

# EFFECTIVE COMMUNICATION

BY GREG HENDERSON

If you make your living operating a ranch or feedyard, your days are filled with an array of tasks that require you to be an expert in many fields. One minute you may be fixing a broken wire in a fence, and the next minute you may be talking on a cell phone with a commodity broker making a marketing decision that can dramatically affect your income for the year. ¶ The everyday stress of managing a cattle opera-

tion can be exhaustive for even the best of managers. And even just a little time away from the ranch or the feedyard can be beneficial. Maybe it's a long weekend away with your spouse, or maybe it's just a one-day trip to a nearby city for an industry meeting. That time away can be restful, but it can also put you in contact with some of the most important people in your life — beef consumers. Are you prepared for that contact?

If your business is producing beef, people outside of the industry may expect you to be able to answer a variety of questions about beef production. To help you prepare for those important encounters with consumers, the following articles provide you with beef industry talking points, concise answers to questions consumers may ask you about beef.

Topics include: communication; beef safety; hormones and antibiotics; family vs. factory farms; environment, organic, natural and grass-fed; nutrition and animal welfare.

But just knowing the facts about your industry is not enough. How you communicate those facts also is important. Mike Swenson, president of Barkley Evergreen Partners public relations firm in Kansas City, Mo., offers the following pointers for effective communication:

■ **USE QUESTIONS TO DISARM.** If someone says something negative about your industry, respond by asking questions. “Why do you say that?” or “Where did you hear that?” are good examples. When you do respond, you can say, “That’s funny, I hear that a lot, but it’s really not true.” And then proceed with your explanation.

This is a good technique to disarm and then engage the person in a conversation.

■ **AVOID THE INSTANT DEBATE.**

If someone makes a factually incorrect statement, don't say, “You're wrong and let me tell you why.” That simply polarizes the situ-

ation and starts an instant debate that could become confrontational. Instead, you need to think like an ambassador. Ask questions, listen and try to develop a relationship so a fruitful conversation can be established in which information is shared.

■ **KEEP TALKING POINTS READY.**

Develop a few key messages that share something positive about what you do, your industry or the products you produce. These are your brand messages. Commit them to memory or laminate them on a note card.

■ **AVOID CONFRONTATIONAL PEOPLE.**

If someone is not a listener, or has had a bad experience with beef and wants to be confrontational, then it's probably best to back off and agree to disagree. A tactful way to do that is to say, “I appreciate that you are passionate about your point of view. And I'm really passionate about what I do. In this case, we can agree to disagree.”

Because you live in the beef industry everyday, no one can tell beef's story like you can. Today's beef industry has many positive messages, and those messages can help consumers gain a better understanding of your industry. We hope you'll find this issue useful as you prepare for your next opportunity to speak up for beef. ✓

## COMMUNICATION TALKING POINTS

■ **Use questions to disarm.** If someone says something negative about your industry, respond by asking questions. Then proceed with your explanation.

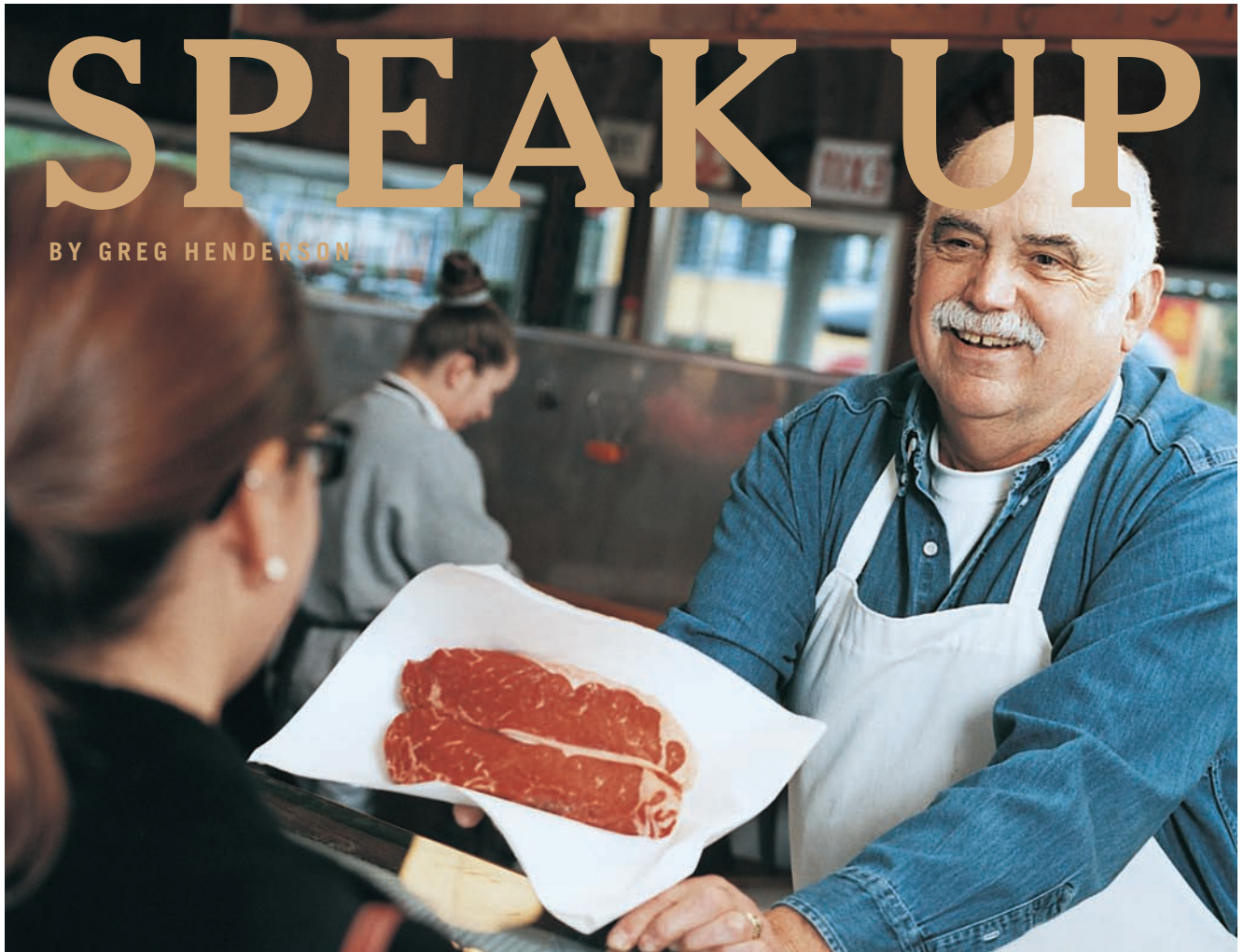
■ **Avoid the instant debate.** If someone makes a factually incorrect statement, ask questions, listen and try to develop a relationship in which information is shared.

■ **Keep talking points ready.** Develop a few key messages that share something positive about what you do, your industry or the products you produce.

■ **Avoid confrontational people.** If someone is not a listener, or has had a bad experience with beef and wants to be confrontational, then it's probably best to back off and agree to disagree.

# SPEAK UP

BY GREG HENDERSON



In mid-October, 2006, America's population topped 300 million people, nearly double the number of Americans counted in the 1950 census. America's population is characterized as slow growth, even though the U.S. population more than tripled during the 20th century, a growth rate of nearly 1.3 percent a year. ¶ America's growing population, however, shifted rapidly in the 20th century from a

rural society to an urban one. Today, more than 80 percent of the U.S. population lives in urban or suburban areas. While America's urban population grew, the number of farms declined. In 1935 there were about 6.8 million farms in America. Today that number is close to 2.1 million farms. Additionally, U.S. census data indicates the average farmer is 55 years old, while the median age of all Americans is 35 years. That age differential helps explain the

disconnect between today's farmers and consumers.

Fifty years ago, most consumers still had grandparents or relatives who farmed. In other words, the average consumer still had "roots" in agriculture. That's not the case today.

Farmers and ranchers are being encouraged to reconnect with consumers because many don't understand where their food comes from or how it is produced. For instance, the def-

## FOR BEEF

*Learn how to talk to beef consumers.*

BEEF INDUSTRY  
TALKING POINTS  
**Beef Safety**

inition of an “agriculturist” was once well understood. But today’s consumer doesn’t realize that an agriculturist is also an environmentalist and an animal-welfare expert.

#### SAFE AND WHOLESOME

America’s food supply is often touted as the safest in the world. Those claims are backed by a variety of government agencies working in tandem to regulate and inspect food production, processing, retail and food service.

Despite America’s reputation for having a safe and wholesome food supply — or maybe because of it — every foodborne illness outbreak or threat of one becomes a major news story. And since September 11, 2001, Americans are not only worried about accidental foodborne illnesses, they’re now concerned about terrorist threats to our food supply.

“Our farmers and ranchers and all those involved in the ag sector, including the processing plants, the safety inspectors, those who do the transportation, do their jobs so well that we might be tempted to take our safe food supply for granted,” U.S. Agriculture Secretary Mike Johanns told those attending the International Symposium on Agro-terrorism in Kansas City in September, 2006. “That would be one of the biggest mistakes we could make.

“Agricultural goods pass quickly from one nation to another nation, from state to state. But disease and pathogens can travel just as quickly and as easily as trade, and they have no respect for borders or boundaries.”

Such an assessment from the U.S. ag secretary can inspire and encourage those in agriculture to work harder to improve our food system. However, those same words can create concern among consumers. If the only information consumers receive comes from those with an anti-farm agenda, then the industry must constantly defend itself. That’s why beef producers need to become more proactive and share positive messages with consumers.

#### BSE TALKING POINTS

Bovine spongiform encephalopathy is a chronic degenerative disease that affects the central nervous system of cattle. BSE is named because of the spongy appearance of the brain tissue of infected cattle.

■ Cattle become infected with BSE by eating feed contaminated with the infectious BSE agent. In 1997, the U.S. Food and Drug Administration prohibited the use of most mammalian protein in the manufacture of animal feed intended for cattle and other ruminants.

■ The incubation period for BSE is from 30 months to eight years, with only a few rare exceptions in younger animals. The vast majority of cattle going to market in the United States are less than 24 months old.

■ All U.S. cattle are inspected by a USDA inspector or veterinarian before going to slaughter, with high-risk animals identified for BSE testing. Meat from cattle being tested for BSE is held until the test results are confirmed.

■ BSE infectivity is found primarily in central nervous system tissue such as brain and spinal cord. U.S. beef is safe from BSE because the parts of the animal that could carry BSE are not allowed into the food supply. In 2003, USDA strengthened its food safety program by banning from the human food supply any cattle that are unable to walk or show signs of possible neurological disease.

■ BSE infectivity has not been found in beef such as steaks, roasts and ground beef. It is found in central nervous system tissue such as brain and spinal cord. Tests on the muscle of naturally and experimentally infected cattle have been negative for BSE, even in advanced stages of the disease.

To help you accomplish that, *Drovers* has developed beef industry “talking points.” Use them to respond to consumer questions. ✓

# EFFICIENT AND SAFE

*Modern beef-production tools benefit producers and consumers.*



WHEN CONSUMERS SELECT BEEF FROM THE MEAT CASE or take their first bite of a well-prepared beef dinner, they want good flavor, overall eating quality and safety, all at a reasonable price.

They typically do not think about all it took to bring the product to their plates — how producers work to protect animal health, beef quality and safety, while enhancing animal performance. They probably give no thought to the complexity of a beef-production system that offers profit opportunities for seedstock, cow-calf, stocker and feedlot producers as well as packers, processors and retailers, while still keeping beef affordable.

Most don’t consider the management tools and practices that make this production system possible, but when they do, misunderstanding is common. Vegetarian and animal-rights groups regularly make the false accusation that beef is “pumped full of hormones and antibiotics.” They repeat the claim so often that some consumers begin to accept it as a fact.

The truth is far different, and producers can help protect consumer confidence by explaining at every opportunity how hormones and antibiotics, used responsibly, contribute to a production system that provides an abundance of delicious, safe and affordable beef. ✓

## HORMONES AND ANTIBIOTICS TALKING POINTS

### HORMONES

■ Kansas State University Extension feedlot specialist Chris Reinhardt explains that hormone implants used in beef production can contain an estrogenic (female-type) hormone, an androgenic (male-type) hormone or a combination of both. These implants simply increase nutrient deposition fueled by increased intake, making cattle more efficient.

■ Research shows that implants improve daily gains in suckling calves by approximately 6 percent, in stocker cattle by 12 to 15 percent and in feedlot cattle by 15 to 25 percent.

■ Without implants, Reinhardt says, production costs throughout the beef chain would increase by roughly 7 percent due to reduced sale weight and higher cost of gain. This would lead to higher cost of beef, which would decrease beef's market share at retail by about 2 percent, cause the loss of roughly \$40 million in retail sales and reduce the nation's cow herd by about 5 percent.

■ Implants, Reinhardt says, can result in higher levels of hormones in beef, but the size of the increase is insignificant (see tables 1 and 2 below).

■ Reinhardt says implanted animals can excrete small amounts of hormones into the environment, but the active molecules are degraded within a few weeks in the soil.

■ Since 1989, the European Union has banned imports of meat from animals treated with growth-promoting hormones. In response to U.S. objections, the World Trade Organization commissioned independent experts to conduct a study, which found no evidence that hormones create any health risk. In 1997, WTO ruled that the ban is not based on scientific evidence.

■ Some research has shown that the most

#### 1. HOW MUCH ESTROGEN IS IN IT?

PRODUCT	AMOUNT OF ESTROGEN
Soybean oil	168,000 ng*
Wheat germ	3,400 ng
Cabbage	2,000 ng
Ice cream	520 ng
Peas	340 ng
Potatoes	225 ng
Milk	11 ng
Beef from a treated steer	1.9 ng
Beef from organic-raised steer (no growth promotants)	1.3 ng

#### 2. NATURALLY OCCURRING ESTROGEN

TYPE OF PERSON	PRODUCED DAILY
Non-pregnant adult woman	86,000–513,000 ng*
Pregnant adult woman	65–120 million ng
Adult man	100,000–136,000 ng
Female child (prior to puberty)	54,000 ng

\*Nanogram (ng)=one billionth (10<sup>9</sup>) of a gram  
Sources: Hoffman and Evers (1986); Scanga et al. (2004); FSI-USDA (1994)

aggressive implant programs could adversely affect beef tenderness. Producers who raise cattle for natural programs or for premium branded-beef programs can choose to not use implants, but the programs need to offer significantly higher prices for cattle to account for higher production costs.

### ANTIBIOTICS

■ Kansas State University veterinarian Mike Apley says antimicrobial products have three uses in beef production — therapeutics, prevention and growth promotion.

■ According to the American Veterinary Medical Association, "Antimicrobials are needed for the relief of pain and suffering in animals caused by bacterial diseases. Many animal diseases cannot be prevented, controlled or treated by changes in management or husbandry practices alone, or with supportive therapy, and therefore require antimicrobial therapy."

■ Use of antibiotics for growth promotion in cattle is limited, Apley says. Ionophores, used as feed additives, fit the definition of antimicrobials but are not similar to any antibiotics used in human medicine. There is one antimicrobial, virginiamycin, that is approved both for growth promotion in cattle and for treatment of certain infections in humans. A recent FDA risk-assessment study, however, found no demonstrable link to resistance issues in human medicine.

■ Veterinarians sometimes recommend preventative use of antibiotics in groups of cattle at high risk for a disease outbreak. Apley says under these circumstances the treatment can significantly reduce the incidence and severity of disease, and therefore the need for extensive antimicrobial use later in the production cycle.

■ Animal-health companies, Apley explains, undergo a detailed process of demonstrating the safety and efficacy of antimicrobial products prior to approval. They conduct several studies to determine appropriate dosage and withdrawal times and to assure that the product will not leave any harmful residues.

■ Guidance 152 is an FDA requirement introduced in 2002 that subjects all new antibiotic approval applications to a thorough and stringent resistance-risk assessment.

■ The FDA has set residue tolerances and built safety margins into withdrawal times to assure that beef marketed to consumers is safe.

■ The Institute of Food Technologists recently commissioned an international group of scientists to study the issue of antibiotics in animal agriculture. The panel released its report, *Antimicrobial Resistance: Implications for the Food System*, in June 2006. The report indicates that eliminating antimicrobials from food-animal production may have little positive impact on resistant bacteria of concern to human health. "Prior human exposure to antibiotics is the greatest factor for acquiring an infection with antibiotic-resistant bacteria," says microbiologist Michael P. Doyle, Chairman of the IFT expert panel.

■ Apley says producers and veterinarians work to reduce antibiotic use by focusing on disease prevention. Good nutrition and the use of vaccines in comprehensive preconditioning programs can significantly reduce disease incidence and the need for treatment in later production stages.

■ Producers have a strong financial incentive for preventing disease. Some of the new antibiotics, Apley points out, can cost as much as \$25 per animal treated.

■ Researchers at Colorado State University, in cooperation with Pfizer Animal Health and Superior Livestock Auctions, collected data on calves enrolled in preconditioning programs between 1995 and 2004. In 1995, premiums averaged \$2.47 per hundredweight, but by 2004, the spread widened to \$7.91 for VAC 45 calves.

■ Apley stresses that the food-animal industry and human medical profession must continue to focus on disease prevention and judicious antibiotic use to protect the efficacy of these products in animals and humans.

■ A statement from AVMA acknowledges that the use of antimicrobials for treatment, prevention or control of disease could cause the emergence of resistance. Beginning in 1998, AVMA instituted a series of actions to lessen the potential risk including development of judicious-use guidelines.

BEEF INDUSTRY  
TALKING POINTS

**Hormones and  
Antibiotics**

## Family Farms vs. Factory Farms



## FAMILY-FARMS VS. FACTORY-FARMS TALKING POINTS

- 98 percent of farms are considered family farms, which are defined as operations organized as proprietorships, partnerships or family corporations that do not have hired managers.
- 91 percent of farms are considered small. These farms hold about 71 percent of all farm assets including 70 percent of land owned.
- 9 percent of farms are considered large and very large family operations. Larger farms account for 73 percent of the value of production.
- Small farms are defined as having sales of less than \$250,000.

Source: USDA-ERS 2005 Family Farm Report based on 2003 ag census data

# FARM SIZE MATTERS

MANY AMERICANS HAVE THEIR OWN PERCEPTIONS regarding what constitutes a family farm. Their idea of a family farm may have been taken from the pages of *Charlotte's Web*, *Little House on the Prairie* or from stories told by grandparents and great-grandparents. In these books and stories, the farm consists of diversified crops and a variety of livestock kept in small paddocks surrounding a barn, where one family worked around the farm.

The face of agriculture production has changed tremendously over the last few decades. The fact remains, however, 98 percent of farms are considered family farms, which are defined as operations organized as proprietorships, partnerships or family corporations that do not have hired managers. That data is based on USDA's 2003 agriculture census.

While families continue to control the farms, the scale of these farms has grown in order to remain competitive. For example, economies of scale in the beef industry used to suggest that 100 head of beef cows were necessary to sustain profitability. Today, that figure is likely 200 head of cows or more. Otherwise off-farm income is necessary to sustain the business. Additionally, small-farm households are receiving most of their income from off-farm sources. Combining farm and off-farm income, the median

farm-household income in 2003 stood at \$47,600, according to USDA's Economic Research Service 2005 Family Farm Report

Farming, in general, is a family business and in order to attract additional family operators, expansion is necessary. According to the Family Farm Report, since the late 1980s production has shifted sharply to very large farms and nonfamily farms. The shift away from these small farms will likely continue due to negative operating profit margins and the aging of small-farm operators.

In the beef business, cow-calf and seedstock operators have avoided some of the negative perceptions of large-scale or "corporate" farming. Feedyards, however, do have to deal with those perceptions. Even in that segment of the cattle business, says Burt Rutherford with the Texas Cattle Feeders Association, most of the feedyards in their membership area are not corporate owned, but rather owned by groups of individuals or family members involved in cattle production.

### WHAT IS A FACTORY FARM?

"The term 'factory farm' is an extremely toxic term," says Aaron Putze, executive director of the Coalition to Support Iowa's Farmers. "It can't be defined."

If someone accuses you of owning a factory farm, put the burden of a definition on them. Putze offers some examples of definitions he's heard:

- "A factory farm is anyone who needs a permit to operate."
- "A factory farm is anyone who produces anything in volume."
- "A factory farm is anyone who stores manure in a pit."
- "We can't define it, but you'd know if you saw it."

"By asking for a definition, you create an educational opportunity," Putze says. "It gives you an opportunity to discuss the issues and let them know that the agricultural community is paying attention. Words mean something. If a word can't be defined (accurately), then it shouldn't be used to characterize an occupation or way of life."

The Coalition to Support Iowa's Farmers helps educate consumers about the importance of food production. Visit the Web site at [www.supportiowasfarmers.org](http://www.supportiowasfarmers.org). ✓

*Dispel the myth that bigger is bad and smaller is good.*

BY KIM WATSON

# ENVIRONMENTAL FACTS

DEFORESTATION. SOIL EROSION. WATER POLLUTION. GLOBAL WARMING. These are some of the charges leveled against the cattle industry. How can we respond?

It's been said many times that producers can no longer assume consumers are familiar with agriculture, so offering accu-

rate information to the public is more important than ever. It's equally obvious there are some misperceptions circulating out there, some spread out of ignorance, some spread purposefully by groups with agendas different from yours.

The result is confusion. "There is a population of concerned citizens, but they're not sure exactly what they're concerned about," says consultant Jim Lauderdale.

"The consumer has a right to make a decision. Our responsibility is to communicate from science and present information so it's understandable and receivable."

A basic point is that it is in the ranchers' best interest to take care of the land, and that they have a considerable amount of knowledge about how to do it. "People need to understand that farmers and ranchers are out there every

*Consumers want to know how cattle affect the environment.*

BY SUZANNE B. BOPP

BEEF INDUSTRY  
TALKING POINTS  
**Environment**

day,” says Karen Batra, director of public affairs for National Cattlemen’s Beef Association. “We’ve seen many initiatives from ranchers to maintain the health of the resources.”

A quick Internet search will reveal plenty of accusations to the contrary. “Overgrazing is a charge raised by environmentalists in an effort to get control of the public lands,” says Dennis Avery, a senior fellow at the Hudson Institute. “The problem is they don’t know what to do with them. You can’t let it grow into brush and start wildfires.” Evidence shows that grazing the land, as the bison did, is the best thing for it; the trick is to make cattle move around like the bison did. “We do this now with electric fences,” Avery says. “In addition, we have built a system in which young cattle are fed in feedlots. That eases the pressure on land.”

#### IMPROVED AGRICULTURE

Another point to make to a consumer is that the amount of milk, meat and eggs we make per acre has doubled in the last 30 years, Avery says. That fact has allowed the United States to put land back into forest; in fact, the Forest Service reports there are more trees in the lower 48 states now than there were when Columbus landed, thanks to better crops, better pest control, better feed and better livestock breeding. “Nearly one-third of the planet’s land area is still wild because of higher-yield farming,” Avery says. “People may dream of an organic farming mandate, but a Danish study showed that allowing only organic farming would reduce Denmark’s food production by 50 percent.”

And today’s farming practices have reduced soil erosion. No-till agriculture reduces erosion by up to 95 percent with no loss of yield.

Talking to the public is an opportunity to get such facts out there. Consumers may not have any direct experience with agriculture, so they can know only what they read and hear about it. It may be possible to turn them into allies, not adversaries. But there’s only one way to do it. ✓

## ENVIRONMENTAL TALKING POINTS

### WILDLIFE

- We lost half as many major species in the last third of the 20th century as we did in the last third of the 19th century.
- There are many examples where wildlife and cattle coexist and ranchers maintain the habitats that allow them to do that. In the eastern and central parts of the country, wildlife is almost totally dependent on ranches, farms, and other private lands and landowners.
- A study in *Conservation Biology*, Summer 2005, showed cattle grazing plays an important role in maintaining wetlands.

### FEEDLOTS

- Feedlots are permitted. There are many regulations and requirements governing waste management.
- Feedlots are managed by responsible individuals. They have containment requirements that work. We may have an accident someday, but we have good containment programs.
- Manure from feedlots is a resource we shouldn’t waste. We can manage manure for a number of uses, including organic fertilizer for lawns and crops. This reduces the amount of commercial fertilizer farmers need to buy, which, in turn, saves on natural resources consumed. These things are works in progress and are the subjects of ongoing studies.
- If we took cattle out of feedlots, we would have to clear a tremendous amount of land and turn it into pasture.

### OVERGRAZING

- There are areas of public land that are not healthy, but it’s not just from cattle. Wildlife use the land too. They cannot be managed as cattle can.
- NCBA has long advocated more resources be devoted to monitoring the lands. Ranchers themselves have many voluntary programs in place.
- There are situations where the land is in better condition than it would be without grazing. Wildfire control is one example; cattle eat what would otherwise become fuel for wildfires.
- Grazing issues are addressed through federal and state rules and regulations. Permits identify how many animals can be on the land at different times.
- There are substantial fines for disobeying grazing regulations.
- Farmers and ranchers rely on those resources. Their practices need to be sustainable for them to continue grazing and making a living.

### METHANE

- Cattle do emit some of the gases that are blamed for global warming, but science continues to show that they do not do so in the quantities that some environmentalists claim.
- Only about 2 percent of U.S. greenhouse gas emissions in 2001 were from methane produced by all domestic livestock.
- Landfills, natural gas and oil systems, and coal mining accounted for two-thirds of U.S. methane emissions in 2001.
- Research is ongoing to get cattle more efficient in digestion and reduce their emissions.

### PRODUCING FOOD FROM THE LAND

- Rather than taking food out of the mouths of humans, cattle consume forages and feedstuffs that humans could not eat, such as citrus pulp, almond hulls and brewers’ grains, and turn them into a nutrient-dense food.
- The soybean product that is fed to cattle is made from bean flakes, which are what remains after soy oil is taken out for human consumption.
- Globally, beef cattle consume only 5 percent of total cereal grain production.
- It takes an average of 2.6 pounds of grain to produce a pound of beef in the United States.

### WATER USE

- U.S. agriculture accounts for about half of the water used nationwide.
- Total livestock production accounts for about 11 percent of U.S. water used. That includes water to grow crops for livestock (9.7 percent of all water use) and what livestock consumes (1.2 percent of all water used).

BEEF INDUSTRY  
TALKING POINTS  
**Organic, Natural,  
Grass-fed**

# DESIGNER LABELS

BY JOHN MADAY



were “food secure” throughout the entire year 2004. This means they had access, at all times, to enough food for an active, healthy life for all household members.

However, the agency’s survey indicates that almost 12 percent of households were “food insecure” at least some time during that year. The continuing challenge of domestic and global poverty underscores the need for efficient production that keeps food afford-

## TRUTH IN ADVERTISING

Gary Smith says the availability of beef with specific “credence attributes,” or what he refers to as “designer beef,” is positive for the industry and consumers. There are some consumers who simply would not eat beef if all they could get was commodity product from the conventional production system. If they want “natural,” “organic” or “grass-fed” beef, and are willing to pay for it, that demand creates profit opportunities for producers and processors.

A key issue, Smith says, is the way in which companies market and promote these products to the public. Claims such as “chemical-free” or “hormone-free” simply are false since all foods are comprised of chemicals and animals produce hormones naturally. Unsubstantiated claims that a product is healthier or safer than conventional beef also are misleading and harmful to the industry. Conventionally produced beef, he stresses, is wholesome and safe. Designer beef offers consumers a choice, but he says, “Don’t make claims that are not supported by science.”

AMERICANS SPEND LESS THAN 10 PERCENT of their disposable income on food. That’s an average, of course, based on data from the USDA’s Economic Research Service. Food purchases take a bigger bite from the budgets of low-income families, even if they shop for the best values. Consumers on the higher end of the income scale, meanwhile, can buy specialty foods from the most exclusive stores and dine in high-end restaurants, while spending far less than 15 percent of their income on food.

The majority of Americans can afford to eat well. According to USDA/ERS, 88 percent of American households

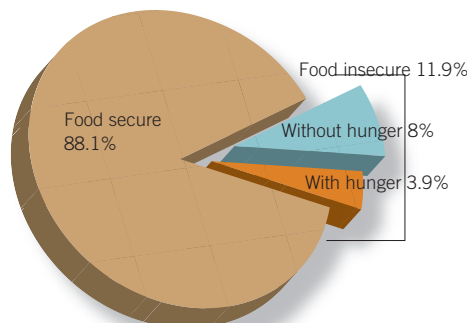
able, while still generating profits for producers and processors.

On the other hand, demand for premium, specialty products offers opportunities for producers to pursue higher sale prices while accepting higher production costs. Not long ago, there really was just one type of consumer for beef in the United States, says Iowa State University economist John Lawrence, and the main priority was price. Today, he says, society is more diverse, with more consumers willing to pay higher prices for products with specific traits.

Gary Smith, Monfort distinguished professor of meat science at Colorado State University, agrees. Smith says packer sources have told him that for about 70 percent of consumers, price remains the primary consideration in their beef purchases. The other 30 percent are able and willing to pay what it costs to get the attributes they want, such as the improved palatability of premium, branded beef or the less-tangible benefits of beef from natural- or organic-production systems.

So what are the differences between conventional beef and some of these specialty products? ✓

FOOD SECURITY STATUS OF U.S. HOUSEHOLDS, 2004



Source: Calculated by ERS using data from the December 2004 Current Population Survey Food Security Supplement.

## ORGANIC-, NATURAL-, GRASS-FED-, CONVENTIONAL-BEEF TALKING POINTS

### NATURAL AND ORGANIC BEEF

- USDA defines natural beef as “minimally processed containing no additives.” Gary Smith, Colorado State University, says this definition fits all fresh beef that does not have an ingredient label identifying additives such as a marinade or solution.
- Meat companies can expand the definition of natural to include specified production practices. Typically these programs restrict or ban the use of hormones or antibiotics and may specify types of feed or other production practices.
- USDA's definition of organic beef is much more specific. Under the Organic Food Production Act of 2002, Certified Organic Beef must meet USDA National Organic Program standards which specify that cattle must be fed 100 percent organic feed, but may be provided certain vitamin and mineral supplements. The program does not allow the use of growth-promoting hormones or antibiotics. The NOP also requires pasture access for cattle that are being grain-finished.
- In organic production, and most natural-beef programs, cattle that become sick and need antibiotic treatment fall out of the program and into a conventional marketing system.
- Smith says the natural beef accounts for about 1 percent of all beef sold in the United States. The current market for organic beef is smaller, about one-tenth of 1 percent.
- Although currently small, the market for natural and organic beef is growing at a 20 percent annual rate. Organic food, with annual sales worth about \$10.4 billion, is the fastest-growing segment of the American food industry.
- Consumers have a variety of reasons for choosing natural or organic foods, Smith says. In one national survey, 58 percent of consumers listed the environment as a reason for purchasing organic food, and 57 percent cited support for small or local farmers. Health concerns came in at 54 percent, while 42 percent cited better quality, and 32 percent believed organic foods taste better.
- Smith says there is not sufficient scientific evidence to prove claims that organic food is safer or healthier than

conventional food. Research at Colorado State University and elsewhere has shown beef from conventional-, natural- or organic-production systems are equally low in chemical residues.

- Tools such as hormones and antibiotics for cattle, or pesticides and fertilizer for crops, improve production efficiency and keep costs low. Iowa State University economist John Lawrence says his economic analysis indicates that for a cow-calf producer, raising cattle in a natural-production system is, on average, somewhat less profitable than a conventional system. For organic production, the relative profitability depends on how the producer calculates feed costs. If producers grow organic feed ingredients and calculate the opportunity cost — the price for which they could sell the feed — the profitability of organic production drops below that for conventional. If they price feed at its cost of production, returns are more positive.

### GRASS-FED BEEF

- Most beef cattle in the United States are grain-finished, but grass-fed production has gained some popularity. Some grass-fed systems involve natural or organic specifications while others are conventional, except for the provision of finishing cattle on forage rather than grain.
- Grass-finished beef has a different flavor than that of grain-finished beef. In a review of nine research studies, University of Nebraska researchers found that grain-finished beef was consistently more tender than grass-fed as measured by the Warner-Bratzler Shear-Force test. Grain-fed beef also had higher marbling scores, and taste panels consistently rated the palatability of grain-fed beef higher than grass-fed.
- The National Cattlemen's Beef Association's new report on pre-harvest management for beef tenderness cites research showing that grain feeding for up to 112 days improves beef tenderness. Longer feeding, however, does not contribute to tenderness, and feeding periods longer than 180 days can be detrimental to tenderness due to increased maturity.
- Although most American consumers and those in most of our export markets prefer

grain-fed beef, there is a market for grass-fed. Some consumers like it for its flavor or because they perceive it as healthier. This niche market offers opportunities for some producers to profitably produce grass-fed beef.

- Grass-fed beef can attract consumers looking for low-fat options. Smith notes, however, that there are 29 cuts of beef that meet government labeling guidelines for lean even when they come from USDA Choice grain-fed cattle.
- Other claimed health benefits of grass-fed beef are not well substantiated. One commonly cited benefit is that grass-fed beef is higher in conjugated linoleic acid, or CLA, and omega-3 polyunsaturated fatty acids, which are considered beneficial to health. Smith says that while grass-fed beef can contain as much as double the amount of CLA as conventional beef, and slightly more omega-3, the amounts remain small compared with other food sources. Beef, whether finished on grass or grain, is not a primary source of these nutrients.

### CONVENTIONAL BEEF

- Smith and a team of CSU researchers conducted a study in 1994 revealing that it is highly unlikely there is any difference in presence of harmful chemical residues of growth promotants, heavy metals, stress reducers, thyrostats/sulfa-drugs or pesticides in conventional, natural or organic beef. A Canadian study supported those results, finding the incidence of violative chemical residues in conventional beef is exceptionally low and not likely to be different from that found in beef produced in natural programs.
- In a 1997 study, Smith again found that the incidence of violative chemical residues in U.S. beef is exceptionally low, and the only violative residues of any chemical found were in livers rather than the meat.
- “There is no safety difference in beef due to different production methods,” Smith says. No matter the type of production, U.S. beef is among the safest beef in the world thanks to adherence to sound science, strong government regulations and enforcement, and diligence on the part of beef producers.

*Meeting demand across the range  
of consumer tastes, preferences and budgets.*

# BEEF'S ROLE IN A HEALTHY DIET

BY KIM WATSON

## BEEF CAN BE PART OF A HEART-HEALTHY DIET

202 men and women participated in a 9-month clinical trial that showed lean red meat can be part of a cholesterol-lowering diet.

### TOP ROUND STEAK

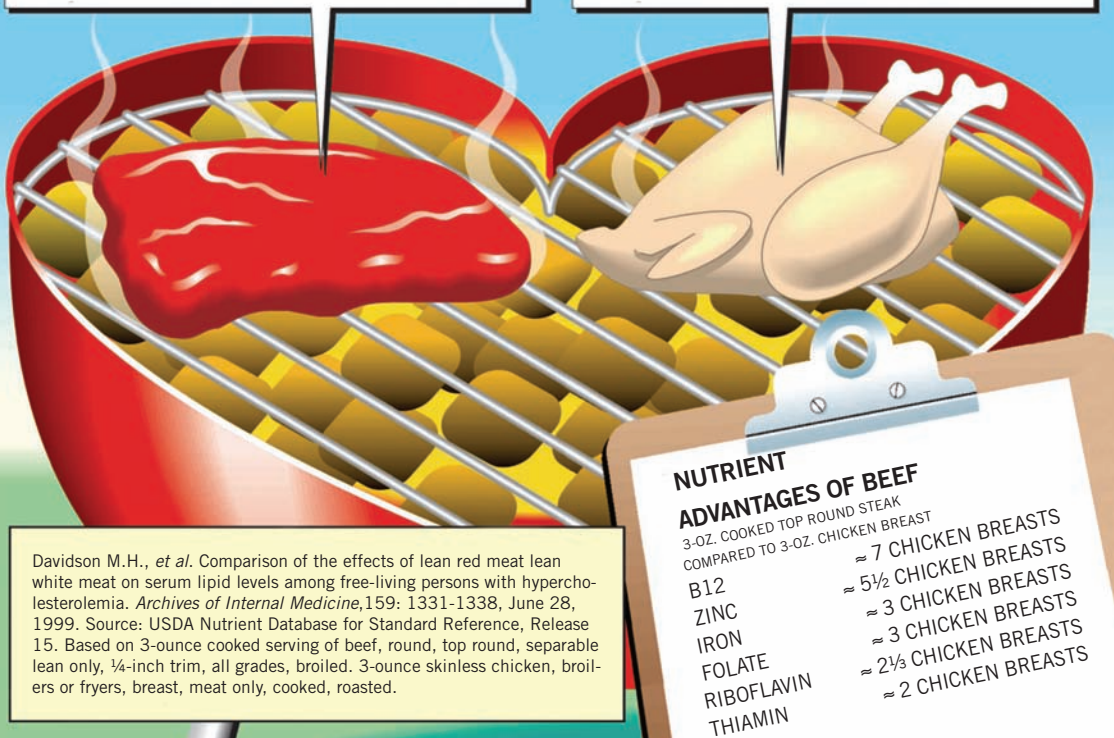
3-OZ. COOKED, LEAN ONLY

SATURATED FAT	1.4 GRAMS
MONOUNSATURATED FAT	1.6 GRAMS
POLYUNSATURATED FAT	0.2 GRAMS

### CHICKEN BREAST

3-OZ. COOKED, SKINLESS

SATURATED FAT	0.9 GRAMS
MONOUNSATURATED FAT	1.0 GRAMS
POLYUNSATURATED FAT	0.7 GRAMS



Davidson M.H., et al. Comparison of the effects of lean red meat lean white meat on serum lipid levels among free-living persons with hypercholesterolemia. *Archives of Internal Medicine*, 159: 1331-1338, June 28, 1999. Source: USDA Nutrient Database for Standard Reference, Release 15. Based on 3-ounce cooked serving of beef, round, top round, separable lean only, 1/4-inch trim, all grades, broiled. 3-ounce skinless chicken, broilers or fryers, breast, meat only, cooked, roasted.

### NUTRIENT

#### ADVANTAGES OF BEEF

3-OZ. COOKED TOP ROUND STEAK	COMPARED TO 3-OZ. CHICKEN BREAST
B12	≈ 7 CHICKEN BREASTS
ZINC	≈ 5½ CHICKEN BREASTS
IRON	≈ 3 CHICKEN BREASTS
FOLATE	≈ 3 CHICKEN BREASTS
RIBOFLAVIN	≈ 2½ CHICKEN BREASTS
THIAMIN	≈ 2 CHICKEN BREASTS

YOU'VE PROBABLY HEARD THIS FROM YOUR DOCTOR or know someone who has — to help lower cholesterol and fat in the diet, reduce the amount of red meat such as beef.

That's a sweeping generalization that many physicians make, but the fact is that beef can be part of a low-fat, heart-healthy diet. Many dieticians agree and say the key to any healthy diet is variety of nutrient-dense foods and moderation of portion size. Efforts are being made to educate not only consumers but medical professionals and dieticians to help them better understand the positive role of beef in the diet.

Today, consumers have more choice than ever when it comes to food selection. Unlike years past, there are 29 cuts of lean beef on the U.S. Department of Agriculture Nutri-

BEEF INDUSTRY  
TALKING POINTS

### Nutrition

ent Database. Each of these cuts meets the lean requirement, which means they contain less than 10 grams of total fat, 4.5 grams or less of saturated fat and less than 95 milligrams of cholesterol per 3-ounce serving.

To get that message to consumers and influencers, a significant portion of your Beef Checkoff Program's budget is allocated to nutrition research, education and outreach programs to help dispel the myths that linger in regard to beef's role in a healthy diet.

**MYTH: BEEF CAN'T BE PART OF A "HEALTHY" DIET.**

**FACT: BEEF IS A NUTRIENT-DENSE PROTEIN SOURCE**, and with all the lean options available to consumers, there's something for everyone. Just one 3-ounce serving of beef is an "excellent" source of five essential nutrients: protein, zinc, vitamin B<sub>12</sub>, selenium and phosphorus. And it's a "good" source of niacin, vitamin B<sub>6</sub>, iron and riboflavin, based on USDA's Nutrient Database.

**MYTH: HAMBURGERS AND GROUND BEEF AREN'T HEALTHY OPTIONS.**

**FACT: CONSUMERS HAVE CHOICES IN TERMS OF FAT CONTENT** when selecting ground beef at the grocery store. Choosing 95 percent lean ground beef keeps the fat content low enough to meet USDA's guidelines for lean. In terms of hamburgers and fast-food options, it's not the meat in the burger that consumers should be concerned with in regard to nutrition, says Dayle Hayes, registered dietician with Nutrition for the Future Inc., Billings, Mont. But rather evaluate the entire meal to see what is served with those hamburgers. For example, super-sized french fries and a soda along with that hamburger would not be a smart choice, but a smaller hamburger served with a salad, fruit or grilled vegetables make a smarter meal option.

**MYTH: BEEF IS HIGH IN FAT.**

**FACT: OF THE 29 LEAN CUTS OF BEEF**, which include the T-bone steak, flank steak and tenderloin,

**ALL HAVE LESS THAN 10 GRAMS OF TOTAL FAT** and 4.5 grams or less of saturated fat per 3-ounce serving. Beef's overall fat profile is generally misunderstood, says Hayes. In fact, half the fatty acids of beef are monounsaturated fatty acids, the same heart-healthy kind found in olive oil. One-third of the saturated fatty acid is a unique fatty acid called stearic acid, which has been shown to have a neutral effect on blood-cholesterol levels. She also points out that short- and long-term research studies have shown that lean beef can be effectively incorporated into low-fat diet plans designed to lower blood-cholesterol levels.

**MYTH: BEEF IS NOT A GOOD OPTION WHEN YOU'RE TRYING TO LOSE WEIGHT.**

**FACT:** A study in the August 2005 *Journal of Nutrition* found that **A DIET RICH IN HIGH-QUALITY PROTEIN**, like lean beef, coupled with a moderate exercise program, **HELPED PEOPLE IMPROVE BODY COMPOSITION** by losing significantly more fat and maintaining more muscle mass.

**MYTH: A VEGETARIAN DIET IS BETTER THAN AN OMNIVORE DIET.**

**FACT: CURRENT DIETARY GUIDELINES TO PROMOTE HEALTH AND PREVENT DISEASE DO NOT RECOMMEND THAT MEAT BE ELIMINATED FROM THE DIET.** Hayes points out that no one group is necessarily better off nutritionally than the other since so much depends on the food choices made within those groups. A recent study of health-conscious vegetarian and non-vegetarian women aged 18 to 50 years found no differences in the women's fat, energy, carbohydrate intakes or in their relative body weight. Both vegetarian and omnivorous diets can be healthful if they are appropriately planned, include a variety of foods and are consistent with dietary guidelines, says Hayes. ✓

## BEEF-NUTRITION TALKING POINTS

**HERE'S A RUNDOWN OF BEEF-NUTRITION FACTS BASED ON A 3-OUNCE SERVING:**

- Beef is an "excellent" source of these nutrients: protein, zinc, vitamin B<sub>12</sub>, selenium and phosphorus.
- Beef is a "good" source of niacin, vitamin B6, iron and riboflavin.
- The 29 lean cuts of beef contain less than 10 grams of total fat and 4.5 grams or less of saturated fat per 3-ounce serving.

**THE 29 LEAN CUTS CURRENTLY AVAILABLE:**

Eye Round Roast and Steak  
Sirloin Tip Side Steak  
Top Round Roast and Steak  
Bottom Round Roast and Steak  
Top Sirloin Steak  
Brisket, Flat Half  
95% Lean Ground Beef  
Round Tip Roast and Steak  
Round Steak  
Shank Cross Cuts  
Chuck Shoulder Pot Roast  
Sirloin Tip Center Roast and Steak  
Chuck Shoulder Steak  
Bottom Round (Western Griller) Steak  
Top Loin (Strip) Steak  
Shoulder Petite Tender and Medallions  
Flank Steak  
Shoulder Center (Ranch) Steak  
Tri-Tip Roast and Steak  
Tenderloin Roast and Steak  
T-Bone Steak

**GROUND BEEF VS. GROUND TURKEY**

Ground beef is higher in many essential micronutrients and can be lower in fat and calories than ground turkey. USDA's new nutrient data shows 95% lean / 5% fat ground beef meets the guidelines for "lean."

LEAN GROUND BEEF	GROUND TURKEY
5 g of total fat	11 g of total fat
62 mg cholesterol	87 mg cholesterol
139 calories	200 calories
(based on 3-ounce serving size)	

Much of the research into beef's nutritional profile has been funded through your Beef Checkoff dollars. You can access that information on the Web at [www.beefnutrition.org](http://www.beefnutrition.org). If you don't have computer access, call your state beef board. For more on USDA's Nutrient Database, visit that Web site at <http://www.ars.usda.gov/nutrientdata>.

*Knowing beef's nutrition profile can help dispel myths.*



# GIVE THE FACTS ON ANIMAL WELFARE

BY SUZANNE B. BOPP

BEEF INDUSTRY  
TALKING POINTS

**Animal  
Welfare**

PRODUCERS HAVE ALWAYS HAD TO ADAPT to a changing business environment and keep in touch with what matters to consumers. One thing that is becoming increasingly important to them is animal welfare. This is demonstrated vividly in a statistic reported by the Animal Agriculture Alliance: Donations to animal rights groups with anti-agriculture campaigns increased 40 percent between 2003 and 2004.

It's a trend that continues to rise, says Philip Lobo, communications director for the Animal Agriculture Alliance, where research has shown that people under 25 have views on animal welfare that diverge from those of the rest of the population. "It may be an indicator of what's coming down the pike," Lobo says.

One question they asked participants in their research was about agreement with this statement: “While it is important to be concerned about how farm animals are raised, they can be raised just for food.” Respondents over the age of 25 agreed at a rate of 87 percent. Among respondents 25 and under, 61 percent agreed.

For the statement, “Consumers should have the right to choose what they eat, and what they eat should not be dictated by activists,” those over 25 agreed by 90 percent or more. For those 25 and under, only 75 percent agreed.

Those opinions transfer into price-premium differentials. Of the under-25 group, 42 percent were willing to pay a 5 percent premium for beef sold under humanely raised labels. Among those older than 25, 31 percent overall were willing.

#### ANIMAL-WELFARE LEGISLATION

In 2003, a Gallup study looked at whether people would support different types of legislation concerning animals. For legislation banning the use of animals for product testing, 61 percent opposed; for banning the use of animals for research, 64 percent were opposed. But when it came to legislation concerning treatment of farm animals, only 38 percent opposed the idea.

Don't think this is just a consumer issue, says Janice Swanson, Kansas State University animal science professor. People who are not meat consumers can affect policy. “People who eat and don't eat meat can vote,” she says. “Issues of cruelty, neglect, abuse — people have typically sought legal redress for those through legislation.” Another possible outcome for animal-welfare issues that go unaddressed is

that they can become food-safety issues; one example is downer animals. “That is the downstream effect,” Swanson says. “It can go from a third-tier issue to a first-tier issue. It can do a lot of damage to the industry.”

That's why it's important to pay attention to the issues that come forward and not to get too hung up on the solutions that might be suggested. Those are two separate matters. “Just because they have the wrong solution doesn't mean they aren't identifying a problem,” Swanson says. “We can come up with the right solution.”

Of course, producers have many other issues on their plates, and some producers may be unclear about what animal welfare entails or about the blurry line between animal rights and animal welfare. They may be concerned that talking about animal welfare will mean they will have to make large changes to their operation. Other producers may feel that they are already addressing animal-welfare concerns.

Indeed, good animal welfare can be as simple as applying good husbandry practices on a consistent basis. But that doesn't mean the issue or the concerns can be dismissed. The challenge is to incorporate the new ethics on animal welfare, to be willing to talk about it and to make changes, even small changes, when needed. Attempts to acknowledge, address and discuss the issues create positive perceptions for people. Much of consumers' concern stems from a simple lack of knowledge.

The bottom line is that people are concerned about the quality of life of farm animals. But so are you. ✓

*Consumers want to know about the quality of life of farm animals.*

## ANIMAL-WELFARE TALKING POINTS

### BRANDING

- Be honest. Don't say the animal doesn't feel it.
- Branding is the one and only means of permanently, visibly identifying an animal. It's the way we trace individuals for animal health reasons and protection of herd. Put branding into a historical context: For ownership recognition of an individual animal, that was the best technology they had.
- In some states, branding is required by law.
- It is noxious to the animal for a period of time, then it heals.
- The industry is working toward better methods of identifying animals. Electronic tags are likely to be the way of the future.

### CASTRATING

- Done for some of the same reasons that people neuter their pets, such as safety, reduced aggressiveness and prevention of unwanted breeding. It's in the best interest of the animal over its life.
- The industry is working on the anesthesia issue and on better ways to do this.

### TRANSPORTATION

- This is an emerging issue that producers and anyone transporting cattle should be prepared to talk about. The trailers and the techniques are designed to transport cattle safely and comfortably: for instance, the compartments on the truck and the practice of segregating animals by size and gender. Technology has improved greatly with larger trailers that are better ventilated.
- The methods are humane, but we also consider the economic consequences. Increased stress correlates with a threat to animal health.
- Cattle are loaded and unloaded with care and there are proper, approved techniques for doing this.
- People think that having fewer cattle in the trailer is better, but too much space makes them more likely to fall and get injured.
- Drivers are trained. They have a history of delivering animals in good condition.

### PACKING PLANTS

- There's been a great deal of work done on every aspect of slaughter techniques to ensure that it is done in the most humane way. The process is designed to eliminate suffering.
- Packing plants all come under the legislative arm of the Humane Slaughter Act.
- The American Meat Institute has guidelines in place for animal handling at all slaughter plants, which are third-party audited.
- Most of the people who study animal behavior and welfare have decided the cattle don't know what is going to happen. In a well-run system, they are very calm as they move through.
- The stunning process has been the subject of a great deal of research through the years and has been refined to be fast and effective.