the dairy community's water stewardship commitment.



Water is a finite resource that is under increasing pressure from human activities and is directly linked to local, regional and national sustainability concerns. It is also a local issue with varying considerations based on regional water supply and watershed characteristics.

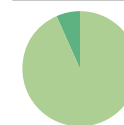
While management approaches are tailored to individual operations and locations throughout the U.S., practices such as water reuse and recycling are common on dairy farms and in processing plants.

On dairy farms, nutrient management, including manure management, contributes to water quality. Dairy plants concentrate on ensuring the quality of water discharged for beneficial reuse.

2017-2018 Progress

- In 2018, the Innovation Center Environmental Stewardship Committee formed a Water Task Force to examine water use and water quality on the dairy farm more closely. It also collaborates with Newtrient, LLC (pg. 13) and NMPF to address on-farm practices related to water quality.
- The partnership with Field to Market (pg. 10) supports efforts related to on-field water use for growing feed, which accounts for 93.5% of dairy's water use.⁸

Dairy-related water use represents 5.1% of total U.S. water withdrawal.⁹



93.5% of dairy's water use is for crop irrigation for dairy feed.¹⁰

Most dairy farmers recycle water an average of **3 to 5 times.**

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: Water Conservation

INDICATORS AND METRICS (DAIRY FARM AND PROCESSOR)

Water use

- FIELD: Reporting through Field to Market
- DAIRY FARM: Gallons of water consumed (for lactating cows)/lb. of milk (FPCM)
- PROCESSOR: Percentage of total water withdrawn and consumed by source

Water efficiency

- PROCESSOR: Gallons of water consumed/lb. of production output

Water recycling and reuse

- PROCESSOR: Percentage and total volume of water (gal.) that is recycled and reused

Priority Summary: Water Quality

INDICATOR AND METRICS (PROCESSOR)

Water discharge and quality

- DAIRY FARM: Refer to the metric for Nutrient Management on pg. 13.
- PROCESSOR: Do you have a policy, program or monitoring system that ensures routine compliance with industrial or storm water permit parameters?

NUTRIENT MANAGEMENT

The efficient use of the proper nutrients helps maximize crop growth, while safeguarding ecosystems.

The nutrients in fertilizer, manure and compost are used to enrich the soil and increase crop productivity. Responsible approaches to nutrient management contribute to efforts to ensure water quality.

The Innovation Center supports advances in nutrient management and encourages the use of a nutrient management plan, which helps guide management decisions to ensure nutrients are applied in an efficient and environmentally sound manner.

2017-2018 Progress

- In 2018, the Stewardship Commitment's nutrient management plan metric was strengthened to specify documentation, implementation and maintenance. This metric will be added to FARM ES in 2019.
- **Newtrient**, a company founded in 2015 by 14 companies representing nearly 20,000 dairy farmers, focuses on discovering innovative, economically viable ways to reduce dairy's environmental footprint. Through Dairy Management Inc.™, the Innovation Center is a Newtrient board member. The Newtrient Technology Catalog, released in 2017, provides a comprehensive review of manure management and resource recovery technologies.

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: Nutrient Management

INDICATOR AND METRIC (DAIRY FARM)

Nutrient management plan

- Do you implement and maintain a written nutrient management plan?

RESOURCE RECOVERY

The dairy community recognizes the need to do more with less and minimize waste.



The aim of resource recovery is to extract the maximum practical benefits from products, delay the consumption of virgin natural resources and generate the least amount of waste. Food waste, in particular, is of interest to the food and agriculture sectors.

Efforts aim to strengthen dairy processors' resource recovery practices through research, guidance materials and investments in food waste reduction initiatives. The Stewardship Commitment merges the Waste Management and Food Recovery Hierarchies from the U.S. Environmental Protection Agency (EPA) to provide the basis for the resource recovery metrics.

2017-2018 Progress

In 2017, the **Further with Food** website launched as part of a broad public-private partnership to find solutions to food loss and waste. This online hub provides comprehensive content on food loss and waste in the U.S. and highlights ways to help achieve the national goal to cut food waste in half by 2030.

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: Resource Recovery

INDICATORS AND METRICS (PROCESSOR)

Waste diversion

- Percentage by weight (lbs.) of total waste stream diverted from landfill or incineration without recapturing energy

Throughput efficiency

- Total waste stream/lb. of production output

Water recycling and reuse

- Percentage and total volume of water (gal.) that is recycled and reused

Resource utilization

- Food donated or repurposed as animal feed and non-food recycled or composted (lbs.)/total waste stream (lbs.)
- Food repurposed for industrial uses or compost and non-food repurposed for energy recovery (lbs.)/total waste stream (lbs.)
- Waste sent to landfill or incineration without recapturing energy (lbs.)/total waste stream (lbs.)

TERMS OF ADOPTION

Processors use the EPA hierarchies as the basis for resource recovery and waste reduction reporting.

ANIMAL CARE

U.S. dairy farmers are committed to ensuring the well-being of the animals in their care by meeting the highest standards.

Responsible animal care is not only an ethical obligation, it is essential for a productive herd and critical to a farm's profitability and success. In consultation with veterinarians and recognized experts, the U.S. dairy industry developed a leading animal care program to establish guidelines and standards for cow care and create a culture of continuous improvement. This unified approach helps strengthen evidence-based practices on all dairy farms and helps build public confidence.

2017-2018 Progress

To demonstrate its commitment to animal care, the dairy community has worked with stakeholders since 2009 to develop and evolve FARM Animal Care, a program area within the National Dairy Farmers Assuring Responsible Management (FARM) Program. Administered by National Milk Producers Federation (NMPF), FARM Animal Care promotes responsible operating procedures and practices and encourages continuous improvement to assure the public that dairy farmers raise and care for their animals in a humane and ethical manner.

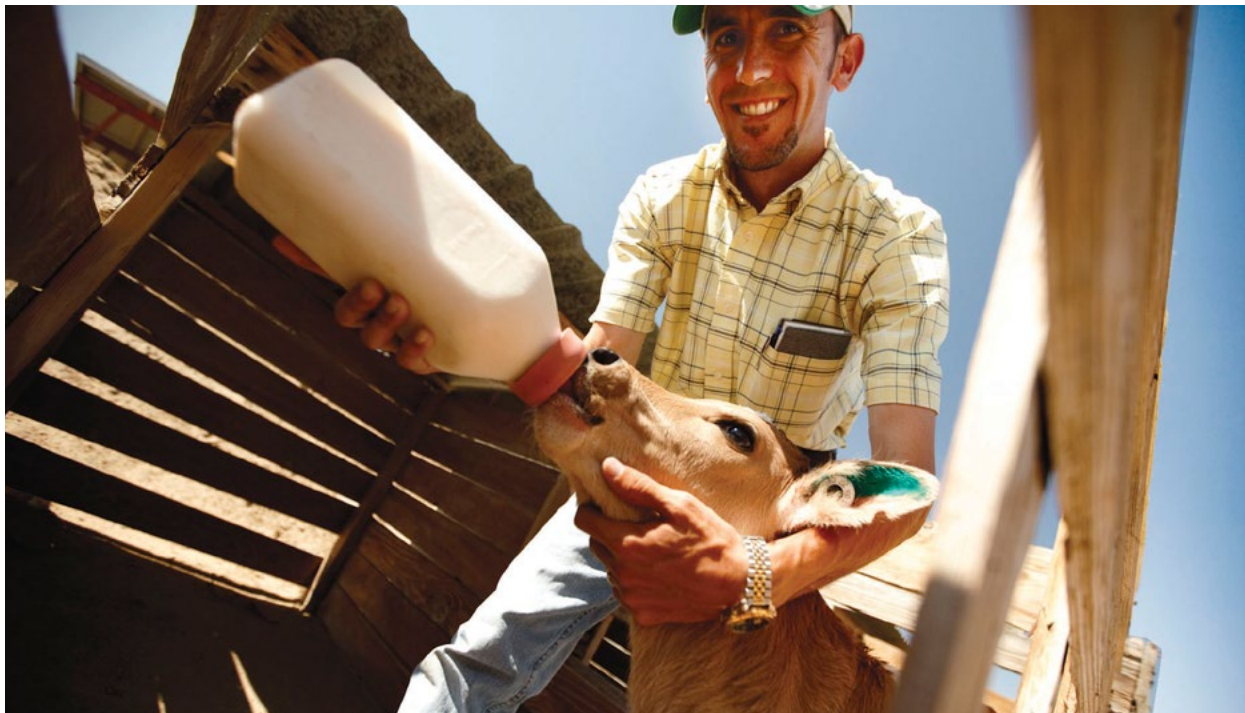


the dairy community has worked with stakeholders since 2009 to develop and evolve FARM Animal Care, a program area within the National Dairy Farmers Assuring Responsible Management

(FARM) Program. Administered by National Milk Producers Federation (NMPF), FARM Animal Care promotes responsible operating procedures and practices and encourages continuous improvement to assure the public that dairy farmers raise and care for their animals in a humane and ethical manner.

98% of the U.S. milk supply comes from FARM Animal Care participants.

On-farm evaluations and third-party verification of the program help the FARM Program's integrity. At its core, the program relies on scientific evidence and findings to develop standards. The program's standards are then reviewed and updated every three years with significant stakeholder involvement.



- In 2018, FARM Animal Care became the first livestock animal care program in the world to comply with ISO (International Organization for Standardization) requirements and guidance, providing assurance that U.S. dairy foods come from animals treated under internationally recognized standards.
- Over 450 trained and certified second-party evaluators have conducted more than 50,000 on-farm evaluations since the program's inception.

Read the **2018 National Dairy FARM Program Year in Review** for more program highlights.

LEARN MORE at nationaldairyfarm.com.

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: Animal Care

INDICATOR AND METRIC (DAIRY FARM AND PROCESSOR)

Animal care

- Do you participate in the FARM Animal Care program?

TERMS OF ADOPTION

Dairy cooperatives participate in FARM Animal Care. Dairy processors source 100% of purchased milk from FARM-enrolled farms.

HEALTH AND NUTRITION

The dairy community is committed to helping ensure dairy foods contribute to health and sustainable food systems.

Dairy's role as a nutritious source of enjoyable, affordable, accessible food is foundational to dairy's contribution to health and sustainable food systems. Through National Dairy Council (NDC) and the Innovation Center's Sustainable Nutrition Committee, the dairy community's health and sustainable nutrition initiatives combine research, education, guidance and outreach to raise awareness about how responsibly produced dairy foods contribute to nutrition and health.

Dairy foods, like milk, cheese and yogurt, provide nutrients important to good health - including calcium, phosphorus, vitamin B12 and high-quality proteins.¹¹

Within the context of healthy eating patterns, dairy foods are associated with reduced risk of cardiovascular disease, type 2 diabetes and high blood pressure among adults.¹² Dairy foods are also linked to bone health, especially in children and adolescents.¹³

Sustainable Nutrition

Sustainable nutrition considers dairy's nutrition and health contributions within the context of its interconnected environmental, social and economic dimensions. It is the ongoing, science-based pursuit of solutions that provide affordable, accessible, nutrient-rich foods that can nourish the world's growing global population, while also protecting environmental resources.

The Dairy Community's Contributions to Sustainable Nutrition, published in 2018 by NDC and the Innovation Center, provides an overview of the global context and the U.S. dairy community's role and vision for sustainable nutrition.



2017-2018 Progress

Research: NDC's research program includes nutrition, product and environmental research. Specific to nutrition research, registered dietitians, academics, scientists and other key stakeholders are exploring dairy's contribution to public health and consumer-focused benefits. Primary areas of interest are inflammation/cardiovascular disease, type 2 diabetes, milk fat, childhood nutrition, protein and gut health.

A number of farmer-funded NDC studies published in 2017 and 2018 highlight the role of milk and dairy foods in child and adult nutrition and health:

- Three studies continue to show the essentiality of milk and dairy foods for young children. Dairy is the top source of calcium, vitamin D and potassium, three of the four nutrients of public health concern for children, as identified by the *2015-2020 Dietary Guidelines for Americans*.¹⁴

- More closely following the Healthy U.S.-Style or Healthy Mediterranean-Style eating patterns, which both include low-fat and fat-free dairy, was projected to save over \$15 billion in healthcare costs.¹⁵
- An NDC-funded clinical study showed eating low-fat yogurt (1.5 servings per day) reduced chronic inflammation and improved gut integrity in healthy women, regardless of weight.¹⁶

Education and Outreach: NDC engages national partners and key health and wellness professionals - physicians, dietitians, fitness and culinary experts, school nutrition specialists, and food security professionals - to communicate dairy science, promote dairy's Stewardship Commitment and build trust in dairy's contribution to health and sustainable food systems. NDC offers a variety of sustainable nutrition educational resources, including presentations, webinars, blogs, infographics and handouts.

Nourishing Communities: The Sustainable Nutrition Committee and the People & Community Committee collaborate with the broader dairy community and local organizations to facilitate partnerships and initiatives aimed at alleviating hunger and increasing access to nutrient-rich milk and dairy foods. See the following section for more information.

LEARN MORE at nationaldairycouncil.org.

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: Health and Nutrition

The development of indicators and metrics for this priority is underway.

COMMUNITY CONTRIBUTIONS

U.S. dairy's direct economic impact is paired with a deep dedication to supporting healthy, vibrant communities.

The U.S. dairy industry's overall economic impact is valued at **\$628 billion**, which represents more than **1% of U.S. GDP**.¹⁷

In the U.S., the dairy industry directly employs **nearly 1 million individuals** and indirectly supports **almost 2 million additional jobs**.¹⁸

The U.S. dairy community has a significant impact on thousands of communities and millions of people across the country.

To strengthen dairy's positive impact on communities, the Innovation Center brings the broader dairy community together with local organizations to facilitate partnerships and programs that address hunger and increase access to nutrient-rich milk and dairy foods (see sidebar).



DEMONSTRATING OUR STEWARDSHIP COMMITMENT

Priority Summary: Community Contributions

INDICATORS AND METRICS (PROCESSOR)

Community volunteering

- Volunteer activities performed by employees

Monetary and product donations

- Monetary and product donation activities

Educational opportunities

- Describe community educational events per year and the total number of participants

TERMS OF ADOPTION

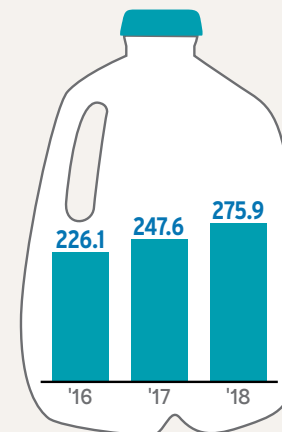
Dairy cooperatives and processors communicate community contributions using at least one of the metrics.

2017-2018 Progress

The Innovation Center and NDC strive to feed hungry people by increasing the availability of nutritious dairy foods, such as milk, cheese and yogurt, in the Feeding America network of food banks.

In partnership with **FEEDING AMERICA** Nourishes America (DNA) initiative increases the distribution of milk and dairy to the 41 million clients of 200 food banks in over 60,000 agencies. In the period from 2016 to 2018, nearly 750 million pounds of dairy were distributed in the Feeding America network.

MILLION POUNDS OF DAIRY DISTRIBUTED IN THE FEEDING AMERICA NETWORK (2016-2018)



From 2016 to 2018, pounds of dairy **increased nearly 22%.**

The 2018 value translates into **686 million servings** of nutritious milk, cheese and yogurt, which are highly desired by food banks and the people they serve.

WORKFORCE DEVELOPMENT

The U.S. dairy community is committed to creating positive and safe work environments.



Hiring and retaining quality employees and ensuring their safety and well-being are essential to the success of the dairy community. Employment conditions and safety are highly regulated at the state and federal levels. The dairy industry concentrates on efforts that provide guidance materials to help farmers, cooperatives and processors understand their compliance requirements as well as go above and beyond for their employees.

2017 EMPLOYMENT AND WAGES¹⁹

MILK PRODUCTION
106,500 jobs with \$3.7 billion in wages.

DAIRY PRODUCT MANUFACTURING
144,779 jobs with \$8.4 billion in wages.

DEMONSTRATING OUR STEWARDSHIP COMMITMENT

While the Workforce Development topic applies all across the dairy value chain, the current version of the Stewardship Commitment has metrics in place at the processor level.

Priority Summary: Workforce Development

INDICATORS AND METRICS (PROCESSOR)

Human resources

- Total number of jobs supplied (includes full- and part-time employees and consultants)
- Indirect and non-monetary benefits available to employees
- Total number employed during the past year and percentage of employees who have been employed for 5, 10 and 20 years

Worker safety

- Number of opportunities for workers to participate in, and percentage of employees who participated in developing, implementing and managing health and safety initiatives; also, the levels in the corporation at which these programs operate
- Days of restricted work activity or job transfer (DART) rate

2017-2018 Progress

In 2018, the National Milk Producers Federation (NMPF) launched FARM Workforce Development, the fourth program area within the National Dairy FARM Program, to provide dairies across the country with guidance and best management practices around human resources (hiring, training and supervising workers) and worker health and safety. FARM Workforce Development supports safe, exceptional work environments.

A Workforce Development Task Force made up of cross-sector representatives provides overall strategic guidance and input on developing program resources. The suite of **educational materials and tools** includes federal and state legal fact sheets and reference manuals on human resources and safety management. The resources are designed to help dairy farm owners and managers increase worker engagement and safety, reduce employee turnover, and manage safety risks.

Recognizing Exemplary Safety Performance



The International Dairy Foods Association (IDFA) Dairy Industry Safety Recognition Awards and Achievement Certificates program highlights outstanding worker safety records of U.S. dairy companies in both processing facilities and trucking operations.

The program presented awards and achievement certificates for exemplary safety records to 80 dairy processing facilities and trucking operations in 2017 and 50 in 2018.

For a full list of recipients, visit idfa.org.



The best ingredients
start at the farm.

TELLING DAIRY'S STORY

Through a number of Innovation Center efforts, the dairy community shares its story, values and accomplishments with customers, consumers, influencers and other stakeholders.



Undeniably Dairy

National campaign builds a bold platform for the entire dairy community to engage with consumers.

As an increasingly urban population becomes further removed from the farm, people want to know more about where their food comes from and the people and practices behind the foods they love. That's dairy's call to action: to authentically and transparently let consumers know who the dairy community is, what it stands for and how it operates.

In 2017, the Innovation Center launched Undeniably Dairy, a national, multiyear campaign to grow trust and relevance in dairy and provide a platform through which the whole dairy community can engage and speak with one voice. The Undeniably Dairy campaign brings U.S. dairy's story to life, engaging consumers to showcase the nutrient-rich profile of their favorite dairy foods, along with a farm-to-table look at the commitments U.S. dairy has to responsible production and positive local community impact.

2017-2018 Progress

The campaign started strong with a wide range of engaging content, partnerships and experiences, which rallied the entire dairy community around culturally relevant moments at times when consumers are open to hearing about dairy. Below are key highlights:

300+ dairy community partners
engaged with the Undeniably Dairy platform.

Content and Partnerships

- **Videos on Food Network** invited viewers onto a dairy farm to hear directly from farmers about where their food comes from and the commitments farmers have to responsible production.

- **Stories of Dairy Devotion** articles and podcasts highlight people throughout the dairy community who are devoted to bringing delicious dairy products to consumers' tables in the best possible way. Featured devotees include food scientists, cheesemakers, chefs and restaurateur, and dairy farmers from across the country.

More than 40% of people
are more likely to trust the dairy industry after
listening to sponsored podcasts. Campaign video
content has earned **76 million views**.

Direct Experiences

- Hundreds of on-farm events and farm-to-table dinners brought together consumers, health and wellness experts, and others.
- To celebrate National Farmers Day and connect people to where their food comes from, **21 dairy farmers from across the U.S. took to the streets at two food festivals in New York City in October 2018**. Over the course of two days, they reminded thousands of consumers about the joy of dairy, shared their stories of devotion and answered people's questions over grilled cheese and chocolate milk samples.

Passed out a grilled cheese sandwich and chocolate milk sample every three seconds.

- **Discovery Education partnership** introduces fifth- to eighth-grade classes to modern farming and innovations that are helping to care for cows and communities through virtual field trips, a 360-degree video experience and educator guides.

In 2017 and 2018, nearly 200 million students reached.



Undeniably Dairy helps remind consumers of all the good that is dairy, from the farm to the table, through four key pillars:

NUTRIENT RICH: Fresh, real foods are easy to find - right down the dairy aisle.

RESPONSIBLY PRODUCED: Innovation and technology have dramatically transformed our lives for the better, helping the dairy community deliver exceptional animal care, sustainable nutrition and a better, fresher product.

LOCALLY DRIVEN: There are dairy farms in all 50 states, and dairy farmers and the people who make dairy foods and beverages are telling their stories to those who have questions. Dairy farmers, companies and brands have come together to bring these narratives to life, reaching interested people where they are by using influencers and media they deem credible and relevant.

REAL ENJOYMENT: Dairy is the milk in your morning cereal and the cheese on your pizza. It's part of all the things people love to eat and is present at some of the most special moments in life.



U.S. Dairy Sustainability Awards

The U.S. Dairy Sustainability Awards program recognizes excellence in sustainability across the dairy value chain.



2017 AWARD WINNERS pictured (from left): Louie Kazemier of Rickreall Dairy, Ken Nobis of Michigan Milk Producers Association, Dick Edwards of Oakland View Farms, Tim Rosen of Midshore Riverkeeper Conservancy, Annie Link of SwissLane Farms, Robert Hagevoort of U. S. Dairy Education & Training Consortium, Mark Keller of Kellercrest Registered Holsteins, Inc., Lucas Fuess of Glanbia Nutritionals, Lee Kinnard of Kinnard Farms, Matt Nuckols (emcee) of Eastview Farm, Inc., and Barbara O'Brien of the Innovation Center for U.S. Dairy. Not pictured: Mercer Vu Farms.



2018 AWARD WINNERS pictured (from left): Austin Allred of Royal Dairy, Sarah Beaubien of Tillamook County Creamery Association, Brett Reinford of Reinford Farms, Ted Sniegocki and Bob Joblin of Magic Dirt, Mike and Edie McMahon of E-Z Acres, and Lisa Zwack and Erin Sharp of The Kroger Co.

Through 2018, **54 honorees have been recognized for their achievements in sustainable dairy.**

The dairy farms, companies and partnerships honored each year have demonstrated innovative and replicable dairy practices that benefit the

environment, their businesses and the communities in which they work and live. An independent panel of judges evaluates nominations based on measurable

results and the potential for other dairy farms and businesses to adopt the approaches. From 2011 to 2018, more than 50 dairy farms and companies were selected from hundreds of nominations across the country. Their stories have been featured in video, social media, print and in-person communications.

LEARN MORE about the awards program and past winners at USDairy.com/Awards.

APPRECIATION FOR OUR GENEROUS SPONSORS IN 2017-2018

Each year, program sponsors help make it possible for the Innovation Center to continue recognizing those who go above and beyond to improve their communities, the environment and their bottom line.



Acknowledgments

The Innovation Center acknowledges the organizations that contributed to the development and production of this report: JF Pontzer, LLC (now part of ISOS Group, Inc.) for project management and report development, and Irish Design for report design.

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Report Feedback

We welcome your feedback on this report and U.S. dairy's sustainability efforts. Please contact us at InnovationCenter@USDairy.com.

Download the report at [USDairy.com/Report](https://www.usdairy.com/Report).

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