

2018 ANNUAL REPORT

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An Overview of the Progress of the U.S. Roundtable for Sustainable Beef and the Development of the First-Ever U.S. Beef Industry Sustainability Framework

A LETTER FROM OUR LEADERSHIP

Dear Members and Friends of USRSB,

The U.S. Roundtable for Sustainable Beef's success is directly linked to its ability to bring together a diverse group of stakeholders to address concerns about beef sustainability and identify opportunities to continuously improve. This approach is fundamental to our organization and has helped us work toward a more sustainable beef supply chain.

To date, our most significant milestone is the finalization of the U.S. Beef Industry Sustainability Framework. The development of these resources is the result of the entire beef community aligning to a common definition of sustainability, establishing priority areas, and identifying metrics and guides that empower the supply chain to address environmental, social, and economic concerns.

This effort demonstrates a commitment to improving U.S. beef sustainability, while providing a healthy, nutritious product to people across the globe. I have no doubt our momentum will continue. As the Framework is adopted across the supply chain, we will not only improve the sustainability of beef, but also grow consumer confidence in our product.

We sincerely thank you, our members, who helped fuel USRSB's efforts since its inception in 2015. Your support was instrumental in developing resources that will benefit those who raise, process, sell and buy beef for years to come.

With sincere appreciation,

Kim Stackhouse-Lawson USRSB Chair

Ashley McDonald USRSB Administrator







Only 30 percent of consumers claim to be knowledgeable about how beef is raised.



THE CASE FOR SUSTAINABLE BEEF

Scientists forecast a global population of 9.7 billion by 2050. This population growth will spark a 70 percent increase in demand for animal protein. To meet this demand while responsibly caring for the world's limited resources, farmers and ranchers must explore innovations and efficiencies in the production and distribution of beef.

The beef industry continually works to gain consumer trust. Just 40 percent of individuals believe cattle are treated humanely, hormones and antibiotics are used responsibly, and that the industry uses sustainable practices. We believe it's a lack of knowledge that has fueled misconception about how beef is raised.

We want to change this.

U.S. beef production embraces innovation, conservation of natural resources, safety and quality. Today, the industry continues to raise the bar. We produce healthier animals, use resources more responsibly, and strengthen the communities where we operate. It is time to demonstrate this commitment. The U.S. Roundtable for Sustainable Beef (USRSB) will achieve this by inspiring individuals and companies to reflect on how they raise, buy and distribute beef. Additionally, the Roundtable will find opportunities to improve and help consumers understand the beef community's unique sustainability story.



OUR CAPACITY FOR CHANGE

To date, USRSB members represent:

30 percent of the cattle herd More than 20 billion pounds of beef processed More than 100 million consumers across the U.S.

OUR APPROACH

FOR SUCCESS

ONS

FOUNDA

FRAMEWORK

MARKETPLACE

U.S. ROUNDTABLE FOR SUSTAINABLE BEEF

The USRSB is the only organization in America solely focused on the continuous improvement of how beef is raised, processed and distributed through a multi-stakeholder approach. USRSB is a non-profit organization comprised of more than 100 members who share a vision of making the U.S. beef value-chain the trusted global leader in environmentally sound, socially responsible and economically viable beef. This includes farmers and ranchers, retailers, environmental organizations, academic institutions, allied industries and many others throughout the beef community.

Our multi-stakeholder approach to sustainability is unique. We are focused on engagement and education. Our goal is to encourage the voluntary adoption and uptake in business-to-business programs of the U.S. Beef Industry Sustainability Framework. The USRSB does not engage in government lobbying, nor does the USRSB provide certification or verification services to the value chain.

Bringing Together the Beef Value-Chain, Civil Society and Allied Industry Stakeholders

U.S. BEEF INDUSTRY SUSTAINABILITY FRAMEWORK Beef Sustainability Definition, High-Priority Indicators, Sector-Specific Metrics, Sustainability Assessment Guides

COMMUNICATION

ENGAGEMENT

Encourage Voluntary Use of the U.S. Beef Industry Sustainability Framework Build Consumer Trust

PROJECT SUPPORT Support Research and Pilot Projects Aligned with the U.S. Beef Industry Sustainability Framework

MARKETPLACE IMPLEMENTATION

Market Driven Business-to-Business Implementation



OUR LEADERS

Volunteer leaders fuel our efforts. Foresight and oversight is provided through a Board of Directors. The board is comprised of 10 members that represent all stakeholder groups within the membership. These leaders are elected by peers within their constituency and serve two-year terms. In addition, board-appointed leaders serve as chairs on working groups and committees that execute and implement our overall mission.

BOARD OF DIRECTORS

CHAIR: Kim Stackhouse-Lawson, PhD – JBS USA CHAIR-ELECT: Ben Weinheimer – Texas Cattle Feeders Association TREASURER: Debbie Lyons-Blythe – Blythe Family Farms PAST-CHAIR: Rickette Collins – McDonald's Corporation

> Keith Anderkin – Arby's Corporation Townsend Bailey – McDonald's Corporation Michelle Calvo-Lorenzo, PhD – Elanco Animal Health Chad Ellis – Noble Research Institute Jessica Finck, PhD – Merck Animal Health Rob Manes – The Nature Conservancy Wayne Morgan, PhD – Golden State Foods Steve Wooten – Colorado Cattlemen's Association



INDICATOR WORKING GROUP

The IWG leads the development of the full valuechain indicators and metrics for the Sustainability Framework. The IWG will continue to review the indicators and metrics and adjust as needed over time.

Chair: Nancy Labbe – World Wildlife Fund **Chair:** Ben Weinheimer – Texas Cattle Feeders Association

ENGAGEMENT, MEASUREMENT & PROGRESS WORKING GROUP

The EMPWG leads the development of Sustainability Assessment Guides within our Sustainability Framework. Additionally, the EMPWG reviews projects requesting USRSB support and provides a recommendation to the Board of Directors.

Chair: Wayne Morgan, PhD – *Golden State Foods* **Chair**: Clayton Huseman – *Kansas Livestock Association*

OUTREACH WORKING GROUP

The OWG boosts awareness, encourages uptake, creates educational materials, and develops self-assessment tools for the Sustainability Framework.

Chair: Josh White – *National Cattlemen's Beef Association* **Chair:** Debbie Lyons-Blythe – *Blythe Family Farms* **Chair:** Chad Ellis – *Noble Research Institute*

COMMUNICATIONS WORKING GROUP

The CWG executes and implements strategic communications surrounding the mission and vision of the USRSB.

Chair: Jennie Hodgen, PhD - Merck Animal Health

MEMBERSHIP COMMITTEE

Under the guidance of the current chair-elect, the Membership Committee evaluates prospective USRSB members for their alignment to the mission and provides a membership recommendation to the Board of Directors for consideration.

Chair: Ben Weinheimer - Texas Cattle Feeders Association

GENERAL ASSEMBLY PLANNING TASK FORCE

The General Assembly Planning Task Force guides and executes the annual General Assembly meeting.

Chair: Shannon Wharton – Wharton 3C Cattle **Chair:** Jessica Finck, PhD – Merck Animal Health

GOVERNANCE COMMITTEE

The Governance Committee reviews USRSB by-laws, policies and procedures and submits revisions to the Board of Directors for consideration.

USRSB Past Chair: Rickette Collins - McDonald's Corporation

FEED SUSTAINABILITY TASK FORCE

The Feed Sustainability Task Force explores potential feed pilot projects and identifies areas of engagement around sustainable feed production between the USRSB and Field to Market.

Chair: Damon Palmer – *Corteva Agrisciences* **Chair:** Nancy Labbe – *World Wildlife Fund*

NOMINATING COMMITTEE

Under the guidance of the Immediate Past Chair, the Nominating Committee oversees the election process of the USRSB Board of Directors and presents a slate of officers to the Board at the annual General Assembly meeting.

USRSB Past Chair: Rickette Collins - McDonald's Corporation

PROGRAM RECOGNITION COMMITTEE

The Program Recognition Committee establishes processes to evaluate supply-chain programs that include sustainability parameters in alignment with the Sustainability Framework.

Chair: Michelle Calvo-Lorenzo, PhD - Elanco Animal Health



DUR MEMBERS



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OUR COMMUNITY

In total the USRSB is comprised of more than 100 members who share our vision in continuously improving the sustainability of U.S. beef. This diverse set of members includes cow-calf producers, auction markets, feedyards, packers, processors, retail and food service organizations, academic organizations, and conservation organizations.

ROUND

ABLE

UNITER .

COW-CALF

AUCTION MARKET

FEEDYARD

PACKER/PROCESSOR

RETAIL/FOODSERVICE

CIVIL SOCIETY

ALLIED INDUSTRY

MEMBERSHIP

The USRSB is comprised of members from the following five constituencies:

Producers: Individuals, organizations and associations of people who are actively engaged in the ownership and management of cattle used to produce beef, including cow-calf, auction market, and feedyard sectors of the beef value-chain:

Allied Industry: Organizations and associations of people who supply the beef value chain with goods and services:

Packers/Processors: Organizations and associations of people who process cattle and beef into saleable product;

Retail/Food Service: Organizations and associations of people who bring beef and beef-related products to consumers;

ENGAGEMENT Civil Society: Academic institutions, non-government and noncommercial institutions, foundations, alliances and associations with a stake in the beef value chain.

AKEHOLDER ENGAGEMEN S. ROUNDTABLE FOR SUSTAINABLE BEEF

STATEMENT OF ACTIVITIES For the Year Ended September 30, 2018

	<u>2018</u>	<u>2017</u>
REVENUES		
Total Revenues	\$573,333	\$452,242
EXPENSES		
Total Expenses	\$514,691	\$416,980
Net Change	\$58,642	\$35,262
Reserves Balance	\$300,631	\$241,989



THE BEEF INDUST

The beef value-chain is made up of many small businesses, facilities, ar consumers. When we work together, we achieve more.

AUCTION MARKET

Approximately 80% of cattle producers market their cattle at an auction market each year

PACKER/PROCESSOR

In 2018, U.S. beef production (commercial carcass weight), was more than 26 billion pounds

RETAIL

5 Billion pounds of be sold at U.S. restaurar and foodservice outle in 2018

JOBS 2.1 Million – Jobs supported by the U.S. beef cattle industry

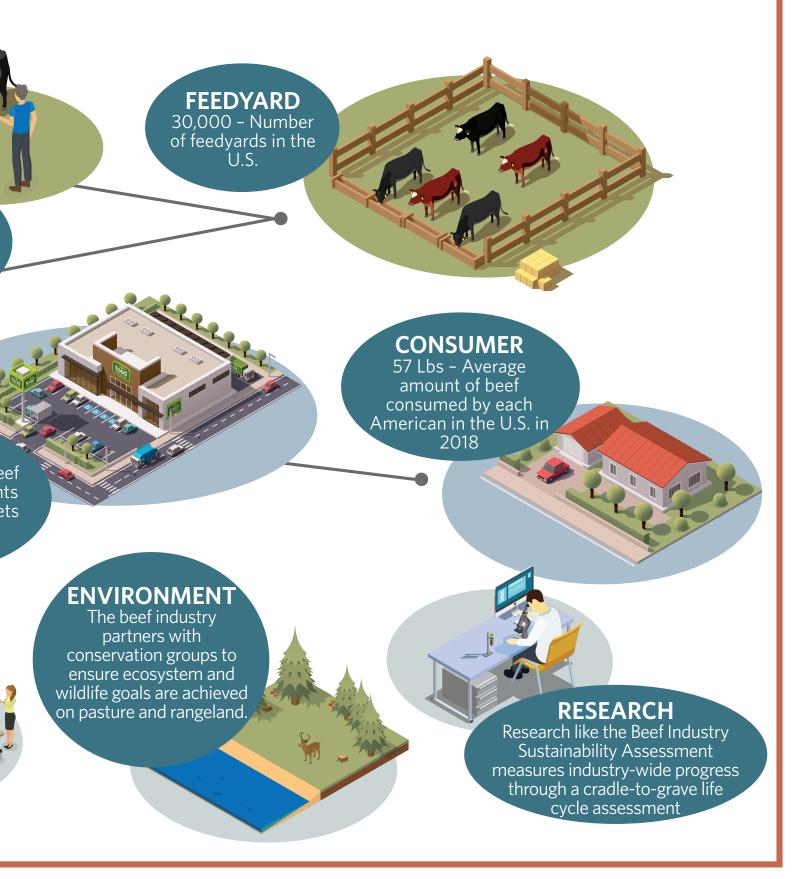
ECONOMY

FARM/RANCH 727,000 – Number of U.S. beef farms and ranches

\$165 Billion – Value added annually to the economy by U.S. beef cattle industry

RY AT A GLANCE

nd suppliers who work together to deliver a high-quality product to





Sustainable beef is a socially responsible, environmentally sound and economically viable product that prioritizes planet, people, animals and progress.

DEFINING SUSTAINABLE BEEF

Aligning to a singular definition for sustainable beef was the first task of the Roundtable. Members agreed sustainable beef is socially responsible, environmentally sound and economically viable. This means sustainable beef comes from profitable farmers, ranchers and businesses committed to optimizing resources and caring for animals and the environment, employees and communities.

But it is more than that. Our members understand there are many facets to sustainable beef. There is no one-size-fits-all approach. To us, sustainability is a personal journey - one that commits itself to responsibly meeting the needs of today while improving the ability to responsibly meet the needs of the next generation.



DEVELOPING THE U.S. BEEF INDUSTRY SUSTAINABILITY FRAMEWORK

The U.S. Beef Industry Sustainability Framework is an extension of our definition of beef sustainability. The Framework is comprised of high-priority indicators, sector-specific metrics and sustainability assessment guides. It was intentionally developed to explore opportunities for continuous improvement in everyone's individual sustainability journey. The hope is that the Framework will connect consumers to the beef community, answer questions they may have about beef production and provide them with confidence that U.S. beef is raised in the most sustainable system in the world.

Engaging every member of our organization was a critical component of the Framework development. From cattle production to supply chain sourcing and from veterinary science to soil health, diverse backgrounds served the organization well. We worked together to develop drafts and collected constant feedback from our members. Once the document was published, feedback was solicited publicly through two comment periods. Feedback was reviewed and considered, ultimately resulting in the final product we have today – a set of resources the entire beef community can be proud of and use to advance sustainability in the beef supply chain.

HIGH-PRIORITY INDICATORS

Six High-Priority Indicators were developed: water resources, land resources, air and greenhouse gas emissions, efficiency and yield, animal health and well-being, employee safety and well-being. These indicators are the foundation of the Framework and define the areas most important to beef sustainability across the entire supply chain.

METRICS

Metrics are activities connected to each of the High-Priority Indicators. Metrics are unique to each segment of the supply chain. They outline ways an operation or company can measure progress. The approach and development of metrics was put forth by each supply-chain sector with an expectation to actively engage other stakeholder groups, including civil society and allied industry members.

SUSTAINABILITY ASSESSMENT GUIDES

The sustainability assessment guides are technical guidance documents that provide additional tools and resources for the supply chain. Much like the metric development process, supplychain sectors led the development of these resources. These documents outline the purpose, approach and practical application of each metric.

HIGH-PRIORITY INDICATOR DEFINITIONS:



WATER RESOURCES: The volume of water consumed and any impacts on water quality.



LAND RESOURCES:

The stewardship of terrestrial and aquatic habitat in relation to water, soil and biodiversity in an area. Impacts of land use and land use conversion, both caused by and prevented by ranching and farming activities.



AIR & GREENHOUSE GAS EMISSIONS: The cumulative emissions of pollutants, including particulate matter, greenhouse gases and other gaseous emissions from a sector for each process.



EFFICIENCY & YIELD:

Efficiency is the unit of input required to produce a unit of output and yield is the total product generated per unit of time or space. Both concepts address waste as a negative characteristic and drive toward improved profitability.



ANIMAL HEALTH & WELL-BEING: The cumulative effects of cattle health, nutrition, care and comfort.



EMPLOYEE SAFETY & WELL-BEING:

The implementation of safety programs and training to provide a safe workplace and help to prevent workplace accidents and injuries associated with production, processing, and distribution of beef and the relative prosperity of workers employed in those activities.



APPROACHING SUSTAINABILITY COW-CALF SECTOR

The cow-calf sector is the largest, most diverse segment in the beef value-chain with over 727,000 cow-calf operations in the U.S. This sector is inclusive of operations where calves are born and raised for the first six to twelve months of life and stocker and backgrounder operations where supplemental feed is provided to meet their changing nutritional needs as they grow.

METRICS



WATER RESOURCES

Is a grazing management plan (or equivalent) being implemented that maintains or improves water resources?



LAND RESOURCES

Is a grazing management plan (or equivalent) being implemented to protect and/or improve the land resources, including succession/transition planning?



AIR AND GREENHOUSE GAS EMISSIONS

Is a grazing management plan (or equivalent) being implemented that protects or improves soil and plant community health, including soil carbon sequestration?



EFFICIENCY AND YIELD

Is there a strategy implemented to optimize animal productivity through improved nutrition, reproduction, genetics, technologies, and practices?

ANIMAL HEALTH AND WELL-BEING

Has the operation adopted Beef Quality Assurance (BQA) or similar program principles into management of the farm or ranch?



EMPLOYEE SAFETY AND WELL-BEING

Are all individuals who are involved in the operation trained in stockmanship and safety, and are they implementing these practices on the farm or ranch?

LOOKING DEEPER: GRAZING MANAGEMENT PLANS

Grazing management plans are a valuable tool for beef farmers and ranchers. These plans address the intensity and frequency of grazing on range or pasture and helping producers grow healthy grass, nourish animals and reduce noxious weeds. Careful management allows carbon and other nutrients to be cycled into the soil. Grazing management plans increase water retention through soil biodiversity, ensure waterways and riparian areas are protected, and reduce soil erosion while considering the needs of wildlife that rely on shared resources.

A THINK

APPROACHING SUSTAINABILITY AUCTION MARKET SECTOR

Auction markets act as an agent, facilitating sale transactions between livestock buyers and sellers. Over 1,000 auction markets are located across the U.S. and are responsible for 31 million head of cattle traded annually.

METRICS



WATER RESOURCES

Are water resource management strategies implemented at the auction that address water management, water use optimization/conservation and water quality?

ANIMAL HEALTH AND WELL-BEING

Are employees trained and auction-specific Beef Quality Assurance (BQA) principles being implemented at the auction market?

EMPLOYEE SAFETY AND WELL-BEING

Is an employee safety program in place?

LOOKING DEEPER

ANIMAL HANDLING TRAININGS

When cattle are properly handled by trained employees the risk of injury to both animals and people is significantly reduced. The Beef Quality Assurance program (BQA) and its accompanying guidelines, is an industry recognized program that trains employees on handling and care standards for cattle. The Livestock Marketing Association (LMA) Guide to Animal Handling and Employee Training draws from BQA and other resources to provide a comprehensive guide to improve employee safety. These programs are based on scientific findings that promote low-stress handling practices. Auction markets are also encouraged to monitor and document workplace accidents to assess and improve safety.







APPROACHING SUSTAINABILITY FEEDYARD SECTOR



The U.S. is home to the world's largest fed-cattle industry with over 30,000 operating feedyards - located predominately in the central plains. After cattle leave the ranch, backgrounding or stocker operation, they go to a feedyard where they are fed a carefully balanced diet made up of grains, grasses, and renewable feedstuffs.

METRICS

WATER RESOURCES

Are water resources management strategies implemented at the feedyard that address water management, water use optimization and conservation, and water quality?



LAND RESOURCES

Has a nutrient management strategy or plan been implemented?



AIR AND GREENHOUSE GAS EMISSIONS

Are strategies in place to manage air and greenhouse gas emissions?

EFFICIENCY AND YIELD

Are cattle performance and operational efficiency tracked over time for this facility?



ANIMAL HEALTH AND WELL-BEING

Are feedyard employees trained in Beef Quality Assurance (BQA) principles and are these principles implemented at the feedyard?



EMPLOYEE SAFETY AND WELL-BEING

Are feedyard employees trained and is an employee safety program implemented at the feedyard?

LOOKING DEEPER ANIMAL NUTRITION PLAN

Carefully balanced diets are necessary for cattle growth and production. Management of average daily gain, feed efficiency and animal health, as well as the proper utilization of growth promoting technologies improves animal performance. In turn, manure, air emissions and waste outputs are reduced, minimizing the environmental impact.

APPROACHING SUSTAINABILITY PACKER AND PROCESSOR SECTOR

Packer and Processor facilities are where cattle are harvested and processed into products for the marketplace. These facilities harvest approximately 25 billion pounds of beef annually to feed the U.S. and more than 130 countries around the globe.

METRICS



WATER RESOURCES

- LEVEL 1
- Is a water resource management plan implemented at the facility?

LEVEL 2

- Packer: What is the water use in gallons/head/day?
- Processor: What is the water use in gallons/pound of beef processed?
- How many wastewater permit non-compliances has the facility had in the previous calendar year?

LEVEL 3

- Does the company track discharge water quality over time?
- Does the company have set goals for continued improvement?
- Does the company make water performance efforts public?
- Does the company participate in partnerships, initiatives or programs to further advance water resource management?



LAND RESOURCES

LEVEL 1

Does the company have initiatives and/or explore opportunities to mitigate land and biodiversity impacts to new facility developments?



AIR AND GREENHOUSE GAS EMISSIONS

LEVEL 1

• Are strategies in place to optimize energy efficiency and reduce GHG emissions at company facilities?

LEVEL 2

• What is the company's $CO_2 e$ per head or $CO_2 e$ per mass of finished product?

LEVEL 3

- Does the company make CO₂ e publicly available?
- Does the company track greenhouse gas and air emissions over time and set goals for continued improvement?
- Does the company participate in partnerships, initiatives or programs to further greenhouse gas reductions and improve air quality?



EFFICIENCY AND YIELD

LEVEL 1

Is a program to divert waste from landfills implemented at the facility?

LEVEL 2

• How much mass of waste/head or waste/mass of finished product does the company divert from landfills?



EFFICIENCY AND YIELD

LEVEL 3

- Does the company track waste reduction over time and set goals for continued improvement?
- Does the company participate in partnerships, initiatives or programs to further advance waste reduction strategies?



ANIMAL HEALTH AND WELL-BEING

LEVEL 1

- Packer: Does the company have a comprehensive animal welfare program including thirdparty verification?
- Processor: Does the company have a documented animal welfare policy (or equivalent) and encourage the adoption of USRSB Animal Health and Well-Being metrics?

LEVEL 2

- Packer: What is the company's total number of USDA non-compliance animal welfare violations per 100,000 head processed in the previous calendar year?
- Packer: What percentage of cattle come under a third-party audit? What percentage pass on first audit?
- Processor: Does the company use second or third party animal welfare audits, such as the North American Meat Institute's (NAMI) Animal Handling Guidelines and Audit Guide to verify policy compliance to at least the packer level?

LEVEL 3

- Does the company track animal health and well-being overtime and set goals for continued improvement?
- Does the company engage its suppliers or participate in partnerships, initiatives or programs and/ or engage its suppliers to advance continuous improvement regarding animal health and wellbeing in the beef value chain?



EMPLOYEE SAFETY AND WELL-BEING

LEVEL 1

• Does the company have a documented employee safety and well-being program that engages front-line employees and leadership?

LEVEL 2

• Does the company track Total Recordable Incident Rate (TRIR)?

LEVEL 3

- Does the company track trends on TRIR and reference rates against the North American Industry Classification System (NAICS), industry standard rate to set goals for the upcoming year?
- Does the company participate in partnerships, initiatives or programs to further advance employee safety and well-being?

LOOKING DEEPER

WATER RESOURCE MANAGEMENT PLANS

Water plays a critical role in food safety. Sanitation is strictly regulated by state and federal governments in the U.S. Many companies and facilities build upon regulatory considerations through water resource management plans. These plans provide cost saving benefits by helping companies reduce the amount of water used over time. This can be achieved through water use documentation, goal setting, policy development and progress reports. Water resource management plans should also address water reclamation so resources can be safely cycled back into the environment.

APPROACHING SUSTAINABILITY RETAIL AND FOODSERVICE SECTOR

Retail and foodservice companies include grocery stores, mass merchandisers, hotels, restaurants, convenience stores, foodservice facilities and food delivery services. These companies distribute, sell and serve beef directly to consumers.

METRICS



WATER RESOURCES

LEVEL 1

Has the company assessed the water risk of its operations and locations?

LEVEL 2

- Does the company have a plan for water resource and risk management including both quantity and quality impacts?
- Has the company assessed the water risk of its direct beef suppliers?
- Does the company engage suppliers and encourage adoption of USRSB water resource metrics in its beef value-chain?

LEVEL 3

- Is the company participating in a credible system for reporting water stewardship?
- Has the company set water targets based on its assessments?
- Can the company demonstrate progress towards these targets?
- Does the company track performance on water stewardship in its beef value-chain?



LAND RESOURCES

LEVEL 1

Has the company assessed the deforestation risk in its beef value-chain?

LEVEL 2

- Is the retail/food service company working with organizations to support U.S. farmers and ranchers in developing and implementing grazing management plans?
- Does the company have a no net deforestation policy for its beef value-chain?



AIR AND GREENHOUSE GAS EMISSIONS

LEVEL 1

• Has the company assessed its Scope 1 and 2 greenhouse gas (GHG) emissions?

LEVEL 2

- Does the company have a plan to reduce its Scope 1 and 2 GHG emissions?
- Has the company assessed the Scope 3 GHG emissions of its beef supply chain?
- Does the company engage suppliers and encourage adoption of USRSB Air and GHG metrics in its beef value-chain?

LEVEL 3

- Is the company participating in a credible external system reporting for GHG?
- Has the company set credible GHG emissions targets?
- Can the company demonstrate progress towards these targets?



EFFICIENCY AND YIELD

LEVEL 1

Has the company assessed food waste in its own operations?

LEVEL 2

- Does the company have programs focused on reducing food waste in its operations, including beef waste?
- Does the company have policies that encourage adoption of USRSB metrics and enable suppliers to find alternative uses for safe, wholesome, surplus products (beef, in particular)?

LEVEL 3

- Does the company set targets and track performance of its food waste reduction programs, including beef?
- Does the company engage its direct suppliers and track performance on food waste reduction in its beef value-chain?



ANIMAL HEALTH AND WELL-BEING

LEVEL 1

- Does the company have a documented and publicly available animal care and handling policy?
- Does the company encourage the adoption of USRSB metrics in its beef value-chain?

LEVEL 2

- Does the company have a policy for audit failures?
- Does the company verify compliance with its policy at least to the packer level?

LEVEL 3

- Does the company engage its suppliers on continuous improvement and emerging issues regarding animal health and well-being in its beef value-chain?
- Does the company track and assess progress on animal health and well-being outcomes that align with its policy?



EMPLOYEE SAFETY AND WELL-BEING

LEVEL 1

- Does the company have clearly documented policies and procedures around employee workplace safety and training programs?
- Does the company require training on food safety and handling techniques for beef?

LEVEL 2

• Does the company have a supplier code of conduct (or equivalent) that includes employee health and safety policies and have a system for tracking compliance of its beef suppliers?

LEVEL 3

• Does the company track the number of direct company employees (not supply chain) completing safety and training programs?

LOOKING DEEPER PUBLIC GREENHOUSE GAS TARGETS

Setting public greenhouse gas reduction targets is a powerful way to demonstrate a company's commitment to addressing one on the most important issues facing society today. Credible GHG targets that include emissions related to beef also create opportunities to show how beef production can be a critical part of the solution. Such targets also help galvanize the company's internal resources to transition to more renewable energy sources and reduce overall energy usage by improving energy efficiency of building designs, equipment specifications and lighting fixtures.



TESTING OUR IDEAS

There are still areas of beef sustainability we need to better understand more fully. That is why the Roundtable supports many external projects, field trials, pilots and resources that further advance, support and communicate continuous improvement in sustainability of the U.S. beef value chain. The below projects have undergone an application process to demonstrate their alignment to the U.S. Beef Industry Sustainability Framework and have received our support:

CONNECTING THE SUPPLY CHAIN THROUGH SUSTAINABILITY

This project infuses sustainability education into baccalaureate programs using a case study of beef cattle. This project targets educators and encourages the use of system thinking in animal health, animal science, veterinary colleges, hospitality and restaurant management and textiles curriculum to raise awareness of the impact of business decisions in sustainability. In turn, faculty are better prepared to develop baccalaureate students to support a stronger food and agricultural scientific and professional workforce.

Project Partners: Kansas State University, Noble Research Institute

EXPANDING AND TESTING THE UTILITY OF LAND POTENTIAL KNOWLEDGE SYSTEM (LANDPKS)

Under a Conservation Innovation Grant from the Natural Resources Conservation Service, The Nature Conservancy, Colorado Chapter is working with partners to expand and test the utility of the Land Potential Knowledge System (LandPKS) – an Open Source Grazing Land Evaluation Tool for Ranchers. The project will increase the usefulness of LandPKS for producers in the U.S. by creating tools to assess forage utilization and wildlife habitat conditions on their ranches. The enhanced LandPKS tool will be shared with ranchers via at least 20 workshops held in 5 states and additional outreach to introduce the tool to an even broader community of potential users. The workshops will introduce LandPKS as part of a broader drought and adaptive management curriculum.

Project Partners: Bird Conservancy of the Rockies, Colorado State University, LandPKS Development Team, The Nature Conservancy Colorado, USDA Agriculture Research Service, USDA Natural Resource Conservation Service



GENETIC AND BREEDING FOCUSED PILOT PROJECT

This pilot builds the business case for the use of better genetic selection in the beef breeding herd by quantifying the impact of cattle genetics and herd management decisions on both key environmental and business outcomes. The pilot tests data across four USRSB priority indicators for the cow-calf and feedyard sectors to demonstrate that economic and environmental outcomes are not always at odds; rather, to be successful at driving change in the beef industry, they must work in tandem to help ranchers and feedyards demonstrate economic outcomes while improving environmental performance.

Project Partners: K-Coe Isom, World Wildlife Fund, Hy-Plains Feedyard

GRASS RUN FARMS PRODUCER SUSTAINABILITY PILOT

JBS USA, through their Grass Run Farms Program, tested the applicability of the USRSB cow-calf and feedyard metrics in a grass-fed system. The pilot project achieved 80 percent completion rate of the metric questions for more than 30,000 head of cattle from three family farm partners, representing 75 percent of Grass Run Farms' supply.

Project Partner: JBS USA

IMPROVING ON-RANCH SUSTAINABILITY: A PILOT EDUCATIONAL PROGRAM FOR COW-CALF PRODUCERS

This project will host a Sustainable Ranch Management Workshop designed to assist cattle producers with the development of ranch-specific plans that align to the U.S. Beef Industry Sustainability Framework. The workshop focuses on grazing management plans, record keeping plans, Beef Quality Assurance and antimicrobial stewardship, as well as stockmanship and stewardship practices.

Project Partners: California Cattlemen's Association, California State University - Chico, McDonald's Corporation, National Cattlemen's Beef Association

IMPROVING THE FESCUE BELT FORAGE SYSTEM FOR GREATER, MORE PROFITABLE, AND SUSTAINABLE COW-CALF PRODUCTION

This project investigates how changing forage diversity impacts animal and agronomic production, pest pressure, soil health parameters, and overall economic profitability and sustainability. Further, this project teaches those practices outlined in the U.S. Beef Industry Sustainability Framework that impact a producer's efficiency and yield.

Project Partner: University of Tennessee Institute of Agriculture

INTEGRITY BEEF SUSTAINABILITY PILOT

The Integrity Beef Sustainability Pilot engages the full beef supply chain to test the USRSB metrics and explore scalable solutions that could be applicable for beef producers across the country. The goal is to provide a framework for producers and companies who want to improve the sustainability of the beef supply chain now and into the future.

Project Partners: Beef Marketing Group, Golden State Foods, McDonald's Corporation, Noble Research Institute, Tyson Foods Inc.

JBS USA PILOT PROJECT

JBS USA, Five Rivers Cattle Feeding, Texas Beef Producers and 79 feedyard partners tested the applicability of the USRSB feedyard metrics at scale. The pilot project achieved 100 percent completion rate of the metric questions for over 2.9 million head of cattle from more than 90 feedyards - representing 56 percent of JBS USA's fed cattle supply.

Project Partners: JBS USA, Five Rivers Cattle Feeding, Texas Beef Producers

MEAT SUSTAINABILITY CALCULATOR

Merck Animal Health uses published data to give users a feel for how different beef production systems, tools and changes in cattle management can affect water and land usage and greenhouse gas emissions. By using this tool, users can get an estimate prior to making decisions of baseline numbers for guidance toward improving on their water, land, air and efficiency metrics as established in the U.S. Beef Industry Sustainability Framework.

Project Partner: Merck Animal Health

MONTANA IMPROVED GRAZING CARBON PROJECT

This project explores using carbon credits as a lever to bring funding to producers and promote regenerative grazing practices. The project seeks to measure and increase soil carbon over a 30-year project, directly fund regenerative practices on 200,000 acres by 2021, reduce greenhouse gas emissions in the beef supply chain, and increase adoption of improved grazing practices on the Northern Great Plains.

Project Partners: NativeEnergy, Western Sustainability Exchange, Soils for the Future

NORTHERN GREAT PLAINS SUSTAINABLE BEEF PILOT

The Northern Great Plains (NGP) Sustainable Beef Pilot is a collaborative engagement process between all sectors of the beef supply chain to test the U.S. Beef Industry Sustainability Framework and its tools and resources in a way that is viable and practical for cow-calf producers in the NGP. While the pilot will initially involve a small group of stakeholders with traceability back to a select group of ranchers in the NGP, it aims to ensure scalability and sustainable practices, particularly at the ranch-level in the NGP, are recognized and a foundation for further improvement is provided.

Project Partners: Costco Wholesale, Hy-Plains Feedyard, JBS USA, Montana Stockgrowers Association, World Wildlife Fund

PRODUCER FOCUSED SUSTAINABILITY EDUCATION PROGRAM

This project led by University of California Davis explores efforts to improve knowledge of how ranchers adopt new practices within their operation. By learning from the success of the Beef Quality Assurance Program (BQA), the project aims to create a producer-focused educational program that ensures the fluid and effective implementation of the USRSB Indicators and Metrics.

Project Partners: University of California Davis, National Cattlemen's Beef Association

UNIVERSITY OF CALIFORNIA DAVIS SEAWEED SUPPLEMENT PROJECT

University of California-Davis and Elm Innovations are conducting a study exploring a seaweed supplement shown to dramatically and safely reduce emissions in live dairy cows.

Project Partner: University of California Davis, Elm Innovations

USRSB COW-CALF METRIC VALIDATION PROPOSAL

The University of Tennessee is adapting its Master Beef Program to align with the USRSB cow-calf metrics. Effort is currently being made to secure funding for the final development of materials and program implementation.

Project Partner: University of Tennessee Beef and Forage Center

RUMINANT METHANE EFFICIENCY TOOL (RMET)

The RMET is a management tool for measuring operational efficiency and represents the environmental footprint of North American cattle operations. It consolidates multiple sources of operational data into a single framework with a common denominator – CO_2e emitted per unit of production building upon the concept that carbon lost is money lost.

Project Partner: RuMeth International Ltd.

EXAMINING THE PRACTICAL ON-RANCH APPLICATION AND BENEFITS OF LOW-STRESS HERDING AND STOCKMANSHIP TECHNIQUES

Diamond W Cattle Co and the University of California Cooperative Extension Service are partnering to document and demonstrate the efficacy and practicality of using stockmanship and low-stress herding in a production setting. Using GPS collaring of cattle and transect monitoring, the project expects to show that low-stress herding can 1) increase ranchers' profitability (by increasing the number of livestock per unit area); 2) improve animal management (reduce the number of bulls needed, increase breeding percentage, etc.); and 3) positively support multiple ecosystem services (protecting water quality and sensitive riparian habitats, improving vegetation for wildlife habitat, and decreasing the risk of catastrophic wildfires).

Project Partners: Diamond W Cattle Company, University of California Cooperative Extension Service





KEY PARTNERSHIPS

We recognize the value of working with other sustainability initiatives. When we work together, we avoid duplicating our efforts, strengthen our voice, and we help advance ideas across the beef community. This is why we have partnered with other commodity alliances and sustainability initiatives within the U.S. and globally.

FIELD TO MARKET

We partner with Field to Market: The Alliance for Sustainable Agriculture, an initiative aimed at defining sustainable production for feed commodities, such as those utilized in beef production. The partnership allows us to explore areas where the two initiatives can work together, identify any knowledge gaps, and specifically look at ways to collaborate on feed sustainability.

INNOVATION CENTER FOR U.S. DAIRY

We also work with the dairy industry and their sustainability initiative through the Innovation Center for U.S. Dairy. We are connected in many ways and will continue to share knowledge.

GLOBAL ROUNDTABLE FOR SUSTAINABLE BEEF

The beef sustainability conversation happens on a global level. We are a member of the Global Roundtable for Sustainable Beef and serve on the board of directors. The Global Roundtable for Sustainable Beef aids regional roundtables like USRSB in communicating on global sustainability challenges including antibiotic stewardship. We actively assisted the Global Roundtable for Sustainable Beef to develop science-based and outcomefocused antibiotic guidance that did not endorse specific methodologies or technologies.

STRATEGIC OBJECTIVE:

Increase the amount of U.S. beef produced utilizing the U.S. Beef Industry Sustainability Framework to 20 percent by 2020.

WHERE WE ARE GOING

The USRSB has achieved unprecedented milestones since forming in 2015 through the development of the U.S. Beef Industry Sustainability Framework and support of pilot projects and research. Our most immediate efforts moving forward will focus on education, training and outreach. We will continue to explore venues to share our work and opportunities to connect with the value chain, encourage uptake of our Framework and educate consumers about beef. Additionally, we will support pilot projects, research and initiatives that explore individual, voluntary efforts to advance the sustainability of U.S. beef.

The Roundtable made a very important choice early on not to mandate standards or verify individual stakeholder performance. To help individual operators or companies we have developed self-assessment tools for each supply chain segment. We have also always believed integrating our Framework into the marketplace is the responsibility of individual companies and operations. We see value in these business-to-business partnerships, and we encourage the beef community to use our resources to share the industry's unique story.

To identify opportunities that demonstrate voluntary adoption of the U.S. Beef Industry Sustainability Framework, we established a process to evaluate and assess supply-chain programs that include or intend to include sustainability parameters in-line and equivalent to our Framework. This process is applicable to existing or new supply-chain programs that are voluntary and market driven.

This is just the beginning of our journey. Our mission is to continuously improve, meaning we will always need to evaluate, assess and adapt to ensure the U.S. beef value chain remains the trusted global leader in sustainable beef production. We will reflect on our work, determine opportunities for growth and use new knowledge to revise our resources as needed.



VISION

The U.S. beef value chain is the trusted global leader in environmentally sound, socially responsible and economically viable beef.

MISSION

To advance, support and communicate continuous improvement in the sustainability of U.S. beef production by educating and engaging the beef value-chain through a collaborative multi-stakeholder effort.



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