

Testimony of Jason Weller
Senior Director of Sustainability, Land O'Lakes SUSTAIN
Before the U.S. House Appropriations Agriculture, Rural Development, FDA & Related
Activities Subcommittee
April 10, 2019

Chairman Bishop, Ranking Member Fortenberry and Distinguished Members of the Subcommittee, I am Jason Weller, former Chief of the Natural Resources Conservation Service at USDA and currently Senior Director of Sustainability at Land O'Lakes SUSTAIN.

Every day, farmers, ranchers and private forest owners make stewardship decisions that impact over 1.4 billion acres of non-Federal rural lands – or over 70 percent of the landmass of the contiguous 48 states. If we care about the long-term ability of these working rural lands to continue to feed, clothe, and fuel the world while also ensuring a resilient environment that provides us high-quality and abundant natural resources, then it is in all of our interest to find collaborative and innovative approaches to help these private land managers be successful. The bottom line is this: On-farm conservation is not just good for the environment, it also supports a stronger rural economy through increased resiliency and profitability for farmers and ranchers.

Crucially, no one entity or sector has all the answers and capabilities to accomplish alone what is needed, not the public sector nor the private sector. But because of surging innovation and growing consumer interest in sustainability, I am more excited and optimistic about our future and path forward than I have ever been in my career. At Land O'Lakes, Inc. – the third largest farmer-owned cooperative in the country – we define agricultural sustainability as working with our farmers to protect soil, water, and air natural resources in a way that is economically viable. We're uniquely positioned to lead the way on this work as a "farmer-to-fork" cooperative that spans the value chain, with more than 3,600 members including dairy farmers, ag producers, local independent ag retailers and farm supply co-ops. Our network of member-owner ag retailers and local co-ops, who serve as farmers' trusted advisors, are especially critical to our delivery of new stewardship solutions, technology and innovation to the farm gate. In my role at Land O'Lakes, I work with a team of innovators supporting farmer-led stewardship. I am proud of what we've achieved and appreciate the opportunity to briefly share examples with the Subcommittee.

Today I would like to outline two key areas that I see as significant emerging opportunities:

1. Advancements in technology help farmers to target conservation with the best return to both their bottom line and the public's bottom line.
2. Growing consumer and marketplace interest in understanding how agricultural products are grown offers an opportunity to support agriculture and advance stewardship.

New Technology

While Silicon Valley and the automobile industry race to be the first to market with “driverless” cars and automated vehicles, farmers have been using auto-steer and satellite-driven tractors and combines for over 20 years. Innovation and technology have been at the core of agriculture for as long as we have been husbanding animals and selecting seeds. But what's exciting is the pace and degree of innovation that is now occurring in agriculture, that will now help us advance not just production, but also the stewardship of our natural resources.

The future of agricultural conservation is precision. Just as farmers use “precision agriculture” tools to optimize their production and minimize inefficiency, precision conservation tools and planning advice help farmers reduce “waste” in their production systems. Waste in the context of conservation refers to a wide range of issues, including lost top soil, organic matter, and fertilizers; excess irrigation water and farm equipment usage; and misplaced herbicides and pesticides. The availability of robust data, analytics and insights allow farmers and agricultural retailers to employ practices in a far more targeted and impactful way than ever before.

For instance, an analysis by USDA's Natural Resources Conservation Service (NRCS) of conservation adoption in the Western Lake Erie Basin estimated that a relatively small number of the acres in this large watershed have an outsized impact on water quality. In this case, just 25 percent of the cropland acres in this watershed are the source of 80 percent of sediment losses, 66 percent of the surface losses of phosphorus, and 59 percent of the surface losses of nitrogen. Of note, these losses are not occurring on 25 percent of the farms in the watershed or even 25 percent of the fields. These sediment and nutrient losses are occurring across the entire watershed on a micro scale, based on the diversity of soil types, topography, and management systems used by farmers. In a watershed with almost 4.9 million acres of cropland (a land area equivalent in size to the States of Connecticut and Delaware, combined), how do we help farmers understand where these losses are occurring on their farms and in their fields?

Thanks to precision conservation technology, farmers in the Western Lake Erie Basin and across the country now have a better look than ever before at where opportunities exist in their fields to maximize production and minimize environmental losses. And these precision conservation tools highlight for farmers the financial opportunities for different field management systems. The most effective conservation practices are those that have an economic benefit to the farm, either by increasing yield and revenue or eliminating waste. Often where a crop field is not profitable, that is also the portion of the field that is experiencing the greatest topsoil erosion or nutrient losses. By focusing on net profitability, these precision tools can help farmers achieve their business goals while also improving their stewardship of natural resources.

Truterra® Insights Engine

At Land O'Lakes, we're proud of our work to develop and deploy new ag tech for precision conservation. Our Truterra Insights Engine is a first-of-its-kind, interactive on-farm stewardship digital platform that will help both farmers advance their goals for stewardship and financial return-on-investment, and food companies measure sustainability progress. One of the biggest challenges in agricultural sustainability is the lack of comprehensive tools that can quantify results and demonstrate system-wide progress on conservation adoption and results. Truterra Insights Engine fills that critical need. It can bring together the value of stewardship practices with the agronomic expertise and technological capabilities of agricultural retailers to create field-customized insights for farmers. Today, 20 agricultural retailers across the Midwest, Western Canada, and in the Chesapeake Bay region are using the Truterra Insights Engine to help farmers identify opportunities on their farms to improve their profitability and increase their stewardship.

Land O'Lakes/CalBio Collaboration

Livestock farmers are also benefiting from new technology. For example, anaerobic digesters are a promising option to manage manure capturing methane and either combusting it for energy generation or processing it as a replacement for natural gas. In some cases, digesters are also opening new revenue streams for farmers, and even helping them to establish regulatory certainty.

Land O'Lakes is leaning in on driving innovative stewardship solutions for our dairy members. In June 2018, Land O'Lakes and California Bioenergy LLC (CalBio) launched a first-

of-its-kind collaboration to support the financing, installation and management of on-farm methane digesters to generate renewable compressed natural gas (“R-CNG”) fuel in California – creating an innovative farmer-led model for “barn to biogas” that can shape nationwide solutions to agricultural methane emissions reduction and unlock new revenue streams for dairy farmers.

As one of the nation’s largest agricultural cooperatives, Land O’Lakes is uniquely positioned to tap into the potential power of California dairy farmers to generate renewable energy from farm waste. CalBio provides the expertise needed to develop, execute and manage on-farm methane digesters, as well as market R-CNG credits in California, in a manner that is cost effective for farmers. This effort with CalBio will also help Land O’Lakes dairy member-owners in California to meet new state standards that call for a 40 percent reduction in dairy and livestock manure-related methane emissions from 2013 levels by 2030.

Food System Partnerships

According to Nielsen, now nearly half of U.S. consumers say they would definitely or probably change their consumption habits to reduce their impact on the environment. And the consumers are voting with their wallets: In 2018, consumers spent almost \$129 billion on sustainable consumer goods (up 20 percent from only 2015). Recent surveys support the above findings, estimating that 83 percent of consumers consider sustainability when buying food, and 66 percent of consumers say it’s important that their food is produced in a sustainable way. And a consumer food survey by Deloitte revealed that this growing interest in agricultural sustainability holds across all age, income, and U.S. regional demographics.

No longer a fad, agricultural sustainability is a growing market force. As a result of this expanding consumer interest, the food system is gearing up to meet new marketplace demand. From global restaurant chains to grocery retailers, from consumer packaged goods companies to food ingredient processors, both iconic brands and new startups are exploring ways to better connect with consumers on how their products support environmental quality.

This new marketplace provides an exciting opportunity for agriculture. As consumers desire a more authentic experience and greater understanding into how their food is produced, farmers and ranchers have a new audience to share their stories and communicate as to how they steward the environment. This new marketplace also offers a channel to connect consumers and farmers through the food value chain, ultimately helping incentivize good soil and water management.

Food System Partnership in the Chesapeake Bay Region

Land O'Lakes has sought to build and expand this new agricultural sustainability marketplace to drive measurable conservation progress. In 2018, Campbell Soup Company, Environmental Defense Fund and Land O'Lakes launched a project to test a value chain approach to support sustainable agriculture on farms in the Chesapeake Bay region through improved environmental and farm profitability outcomes. With the leadership and on-the-ground work of The Mill, an agricultural retailer headquartered in Bel Air, Maryland, we're using the Truterra Insights Engine to support agriculture while advancing soil health and water quality goals in the region – benchmarking farmers' stewardship across cropland acres that grow wheat that ultimately ends up in Pepperidge Farm Goldfish Crackers.

The initial pilot includes 10,000 acres across 228 farms in Maryland and Pennsylvania, and we have learned a great deal. For instance, a large majority of the crop fields benefit from practices to improve soil health. Over 90 percent of the acres use no-till crop residue management and about 55 percent of the acres use cover crops, reducing soil erosion and improving soil fertility and quality. We also now know that farmers use effective strategies to reduce the risk of losing valuable nutrients from their fields. 50 percent of assessed acres are using variable rate technology to help farmers precisely apply fertilizers at the right rate and locations.

This project uncovered potential opportunities, too. For instance, only 25 percent of the fertilizer applications on these acres used products like fertilizer stabilizers and advanced nutrient modeling technology to keep nutrients on the fields and reduce the risks of loss to the atmosphere and water resources.

Conclusion

I commend NRCS for its leadership and for being on the forefront of these opportunities to advance innovative solutions for conservation. During today's hearing, I look forward to further highlighting examples of how Land O'Lakes and our network of agricultural retailers and conservation partners are contributing towards delivering on the promise new conservation technology and food system partnerships.

Mr. Chairman, Members of the Subcommittee, I truly appreciate the opportunity to be here today to discuss the work agriculture is doing to provide solutions that benefit both the farm economy and the environment.