



Food for Thought: A Call to Action on the Future of Sustainable Agriculture

Report from the CEO Council on
Sustainability and Innovation

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BIPARTISAN POLICY CENTER

CEO Council on Sustainability and Innovation

John A. Bryant

Chairman and Chief Executive Officer
Kellogg Company

James C. Collins Jr.

Executive Vice President
DuPont

Jeffrey M. Ettinger

Chairman and Chief Executive Officer
Hormel Foods

Chris Policinski

President and Chief Executive Officer
Land O'Lakes

Jeff Simmons

President
Elanco



Bipartisan Policy Center

Dan Glickman

Senior Fellow

Former Agriculture Secretary

Julie Anderson

Senior Vice President

Lisel Loy

Vice President of Programs

Director, Prevention Initiative

Hannah Martin

Policy Analyst

Prevention Initiative

Caitlin Krutsick

Project Assistant

Prevention Initiative

Debbie Reed

Consultant

Laura Sands

Consultant

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Table of Contents

5	Call to Action
7	Executive Summary
10	CEO Bios and Company Profiles
15	Background
16	Where We Are Today
18	Sustainable Productivity
27	Transparency
34	Collaborative Decision Making
39	Conclusion
40	Endnotes
41	Appendix

Call to Action



CEO Council members are focused on advancing innovative sustainability strategies that support three action areas:

- **Sustainable Productivity**
- **Transparency**
- **Collaborative Decision Making Across the Food and Agriculture Supply Chain**

The CEO Council defines sustainable food and agriculture supply chains as encompassing the three pillars of sustainability: social, economic, and environmental. Sustainable food and agriculture production preserves and protects human, animal, and natural resource capital today and in the future. In order to meet global population growth, anticipated to be 9.7 billion by 2050,

CEO Council members call on companies across the food and agriculture supply chain to join with them to embed the following sustainable practices as part of their business models.

Our companies commit to the following three actions, followed by specific opportunities for collective action:

1. Improve livelihoods, productivity, and resiliency through more sustainable practices.

- a. Create a company culture of sustainability through CEO leadership and in-house employee-training programs.
- b. Use science to inform our actions, decisions, practices, and technologies to continue gains in efficiency and productivity, cut food loss and waste, and improve environmental benefits and natural resource conservation.

- c. Use data and create support tools to enhance farm-based decision making, increase sustainability and resiliency, and enhance livelihoods.
- d. Work to support the United Nations Sustainable Development Goals.

2. Engage customers and consumers through transparent communications around food and agriculture.

- a. Inform public discussions about environmental and social impacts and benefits of sustainable food and agriculture systems.
- b. Improve consumer access to information about food and agricultural sustainability practices.
- c. Develop partnerships and create programs to measure progress and provide transparency through on-farm data and stories.
- d. Inform customers and consumers about the environmental, social, and financial cost of food waste and encourage actions to reduce waste.

3. Increase collaborative decision making across the food and agriculture supply chain.

- a. Promote public-private partnerships and collaborative decisions to help achieve sustainability and resilience across the supply chain.
- b. Work with certified crop advisors and farmer-facing organizations to deliver actionable opportunities that help farmers improve resiliency to climate change.
- c. Support increased public funding for sustainable-agriculture research.

Executive Summary



Overview

The United States enjoys one of the most abundant, diverse, safe, and affordable food supplies in the world. American consumers on average spend just 9.9 percent of their income on food.^a The ability to produce and deliver a diverse and economical food supply is due in large part to a history of U.S. innovation and ingenuity that begins on the farm and extends through the food and agriculture value chain. With global population growth anticipated to reach 9.7 billion by 2050, competition for land use will intensify and finite natural resources will increasingly be strained. According to the Global Harvest Initiative, agricultural yields must double by 2050 to meet population demands.¹

^a According to USDA Economic Research Service, the average share of per capita income spent on food fell from 17.5 percent in 1960 to 9.9 percent in 2013.

This population growth is happening in the face of slowing productivity improvements in developed countries and productivity stagnation in the lowest-income countries.

Food and agriculture producers are increasingly challenged to minimize environmental impacts, use fewer resources, and continue to increase efficiency and productivity while reducing costs. The population and resource challenges are exacerbated by changing climate and weather extremes as well as water scarcity, which further strain global food and agriculture supply chains. There is a clear need to produce and deliver enough food for a growing population while addressing local environmental issues, like soil health and water quality, and mitigating and adapting to climate change. To address these complex problems

and meet increased global demands for food, governments at all levels must work collaboratively with all stakeholders in the food and agriculture value chain, including nongovernmental organizations.

The CEO Council on Sustainability and Innovation (the Council) recognizes that the U.S. food and agriculture industry has a long record of innovation and sustainability. But as these challenges evolve, the industry can and must do more to address food security, increase resilience of food and agriculture systems, and improve sustainability. Through collective actions, continuous advances in innovation, and more collaborative decision making, the Council is working together to share concrete successes to inspire other companies across the food supply chain to take action.

Sustainability Defined

The Council defines sustainable food and agriculture supply chains as encompassing the three pillars of sustainability: social, economic, and environmental. Sustainable food and agriculture production preserves and protects human, animal, and natural resource capital today and in the future. Through our collective actions, we embrace these principles of sustainability to meet the needs of the present without compromising resources for future generations.

Global Backdrop

A recent report by the World Economic Forum² on the most significant long-term global risks facing all nations highlights concerns about food security and agricultural productivity, particularly in the face of climate change, extreme weather events, water crises linked to water scarcity, and population growth. The report also notes that vulnerability to climate change threatens not just low-income and climate-vulnerable countries, but G-20 countries, including the United States and other large agricultural producers with social, economic, and environmental impacts and related food security risks.

The world's governments are grappling with many of the same issues—climate change, water scarcity, and food insecurity—and through various international forums have identified the need for collective global action. Agreement on agendas and roadmaps for action related to sustainable development and greenhouse gas emission reductions were achieved in 2015 by a majority of the world's countries. The 193 member states of the United Nations (U.N.) unanimously adopted a 2030 Agenda for Sustainable Development in 2015, including 17 Sustainable Development Goals (SDGs).

The Council embraces the intent of the SDGs and supports their realization. Food and agriculture are central to many of the SDGs and are essential to healthy lives and people who are free from hunger and have economic stability. Improved health, well-being, and livelihoods also depend on reduced environmental impacts and natural resource conservation and protection, underscoring the importance of sustainable food and agriculture supply chains.

Also in 2015, 196 world leaders adopted the Paris Agreement during negotiations of the U.N. Framework Convention on Climate Change (UNFCCC) at the 21st Conference of the Parties (COP21). The COP21 Paris Agreement defines an international framework to respond to the threat of climate change and will require significant additional actions by countries to achieve this goal. The presence and participation of major companies and the private sector in the food and agriculture supply chain at COP21 signaled the high level of commitment and dedication to join with public partners and civil society to mitigate and adapt to climate change.

The CEO Council on Sustainability and Innovation

As CEOs of global companies in the food and agriculture value chain, we have come together in recognition that collective efforts are required to address these urgent and increasing threats to food security. The magnitude of the global challenges we face demands our immediate attention; by working together, we can accomplish significantly more than any of us can do on our own. We are committed to instilling sustainability, innovation, and collaborative decision making into our corporate cultures and supply chains.

The following are members of the CEO Council on Sustainability and Innovation:

- John A. Bryant, Chairman and Chief Executive Officer, Kellogg Company
- James C. Collins Jr., Executive Vice President, DuPont
- Jeffrey M. Ettinger, Chairman and Chief Executive Officer, Hormel Foods
- Chris Policinski, President and Chief Executive Officer, Land O'Lakes
- Jeff Simmons, President, Elanco

In addition to sharing our own activities, we call on leaders from other major food and agribusinesses to join us in advancing innovative sustainability strategies in three action areas: sustainable productivity, transparency, and collaborative decision making. We believe these action areas provide a framework to help industry, working in partnership with other sectors, to sustainably improve food and agriculture productivity while supporting global initiatives, like the U.N. Sustainable Development Goals and the UNFCCC Paris Accords.

This report highlights concrete actions our companies are taking to continuously address new and changing threats to food security and sustainability. The objective of sharing these success stories is to inspire other companies to take bold actions to boost innovation and foster public-private partnerships. Sustainability is a journey brought to life through action and partnership, and we hope others in the food and agriculture supply chain will join us in this critical endeavor.

CEO Bios and Company Profiles



John A. Bryant

MEMBER, CEO COUNCIL ON SUSTAINABILITY AND INNOVATION

CHAIRMAN AND CHIEF EXECUTIVE OFFICER KELLOGG COMPANY

John Bryant has been chairman of the board of Kellogg Company since July 1, 2014. In this role, he also chairs the executive committee of the board. Bryant was named president and chief executive officer in January 2011. He has been a member of Kellogg Company's board of directors since July 2010. Bryant joined Kellogg Company in 1998 and has held a variety of roles, including chief financial officer; president, North America; president, international; and chief operating officer before becoming chief executive officer. Bryant serves as a trustee of the W.K. Kellogg Foundation Trust and is also on the board of directors for Catalyst, the Consumer Goods Forum, and Macy's, Inc. Mr. Bryant received a degree from the Australian National University and an MBA from the Wharton School of the University of Pennsylvania.

ABOUT KELLOGG COMPANY

At Kellogg Company (NYSE: K), we strive to make foods people love. This includes our beloved brands—Kellogg's®, Keebler®, Special K®, Pringles®, Kellogg's Frosted Flakes®, Pop-Tarts®, Kellogg's Corn Flakes®, Rice Krispies®, Cheez-It®, Eggo®, Mini-Wheats®, and more—that nourish families so they can flourish and thrive. With 2015 sales of \$13.5 billion and more than 1,600 foods, Kellogg is the world's leading cereal company; second-largest producer of cookies, crackers, and savory snacks; and a leading North American frozen foods company. Through our Breakfasts for Better Days™ global hunger initiative, we've provided more than 1.4 billion servings of cereal and snacks to children and families in need around the world. To learn more, visit www.kelloggcompany.com or follow us on Twitter @KelloggCompany, YouTube, and on *Social K*, our corporate blog.



James C. Collins Jr.

MEMBER, CEO COUNCIL ON SUSTAINABILITY AND INNOVATION

EXECUTIVE VICE PRESIDENT DUPONT

James C. Collins Jr. is executive vice president at DuPont. He has responsibility for the DuPont Agriculture segment: DuPont Pioneer and Crop Protection. He joined DuPont as an engineer in 1984 and began his career in DuPont Manufacturing. In 1993, he joined the Agriculture Sales and Marketing Group as a sales representative and product manager. Since 2004, Collins has served in top leadership roles across numerous divisions of DuPont including DuPont Crop Protection, Acquisition and Integration of Danisco, DuPont Industrial Biosciences, Performance Materials, and Electronics and Communications. He was named to the position of executive vice president in December 2014. He currently serves on the board of trustees of the Hagley Museum and Library and on the technical advisory committee for the National Renewable Energy Laboratory. A supporter of youth education and leadership, Collins serves on the executive board of the Chester County Council Boy Scouts of America. Mr. Collins studied at Christian Brothers College in Memphis, Tenn., and received his B.S. in Chemical Engineering. He also received his MBA from the University of Delaware in Marketing.

ABOUT DUPONT

DuPont (NYSE: DD) has been bringing world-class science and engineering to the global marketplace in the form of innovative products, materials, and services since 1802. The company believes that by collaborating with customers, governments, nongovernmental organizations, and thought leaders, it can help find solutions to such global challenges as providing enough healthy food for people everywhere, decreasing dependence on fossil fuels, and protecting life and the environment. For additional information about DuPont and its commitment to inclusive innovation, please visit www.dupont.com.



Jeffrey M. Ettinger

MEMBER, CEO COUNCIL ON SUSTAINABILITY AND INNOVATION

CHAIRMAN AND CHIEF EXECUTIVE OFFICER HORMEL FOODS

Jeffrey M. Ettinger is chairman of the board and chief executive officer at Hormel Foods. Ettinger joined Hormel Foods in 1989 and has served in a variety of roles, including senior attorney, product manager for Hormel® chili products, and treasurer. In 1999, he was named president of Jennie-O Turkey Store—the largest subsidiary of Hormel Foods, based in Willmar, Minnesota. He was appointed CEO in 2005 and continues to oversee all corporate administrative functions, including finance, mergers and acquisitions, legal, research and development, supply chain, and human resources. He serves on the boards of the Toro Company, Ecolab, North American Meat Institute, Grocery Manufacturers Association, the Hormel Foundation, the Hormel Institute, and the Minnesota Business Partnership. Ettinger is a native of Pasadena, Calif., and holds a Bachelor of Arts degree and law degree from the University of California, Los Angeles. He served as law clerk for the Honorable Arthur Alarcón, U.S. Court of Appeals, 9th Circuit. Ettinger attended the Program for Management Development at Harvard Business School.

ABOUT HORMEL FOODS

Hormel Foods Corporation, based in Austin, Minnesota, is a multinational manufacturer and marketer of consumer-branded food and meat products, many of which are among the best known and trusted in the food industry. Hormel Foods—which leverages its extensive expertise, innovation, and high competencies in pork and turkey processing and marketing to bring branded, value-added products to the global marketplace—celebrates its 125th anniversary in 2016. The company is a member of the Standard & Poor's 500 Index, S&P 500 Dividend Aristocrats, and was named one of “The 100 Best Corporate Citizens” by Corporate Responsibility Magazine for the seventh year in a row. Hormel Foods also received a perfect score on the 2016 Human Rights Campaign's Corporate Equality Index, was recognized on the 2015 Best for Vets Employers List by *Military Times*, and was named one of 2015's 40 Best Companies for Leaders by *Chief Executive* magazine. The company enjoys a strong reputation among consumers, retail grocers, foodservice, and industrial customers for products highly regarded for quality, taste, nutrition, convenience, and value. For more information, visit www.hormelfoods.com.



Chris Policinski

MEMBER, CEO COUNCIL ON SUSTAINABILITY AND INNOVATION

PRESIDENT AND CHIEF EXECUTIVE OFFICER LAND O'LAKES

Chris Policinski has more than 35 years of experience in the food industry. He joined Land O'Lakes, Inc. in 1997 and was appointed president and CEO in 2005. Prior to joining Land O'Lakes, he held leadership positions with Kraft General Foods, Bristol-Myers Squibb, and the Pillsbury Company. Policinski serves on the boards of several industry groups, including the Grocery Manufacturers Association, the U.S. Global Leadership Coalition, and the National Council of Farmer Cooperatives, and he is involved in local community boards, including as a trustee of the University of Minnesota Foundation. Policinski is also a member of the boards of Xcel Energy and Hormel Foods. Policinski earned his MBA from New York University and his undergraduate degree from the University of Notre Dame.

ABOUT LAND O'LAKES

Land O'Lakes, Inc., one of America's premier agribusiness and food companies, is a member-owned cooperative with industry-leading operations that span the spectrum from agricultural production to consumer foods. With 2015 annual sales of \$13 billion, Land O'Lakes is one of the nation's largest cooperatives, ranking 203 on the Fortune 500. Building on a legacy of more than 94 years of operation, Land O'Lakes today operates some of the most respected brands in agribusiness and food production, including LAND O'LAKES® Dairy Foods, Purina Animal Nutrition, and Winfield Solutions. The company does business in all 50 states and more than 60 countries. The Land O'Lakes, Inc., corporate headquarters are located in Arden Hills, Minnesota. www.landolakesinc.com.



Jeff Simmons

MEMBER, CEO COUNCIL ON SUSTAINABILITY AND INNOVATION

PRESIDENT ELANCO

Jeff Simmons has served as president of Elanco, the animal health division of Eli Lilly and Company (NYSE:LLY), since 2008. As part of this role, he is also a senior vice president and executive officer of Lilly. In more than two decades with the company, Simmons has held a number of sales, marketing, and management positions, in the United States and abroad, including serving as country director in Brazil and director for West Europe. These international experiences offered Simmons a new perspective on food and agriculture and gave him a deep conviction about the need for solutions to global food security. Simmons has become an active advocate for the role technology plays in sustainable, efficient production of safe, affordable meat, dairy, and eggs. He has published white papers on this topic, most recently, the ENOUGH report, and actively engages in food-security discussions on Twitter @JeffSimmons2050. Simmons has held numerous leadership positions, including past board member of Chiquita Brands and former president of the International Federation of Animal Health. Simmons grew up on a vineyard in upstate New York and holds a bachelor's degree in agricultural economics from Cornell University.

ABOUT ELANCO

At Elanco, we provide those who raise and care for animals with solutions that empower them to advance a vision of food and companionship that enriches life. We have a responsibility to be the steward of a healthy animal, providing innovations, turning data into knowledge, and supporting practices that improve and protect animal health. With a growing global population, the need to meet the demand for safe, affordable food for all also climbs. Pets are playing increasingly important parts of our families. Helping them live longer, healthier, higher-quality lives is more important than ever. We understand the powerful role healthy animals play in making lives better. Since our start at Eli Lilly and Company in 1954, Elanco has been working to empower our customers—from veterinarians to food producers to all those concerned with animal health—to address these global challenges. We strive to develop and deliver products safe for consumers, animals, and the environment through innovation and a shared vision to enrich the lives of people worldwide. Elanco also has a commitment to end hunger for 100,000 families globally through a partnership with Heifer International, and breaking the cycle of hunger in 100 communities around the globe.

Background



The 21st century has ushered in remarkable events that have touched every corner of the globe. The world has seen new feats of space exploration, astounding technological developments in computing and communications, and a new era of global travel and commerce—but the world has also seen war and devastation from natural causes. Food production and availability in some areas of the world has flourished and the average human lifespan has increased. In other areas, poverty and hunger is widespread and regular access to food and medical attention remains limited and inconsistent.

Agricultural productivity directly contributes to food security and economic growth. The Green Revolution of the last century significantly increased agricultural production globally. Advances in fertilizers, pesticides, cropping systems, and plant breeding led

to increased crop productivity and reduced losses to pests and diseases. Increased productivity also reduced land-conversion pressures by requiring fewer acres to be converted for food production. The Green Revolution created more efficient food production systems to feed the growing population of the world, overcoming predictions that food production would be unable to fully support this growth without significant additional conversion of forested and natural lands for crop and animal production.

Global population growth from 1960 to the present more than doubled—from approximately 2.9 billion to more than seven billion people. During this period, global agricultural production succeeded in meeting the demands of population and income growth by almost tripling. While poverty and hunger still exist, the proportion of people suffering from hunger has dropped by 50 percent since

the 1960s, from more than one in three people to one in six, even while the world's population doubled.³

But there have been some drawbacks as well. Green Revolution advances had some unintended and unforeseen consequences that have become apparent over time. These include soil erosion due to new land preparation and harvesting techniques and equipment, leaching of fertilizers and pesticides into surrounding waters, and increased use of irrigation from aquifers putting pressure on water supplies. Faced with these impacts, the public and private sectors have been working together to sustainably address issues of water quality and quantity, enhanced nutrient utilization by plants and feed efficiency for livestock, and the development of targeted agronomic practices and delivery systems that increase the efficacy and uptake of fertilizers, pesticides, and herbicides and that reduce impacts to the environment.

Our companies are continually innovating to ensure productivity increases, economic viability, worker health, community vitality and well-being, and good environmental outcomes. All actors in the agricultural supply chain—from farmers and ranchers to consumer-facing food companies—recognize the value of stewardship at the farm and beyond, and all are collectively working to improve the sustainability of the supply chain's footprints. The successes of the last century in many ways highlight what is possible from these collective achievements, but the dawn of the 21st century has brought complex new challenges as well.

Global population growth is straining the finite natural resources of the planet at the same time that the planet is experiencing climate change and severe weather events. A growing middle class in many areas of the world is seeking more animal protein in their diets, further straining natural resources.⁴ For our companies, the challenge to feed and nourish the growing populace is great. A collective response will benefit from significant advances

in technology and communications, but climate and weather variability will exacerbate scarcity and access problems that even the best planning may not fully equip us to overcome.

The Council recognizes that the U.S. food and agriculture industry has a long record of innovation and sustainability. But as these challenges evolve, the industry can and must do more to address food security, increase resilience of food and agriculture systems, and improve sustainability. Through collective actions, continuous advances in innovation, and more collaborative decision making, the Council is working together to share concrete successes to inspire other companies across the food supply chain to take action.

Where We Are Today

Each company in the Council recognizes that the industry faces a unique set of circumstances that demand not just continued progress in sustainable food and agricultural production, but a new level of effort and innovation.

We are proud of our companies' histories—our ability to deliver the kinds of high-quality, safe, affordable, nutritious food that customers desire and our ability to respond to the changing needs and demands of families, lifestyles, and society. We embrace the significant interest of our customers and consumers in knowing more about their food and how it is produced. We welcome greater interactions and transparency to share our innovation and sustainability stories with our consumers and customers. By engaging in a constructive and productive dialogue with consumers and customers, we hope to better articulate our sustainability efforts and commitments to do even more in the future to improve the sustainability of global food and agriculture through our individual and collective actions.

As we respond to external challenges, it is our hope that this report will inspire other companies to join us in increased collaboration, communication, and innovation as we strive to expand our food and agriculture sustainability efforts. Through our collective and

shared efforts, we can scale what might otherwise seem like monumental obstacles, and learn from each other in the process.

As members of the Council, our companies have assessed strategies and best practices for meeting future demands and for achieving sustainability across the span and breadth of our global supply chains. This document shares some of these strategies and practices, with the intent to engage others in the food and agriculture supply and value chains. We hope the information will help others learn from our experiences and that we in turn can learn from others, including all partners and stakeholders in food and agriculture supply chains, including our customers and consumers. By doing so, we hope to embed the concepts and realities of practices that foster continuous improvement into supply chains so that we can more rapidly replicate and scale sustainable outcomes.

This report is divided into three sections reflecting the action areas that Council members are focused on to advance innovative sustainability strategies:

- **Sustainable Productivity**
- **Transparency**
- **Collaborative Decision Making**

Action Area 1 – Sustainable Productivity



Improving livelihoods, productivity, and resiliency through more sustainable practices

- Create a company culture of sustainability through CEO leadership and in-house employee-training programs.
- Use science to inform our actions, decisions, practices, and technologies to continue gains in efficiency and productivity, cut food loss and waste, and improve environmental benefits and natural resource conservation.
- Use data and create support tools to enhance farm-based decision making, increase sustainability and resiliency, and enhance livelihoods.
- Work to support the U.N. Sustainable Development Goals.

Achieving sustainable productivity is critical to our industry's long-term success, and more must be done to address this challenge. Global commerce has increased significantly in past decades, natural resources are being utilized at unsustainable rates, and many new and emerging risks exhibit regional differences that demand differentiated responses.

The risks are complex and overlapping; for instance, population growth is anticipated to be highest in those areas experiencing the greatest impacts from climate change. Very often these are developing countries already challenged by food security, water scarcity, and poverty. But the impacts will also increasingly challenge the abilities of developed nations to accommodate population growth, climate change, water quality, and water-scarcity issues, and increase strains on soil health, natural resources, biodiversity, and other important environmental and health indicators.

To achieve sustainability in the long-term, we must work together to leverage resources, knowledge, and impacts. Everyone in the supply chain must be engaged.

In this section, we highlight examples that our companies have undertaken and will continue to develop to sustainably increase productivity while improving the livelihoods of people and communities across the supply chain. Invariably, increased sustainability leads to increased resiliency to many of the same challenges we are striving to address.

Create a company culture of sustainability through CEO leadership and in-house employee-training programs.

As CEOs with a strong commitment to sustainability, we are working to ensure that sustainability is a core part of our companies' missions and culture. Our companies have adopted

^b See Appendix 1 for a complete list of sustainability initiatives our companies are engaged in.

ambitious sustainability commitments that we recognize can only be attained with the help of our entire workforce and all actors in our supply chains. By embedding sustainability into our corporate cultures, we are raising the collective consciousness of our employees about what sustainability is, why it is important, and how each of us can contribute to sustainable outcomes. And by communicating with and including our stakeholders and customers, we are both amplifying and extending the collective reach of our efforts.

As an example, Hormel Foods has embedded corporate responsibility into the company's mission, vision, and values through a platform called Our Way. This platform includes the company's commitment to its employees, consumers, philanthropic efforts, the environment, and communities. Training programs, such as the company's biennial Environmental Engineering Conference, further embed the culture of sustainability. The purpose of the conference is to celebrate accomplishments while focusing on the advancement of environmental programs that exceed internal and external stakeholder expectations. In addition to environmental engineers from across the company, company leaders attend and participate.

Our collective engagement in the Council is just one example of many sustainability initiatives and ventures in which we participate. Some others include the Consumer Goods Forum, the Field to Market: The Alliance for Sustainable Agriculture, the Sustainability Consortium, the Innovation Center for U.S. Dairy, Dairy Sustainability Alliance, and the World Business Council on Sustainable Development: Climate Smart Agriculture.^b

To continuously improve and to exceed stakeholder expectations for sustainability, we commit to continue to participate and contribute to sustainability initiatives that deliver real progress and to which we can substantially contribute. These initiatives must ultimately meet the needs of our consumers and customers, as well as the needs of future generations.

Use science to inform our actions, decisions, practices, and technologies to continue gains in efficiency and productivity, cut food loss and waste, and improve environmental benefits and natural resource conservation.

We are reducing our environmental footprints to minimize the impact of our companies and our supply chains on the planet and on natural resource utilization. We are also developing solutions and innovations to help our customers and supply chains replicate these efforts and reduce their own environmental footprints. Our companies have set ambitious goals to reduce energy consumption and use, and to reduce greenhouse gas (GHG) emissions. We are also working to reduce water use associated with our operations and to improve water-quality impacts, and we are striving to minimize food loss, food waste, and product packaging. To ensure that we are meeting these goals, we have adopted metrics to measure our progress and regularly report our successes.

For example, in some of our own buildings and for our customers and supply chains, we have developed technologies and materials to replace nonrenewable energy with energy from renewable sources, and we have improved efficiency by optimizing energy generation and distribution at our facilities. Additionally, we have set ambitious targets to continue reducing GHG emissions within our own operations and from our suppliers.

For the agricultural sector, we help farmers and ranchers produce more food with fewer inputs and reduced GHG footprints, and we engage in collaborative partnerships to promote programs and practices to increase sustainable outcomes. Innovative irrigation practices and technologies, integrated pest management, feed efficiency, and improved animal care and genetics have increased productivity while utilizing less water, less energy, and fewer inputs. Water-efficiency improvements and recycling have dramatically reduced water consumption across our operations.

As we deploy these sustainability measures across our supply chains, we transfer knowledge and enable their adoption on a global basis, thereby helping to achieve our goals. We commit to continuously improve on these measures and actions in the future as we learn more from each other and as we face new challenges and opportunities yet to emerge.

WINFIELD U.S., A DIVISION OF LAND O'LAKES INC., PARTNERSHIPS AND AG TECH TOOLS HELP FARMERS BECOME GOOD STEWARDS OF THE LAND

Farmers in the Midwest face a tough challenge: continuing to increase productivity and crop yields while preserving and protecting soil and water resources. As a farmer-owned cooperative, Land O'Lakes, Inc., has a unique obligation to help our customers—who are also our owners—be sustainable. It's in our DNA to help growers optimize production while reducing the impacts of agriculture on the environment.

Winfield U.S., our leading provider of seed, crop-protection products, and agronomic expertise, is bringing new science to precision agriculture and conservation planning through a variety of partnerships with our member cooperatives, government, and nongovernmental organizations as well as leveraging our investments in ag technology. These include precision ag tools that assess crop growth and development, monitor crop health with satellite imagery, provide access to the latest crop- and soil-modeling tools, and advise growers making in-season adjustments to their management plans.

Winfield U.S. is engaged in two public-private partnerships under the U.S. Department of Agriculture (USDA), National Resource Conservation Service and Regional Conservation Partnership Program, which received funding through the 2014 Farm Bill. This collaboration will provide farmers in Iowa and Indiana with financial, educational, and agronomic resources as they strive to make critical improvements in water quality.

In Indiana, Winfield U.S. is partnering with the Nature Conservancy, Conservation Technology Information Center, Field to Market: The Alliance for Sustainable Agriculture (FTM), and Ceres Solutions, a Land O'Lakes member cooperative, to protect water and soil quality in the Big Pine Watershed. Ceres Solutions members touch a large part of the 209,000 acres of Big Pine Watershed land. To reduce their environmental impact, members will work with Ceres Solutions and Winfield U.S. employees to implement a combination of best practices, including nutrient management and planting cover crops. Ceres Solutions agronomists will use Winfield's leading

data-collection and agronomic decision-making tools to inform nutrient-management plans and to improve nutrient-use efficiency.

As members of FTM, Land O'Lakes and Winfield U.S. have front-row seats to emerging sustainability tools, including FTM's Fieldprint® Calculator. The Big Pine Watershed project will also incorporate use of the FTM Fieldprint Calculator to measure for eight sustainability metrics at the field level, including water quality and soil conservation.

While improving soil health and water quality are important goals for Land O'Lakes and Winfield U.S., we are also working to promote and protect pollinators and pollinator habitats across the United States. Nearly one out of every three bites of food in Americans' diets depend on pollinators. Winfield U.S. is educating farmers and their agronomic advisors on best management practices that reduce the chance for incidental pollinator exposure to crop-protection products both at planting and during the cropping season. We are actively engaged in honeybee health research and nutrition research through our Purina division, and we have joined with beekeepers, growers, researchers, and others as founding members of the Honey Bee Health Coalition. The coalition was formed to improve the health of honeybees, as they are critical participants in the food and agricultural production system.

We also are part of the Monarch Collaborative, which is working to identify how partnerships in the farming and ranching communities can support and enhance habitats for a sustainable monarch population. Winfield U.S. has included pollinator- and/or butterfly-friendly plants in our community garden plots and will be including them at our company facilities as well to encourage habitat protection and pollinator reproduction.

Land O'Lakes and Winfield U.S., through strategic partnerships and using state-of-the-art ag-technology tools, will continue working to help our farmers protect an ever-changing planet, just as they always have.

ELANCO IMPROVES DAIRY PRODUCTIVITY

By 2050, the demand for protein will rise by 60 percent as the global population swells to more than nine billion. But even now, protein production is not keeping up with global nutrition demands.

To meet demand sustainably, we have to place a premium on the well-being of animals. With new animal diseases emerging around the globe and a climate that is becoming more volatile, animals are experiencing more stress, leading to an increase in health issues that diminish productivity and increase environmental impacts.

Simple innovations like improving water and feed quality or better controlling animal diseases that improve herd health would make a significant difference in many countries. For example, utilizing animal health products that control mastitis, a disease responsible for about a 3 to 4 percent decrease in milk yield losses each year, will ensure that cows remain in production—which is critical to reducing environmental impacts per each dairy serving. But while dairy productivity has doubled in the past 50 years, it is not keeping pace with a growing global population and demand. We now have 14 percent less milk per person than we did 50 years ago. Based on our current productivity trends, by 2050 nearly half the population, or 4.5 billion people, won't be able to meet their daily dairy nutrition needs.

On the current path—with the same productivity and cow-herd growth rates—the planet would need to have almost 40 million more dairy cows in 2050 to meet global needs. Without modern production technologies that improve global herd health and productivity, Elanco estimates the world would need

104 million more cows to meet projected demand. Using all resources to improve herd health, though, can fill the gap and freeze the footprint of milk production.

Today, on average, cows around the world produce about two gallons, each day. In high-producing countries, they produce seven to eight gallons or more. Closing the global gap is within reach. All it takes to meet this growing global demand is for every cow to increase her annual production by 4.75 ounces a day. That would mean the world could avoid the need for 66 million cows in the future.

That could mean:

- 747 million fewer tons per year of global dairy feed—enough to fill the Empire State Building 6,053 times.
- 388 million fewer acres of land—roughly as big as the state of Alaska.
- 618 billion gallons less water each year—enough to supply the annual domestic in-house water needs of the 11 largest U.S. cities or the annual consumption of the three most populous European countries—Germany, France, and the United Kingdom—combined.

To change the way the world farms and eats in 2050, the world has to change the way it acts today.

HORMEL FOODS USES TECHNOLOGICAL ADVANCEMENTS TO PRODUCE SUSTAINABLE PRODUCTS

Throughout our 125-year history, Hormel Foods has placed a great emphasis on continuous improvement, such as utilizing cutting-edge technology to reduce our nonrenewable energy use, water use, and GHG emissions. We've also used innovative technological advancements that enhance the attributes of our products and help us meet our corporate-responsibility goals.

For example, more and more consumers today are seeking minimally processed, preservative-free foods. We developed Hormel® Natural Choice® products by pioneering the use of high-pressure processing (HPP). HPP is a USDA-approved process that uses safe, natural water pressure to eliminate potential pathogens and food-spoilage organisms in a variety of foods. This technology keeps the products tasting great without the need for added preservatives or artificial ingredients. In 2011, we added guacamole dips to

our portfolio of foods prepared using HPP. In addition, we have extended the use of HPP to key turkey products.

As a member of the Grocery Manufacturers Association, we support the Food Waste Reduction Alliance's efforts to reduce food waste by half by 2020 based on 2016 levels. Stakeholders, such as the Food and Agricultural Organization, believe reducing food waste is key to meeting global needs by 2050. Our actions to help meet this goal include donating food and recycling unavoidable food waste by diverting it from landfills whenever possible. HPP also plays a key role for our company in reducing food waste by providing a 50 percent longer shelf life for products.

Hormel Foods will continue to look for applications where HPP can enhance key product attributes, extend shelf life, and make a positive impact to food-waste-reduction efforts.

Use data and create support tools to enhance farm-based decision making, increase sustainability and resiliency, and enhance livelihoods.

To continue to meet the food security needs of a growing world population in the face of new and emerging risks, the agriculture sector needs more tailored support systems than ever before. Farmers in every region need information and materials to support the adoption of management practices that increase their resiliency to climate change and accompanying severe weather events. Droughts in some regions and high-wind and high-precipitation events in others can lead to soil erosion and lost productivity for crops and livestock.

Adaptation to changing weather and temperature patterns can require shifts in crop and seed selection, crop rotations, and livestock production and management systems. Plant and animal productivity is affected by temperature changes, including fluctuations in temperature that deviate from typical patterns. Seed germination is sensitive to soil moisture and temperature, as well as to daily temperature fluxes and overnight temperatures.

To reduce negative impacts to productivity and to ensure necessary increases in productivity, farmers and ranchers need more sophisticated tools and products to adapt to these changes. Our companies recognize this and are working to provide the

sector with the tools to make informed, science-based decisions that make economic and environmental sense for producers, their workers, and their communities. We commit to sharing successes and solutions so that we can continue to meet the needs of agricultural producers and our partners and peers, while contributing to the creation of communication systems that can evolve and deliver solutions as quickly as the challenging circumstances evolve.

Regional differences in weather, climate, soils, crops, crop rotations, and production systems require decision support systems tailored to the needs and circumstances of farmers and ranchers in those areas. Additionally, actions or practices that benefit one area of concern can conflict with another area of concern. For instance, some actions that might reduce emissions of GHG from crop production can increase nutrient leaching into nearby water supplies, so while climate change might be mitigated by those actions, water quality could be adversely impacted. Real-time science-based tools to help producers navigate competing needs and resource concerns are critical to understanding trade-offs and ensuring sustainable outcomes.

Our companies use data-rich tools to enable producers to make decisions based on their unique production systems and locations. Increasingly, these tools are being tailored to a farmer's fields, crops, and soils, providing prescription information to maximize beneficial impacts and track and document outcomes. These tools are good for farmers, the environment, communities, and society, and we commit to improve and deploy them as needed to deliver sustainable solutions and outcomes.

Tools that signal or diagnose pest or disease outbreaks in real time and define the location and extent of impact allow a farmer to target treatments and treatment areas rather than broadcasting applications, which can be inefficient and costly. Tools like this can not only allow pests to be identified and more quickly contained, but they can minimize necessary treatments and associated

economic and environmental impacts while reducing crop or animal losses. Fewer inputs and reduced losses translate into increased productivity, less waste, better economics, and more sustainable outcomes.

New smart-irrigation and soil- and water-management technologies can include soil-moisture sensors, variable-rate irrigation, subsurface-drip irrigation, and controlled-ag drainage systems. Each of these techniques can help growers precisely match the supply of water in the crop root zone to crop requirements for optimum production and water-use efficiency. Fertigation—delivering crop nutrients through irrigation water—allows growers to spoon-feed the crop nutrients where and when it is needed throughout the growing season to optimize yields and improve nutrient-use efficiency. Optimizing water and fertilizer-use efficiency both contribute to reducing the carbon footprint, energy use, and GHG emissions associated with crop production. Practices such as no-till, reduced-till, and cover crops can improve soil health, increase soil-moisture infiltration and retention, increase soil organic matter, and act as a sink for sequestering atmospheric carbon in agricultural soils.

By helping farmers make real-time decisions that increase sustainable outcomes and help them adapt to natural resource pressures and climate change, we are helping to increase the resiliency of the sector and society to the challenges of climate change and natural resource competition. As we learn from our own experiences and those of our partners and peers, we intend to create efficient feedback loops to ensure that our efforts in the future are sustained and amplified.

DUPONT INFORMATION SYSTEMS TO PROVIDE TIMELY AND VALUABLE INFORMATION TO FARMERS

Details about soil health and on-farm production methods are being linked with information systems like never before, providing new insights into on-farm sustainability and resilience. These systems are transforming the efficiency of agricultural input use. To that end, DuPont has developed several systems that give farmers a timely look at crop development and utilization of key nutrients like nitrogen, as well as a detailed view into soils, including soil depth, texture, organic-matter content, and water-holding capacity.

Agronomists and researchers from DuPont Pioneer worked with data scientists to create powerful analytics models that provide a real-time window of insight to help farmers make more informed management decisions about their operations. These models combine decades of agronomy research with new technologies like wireless-data transfer. Through collaboration with the University of Missouri and the USDA's Agricultural Research Service, the services give farmers an advanced view into critical soil-health factors that can improve sustainability.

Other systems give producers the opportunity to target crop-protection applications. Pests can significantly reduce agricultural yields and quality. Most farmers rely on inefficient calendar-spraying and other pre-established programs that produce mixed results. But DuPont developed a network that monitors pest populations and their movements and offers real-time warnings to farmers, resulting in crop-protection measures that are targeted for maximum benefit. Tested against conventional growing methods in Italy, results included improved yield and crop quality, economic savings for farmers, and a reduction in water consumption and GHG emissions.

Work to support the U.N. Sustainable Development Goals.

The United Nations (U.N.) Sustainable Development Goals (SDGs) define global priorities and aspirations for 2030, building on the Millennium Development Goals that ended in 2015. The 17 SDGs represent a new way to frame the actions underway by governments, institutions, and companies to foster collective action and provide an opportunity to address sustainable-development issues.

Governments worldwide have agreed to these goals, and now it is time for business to take action. The following are two examples of how our companies are endorsing the SDGs.

Kellogg has a number of efforts underway to address hunger relief, food security, equality, and the impacts of climate change. Our work aligns to three SDGs, SDG 2: end hunger, achieve food security and improved nutrition, and promote sustainable agriculture; SDG 5: achieve gender equality and empower all women and girls; and SDG 12: ensure sustainable consumption and production patterns. In support of the U.N. launch of the SDGs, Kellogg announced in September 2015 the following new commitments that we will achieve by 2030:

- Improve the livelihoods of farming families and communities who grow our ingredients by supporting the livelihoods of a half-million farmers around the world.*
- Since the 2013 launch of our Breakfasts for Better Days signature cause, Kellogg and our employees have provided more than 1.4 billion servings of cereal and snacks to those in need, and we are committed to doing more in the months and years to come.*
- Empower and educate women and girls in the countries in which we grow our ingredients and make our foods and ensure that government policies enable opportunity.*

- We are committed to helping cut per capita global food waste in half at the retail and consumer level, and to reducing food losses along the production and supply chains, including post-harvest losses by 2030.*

Kellogg is working hard to help the people in our supply chain thrive, protect the land where our foods are grown and made, and address hunger today and for generations to come. As a global food company, Kellogg will continue to further drive progress toward the SDGs through engagement with governments, peer companies, and nongovernmental organizations.

DuPont announced in 2012 a set of 2020 Food Security Goals that focus on Innovating to Feed the World, Engaging & Educating Youth and Improving Rural Communities. The goals link to a number of the SDGs, including SDG 1: end poverty in all its forms everywhere; SDG 2: end hunger, achieve food security and improved nutrition, and promote sustainable agriculture; SDG 3: ensure healthy lives and promote well-being for all at every age; and SDG 5: achieve gender equality and empower all women and girls. DuPont has partnered with organizations like the U.S. Agency for International Development and 4-H to implement solutions that we hope can be duplicated and scaled up in other locations. We also track and report annually on progress toward these goals.

Action Area 2 – Transparency



Engaging customers and consumers through transparent communications around food and agriculture

- Inform public discussions about environmental and social impacts and benefits of sustainable food and agriculture systems.
- Develop partnerships and create programs to measure progress and provide transparency through on-farm data and stories.
- Improve consumer access to information about food and agricultural sustainability practices.
- Inform customers and consumers about the environmental, social, and financial cost of food waste and encourage actions to reduce waste.

The second action area the Council has identified is transparency. Our collective missions and values include our commitment to customers and consumers to deliver high-quality, safe, affordable, and nutritious food that is sustainably produced and enriches the lives of everyone in our value chains. Transparency is crucial to this effort. We need to engage our customers and consumers, and they need to continue to engage with us. A healthy dialogue around food and agriculture benefits everyone in our value chains, and helps us continue to meet the needs and desires of a diverse set of customers with equally diverse needs and tastes.

Our customers and stakeholders want to know how their food is produced, who makes it, what is in their food, and where it is from. Food is personal and important to all families, cultures, and communities. Food provides enjoyment, but it is also critical to proper health and nutrition. Sustainably produced food respects the health of the planet by protecting natural resources and maximizing the delivery of ecosystem services, such as healthy soils and clean air and water.

As food companies, it's important that we share the story of food and agriculture with all of our stakeholders. Through our brands, we have a responsibility to educate consumers about the sustainability journey of our foods—successes and challenges. We also need to raise awareness about the important role farmers have in ensuring a safe, affordable, and sustainable food supply.

Inform public discussions about environmental impacts and benefits of sustainable food and agriculture systems.

We commit to continue to publicly and transparently engage in public discussion about food and agriculture production systems locally, regionally, and globally. Our sustainability efforts are helping us to measure, document, and report these impacts at both smaller and larger scales, and as we improve the ability to collect this data, we will share it in forums that are useful and meaningful to our stakeholders and customers. Technology has dramatically changed how we communicate and learn, and the pace of change is equally as dramatic. We commit to continuously innovate to ensure that our public engagement keeps pace with consumer platforms and information-sharing opportunities.

ELANCO ENOUGH MOVEMENT

Increasingly, consumers want to know more about where their food comes from and how it's produced. Further, consumers have many questions about the use of innovation in food production. In an effort to increase accurate information about food and food choices to help consumers make informed decisions, Elanco Animal Health created the ENOUGH Movement.

The ENOUGH Movement is a global community with more than 17,000 advocates around the world dedicated to engaging on practical solutions to achieve global food security. These advocates are not just farmers and veterinarians, but doctors, dietitians, chefs, government leaders, and consumers. These advocates are putting a voice to the issues, answering questions, and sharing details about how farmers use technology in today's food production to improve the availability, affordability, and sustainability of the food supply.

Elanco knows the challenges we face to produce more food using fewer resources. We must support farmers as they make choices about practices that work best in their operations. All geographies, climates, soil types, and animals are different and require different approaches. Farm productivity directly affects food access, diversity, and nutritional quality.

People also deserve choices in food and how it's produced. But complex farming systems and practices may not be fully understood by all stakeholders and consumers. We must ensure dialogue is grounded in science-based evidence, not fear-based opinions. For more information, visit www.enoughmovement.com or visit the ENOUGH Movement on Facebook.

Improve consumer access to information about food and agricultural sustainability practices.

As part of this commitment, we will make information about our food and sustainability practices accessible and available in forums that our customers use and value. Our experience sharing information to date is equally informative to us as we learn more about the changing demands of our customers' lives and their needs, tastes, and desires. We welcome continued feedback and engagement from everyone in the value chain as we continue to collect more data and as we share it in formats that are useful and meaningful to our customers and consumers.

KELLOGG COMPANY'S OPEN FOR BREAKFAST™ PLATFORM

More than ever, people want to know what's in their food, how it's made, and what companies are doing to contribute to a better world. That's why, in 2015, Kellogg Company launched Open For Breakfast™, an open forum in the U.S. digital and social-media space to hear what's on peoples' minds and to share stories about Kellogg's® branded food. As questions come in from consumers, Kellogg responds quickly.

Using social media, we continue to tell our story and have conversations with people about what they care about—sharing facts, figures, visuals, and videos. Kellogg Company has brought to life our nutrition, community, and sustainability commitments featuring Kellogg employees, consumers, partners, and third-party experts, such as farmers, nutritionists, and teachers. This content provides a glimpse into how the company is working toward a better world through real conversations between Kellogg employees and consumers.

We have featured farmers from Michigan, Louisiana, and Illinois, all of whom send their grains to Kellogg suppliers. These farmers share how they responsibly grow their grains and sustainably manage their farms to benefit future generations.

These stories and initiatives have driven a significant amount of social engagement with more than two million views, shares, and comments in 2015, demonstrating consumers' interest in sustainability. Our highest viewed story on Open for Breakfast™ to date is from Rita Herford, a wheat grower in Michigan, who shares how she is working for safe food for families worldwide. Rita was selected in 2015 out of more than 1,000 nominees as a White House Champion of Change.

With the success of Open for Breakfast™ in the United States, Kellogg recently launched the site in other countries around the world and has plans to further expand to continue to drive transparency with our consumers about our food journey.

HORMEL FOODS ENGAGES WITH STAKEHOLDERS TO DEVELOP CORPORATE-RESPONSIBILITY COMMUNICATIONS

At Hormel Foods, corporate responsibility is engrained in our day-to-day business; it's present and a priority in everything we do. It's the foundation for which we create value for society—from the products we make, to the way we treat our employees, to the commitments we uphold to our stockholders, and to the communities in which we operate. We understand that our stakeholders want to know about our efforts, and that is why we strive to be as transparent as possible and report our goals and progress annually in our corporate-responsibility report.

The report is created by gathering feedback from employees, consumers, customers, investors, and nongovernmental organizations to understand the topics they are most interested in. From there, our company's Corporate Responsibility Council, which consists of subject-matter experts throughout the company, reviews and recommends goals and action plans to our executive

Corporate Responsibility Steering Committee. The council then provides data and information for our report, which is reviewed by both the council and steering committee prior to being published. The end result is the report.

However, our transparency efforts do not stop there—we also provide updates and information on our company website, through news articles and press releases, and via our social-media posts. In addition, we respond to questions and inquiries through our sustainability@hormel.com email box.

We have learned that transparency is truly a journey—one that will constantly grow and change based on the needs and concerns of our stakeholders. Through this ongoing process, we can work together to continue to improve and to remain an outstanding corporate citizen.

Develop partnerships and create programs to measure progress and provide transparency through on-farm data and stories.

Measuring sustainability is a priority for the Council. Metrics are important to understand our starting point, to ensure that our actions are delivering the progress that we desire, and to measure how quickly we are achieving our goals and objectives. Metrics are important whether we are looking at water quality or quantity, soil health, or worker livelihoods. Having the right metrics to measure change is critical to ensure that we are using the right rulers to gauge progress.

As part of our sustainability journeys we have set goals and time lines to achieve those goals, but we are also measuring and reporting our progress to our stakeholders. Transparency in

sharing our goals, our metrics, and our progress is an essential component of our relationship with our employees, stakeholders, customers, and consumers. It is a natural and central part of communicating the story of food, how it was produced, and what is in it.

Metrics are also needed to continue to create the tools and information support systems that farmers and ranchers require on the ground to sustainably produce crops and livestock within our communities. We endeavor to report on how our producers and supply chains impact water quality and quantity, soil health, biodiversity, and the many other ecological services that these stewards of the land have long delivered. And we commit to continuously strive to improve our metrics and how we measure and report them, both to provide meaningful feedback to producers but also to transparently share outcomes with the public.

LAND O'LAKES' DAIRY ON-FARM SUSTAINABILITY PROGRAM

While it may sound like a trendy buzzword, “sustainability” speaks to what we in agriculture and the food business have known for generations: Environmental stewardship is critical to our future. Consumers are becoming more concerned about where their food comes from and how it’s produced.

To better help Land O’Lakes, Inc. dairy member-owners share how they take care of their animals and the land, we created a dairy on-farm sustainability program in alignment with the National Milk Producers Federation, Innovation Center for U.S. Dairy, Global Dairy Agenda for Action’s Dairy Sustainability Framework, SAI Platform, and the California Dairy Quality Assurance Program. The Land O’Lakes program measures each participating farm’s profile to help member-owners better understand their sustainability impact and identifies opportunities for continuous improvement.

Our program measures multiple metrics for a comprehensive profile of each farm. We use a combination of outcome- and practice-based metrics to quantify our impact and better understand the best management practices that are driving the results we see. Our main focus areas include production, GHG emissions, energy use, water use, water quality, soil quality, pest management, resource recovery, animal care, and biodiversity.

An instance of continuous improvement, for example, occurred after one member-owner compared their GHG emissions to several benchmarks and realized that their operation’s energy use was high. Through our energy-efficiency service, they upgraded their lighting to LEDs, saving energy costs and reducing their GHG emissions.

For animal care, we implement the National Milk Producers Federation’s Farmers Assuring Responsible Management (FARM) program. As participation is a mandatory condition, 100 percent of our members’ milk supply has been verified by the FARM program.

As program participation continues to grow, Land O’Lakes can quantify its impact nationally and in specific regions. This provides transparency to customers, helping them better understand their sourcing regions, as well as meet sustainability objectives. This also creates the foundation for engaging consumers. Data-backed stories enable Land O’Lakes and its members to have a more impactful voice through farm tours, speaking engagements, and media channels.

Inform customers and consumers about the environmental, social, and financial cost of food waste and encourage actions to reduce waste.

The global issue of food loss and food waste is receiving a great deal of attention in the media and among the public and private sectors. Crops take up nutrients, minerals, vitamins, moisture, fertilizers, and other needed inputs as they grow. Their cultivation and harvesting requires care, attention, machinery, human labor, and energy. When crops are harvested, many of the nutrients and inputs are harvested with them, leaving the field and the soils depleted. This requires that these inputs be replaced, and the labor must be repeated to grow more crops. Animals require similar resources, including feed, water, housing, energy, and constant care and attention.

Foods are packaged and ready for consumers in a variety of fresh and processed formats to meet their needs. For example, corn can be dried into popcorn or animal feed; rice and wheat can be made into breakfast cereals, breads, cakes, and flours; animals can produce milk, eggs, and meat to be consumed and enjoyed in many forms. All of this requires additional labor, energy, ingredients, and packaging for safe delivery in stores and retail outlets, restaurants, schools, and homes.

If these foods are not consumed—if they are lost to spoilage or not eaten after purchase—the inputs, labor, and care of producing the food is also lost. And when uneaten food and food scraps end up in landfills, as 97 percent of food waste does⁵, they produce methane, a strong GHG, as they degrade. This food loss and waste contributes to climate change both in the form of wasted inputs and in decomposition.

Approximately 40 percent of post-production food in the United States goes to waste.⁶ This cycle of food loss and food waste increases the environmental footprint of food. By reducing food loss and food waste, the inputs, labor, and resources that have gone into producing the food are not lost. This not only makes economic sense, but it is an area where everyone in the food and agriculture supply chains can participate and contribute.

Through our commitment to reducing food loss and food waste, we are working to improve animal care and genetics, develop more resilient seeds and crops, better inform consumers, and develop innovative packaging, transport, and refrigeration technologies.

Action Area 3 – Collaborative Decision Making



Increasing collaborative decision making across the food and agriculture supply chain

- **Promote public-private partnerships and collaborative decisions to help achieve sustainability and resilience across the supply chain.**
- **Work with certified crop advisors and farmer-facing organizations to deliver actionable opportunities that help farmers improve resiliency to climate change.**
- **Support increased public funding for sustainable-agriculture research.**

Opportunities exist to improve sustainable outcomes through more collaborative decision making across the food and agriculture supply chain. Collaborative decision making can be a challenge, especially among independent companies with different goals and incentives. Yet we see it as a highly valuable approach to share and transmit ideas, strategies, and technologies to help replicate and scale sustainability and sustainable outcomes across the food and agriculture supply chains.

As companies with global reach and footprints, we have an obligation to work across our supply chains to advance sustainable practices. To maximize sustainable outcomes and to ensure meaningful impacts at a global level, we must be willing and

able to extend our reach beyond the walls and the doors of our companies. We are collectively engaged in and committed to elevating discussions about sustainability up and down supply chains—both to acknowledge its importance and also to identify the common goals and objectives we may share that lend themselves to more collaborative decision making and more sustainable outcomes.

We can also find commonality with organizations not directly in our supply chains, whether or not we share the same primary goals and objectives. For example, our peers in other sectors—including the public sector, universities, and nonprofits—might share our goals and also seek to affect sustainable land use and natural resource conservation, and yet embrace different strategies for achieving those goals. International forums such as the U.N. Framework Convention on Climate Change and the U.N. Sustainable Development arenas offer engagement opportunities to identify new partners and peers to leverage our collective resources to help achieve sustainable outcomes. We will continue to seek opportunities to leverage shared values by reaching outside our normal supply and value chains and business relationships to strike new relationships with others with whom we might find common ground on sustainability issues.

Success will require each of our companies to more effectively communicate with traditional and nontraditional peers and business partners to make mutually beneficial decisions and to take actions that will catalyze greater change at a more rapid pace than we could separately achieve. We are committed to achieving this through our workforces as well, to nurture an environment where innovation includes working with diverse actors to help achieve sustainable outcomes.

Promote public-private partnerships and collaborative decisions to help achieve sustainability and resilience across the supply chain.

Public-private partnerships can be mutually beneficial to help achieve sustainability and resilience across the supply chain. They can also leverage and maximize the effectiveness of shared resources, talents, and expertise. Some of the innovative and nontraditional partnerships that we are engaging in help us achieve sustainability on the ground, while also contributing to transparent dialogues about sustainability.

USDA's Regional Conservation Partnership Program (RCPP), authorized in the 2014 Farm Bill, is an example of a program that unlocks valuable opportunities for public-private partnerships. The RCPP is helping to leverage resources, talent, and multisector stakeholder engagement to address environmental performance and sustainability issues on the ground. The RCPP utilizes a regional stakeholder-engagement process to address critical natural resource and environmental issues at the local level.

The Council supports USDA conservation programs that provide valued and necessary resources to enable farmers and ranchers to establish sustainable practices, and we commit to continue to engage in programs that allow us to leverage public and private dollars and other resources to build resilience and sustainable outcomes. These partnerships and the opportunities to collaborate and make important decisions together are helping to replicate and scale sustainable outcomes in critically important areas.

DUPONT PARTNERSHIP WITH THE NATURE CONSERVANCY IN THE BOONE WATERSHED OF IOWA

Improvements in water-quality and nutrient management require a concerted effort at the watershed scale. To date, most of the conservation work on watersheds has been at a sub-watershed scale. DuPont Pioneer is partnering with the Nature Conservancy (TNC) for an initiative that is concentrating efforts beyond the 10,000-acre sub-watershed scale on the Boone River in Iowa.

The objective of the program is to provide DuPont Pioneer sales reps with information packets with technical information on key conservation practices, such as cover crops, soil health, no-till, and water management that can improve water-quality outcomes. As the sales reps interact with their farmer customers, they have accurate information to provide to the farmers.

In the first year, 350 packets were provided to sales reps and an initial survey found that 60 percent had used the information with their customers. Next steps include:

- An event to provide in-person guidance on best practices;
- A training event for TNC staff to learn how to best interact with farmers;
- Roundtables with farmers to provide insight to TNC on what information they need; and
- A field day to demo cover-crop plots.

Work with certified crop advisors and farmer-facing organizations to deliver actionable opportunities that help farmers improve resiliency to climate change.

Just as we recognize the importance of partnering to provide useful decision support tools and systems to actors in the agriculture sector to make informed, science-based choices, we recognize that the agriculture value chain has many members who have access and trusted relationships with farmers and ranchers. This includes certified crop advisors and farmer-facing organizations.

By working through entities and individuals that engage frequently with agricultural producers, we can amplify the message and increase the opportunities to promote sustainable productivity. The organizations and individuals who work with agricultural producers can translate opportunities and deliver the business case for how and why they benefit producers in ways that are meaningful to them. These key players can also provide

information to agricultural producers in formats that are more easily incorporated into management systems while minimizing disruption to operations.

Farmers and ranchers make important decisions daily to ensure the most efficient and productive outcomes on their farms; after all, changing weather, climate, pests, and other variables require adjustments to inputs and management to reduce losses and support productivity. Advice to increase sustainability must fit in this context and must be based on a solid understanding of agricultural operations and the many challenges already faced by producers. Sustainable outcomes that help farmers and ranchers improve their resiliency to change will benefit them as well as the entire food and agriculture supply chain by minimizing lost productivity and maximizing beneficial environmental outcomes.

KELLOGG'S ORIGINS™ GREAT LAKES WHEAT PROGRAM

The Saginaw Bay watershed, the largest watershed in Michigan, feeds into Lake Huron and is where the soft white winter wheat for many of Kellogg's cereal products are grown. The area has water-pollution challenges linked to agriculture and industry and is part of a Great Lakes critical conservation area. Kellogg has joined a wide range of stakeholders—including conservation groups, grain suppliers, food companies, and state and federal agencies—in supporting the Saginaw Bay watershed's Regional Conservation Partnership Program (RCP), an innovative initiative through the USDA.

The partnership—led by USDA, the Nature Conservancy, and the Michigan Agri-Business Association—is working to improve farmers' conservation practices to improve soil and water quality and reduce nutrient runoff into the Great Lakes. As Gold-level RCP sponsors, Kellogg supported the training of 50 certified crop advisors at partnering agronomy retailers, who will in turn work with hundreds of farmers directly on conservation practices.

As part of our support for Saginaw Bay conservation, Kellogg Company launched the Kellogg's Origins™ Great Lakes Wheat Program to track continuous improvement within Kellogg's soft white winter wheat supply chain together with our supplier, Star of the West Milling. This is one of many Origins™ programs in regions around the world, focused on helping farmers in Kellogg's supply chain to protect the environments where grains begin their journey. This program allows farmers who supply into Star of the West Milling to document their on-farm environmental improvements and identify best practices on more than 42,000 acres across 17 farms. The data is collected through farm-management tools provided by Syngenta and is in alignment with Field to Market, a multi-stakeholder initiative on sustainable agriculture.

One of the farmers in our Origins™ Program is Justin Krick. Krick represents the face of the new American farmer—young, tech-savvy, college-educated, and environmentally aware. Krick, and others like him, are using the latest farming technologies to ensure the safety of their crops and are employing newer sustainable-farming principles. While sustainable-farming practices are not new on the farm, farmers like Krick utilize cost-share programs like USDA's RCP to test and implement new sustainable technologies or practices to deliver increases in sustainable-farming benefits for both the farm and the environment.

Support increased public funding for sustainable-agriculture research.

Our companies are investing in internal research and development programs that deliver quantifiable environmental benefits for our customers and consumers along the agriculture and food value chain. These include activities and tools to reduce energy use and increase energy efficiency, reduce GHG emissions, increase water availability and reuse, reduce overall water consumption, minimize food loss and food waste, and reduce product packaging.

We are also investing in agricultural research to develop plant varieties that are resistant to droughts and extreme weather, for example. Drought-tolerant seeds can reduce crop losses in areas experiencing water scarcity, while plants with shorter, stronger stalks can tolerate high winds and strong weather events to minimize losses. Animals that produce more meat and milk from the same inputs can help achieve sustainable productivity as well.

Federal investments in agricultural research have declined in recent years. From the 1930s until about 1980, federal funding for agricultural research was trending continuously upward. Since the 1980s, funding levels have remained steady or, more recently, have dropped.⁷

We support increased public funding for sustainable-agriculture research at federal, state, and local levels to help achieve the sustainability goals and outcomes that we collectively seek to achieve. We also commit to continue our own R&D efforts, to continue to innovate, and to continue to communicate and share so that we can collectively achieve sustainable outcomes for society.

Conclusion



Faced with significant increases in global populations and new and evolving challenges to food security and natural resource conservation, our companies are committed to developing and achieving sustainable solutions and outcomes to overcome these challenges now and into the future. We recognize and applaud the U.S. food and agriculture sector's history of innovation and efficient productivity that has created and delivered an abundant, safe, diverse, nutritious, and affordable food supply that meets changing and diverse consumer and customer needs.

Through collaboration and continued innovation informed by science, we commit to further catalyze, replicate, and scale progress through and across our supply and value chains. We collectively identified three action areas—sustainable productivity,

transparency, and collaborative decision making—that can be transformative in helping to preserve and protect human, animal, and natural resource capital today and into the future.

This report highlights concrete actions our companies are taking to continuously address new and changing threats to food security and sustainability. The objective of sharing these success stories is to accelerate the work we have underway and to identify new opportunities to take bold actions through partnerships with other companies and the public sector. Sustainability is a journey brought to life through action and partnership, and we hope others in the food and agriculture supply chain will join us in this critical endeavor.

Endnotes

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Appendix 1

The following is a partial list of sustainability initiatives that Council members' companies participate in:

- Bipartisan Policy Center CEO Council on Sustainability and Innovation
- Business for Social Responsibility
- Consumer Goods Forum
- Cool Farm Alliance
- Field to Market: The Alliance for Sustainable Agriculture
- Global Dairy Agenda for Action's Dairy Sustainability Framework
- Global Social Compliance Program
- Honey Bee Health Coalition
- National Milk Producers Federation FARM
- Sustainability Practitioners' Roundtable
- Sustainable Agriculture Initiative Platform
- Sustainable Rice Platform
- The Sustainability Consortium
- The Innovation Center for U.S. Dairy: Dairy Sustainability Alliance
- World Business Council on Sustainable Development: Climate Smart Agriculture
- World Economic Forum New Vision for Agriculture
- World Resources Institute



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