Ten years ago, sustainability seemed like a fad that would surely fade away. Now, sustainability has taken center stage, driving beef demand and many conversations today. Sustainability has never been more talked about than it was at the National Cattlemen’s Beef Association annual trade show and convention this year. The opening session at Cattlemen’s College was headlined by the talk “Sustainable Beef: Beyond What’s Possible.” During the CattleFax session, Randy Blach also spoke on the role that sustainability is now playing in beef. Beyond this one convention, sustainability is now commonplace among many conversations and is increasingly discussed.

Consumers have a desire to know that their food is produced in a sustainable manner. Moreover, shareholders in many food companies are further pressing the issue. With all of these questions about food, and specifically beef production, it is not surprising that the conversation has come all the way back to the beginning of the supply chain. In the most recent Center for Food Integrity report, only 25% of consumers surveyed strongly agreed with the statement, “I trust today’s food system.” So, producers have an opportunity to participate in and positively impact this conversation.

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INTEGRITY BEEF PILOT PROJECT
ILLUSTRATED

FROM RANCH TO RESTAURANT
How the Integrity Beef Pilot Project sustainably produced beef for McDonald’s restaurants in the Southeast.

1. RANCH
Calves were born on ranches in Oklahoma, Texas and Kansas, during February and March. They had access to fresh grass from birth and were weaned from their mothers at 6 to 8 months of age.

2. FEEDYARD
Calves were sold and went to the BMG feedyard in Great Bend, Kansas, in November and December. There, they ate a well-balanced diet formulated to help them grow and develop marbling.

3. PACKER
Calves were harvested at a Tyson plant in Garden City, Kansas, in May, June and July.

4. PROCESSOR
Hamburger meat was shipped within three to five days after harvest to Golden State Foods in Opelika, Alabama, where it was formed into patties.

5. CONSUMER
Hamburger patties were distributed by McDonald’s across the Southeast U.S. in May, June and July.

TEN BLUE WHALES
During the two-year program, 3.5 million pounds of beef were harvested, which is equal to the weight of 10 adult blue whales.

NYC
You could take 74,000 round trip flights from Dallas to New York with the $6 million in total beef that was produced during the project.

69K FOOTBALL FIELDS
The number of football fields it would take to equal the amount of acres that were involved in the pilot project.

DFW 36 COW-CALF PRODUCERS
The project produced the equivalent of 2.4 million quarter pounders.
THE SUSTAINABILITY PILOT PROJECT
In 2017, an ambitious group came together to establish the Integrity Beef Sustainability Pilot Project. Representatives from Noble Research Institute, Integrity Beef Alliance, Beef Marketing Group, Tyson Foods, Golden State Foods and McDonald’s set out to test the United States Roundtable for Sustainable Beef (USRSB) metrics and align the segments of the beef supply chain. This pilot project tracked cattle from birth to burger, across two years. In total, 36 cow-calf producers provided more than 4,300 calves, which resulted in more than 3.5 million pounds of beef worth around $6 million. While this is a small project relative to the U.S. beef industry, these producers manage more than 92,000 acres and have a positive impact on their ecosystems.

SELF-ASSESSMENT TOOL
Further, these producers, and our collaborators, were the first to test a new self-assessment tool created by this project. This free, web-based tool provides an opportunity for each user to evaluate their company’s sustainability in a private and practical way. It can be found at: https://nobleapps.noble.org/usrsbassessment.

A self-assessment is available for each of the production segments in the beef industry: cow-calf, feedyard operator, packers or processors, retail or food service, and auction market. Each segment’s assessment asks thought-provoking questions about specific management practices relative to the USRSB metrics for each priority indicator area. This tool will allow all producers to benchmark their current sustainability and make improvements over time.

RESULTS: BEEF INDUSTRY CONTINUES TO IMPROVE
Overall, we observed that the beef industry is doing a great job relative to sustainability. This should come as no surprise given that producers continue to do more with less. Compared to the mid-1970s, the U.S. produces the same amount of beef with one-third fewer cattle. Additionally, hundreds of thousands of producers are Beef Quality Assurance (BQA) certified, and the beef sector only contributes 3.7% of the U.S. greenhouse gas (GHG) emissions. Each of these sustainability areas continues to improve. So, it is quite difficult to point fingers and say that one steak is “sustainable” and another is not. Two steaks could have been produced under the exact same conditions, yet one does not have the sustainability verification or label.

SUPPLY CHAIN ALIGNMENT IS NOT COMMON IN THE BEEF INDUSTRY DUE TO ITS SEGMENTED NATURE AND, THEREFORE, TAKES SIGNIFICANT PLANNING AND COORDINATION.

BENEFITS OF COMMUNICATION ACROSS THE CHAIN
This project proved to be insightful for everyone involved. Supply chain alignment is not common in the beef industry due to its segmented nature and, therefore, takes significant planning and coordination. Our collaborators were committed to achieving this and took the time to make it happen. We hosted a series of meetings and tours at each production stage to provide perspective to all members about the specific challenges in each sector. Everyone

Story continues on next page
analyzing all data then sharing reports with participants. This project also provided a rare opportunity for increased communication across the supply chain. Producers shared calf vaccination and management information and the assurance that land resources were sustainably managed in return for data about how their cattle performed in the feedlot and on the rail. In addition, retailers shared what their shareholders desire and what would benefit them.

**CHALLENGES TO THE PROJECT**

One challenge was that the scale of this pilot was small, which created some inefficiencies, especially in respect to carcass utilization. Including additional retail partners that utilize beef cuts other than ground beef would have helped provide a more feasible model, but this would have increased the complexity of coordination. Additional retail partners were excited to purchase sustainably produced beef but did not participate because of the relatively small supply from this project. A sufficiently large scale is required to provide adequate beef products in order to maximize carcass utilization.

Another challenge is that the perceived value proposition and actual profits are different for each segment, making it difficult to optimize the system. Optimization of the system can occur if one company owns the supply chain, like in the poultry industry. However, the segmented nature of the beef industry prevents this. Each company is a separate, proprietary business that has to balance transparency and competitiveness. We believe that a sustainability-focused, value-added program is possible if a value proposition exists for all segments. Additional data sharing will be required to achieve this, likely through business-to-business relationships across the supply chain.

**TRACEABILITY OPPORTUNITIES AHEAD**

As shareholders and consumers ask for more sustainable products, there is an opportunity for every producer. We know that we are doing well as an industry, but the opportunity lies in verifying it and, in turn, building trust. Many technologies now allow animals to be tracked and traced, and more are coming online every day. Through this pilot, we had the opportunity to work with one such technology, IBM Food Trust, and inform them about the beef supply chain. Inevitably, there will be a learning curve as these technologies are deployed, but we believe they will provide great value to the industry by allowing producers to reach out and inform the consumers they feed.

**FINAL THOUGHTS**

Overall, the Integrity Beef Sustainability Pilot Project was an invaluable experience as the beef industry imagines what it might look like moving forward. Every piece that was utilized in this project may not move on, but there are certainly pieces that will gain adoption in the industry. We are fortunate to have participated in and helped shape the industry as it moves forward. It takes every one of us stepping up and contributing to make the beef industry what we want it to be.

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**PARTNERS IN THE INTEGRITY BEEF PILOT PROJECT:**

[Images of partners: Noble Research Institute, Integrity Beef, BMG, gsf, Tyson, McDonald's]