

Telling the Beef Story

Gary Smith addresses the challenge of feeding the world.

Story & photo by *Kasey Miller*, associate editor

By tomorrow, there will 200,000 more people on planet Earth. Farmers and ranchers are going to be asked to produce more food in the next 50 years than was produced in the last 10,000 years combined," said Gary Smith, emeritus distinguished professor at Colorado State University (CSU). "In 2002, the United Nations' Food and Agricultural Organization said, 'By the year 2050, the world's population will reach 10 billion people,' so we know the world's food production will need to increase by 100% in the next 50 years They said 70% of this will have to occur by use of technology, because we simply do not have enough arable land or farmable ground to make up for the deficit."

At the 2013 International Livestock Congress—USA in Denver, Colo., Jan. 15, Smith voiced his optimism that farmers and ranchers could meet such a challenge, explaining that agriculturalists have already increased food production by 145% in the last 50 years. The biggest problem, he cautioned, is whether the industry allows a vocal minority (those opposed to technological advances) to establish our national food policy.

Use of and need for technology

To feed more people, there are three options, Smith said. The first is to increase the amount of arable land. The second is to increase grazing, but not arable, land. The third, and

most realistic, is to increase efficiency of production on arable and grazing lands.

The rise of larger farms, feedlots, packing plants and supermarkets, he explained, started in the 1970s. Big was usually associated with success and sometimes seen in a negative light, but farms often grew to sustain more family members.

The size of the operation does not necessarily determine whether it is family-owned or -operated, Smith said. Of the 2.2 million U.S. farms, 98% are family-owned.

Concentration, accompanied by transformation, has included new production technologies, specialization and tighter vertical coordination, he noted. Economies of scale equal efficiency and profitability. Sustainability is achieved by increasing

The use of technologies may make sense to cattle producers, but do consumers understand?



► Trust is what the beef industry craves from its consumers, and the way to gain that trust is to use confidence, competence and influential others, said CSU's Gary Smith in the keynote address.

productivity using far less labor, land and natural resources per unit of output. Producers benefit by increasing profitability through efficiency, and consumers benefit by smaller increases in food prices.

Smith cited an example in the beef industry. A 2009 Iowa State University study reported by John Lawrence indicated that in the cow-calf sector, eliminating the use of growth-promoting implants, dewormers and fly control would increase the breakeven price by 47%, a value of \$274 per calf.

In the stocking sector, removal of growth-promoting implants, ionophores, antimicrobial therapy, dewormers and fly control would increase the breakeven price by 13%, a value of \$95 per calf.

Lastly, in the feedlot sector, removal of growth-promoting implants, ionophores, antimicrobial therapy, beta-agonists and dewormers would increase the breakeven price by 13%, a value of \$155 per calf.

There are challenges worldwide, though. The United States must counter additional population growth and changing international markets with high-yield agriculture technology, said Smith. China's growth in the coming years could enact a "nightmare scenario" for U.S. consumers

in which meat and grain prices are pushed higher and thus end the "cheap food era."

"China's appetite for corn, wheat and other farm commodities is poised to expand significantly over the next decade as its people move up the food chain, adding more meat and dairy products to their diets," he explained.

Consequently, the demand for beef will rise, and to produce the same amount of U.S. beef annually without using these Food and Drug Administration (FDA)-approved technologies, U.S. farmers and ranchers would need:

- 10 million more beef cattle,
- 81 million more tons of feed,
- 17 million more acres of land, and
- 138 billion more gallons of water.

To make up the deficit, if the United States could not, Brazil would have to destroy 16.9 million acres of forestland and would generate the release of 3.1 billion more metric tons of greenhouse gases, he cited from research done by Jude Capper, Washington State University, and Dermot Hayes, Iowa State University, published in the October 2012 *Journal of Animal Science* (*J. Anim. Sci.* 2012.90:3527-3537).

The year 2050 is 38 years from now, Smith noted, and 38 years ago we did not have many of the technologies used today in our personal lives and for food production and processing. Smith said he is optimistic that by

2050 technologies will have been developed to increase the capacity to capture and use water, as well as to enhance agronomic, animal-breeding, animal-nutrition and animal-health technologies.

There will be more changes in the field of animal nutrition in the next 10 years than there have been in the last century,

he predicted. He mentioned technologies like nutrigenomics and epigenetics, or how certain feed ingredients, by switching genes on or off and thereby influencing genetic expression in animals, can improve production efficiency.

“Gloom-sayers always use today’s technology extrapolated into the future and

ignore the creativity of mankind,” Smith asserted.

Explaining to consumers

The use of technologies may make sense to cattle producers, but do consumers understand?

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What Are Our Consumers Telling Us?

The beef industry needs to address the issues consumers care about.

by *Kindra Gordon*, field editor

There are three important T’s to consider when the beef industry communicates with consumers, said John Lundeen, senior executive director of market research at the National Cattlemen’s Beef Association (NCBA). Those words are technology, trust and transparency. Lundeen shared remarks during the International Livestock Congress (ILC) Jan. 15 in Denver.

He noted that research continues to show that the majority of people love beef. However, we can’t ignore that some consumers want to know more about how beef is raised and have concerns, he added.

“We must answer the questions consumers ask,” Lundeen said. He pointed out that often we try to assure consumers about their concerns by focusing on science and technology. For example, we convey to consumers that modern farming is critical to feeding the world’s growing population, and modern farming is critical to keep food affordable for everyone.

However, that message often doesn’t resonate with consumers. Rather, they are concerned about how modern farming practices are affecting their own family’s long-term health and how the animals were treated.

This is where messages that reflect trust and transparency may connect better with consumers. As one example, Lundeen shared data from a project looking at how antibiotic messaging resonated with consumers. When it was explained to consumers that antibiotics were given to the animal because it was sick or as prescribed by a veterinarian, 52% and 49%, respectively, were comfortable with the use of antibiotics. When it was explained that the antibiotic was used to enhance



PHOTO BY KASEY MILLER

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the safety of the beef consumers eat, 73% were comfortable with its use. Conversely, if the message to consumers was scientific and difficult to understand as to why the antibiotic was being used with animals, only 17% were comfortable with its use.

“We need to lock onto things that matter to the consumer,” Lundeen said. “When we focus our message to consumers on human health and animal well-being — rather than science — we can do a better job of communicating with that consumer.”

Additionally, Lundeen shared that Millennials — consumers born between 1980 and 2000 — are a segment of the consumer market that represent an “amazing

opportunity” to the U.S. beef industry. He reported that there are 80 million Millennials, which outranks the 78 million Baby Boomers in the country.

Lundeen noted that Millennials are just now finding their niche in life and society and are making food decisions.

“They are at the age where we (beef) want to win with this audience,” Lundeen stated. Because Millennials largely turn to the Internet for information, Lundeen noted that social media is key to getting beef’s messages about beef safety, nutrition, environmental care and animal welfare to them.



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“It is not enough for farmers/ranchers to produce safe, wholesome food. It’s also necessary to show that farmers and ranchers are accomplishing larger societal goals such as nutrition education, hunger relief, economic stimulus and conservation of existing resources,” he quoted Thomas Quaife from the August 2012 edition of *Dairy Herd Management*.

There are plenty of challenges to this, as the agriculture community is becoming less relevant in political life, he cited from Agriculture Secretary Tom Vilsack, as evidenced by the lack of a five-year farm bill.

To counteract this, the agriculture industry must be proactive instead of reactive.

The vocal minority is a large issue, but they make a bigger splash than there are actual consumers who agree with them. Only 4% are lifestyle buyers who oppose conventional production methods, and 1% are fringe buyers. Of polled consumers, 94% either support the use of technology or are neutral about it as long as food is safe.

Smith said he’s not as concerned about the vocal minority as much as when things go viral, like the lean, finely textured beef/“pink slime” debacle.

“Once a problem goes viral, everyone is responsible for creating a solution,” he charged.

The question is: How?

There are many ways to reach out to consumers, especially with methods of social media. “Eighty-three percent of U.S. citizens with access to the Internet visit social media sites,” he said. While social media is important domestically, it is even more important for the Asian markets.

Smith mentioned other means of communicating the beef story, like the U.S. Farmers and Ranchers Alliance (USFRA) or the National Cattlemen’s Beef Association (NCBA) Masters of Beef Advocacy (MBA) program. There are also resources like the *NCBA Beef—The Real Story is Your Story*

Worldwide Beef Issues

An international panel addresses worldwide issues and challenges.

by Kasey Miller, associate editor

Even with some export markets being closed, some since 2003, U.S. meat exports have still eclipsed 5 billion pounds (lb.) this year, said Phil Seng, CEO of the U.S. Meat Export Federation (USMEF). Major markets have expanded. Canada, our No. 2 export market, has increased by 13%; Japan, our No. 3 market, has increased by 19%; and Hong Kong has increased by 37%, which shows “the export market continues to perform,” said Seng.

Seng; Arturo Llavallol of the Sociedad Rural Argentina; Guillaume Roué of INAPORC, France; and Hsin Huang, general secretary of the International Meat Secretariat, explained worldwide beef issues to attendees of the International Livestock Congress—USA 2013 (ILC). The event was hosted Jan. 15 in Denver in conjunction with the National Western Stock Show.

Keeping a strong export market

Seng predicted the export market in 2013 would increase by 9%-10% on a volume basis and 13%-14% on a value basis. The export market, he noted, adds about \$225 in value per head.

Trust is a major factor in international trade. Eating is an extremely personal experience. Seng illustrated that international consumers don’t know as much about a foreign country’s production practices, so those consumers must have trust to ingest another country’s product. When the first bovine spongiform encephalopathy (BSE) case occurred in 2003, Seng said many



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markets were offended and affronted because they had placed their trust in American beef.

“BSE was really a wake-up call for all of us about things we needed to do,” he explained. “There were some learnings from that experience. I think number one is we realized our limitations. To a large degree, when I was younger, I thought everything was possible. There were infinite possibilities everywhere. You really learn that you can’t do things totally by yourself or just with your organization.

“One of the things that we recognized, as we did surveys with consumers and looked at what it would take to re-establish this valued trust, is that we just don’t have the dollars to talk about or convey to consumers

around the world our value attributes and production practices.”

The way around this limitation is to target the right audiences. To consumers, the supermarkets in these countries are the farms, he said, similar to the United States. This means that USMEF targets its message to the supermarkets. Supermarkets are the first point of contact with consumers and where credibility can be established.

For example, in Japan, the “We Care” campaign has reached more than 65% total trust from consumers. In Korea, the “To Trust” campaign support is at an all-time high.

From these campaigns, Seng said they have learned that science and philosophy must go hand in hand, and USMEF works with key opinion leaders. It is best when someone outside of the industry conveys your message, he said.

Production challenges

Each panelist explained livestock production in his respective country, and similar issues emerged that the United States faces, as well.

Animal welfare practices were a major concern. Llavallol said the on-farm welfare benefits can be lost in three hours, because many slaughterhouses have poor transport and animal management in Latin America. In Argentina, he said, forest is often compromised for cattle production, but studies have shown that cattle show excellent growth results if forest integrity is kept and used as shade. Finding ways to produce beef

brochure or industry websites with myth vs. fact sections, like that found on the Animal Agricultural Alliance website, in which producers can chime in with their industry experience.

There is plenty of science to defend production practices, like that offered by Frank Mitloehner of the University of California–Davis and Capper, for instance, as well as through the Center for Food Integrity, the Federation of Animal Sciences, and many more. The most important factor is how those facts are communicated.

“Do, in fact, try to be transparent on the use of technologies, because we are seeking trust,” Smith reminded. It is far easier to stay out of trouble than to get out of trouble, he

added. The industry must be transparent enough to stay out of trouble. That way, if a problem does arise, consumers already trust that the industry is working to correct a problem. Additionally, the problem won’t get blown out of proportion in the first place. Such was the case with the cow that was confirmed as positive for bovine spongiform encephalopathy (BSE) earlier this year.

Trust is what the beef industry craves from its consumers, and the way to gain that trust is to use confidence (show that producers have similar values to that of consumers), competence (scientific data) and influential others (like the American Medical Association agreement on not labeling GMO foods), he explained. These three things lead

to trust, which then becomes social license and freedom to operate.

Of these three, he noted, confidence, or values, is three to five times more resonant with consumers than competence, or science.

He gave the example of stores like Sprouts, Trader Joe’s and Whole Foods, at which shoppers believe they don’t have to spend as much time poring over labels because they trust that those companies share their values and do the right thing.

It is now the beef industry’s challenge to get consumers to align their trust with us. Just as the industry can meet the challenge of producing more food, Smith believes that trust is possible, too.



in a symbiotic relationship with existing natural resources is a challenge.

Roué explained that the conflict between anti-ag groups and ag producers is his biggest concern, especially when it comes to high-production practices in the pork industry, but beef producers meet the same challenges. He said society wants to eat, but at a lower price, though urban neighbors complain about intensive production practices.

Consumer challenges

Science gives the luxury of not thinking about the price of food, which leads to waste, said Huang.

“We don’t pay enough or put enough value on food,” he asserted. “Our challenge is to communicate how to produce food that fits with consumers’ concerns and values.”

A giant international challenge, Huang added, is that governments, and even the Food and Agriculture Organization (FAO), think that meat production is bad for the environment and the health of consumers. To combat that, he said that international organizations, like the International Meat Secretariat or the World Organization for Animal Health, are working with the FAO to be more balanced.

Science and government challenges

A major challenge between beef production and trade between the United States and the European Union (EU) is that science is regarded differently in terms of hormones and growth promotants. For a free-trade agreement to occur, the two entities need shared principles.

Huang explained that science can be interpreted in many ways, because it is not as exact as we would like it to be. Humans are subjective creatures, and we can interpret different truths from the data.

The European mind-set toward science



► From left, Guillaume Roué of INAPORC; Arturo Llavallol of the Sociedad Rural Argentina; and Hsin Huang, general secretary of the International Meat Secretariat, joined Seng on a panel discussing the issues of the beef industry worldwide.

is generally to be more cautious of what future effects will be, including what future science may disprove. He said the American mind-set is to trust the science now and deal with future implications as they come. These differences in mind-set affect trade. For now, he said, both entities will have to live with that.

“Nothing offends someone more than telling them their science is wrong,” he explained.

Another question was posed about the government’s role in consumer choice, especially in Europe, where the government bans specific imports containing growth promotants. Huang said that in Europe, many producers and consumers do not like that a central authority makes those choices for them.

However, he granted, the population voted in the legislators who made the regulations, so they must live with the consequences. This particularly affects the agriculture population in these countries because they are the minority and, thus, have less chance of voting in legislators who will enact pro-agriculture legislation.

Roué shared more frustration with regulations in France to production practices,

specifically in regard to animal welfare. This is another reason for ag producers to be proactive in sharing why scientific technology is beneficial to ease fears and lessen regulations.

A final question from the audience asked whether pressure comes from governments, consumers or interest groups. Roué said that pressure in France comes from wealthy anti-ag lobbying groups. These groups gain funding by playing on the emotions of pet owners (sound familiar?). These groups then are able to lobby for more restrictive animal-welfare legislation.

“Are we (the producers) heard on this? I’m not sure,” he said.

Llavallol observed that it is a mixture. Regulations come from governments with which your respective country wants to trade. To increase demand for products, producers try to meet these regulations, and consumers give pressure only once they take notice from the media. He added that governments shouldn’t make so many regulations to which they become impossible to comply, though. He pushed for free-trade agreements. The biggest priority should be producing safe food.

