

ACCELERATING ACTION: U.S. DAIRY NET ZERO INITIATIVE EXECUTIVE SUMMARY

U.S. dairy is accelerating progress toward its 2050 environmental goals. Through the U.S. Dairy Net Zero Initiative (NZI), the industry works together to make sustainable production more accessible and economically viable for farms of varying scales and geographies. Launched in 2020, NZI serves as an ambitious learning journey and a catalyst toward the industry's collective goals—achieve greenhouse gas (GHG) neutrality, optimize water usage, and enhance water quality. Structured around three foundational tracks, NZI converges sound scientific methodology with pragmatic on-the-ground action.

Since its inception, NZI has achieved substantive progress. The initiative delves into critical areas such as enteric methane, feed production, manure management, and energy use to reduce the industry's on-farm and in-field environmental footprint. By advancing essential pathways and collaborative networks, NZI supports continued improvement of a resilient and sustainable dairy industry.

The founding members of NZI include six dairy organizations that represent a large percentage of the industry, recognizing the need to bring together different areas of the sector, from strategy to policy to practice, to support action on the ground. These founding organizations are:

- Dairy Management, Inc.
- The Innovation Center for U.S. Dairy
- International Dairy Foods Association
- National Milk Producers Federation
- Newtrient
- U.S. Dairy Export Council

Research, Analysis & Modeling

U.S. dairy works to close knowledge gaps and advance innovative solutions across dairy production. Through research, the dairy industry is identifying the most promising solutions, practices and technologies that will accelerate progress. Key projects and initiatives in this effort include:

- The **Dairy Soil and Water Regeneration** project, a six-year project involving dozens of dairy farms, which focuses on soil health, carbon storage, and water quality impact.
- The **Greener Cattle Initiative**, a public-private collaboration researching methods to reduce enteric methane emissions in dairy and beef which stimulates innovation in key areas such as nutrition, microbiome, genetics, sensing technology, and socioeconomics.
- **Methane modeling** that estimates the emission reduction potential and economic impact of scaled implementation of known manure management practices and technologies, including combust/flare methane from covered manure storage, anaerobic digesters, solid/liquid separation, advanced treatment and more.

U.S. Dairy Net Zero Initiative *By the Numbers*

Since launching in October 2020, NZI has:

\$40 million

Leveraged **\$40 million in support** from partners

66 partnerships

Partnered with **66 institutions** including corporations, land grant and research institutions, governmental and non-governmental organizations, and other dairy community stakeholders

26 projects

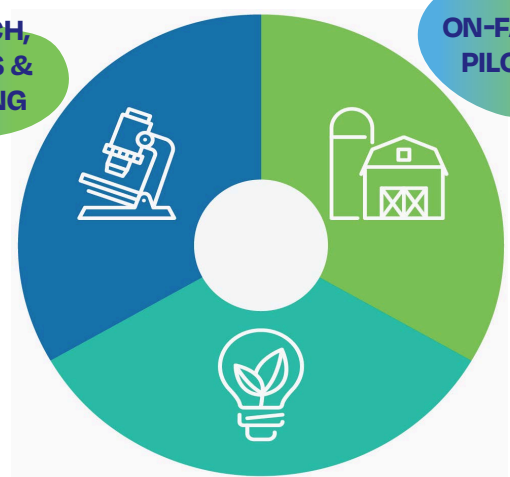
Initiated and supported **26 projects** spanning **338 farms across 19 states**

94 presentations

Led **94 presentations** for national and international webinars, panels and forums

**RESEARCH,
ANALYSIS &
MODELING**

**ON-FARM
PILOTS**



**SCALING
IMPACT**

On-Farm Pilots

On-farm pilots enable commercially operating dairies to test and verify interventions that have the potential to significantly reduce GHG emissions and improve water use and quality, while increasing the diversification of on-farm revenue.

Through **Dairy Scale for Good**, pilot farms partnered with Nestlé and Starbucks to demonstrate how a dairy farm can reach GHG neutrality in an economically viable way. Three pilot farms, located in Florida, California and Washington, reflect the diversity of the industry and represent various management styles, geographies, and infrastructure. These farms apply the latest research, models and innovations to establish best practices across the farm's environmental footprint. Outcomes and lessons learned from the demonstration farms will be translated and broadly shared across the U.S.

Small Farm Case Studies modeled the GHG footprints of four small- to mid-sized commercial dairies in the U.S., identifying tailored practices or technologies that could aid in GHG reduction, along with an estimation of the potential reduction and associated implementation costs. A video series, capturing lessons learned and progress on each farm, will be shared with dairy farmers and stakeholders to demonstrate the diverse approaches that are driving progress on small farms.

Scaling Impact

Across the U.S. dairy industry, collaborative efforts address barriers and economic challenges to accelerate the widespread implementation of sustainability practices. The following activities reflect some of the work to create more tools, increase technical assistance, improve informational resources, engage supply chain partners and more:

- **Dairy Feed in Focus** encourages adoption of best management practices in feed and forage production and feed efficiency by providing funding, technical assistance, and monitoring tools.
- More than 70 **on-farm assessments**, completed by Newtrient, offer comprehensive GHG baseline assessments and tailored expert recommendations to empower farmers with data on their GHG footprint and carbon reduction potential.
- A **feed additive evaluation tool and guidance** document helps dairy value chain stakeholders make informed decisions about using feed additives to mitigate enteric methane emissions, with a greater understanding of the trade-offs and benefits as well as best practices and barriers to broad adoption.
- The evolving **FARM Environmental Stewardship** platform, U.S. dairy industry's unified platform for tracking and reporting environmental metrics, will provide robust data for better decision-making and support for GHG reductions.
- A new report called "**Scope 3 Accounting in the Dairy Value Chain**," produced by Quantis for Global Dairy Platform, shares recommendations to help support credible farm-level mitigation and ensure the dairy sector can effectively engage with the standards that underpin credible climate action.
- NMPF secured the inclusion of an **investment tax credit** to cover a portion of the upfront costs of anaerobic digesters in the Inflation Reduction Act, which became law in August 2022*.

The U.S. Dairy Net Zero Initiative is empowering farms to reduce their environmental impact by supporting science-based actions and unlocking opportunities to accelerate progress. These efforts underscore U.S. dairy's commitment to reducing its environmental impact, fostering widespread adoption of sustainable practices and contributing to global climate and food security goals.

For more information and to see a full list of partners, see the full [NZI Progress Update](#).

**Note: Activities funded by the dairy checkoff are subject to approval of USDA. No checkoff funds will be used for the purpose of influencing governmental policy or action.*

