

Written Testimony of The Honorable Thomas J. Vilsack, President and CEO, U.S. Dairy Export Council

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U.S. Senate Committee on Agriculture, Nutrition, and Forestry

“Climate Change and the Agriculture Sector”

Introduction

Chairman Roberts, Ranking Member Stabenow, and members of the Committee, thank you for holding this important hearing this morning. I am thrilled to be back here with all of you to discuss the critical issues facing rural America, our food system and the environment. I come before you this time as President and CEO of the U.S. Dairy Export Council (USDEC).

By way of some background, USDEC is a non-profit organization representing the global trade interests of U.S. dairy producers, cooperatives, proprietary processors, ingredient suppliers, and export traders. Our mission is to enhance demand for U.S. dairy products and ingredients by securing market access and assisting suppliers to meet market needs to facilitate sales.

With that background, you might be wondering, “Why is an export organization here to talk about climate change issues?” Put simply, the U.S. dairy industry has become ever more reliant on exports to the point that one out of every six days’ worth of milk is now exported. It’s therefore imperative that we lead our global competitors not only in product availability, quality, and innovation, but also in sustainability. And I think we have an excellent story to tell on that front.

Overview

For generations, U.S. dairy farmers have been stewards of their land’s natural resources, the foundation of their livelihood. As farming practices and technologies have evolved throughout time, U.S. dairy producers have continuously produced safe and nutritious products and used progressively fewer resources to do so. Today, dairy farms across the country are increasingly adopting conservation tillage, diverse crop rotations, and cover crops to improve soil health; precision feed management to achieve cow health and production efficiencies; and innovative manure management technologies to produce energy and reduce air and water quality impacts. These practices, however, must be further researched and made more affordable so they can be implemented at scale. In addition to the demand for more transparency and better environmental performance, low milk prices are making it increasingly difficult to run a successful dairy operation. Our dairy farmers are looking for new sources of income and we believe that their environmental stewardship can provide just that.

With the exponential increase in scientific and technological discoveries, U.S. dairy is on the cusp of a radical change allowing it to meet this century's needs. These advancements offer an incredible opportunity to those who are willing and ready to adopt them, and challenges for those who are not. This opportunity applies equally to the dairy industry as a whole. U.S. dairy must take advantage of our community's collective knowledge and experience to form a system of proven production practices and technologies that bring beneficial economic and environmental results and provide a pathway for continuous improvement to all farms. If we act quickly and decisively, we will demonstrate leadership in the global market and answer demands for greater transparency and documented improvements in environmental impact. If we manage this transition collectively and allow all farms access to the resources they need, the dairy industry will be able to ensure the long-term opportunities for sustainability and resiliency of all dairy farms regardless of their size.

A New Initiative

Newtrient LLC, a company established by the 12 largest milk cooperatives representing nearly 20,000 dairy farmers to address the economic, environmental, and technological needs of the industry, has launched a new initiative, the Net Zero Project, to affect this transformational change. With the endorsement of USDEC, the Innovation Center for U.S. Dairy, the Global Dairy Platform and the National Milk Producers Federation, the Net Zero Project will demonstrate that dairy farming is integral to any solution purporting to address climate change, water quality, and water and food security. It will show how U.S. dairy can help feed a projected 9 billion people by 2050 all while minimizing its climate impact to "net zero."

Over the last several years, Newtrient and the Innovation Center for U.S. Dairy have worked to establish the scientific and on-the-ground technical knowledge required to voluntarily reduce dairy farms' environmental footprint. Over the past 10 years, the Innovation Center has brought together the collective action of the entire dairy sector together in a voluntary manner to address environmental and sustainability challenges. For example, Newtrient has developed scientific and economic models to quantify the economic and environmental benefits associated with selected dairy farm technologies and practices. Further, Newtrient has developed a catalogue that has evaluated the effectiveness, resilience and business prospects of over 200 manure management and handling technologies. The analysis, knowledge, and experience gained through these efforts suggest that the dairy industry could achieve net-zero emissions. The Net Zero Project is a significant step in translating the dairy community's research into on-the-ground results and achieving this aspirational goal.

The Net Zero Project will use demonstration farms to explore the combined impact of several of the most promising state of the art technologies and management practices. The project's objective is threefold: 1) to determine the feasibility of a net zero or net positive carbon footprint goal; 2) to analyze dairies' potential to recycle and prevent the loss of nutrients; and 3) to work toward carbon neutrality and minimized water quality impacts while preserving dairy's reputation, markets, and profitability. The Net Zero Project will address the obstacles – financial, technical or political – standing between the U.S. dairy sector and these goals by harnessing the collective energy of farmers, researchers, and industry. In doing so, it will establish itself as a large-scale solution to the world's environmental and food security challenges.

Demonstration Farms

This new demonstration farm initiative is part of a broader portfolio of science-based practices and resources available to dairy farms to achieve net-zero GHG emissions and improved water quality outcomes. These resources, which can be implemented individually or in concert with one another, are available to all farms regardless of size, geography, or management style. The role of the demonstration farms is to quickly identify and showcase technologies and management practices that will help farms achieve net-zero emissions and minimize their water quality impact. The goal is *not* to find a single, transformational technology. The goal is to highlight entire suites of practices and technologies, which are available to and economically viable for farms of varying sizes and geographies. Some solutions will only be applicable to small farms. Others will only be achievable with the scale of larger operations. Many will be size-neutral, such as improved genetics or feed management. The Net Zero Project recognizes the diversity of America's dairies and seeks to improve the environmental and economic sustainability of each in turn. Our aspirational goal for net-zero emissions will not be achieved by every farm individually, but rather, by the collective efforts of all farms, cooperatives, and processors.

We will initially establish 4-5 demonstration sites with existing commercial operations. Although the farms already exist, using them as laboratories for innovation won't come cheap. Each farm will be used to evaluate the systems approach of progressive genetics, advanced feed production and management, and innovative manure management required to achieve net zero emissions. We look forward to working with our friends at USDA to access the research expertise offered by ARS, ERS, and NIFA, and to leverage the grants available through NIFA and CIG to build out our prototype farms. We are also anticipating working with the Department of Energy, the Environmental Protection Agency, the Foundation for Food and Agriculture, and private philanthropists to help fund these initial 4-5 locations.

Through this project, we will demonstrate the industry's collective commitment to addressing the public's, consumers', and regulators' concern about our environmental footprint. We will show dairy farmers, cooperatives, and processors the potential pathways to increase their voluntary stewardship efforts and ensure the long term economic and environmental viability of their operations.

Moving from Demonstration to Implementation

The dairy sector has a long way to go to achieve our aspirations, but this initiative marks a monumental first step. The Net Zero Project demonstration farms will serve as a proof of concept. The research and analysis performed here will undergird the Project's other enterprise – improving farmer engagement. These steps are not sequential; improving farmer engagement can and should be constantly on our minds.

Many producers are already implementing practices to reduce their environmental footprint, and even more seek to do so, but are constrained financially. From a technical and financial standpoint, USDA plays a critical role in strengthening the viability of a farmer's operation. In the current farm economy, where milk prices prevent many farmers from even breaking even, USDA's role is even more important. Under my direction, USDA undertook research and developed a framework to help farmers, ranchers, and foresters to respond to climate change. The Building Blocks for Climate Smart Agriculture and Forestry guided the agency in its farmer engagement and placed a premium on producer-led adaptation and resilience. USDA must adopt a long-term outlook on farming and the rural economy which recognizes farms not only as producers of food and fiber, but also providers of energy and clean air and water.

The Farm Bill authorizes USDA to provide a variety of tools to engage producers. Currently, NRCS uses EQIP to provide \$90-100 million in cost share funds to dairy producers annually. The CIG and RCPP programs can play a large role in increasing the adoption of sustainable practices, too. But to achieve our goals, NRCS programs will have to be more fully funded and made more amenable to innovation. Congressional restrictions and agency interpretation place eligibility requirements on programs like CSP and create barriers for those wanting to adopt new technologies. For instance, we envision a Conservation Stewardship Program that could assist in the development and adoption of advanced feed management solutions on dairies. We are aware of feed additives that significantly reduce the methane emissions associated with enteric fermentation. These additives require FDA approval for widespread use, and while we aren't asking for a relaxation of the review process, we wish to see a prompt and expedient decision that prioritizes safety and efficacy. If the feed additives improve feed efficiency and animal welfare, they will be quickly adopted throughout the industry. If, on the other hand they bring

the producer no economic gain, then they should be considered for eligibility as part of NRCS's EQIP or CSP programs.

Feed additives are a fine example of sound regulatory policy making a difference. In addition to cost-sharing voluntary conservation efforts, USDA and partner agencies must modernize the regulatory review process for new technologies in order to attract additional investments. Federal funding will be required to establish the Net Zero Project's demonstration farms, but our goal is to work with policy makers to create an environment conducive to increased investments by farmers, technology providers, and those benefiting from their ecosystem services. Only then will these solutions scale, and only then will the current model for dairy production be revolutionized.

In short, we - the dairy sector, Congress, and USDA - need to rethink the way voluntary conservation is funded and delivered. Our struggling farm economy and the natural resources upon which we depend demand it. Federal funding for existing Farm Bill Conservation programs is, and will continue to be, critical to farmers who take on additional production risks for improved environmental outcomes. However, Congress and federal agencies must also modernize the regulatory review process, while maintaining its integrity, so that farmers and ranchers can access the technologies required for them to protect our environment. Congress and federal agencies must also set in place policies that recognize dairies' role in the provision of ecosystem services and incentivize the investments of farmers and other private entities to this end.

Engagement

We are undertaking this bold initiative in response to the domestic and global demand for transparency and environmental performance as additional attributes of safe and nutritious dairy products. We know that we can and will do better, but the work must start now. We also know that today's dire economic outlook makes this a difficult, perhaps even politically dangerous, time for the dairy sector to engage in this conversation. Yet, we remain optimistic that more profitable times are on the horizon, because the dairy farm of the future will not only provide milk, but also energy and ecosystem services. Through this project, we hope to demonstrate that carbon neutrality and minimized water quality impacts can be profitable for farms, and even monetized through ecosystem service crediting, and lay the groundwork for increased investment in voluntary conservation.

Our success will not be the result of legislation or regulation, but rather the result of hundreds of thousands of daily, weekly and annual independent, individual decisions made by tens of thousands of dairy producers. The magnitude of our net-zero goal is better understood if one considers the cycles of operating a dairy. Our goal will be achieved through successive seasons of breeding decisions and

lactation, representing multiple generations of cows, and several crop seasons worth of planting and harvesting decisions. The average farmer makes about 40 years of cropping, breeding, and management decisions. When considered in this light, achieving the net-zero goal will require the collective management decisions of several generations of dairy farmers, some of which are yet to be born. The groundwork for a carbon-neutral dairy sector already exists, but it must be further developed, nurtured, and cultivated. We have a commitment to stewardship and a crop of promising technologies and practices. What we need is quick and resolute action by Congress, USDA, and EPA to support producer-led conservation, and a series of demonstration farms to show farmers throughout the country how to proceed.

Some individual farms may not achieve net zero. Others may already be there and still others may go beyond that, to the point where they sequester, capture, and mitigate more greenhouse gases than they emit. The objective is to incentivize and account for each farmer's and processor's individual as part of an industry-wide commitment. The contributions to the goal will vary with each producer, each processor, each handler in the value chain, and that is appropriate if we are to recognize and respect the diversity of dairy sizes, production practices, and regional concerns.

Closing

Mr. Chairman, in closing I'd like to thank you for your dedication to strengthening rural America and the opportunity to speak about climate change and the agriculture sector's ability to mitigate its effects. I urge you to consider the Net Zero Project as an example for voluntary conservation and an innovative solution to our country's economic and environmental concerns. I look forward to working with you on these issues and welcome any questions you may have.