

How Do We Define Sustainability?

Speakers emphasize that to be sustainable, practices also have to be profitable.

by Troy Smith

A generally accepted definition of “sustainability” suggests the term applies to a state of balance among economic, social and environmental concerns. Just how the beef industry will maintain sustainability, while striving to feed a rapidly growing world population, was discussed during the International Livestock Congress – USA 2012 in Denver, Colo., Jan. 10. Panelists representing cattle production, meatpacking, retail and foodservice segments shared their views regarding the meaning of sustainability.

Oklahoma producer Richard Gebhart said social aspects too often detract consideration of the other elements or distort views regarding the environment. Also a lawyer and college instructor, Gebhart said sustainability in any business is the result of

good stewardship — making responsible decisions after weighing all costs and benefits.

“I know of no greater moral responsibility than ranching — taking care of land and cattle,” stated

Gebhart, “but consideration of the economic aspect is what makes it possible to stay in business.”

Speaking for vertically integrated AgriBeef, executive vice president Rick Stott said it has become important for the Idaho-based firm to relate sustainability to consumers at a social level. However, Stott also said companies can’t produce desirable consumer products and do good things for the environment if they aren’t profitable.

“Often missing from discussion about sustainability is the economic aspect,” said Stott. “The business of food production isn’t sustainable if it doesn’t make money.”

Representing the Texas grocery chain



►Sustainability in any business is the result of good stewardship — making responsible decisions after weighing all costs and benefits, said Richard Gebhart.



PHOTOS BY KASEY MILLER

H-E-B, Jim Lanier said he believes it’s becoming increasingly important to foster strong feelings, internally, regarding sustainability.

Beef’s Environmental Impact

Efficiency is the key to reducing the beef industry’s environmental impact.

Story & photo by Kasey Miller

With inevitable population increases, total meat consumption will increase by about 70% by 2050, said Jude Capper of Washington State University at the 2012 International Livestock Congress in Denver, Colo., Jan. 10. With this increasing global population will come increasing global incomes, which will mean more demand for animal protein. The challenge, then, is to produce more protein on less arable land, while still reducing the environmental impact for future generations.

Capper said she is optimistic that these challenges can be met by increasing the efficiency of the beef cattle industry. Efficiency, she added, is something the industry does well already.

When anti-agriculture groups claim that the beef industry is negatively affecting the environment, she counters with an example likening the claim to that of fuel efficiency in cars. A vehicle hauling 50 passengers that gets 5 miles to the gallon on a 500-mile trip ultimately gets 250 “people miles” per gallon. She compared that to a vehicle, also traveling

►We need to assess efficiency on an output basis, Washington State University’s Jude Capper asserted. “It’s not about the size of the animal, but about the pounds produced, about the output.”



500 miles, that gets 35 miles to the gallon but only carries four passengers. It ultimately gets 140 “people miles” per gallon.

We need to assess efficiency on an output

basis, Capper asserted. “It’s not about the size of the animal, but about the pounds produced, about the output.”

From 1977 to 2007, the beef industry improved output per beef animal, Capper emphasized. In 1977, it took five animals to produce the same amount of beef as it took four animals to produce in 2007. It also took 124 fewer days to raise a market-ready animal, saving those days of land, feed, water, fertilizer and transportation use, plus compiling less manure.

To quantify those efficiency effects further, from 1977 to 2007, beef yield increased by 131%. Achieving the increased production required 70% of the animals, 80% of the feed, 88% of the water and 67% of the land that would have been required at 1977 production levels. Manure production decreased to 82%, as did methane, and nitrous oxide and carbon footprint levels were 88% and 84% of 1977 levels, respectively. These numbers take into account cows, heifers and bulls, not just feedlot cattle.

► Companies can't produce desirable consumer products and do good things for the environment if they aren't profitable, said AgriBeef's Rick Stott.



"It's an emotional thing that needs to be built into the business culture. If it's just a marketing ploy, the company won't be around long," said Lanier.

As a foodservice supplier of lamb and veal, Mountain States Rosen representative Dennis Stiffler said sustainable food production involves applying ecologically sound principles that conserve resources while

► Jim Lanier said it is becoming increasingly important to foster strong feelings, internally, regarding sustainability.



supporting quality of life, in concert with economics to promote longevity. But consumers are bombarded with half-truths and misinformation about how food — especially meat — is grown, processed and delivered. Stiffler said every segment of food production needs to communicate more effectively with consumers, to eliminate confusion and build trust.

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"We all have a story we can tell," he insisted. "And that's where we create the value of a product."



Editor's Note: For additional coverage of the 2012 International Livestock Congress, visit www.api-virtuallibrary.com and drill into the site as follows: Meeting Coverage > Other Industry Meetings > News Coverage > Jan. 10 International Livestock Congress.

"Those gains were achieved by improving productivity and efficiency," Capper noted.

While asserting that there is a place for every system of beef production, she said that when comparing conventional, natural and grass-fed beef production systems, conventional does have the highest amount of efficiency based on days using natural resources. To produce an 800-pound (lb.) carcass, it takes 453 days to slaughter. A natural system produces 714 lb. of carcass and takes 464 days to slaughter, and a grass-fed system produces a 615-lb. carcass in about 679 days. Those additional days are using land, feed and water while creating waste.

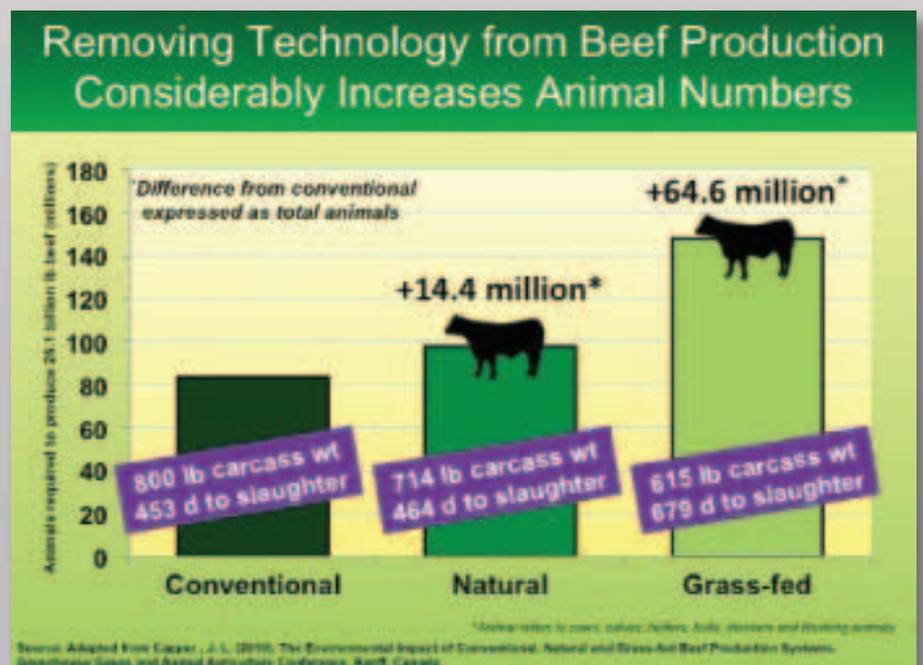
Capper offered some tips on increasing efficiency, which will lower the beef industry's environmental impact:

- Reduce time to reach target weights by increasing growth rate and feed efficiency, using beef performance technologies and optimizing diet formulation.
- Minimize losses within the system by reducing morbidity and mortality and reducing parasite infestation.
- Improve reproductive efficiency by aiming for one live calf per cow each year.

- Increase land carrying capacity with improved pastures and better forage varieties.
- Reduce post-harvest resource use and emissions, including water, paper, plastics and plastic foam.

While these may seem simple, she said, they will build upon each other.

Capper concluded, emphasizing one major point: Environmental impact should be assessed with sound science practices, not ideological principles and "touchy-feely" thought processes as many anti-agriculture groups are wont to use.



Progress Report

Are we maintaining quality and consistency in the beef we produce?

by Troy Smith

Factors affecting consumer satisfaction with beef quality and consistency were discussed during the International Livestock Congress in Denver, Colo., Jan. 10. Addressing influences attributed to cattle genetics and management was Daryl Tatum, Colorado State University (CSU) animal scientist. Meat scientist Derek Vote of JBS USA talked about processor efforts to address consumer preferences.

Referring to the national Beef Quality Audit, established 20 years ago and conducted every five years thereafter, Tatum said the first audit identified key issues of concern. Consumers were concerned about quality. They felt beef was too fat, too tough and too inconsistent. Since then, explained Tatum, percentages of carcasses grading Choice and Prime have increased. The frequency of USDA Yield Grade (YG) 4 and 5 carcasses has stabilized and even decreased slightly.

“We’re doing a better job of producing Choice beef, but the supply won’t last with a shrinking herd,” Tatum warned. “And with the pressure on to produce weight, we’re going to see some Yield Grade 4s and 5s. I don’t see that changing much. However, the big carcass issue is being addressed by fabricating differently to market smaller cuts.”



► Derek Vote, JBS meat scientist, and Daryl Tatum, CSU animal scientist addressed beef quality and consistency issues.

PHOTO BY KASEY MILLER

Tatum noted how U.S. cattlemen raise cattle in very different physical environments, so there is need for cattle suited to different parts of the country and different resource bases. That will result in variation among cattle and the beef they produce. However, Tatum said too much variation still exists among cattle from a given region. Often, he added, great variation exists among cattle within a given lot or group. Addressing that issue should help remedy inconsistency of beef.

From the processor’s perspective, Derek Vote said development of programs for

branding beef, by value, has allowed consumers to choose products for both price and quality.

“I think that has improved the consistency issue, but we receive questions about tenderness. Tenderness is a concern for some consumers,” explained Vote.



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Techno Challenges

Speakers explore technologies to increase beef volume and demand.

by Troy Smith

The United Nations Food and Agriculture Organization (FAO) claims global food production must double by 2050 if it is to satisfy the needs of a global population expected to exceed 9 billion. Application of technology will be critical to producing a safe, affordable and abundant food supply, said speakers addressing the International Livestock Congress. According to Travis Choat of Elanco and Rod Bowling of AgriFood Solutions International, the beef industry must make wise choices regarding the practices, products and genetics applied to beef production.

Choat called skillful management of capital an important practice for all levels of beef production. Practices important to

successful cattle feeding will be management of terminal growth implants and hitting optimum end weights. Choat said consumers have the right to choose food produced without growth-promoting technologies, but defended the use of products like beta-agonists to increase growth rate and efficiency of gain, while reducing the cattle feeding industry’s carbon footprint.

Beta-agonist feed additives have been criticized as detrimental to carcass quality, but Choat insisted the products can be used when targeting production of high-quality beef.

“Beta-agonists perform consistently, which makes them something we can

manage,” he stated. “Careful management of days and dose allows us to manage quality grade and tenderness while improving productivity.”

Rod Bowling discussed what he termed “sentinel changes” affecting U.S. beef production. One is the increased cost of corn, which has fueled innovation in cattle nutrition and increased the need for technologies that enhance production. The other sentinel change is growing global demand for high-quality beef. Bowling cited increasing export demand for U.S. product as a contributor to the widening of the price spread between USDA Choice and Select beef.

