

A LIGHT THROUGH A KEYHOLE?

After decades of mistrust, cattle feeders and environmentalists
may have found a small piece of common ground.

By Burt Rutherford



John Gillcrist has stared hunger and poverty in the face. He's seen it; he's smelled it; he's heard its cry.

And he knows how to defeat it. The answer is outside his office window.

But the answer isn't necessarily cattle in feedyards and flour in mills. The answer, he said, is in the model that made the production of those cattle and that flour the most efficient in the world.

Bryan Weech has also stared hunger and poverty in the face. His organization has stood in its midst and seen the devastation it brings to the environment and the people who suffer from it.

Weech is director of livestock with the World Wildlife Fund (WWF). Gillcrist, a past TCFA chairman, is president of Bartlett Processing, comprised of Bartlett Cattle Company and Bartlett Milling. What's notable is that Bartlett Milling is the second-largest flour supplier in the country to U.S. food aid programs. As such, Gillcrist has traveled extensively overseas with the U.S. Agency for International Development, the UN World Food Program and private voluntary organizations like Catholic Relief Services and World Vision to help those agencies better bring food to starving people.

To suggest, even a short time ago, that these two men have more in common than they have at odds would have been considered ridiculous, by both sides. But reality has a way of taking the ridiculous and standing it on its head.

And the reality is this—world population today is 6.8 billion people. By 2050, less than 40 short years, it's projected to be more than 9 billion people, 70% of whom will live in cities. Given rising standards of living in many countries, projections are that food production will need to increase 100% to feed those extra hungry mouths.

Everyone can agree on the problem. Agreeing on solutions...well, that's another challenge in and of itself, particularly when you bring together cattlemen and environmental groups—two often polarized camps that in the past have looked at one another across a wide chasm of mistrust and animosity. But it appears there is a light through the keyhole of the ideological door that has long separated cattlemen and environmentalists.

Feeding The Masses

WWF would like to meet the challenge of feeding a growing world population without sticking a plow into any more wildlife habitat. "It's a common realization that we do have an ethical obligation to feed these people," Weech said. "But how do we do that in a way that is sustainable and doesn't use all the resources this planet has to offer?"

Gillcrist and others in the beef business know how it can be done. After all, they've been doing it ever since the GIs returned from WWII and science and technology

put wind beneath the wings of U.S. agriculture.

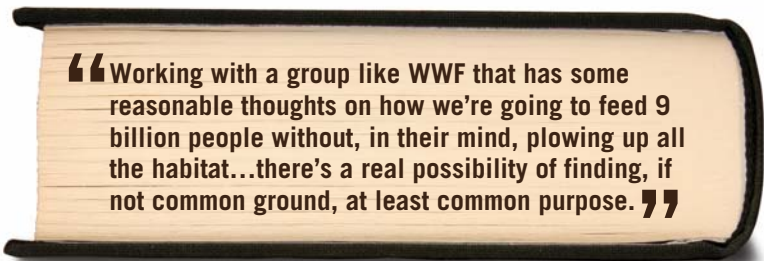
And here's the thing—it appears WWF agrees with them. "We certainly know technology will play an important part," Weech said. "Intensification of management practices will certainly play a part in that."

Details, Details

Does that mean that the U.S. cattle industry, and U.S. agriculture as a whole, agree completely with WWF on how to meet that challenge? No. But at least they're talking, and that in and of itself is quite an accomplishment.

"We decided 7-8 years ago that we needed to work with agricultural industries in these key commodities that are being produced in the areas that we have identified as high conservation value areas," Weech said. "But really to make substantial change, broad-based change that takes into consideration all the factors, we have learned it's important to have all the stakeholders at the table."

The devil, however, is in the details, as the old saying goes. But, if the Global Conference on Sustainable Beef in November 2010 in Denver was an indication, a bridge over the philosophical chasm that has long separated cattlemen and environmentalists, if not completely built, certainly had the guy wires tightened. WWF's partners in organizing the conference were Cargill, Intervet/Schering-Plough Animal Health, JBS, McDonald's and Walmart.



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2010 TCFA Chairman Mike Engler believes the conference “was successful and there was some useful dialog going on.” But there remains the need to reach consensus on just what “sustainability” really means. WWF uses the term “triple bottom line,” which means that true sustainability consists of three elements—environmental sustainability; economic sustainability for the producer; and societal sustainability.

WWF's standard may well be a good one. “I think there's an effort to define sustainability in all aspects of human life,” Engler said, “and food production would certainly be one” area within the sustainability conversation that is generating a lot of attention. “Working with a group like WWF that has some reasonable thoughts on how we're going to feed 9 billion people without, in their mind, plowing up all the habitat...there's a real possibility of finding, if not common ground, at least common purpose.”

Modern Beef Production And The Environment

With modern production practices and technologies, U.S. beef producers are meeting the increasing nutritional demands of a growing global population while making more efficient use of natural resources and reducing greenhouse gas emissions.

Consider these points:

- Feeding cattle conventional corn diets increases growth rates and reduces days on feed compared to cattle on grass-only diets. Thus, to produce the same amount of beef from steers raised to market weight under the less efficient grassfed-only model would require 2.5 times more energy and 12.6 times more land use and also would result in 2.8 times more methane emissions – *Data from report by Jude L. Capper, PhD, assistant professor of animal science at Washington State University*
- The calf crop in the United States has decreased from 1964 (43 million head) to 2008 (36.1 million head), yet the amount of beef produced has increased from 18 billion pounds in 1964 to 26.7 billion pounds in 2008 – *Data from United States Department of Agriculture's National Agriculture Statistics Service*
- Without modern beef production technologies, an additional 165 million acres of grazing lands would be required in order to maintain today's beef production levels – *From "Fifty Years Of Pharmaceutical Technology And Its Impact On The Beef We Provide To Consumers," by Thomas E. Elam, PhD, President, Strategic Directions; and Rodney L. Preston, PhD, Thornton Professor Emeritus, Texas Tech University*
- Despite inaccurate claims by anti-meat groups, American livestock production is responsible for far less greenhouse gas (GHG) emissions than transportation. Thanks to modern production practices, only 2.8% of annual GHG emissions in the U.S. can be attributed to livestock production, compared to 26% from transportation – *United States Environmental Protection Agency Data*
- To feed an additional 2.3 billion people, global food production must increase by 70% by 2050, an objective that relies almost entirely on technological advances to increase production capacity – *Analysis by the United Nations' Food and Agriculture Organization*
- U.S. livestock production practices should be considered a model for the rest of the world – *Analysis by the United Nations' Food and Agriculture Organization*

As beef producers continue to build on a strong record of safeguarding resources, modern technology will enable the industry to manage a larger herd in the future in a sustainable way.

The clock is ticking. "I think they're concerned that if we don't get something in place now, it's going to be too late when people are hungry," said Bill Donald, NCBA president. The quality of the environment is going to drop into a secondary role pretty quickly if people are faced with a choice between eating and preserving wildlife habitat, he observes.

"And it seems to me the industry can bring a lot to the table as far as feeding these extra 2 billion people in 40 years. And a lot of that is technology and efficiencies and our ability to take renewable resources like grass and grains and turn them into high quality protein."

So is it possible to feed everybody? Engler thinks we have no choice. "We have to," he said. "So it's just up to the imagination and the determination and the ingenuity of farmers, ranchers and cattle feeders around the world to do it. Otherwise, people are going to starve and we're going to have wars over food."

Key Is Efficiency

On that, all can agree. The rub, however, comes in how and where to best apply science and technology to further increase food production on a planet that isn't growing any more land but is adding people at, what to some, is an alarming rate. WWF looks at it from the perspective of "freezing the carbon footprint."

"We think we should have a goal to freeze the footprint of agriculture," said Jason Clay, senior vice president, market transformation, with WWF. "Does that mean freeze production? No. Does that mean freeze input use? No. It means get more efficient about it."

Clay said globally, the better producers are already producing 100 times more than the worst producers for any given commodity. "The better countries are 10 times better in production than the worst countries. And even within a country, some producers are three to four to five times better than the worst producers. The bottom 25% of producers in any food production system cause 50-60% of the impacts that people care about. Getting the bottom to move is where we will have the biggest gains. So there's a lot to be gained by increasing efficiency."

Significant Gains Already

Indeed there is. And U.S. cattlemen are doing exactly that, according to Dr. Jude Capper, an assistant professor of animal science at Washington State University.

Capper compared U.S. beef production in 1977 and 2007 and found that the U.S. produced 23.3 billion lbs. of beef in 1977, with a total cattle herd of 122.8 million. By 2007, beef production had increased to 26.2 billion lbs., produced from a herd numbering 96.5 million.

"We improved slaughter weight from 1,030 lbs. to 1,335 lbs.," she says. "But possibly the most important thing, we cut the average age at slaughter from 608 days to 485 days." That means more efficient use of resources and less environmental impact.



Her data bear that out. Using 1977 as the baseline, she concludes that U.S. cattlemen are producing 31% more beef per animal and are doing it with 41% fewer animals. Further, U.S. cattlemen are using only 80% of the feed they used in 1977, 86% of the water and 70% of the land.

In terms of environmental impact, cattle in the U.S. are producing 79% of the manure they produced in 1977, 79% of the methane and 88% of the nitrous oxide.

That means, Capper concludes, that the U.S. cattle industry reduced its carbon footprint 18% in the three decades between 1977 and 2007.

“If we continue to improve productivity over the next 10, 20, 30 years, we should further cut natural resource use, greenhouse gases and the carbon footprint per pound of beef,” she says.

According to Weech, cattle feeding can play a role and WWF recognizes it as an important production strategy in the United States. “We also recognize there are things that can be done to make it more sustainable and we want to work with the industry to find those.” But he stresses the WWF belief that “where intensification makes sense, then we should do that. But there are issues that need to be taken into consideration and where we can make improvements, we need to do that.”

Cattle feeders wouldn’t argue with that. After all, that’s been their goal ever since “modern” commercial cattle feeding came to the High Plains back in the 1950s and 60s. If there’s an efficiency to be gained, cattle feeders are all in.

Low-Hanging Fruit

But Gillcrist said we should consider this question: Where’s the low-hanging fruit? Estimates are that there are just shy of 1 billion cattle worldwide. Of that total, it’s estimated that 230 million are in Africa, 105 million are in China and 304 million are in India.

“And so, of the cattle in the world, most are not in developed countries,” Gillcrist said. “And (those developing areas) have a poor or very inefficient carbon footprint versus our conventional North American model where we only have 92.6 million cattle and 300 million people.”

Yet, Gillcrist said the focus of some of the attendees was on reducing the carbon footprint in North America, because that’s where beef consumption is higher. In his mind, that misses the point.

“My feeling is there’s not a lot of low-hanging fruit in our model,” he said. “Why are we talking about (the beef production model in) the United States? Let’s talk about the model in Africa, let’s talk about the model in India, let’s talk about the model in China.” Those three, he said, represent the vast number of cattle in the world. “And probably the least efficient carbon footprint. Can we move the needle significantly in those countries by borrowing technology from countries like the U.S., Canada, South Africa, Australia and Brazil?”

However, making substantive change through science and technology is much easier in places where science and technology are already accepted and utilized. And Gillcrist recognizes there’s going to be some pushback to the idea of “exporting” the cattle production model employed in the developed world to less developed areas because many people in the developed world haven’t bought into the idea of intensive agriculture.

Research Has A Role

Just as it has for 40-plus years, TCFA will rely on science to provide the answers to cattle feeders’ questions. Whether it’s how to feed 9 billion people or how to better feed one pen of steers, research will help find the answer.

That’s why research funding has always been a priority for the Association. “Every year, TCFA issues a ‘request for proposals’ that is distributed to researchers in the area and, based on the priorities set by the TCFA Research Committee, typically three to four proposals are selected for direct research funding,” said Ben Weinheimer, P.E., TCFA vice president. And while the emphasis of the TCFA Research Committee has changed over the years, the intent has never wavered—identify and fund research that will keep cattle feeders ahead of what’s coming at them.

TCFA began funding research in 1970. While production-oriented research was the emphasis, a look at the list of early work shows that even then, TCFA recognized the importance of understanding consumer and environmental issues. In fact, the first research project TCFA funded looked at consumer attitudes about fed beef. And the second dealt with water quality.

Not only that, but TCFA has long been a leader in working with universities in Cattle Feeding Country to prioritize research and secure state and federal funding. “We work closely with universities on their annual funding requests to state legislatures and to Congress at the federal level,” Weinheimer said. Because TCFA has input on research priorities, “It gives us something we can stand behind, work with our legislative representatives on and encourage them to support. And we’ve been successful in doing that.”

TCFA will continue to look to science for answers to not just today’s challenges, but tomorrow’s. “The Association has an obligation to answer pressing issues that feedyards are being faced with today,” Weinheimer said. “We also have an obligation to look down the road and ask, ‘What’s next?’”

For a list of TCFA research projects, go to <http://www.tcfa.org/Research/RsrchRpt.htm>

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So perhaps the first challenge is also the same challenge that has confronted the battle to fight hunger and poverty for 100 years or more. It's not necessarily a question of whether or not farmers worldwide are able to grow more food, but will they be allowed to?

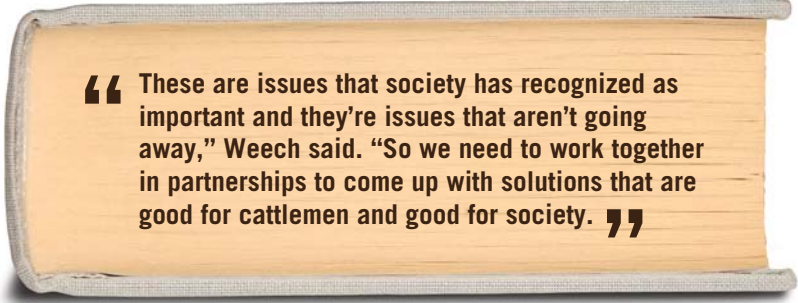
"We need to figure out, particularly in Africa, how we can incent people to be more efficient. And to own the land they farm. With the systems today, there's a disincentive for them to farm in most countries and a disincentive for them to be very efficient," Gillcrist said.

What's Next?

"Unless I'm totally misreading it, and I don't think I am, there's potential for (NCBA and WWF) to work together," Donald said.

Engler agrees. While he says the proof will be in the pudding, as the saying goes, he said there is no reason at this point why cattlemen shouldn't continue the conversation that was started last November. He argues, though, that while discussions about increasing production efficiencies are important, water will be the big issue going forward. "If we can get enough water, we can feed everybody. If we run out of water, that starts to get scary."


In addition, while WWF is the world's largest conservation organization, cattlemen would like to see other conservation and environmental groups come to the table. Weech said discussions with other conservation groups are ongoing. And Gillcrist said he'd like to see more representation from less developed areas, particularly Africa, India and China, which were not well represented at the first conference.

A graphic of a rolled-up scroll with a light brown, textured surface. The scroll is unrolled in the middle, revealing a quote in bold black text. The quote is: "These are issues that society has recognized as important and they're issues that aren't going away," Weech said. "So we need to work together in partnerships to come up with solutions that are good for cattlemen and good for society." The quote is flanked by large, stylized quotation marks on both sides.

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According to Weech, WWF's objective is to develop a global roundtable on sustainable beef, which will act as a forum to move the process forward. "We think there will be tremendous opportunity in the very near future to move in a constructive and meaningful way," he said. Likely, that means additional meetings in other parts of the world in 2011 and 2012.

In the meantime, those in Cattle Feeding Country are cautiously optimistic that real progress is possible in advancing true, on-the-ground and meaningful efforts to ensure the world can feed an extra 2 billion or more mouths. "These are issues that society has recognized as important, and they're issues that aren't going away," Weech said. "So we need to work together in partnerships to come up with solutions that are good for cattlemen and good for society."

To see presentations and conclusions from the November 2010 Global Conference on Sustainable Beef, go to www.sustainablelivestock.com. 

EDITOR'S NOTE—Burt Rutherford is senior editor at BEEF magazine.

