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Consumer confidence in beef remains strong

By Charlene Schuster, Executive Director
Montana Beef Council



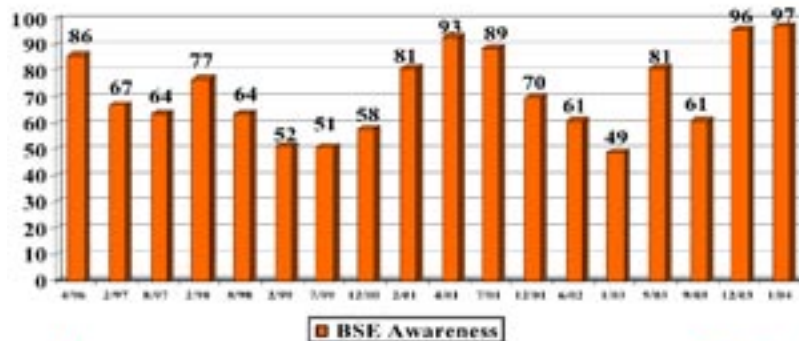
A study indicates that consumers remain confident in the safety of U.S. beef despite the discovery of a single cow with bovine spongiform encephalopathy (BSE) in Washington State in December. According to research conducted following the news, awareness among consumers of BSE was at 96 percent following the discovery, compared to 61 percent last September. Nevertheless, confidence remained strong, going from 88 percent in September to 89 percent last week.

The checkoff-funded study, commissioned on behalf of the Cattlemen's Beef Board and state beef councils by the National Cattlemen's Beef Association (NCBA) was conducted Dec. 29 and

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Food Safety Tracking BSE

Percent of respondents that saw, heard, read about Mad Cow Disease in the past month



SOURCE: Winkler - April 1996 - July 2001
IPSS-Real - Dec. 2001 - Jan. 2004



After a spike in spring of 2001 (when BSE became an epidemic in Europe and was heavily covered in the U.S.), BSE media coverage (and, therefore, consumer awareness) declined to a 7-year low in January of 2003. The Canadian BSE incident caused a major jump in awareness in May of 2003 (see additional graph, p. 3).



How Management Practices Compared

Montana Beef Quality Assurance-certified producers and non-certified producers, Part 2: Health Practices

by Lisa Duffey, John Paterson, Jim Peterson, Travis Choat, Kelsey Rolfe and Brian Rainey, Montana State University



John Paterson

Recent dietary trends (e.g., the Atkins Diet), food safety concerns, (e.g., E. coli 0157:H7) and finding BSE in North America are impacting the beef industry in the United States. To assure that consumers can remain confident about the safety of beef, everyone involved in cattle/beef production must pledge that all possible precautions are being taken to reduce contamination and to prevent potential safety problems with beef as a food (Smith, Colorado State University).

The beef industry has responded to consumer demand for a safe, consistent and quality product in a number of ways, one of which is through beef quality assurance (BQA) education. “The beef industry has worked very diligently to provide the necessary assurance to consumers that beef is safe,” said Smith. The industry continues to change and evolve to meet

the challenges of international trade requirements, food safety issues, and consumer demand for consistency and quality.

We conducted a survey during August 2003 to determine record keeping, health management, marketing strategies, and perceptions of industry issues by Montana beef producers. The 38-question survey was mailed to 1,000 beef producers of which 500 were Beef Quality Assurance (BQA) certified (231 surveys were returned or 46%) and 500 were not BQA certified (116 surveys returned or 23%). The BQA certified producers were those who successfully completed the Montana BQA certification program administered by MSU Extension. The non BQA certified producers were selected from the *Beef: Questions and Answers* newsletter mailing list. This month's column summarizes health management practices of Montana beef producers.

Response to the survey:

Do you practice Beef Quality Assurance recommendations for animal care and health?

Do you practice BQA recommendations?	BQA producers	NonBQA producers	Significant? P<.05
Yes	92%	55%	Yes
No	3%	18%	Yes
I don't know	3%	17%	Yes

What are the usual locations on the animal for routine injections and vaccinations on your ranch?

Sites of injection	BQA producers	NonBQA producers	Significant, P<.05
Neck	97%	87%	Yes
Armpit	7%	12%	No
Shoulder	1%	4%	No
Upper rear leg	0%	1%	No
Ribs	1%	0%	No
Lower rear leg	0%	0%	No

For your unweaned calves, what type of vaccine do you prefer?

Type of vaccine preferred	BQA producers	NonBQA producers	Significant, P<.05
Killed	35%	37%	No
Modified live	59%	55%	No
Chemically altered	1%	0%	No
I don't know	5%	8%	No

If killed vaccines are preferred, do you give a booster?

Do you give booster?	BQA producer	NonBQA producer	Significant, P<.05
Yes	35%	29%	No

How many times are your calves vaccinated for respiratory disease before they are sold?

No. of times vaccinated	BQA producers	NonBQA producers	Significant, P<.05
0	2%	10%	Yes
1	30%	31%	No
2	59%	52%	No
More than 2 times	9%	7%	No

Who is usually responsible for administering the vaccines when you work calves? (list all that apply)

Person responsible	BQA producer	NonBQA producer	Significant, P<.05
Myself (owner)	60%	60%	No
Veterinarian	5%	9%	No
Spouse	19%	12%	Yes
Hired hand	10%	15%	No
Child < 16 years old	6%	3%	No
Child > 16 years old	0%	1%	No

Do you implant your calves?

Do you implant?	BQA producer	NonBQA producer	Significant, P<.05
I only implant the steers	29%	23%	No
I only implant the heifers	4%	3%	No
I implant both steers and heifers	27%	29%	No
I do not use implants	40%	45%	No

How many days after weaning are calves held before being sold?

No. days held before sale	BQA producers	NonBQA producers	Significant, P<.05
0-15	54%	48%	Yes
16-30	5%	4%	No
31-45	15%	9%	No
46-60	10%	8%	No
61-90	5%	13%	Yes
More than 90 days	12%	18%	No

As expected, more BQA certified producers followed BQA guidelines than non-BQA certified producers.

Even though the majority of ranchers administered vaccinations in the neck, more BQA producers (97%) vaccinated in the neck than non-BQA producers (87%). A few producers continue to give vaccinations in the rear area of the body.

Most ranchers preferred to use a modified live vaccine, with no differences measured between BQA certified and non-BQA certified producers. If a killed vaccine was used, less than 50% of the respondents indicated that a booster injection was given. It appears that most producers give calves two injections for respiratory disease.

The person most responsible for giving the injections was the owner of the cattle. One difference measured was that BQA producers reported that the spouse gave the vaccinations a greater percentage of the time than spouses from the non-BQA producers.

Implants appeared to be used by approximately 55-60% of the respondents. This past year, the majority of the calves were sold within two weeks of weaning.

Next month: Winter feeding and marketing 

Beef Checkoff, cont. from p. 1


30 by the research firm IPSOS-Reid. The research statistically represents the U.S. adult population, with a plus/minus 3.2 percent margin of error.

The study results demonstrate that our efforts to assure consumers a safe and wholesome food supply are having an impact. Now we must aggressively evaluate all ways we are working to move beef through domestic retail and foodservice channels.

For example, the NCBA retail and foodservice marketing staff, working under a checkoff contract, is contacting account executives to encourage additional featuring and special menuing of beef products. Other possible incentives for quickly moving product through the U.S. system are being examined.

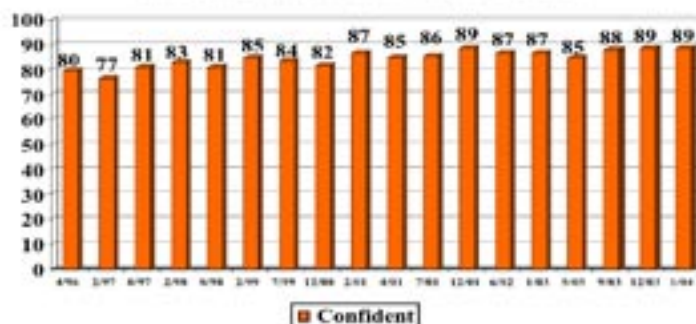
Beef is already a winner at this year's Super Bowl! Checkoff funds will help publicize beef products already in use by one of the major vendors at the event. Football fans will enjoy 3,000 10-ounce ribeye steaks; 8,000 pounds of brisket; 261 gallons of beef chili; 4,000 hamburgers and 15,000 foot-long beef hot dogs.

Beef producers' previously scheduled \$1.5 million national TV advertising will run at the same time as a new Super Bowl radio promotion. The TV ads will begin the week of Jan. 26 and continue for four weeks.

Beef: Questions & Answers is a joint project between MSU Extension and the Montana Beef Council. This column informs producers about current consumer education, promotion and research projects funded through the \$1 per head checkoff. For more information, contact the Montana Beef Council at (406) 442-5111 or at beefcncl@mt.net 

Food Safety Tracking BSE

Percent of respondents who say they are confident that U.S. beef is safe from Mad Cow Disease



SOURCE: Wicklin - April 1996 - July 2001
IPSOS-Reid - Dec. 2001 - Jan. 2004



Confidence that U.S. beef is safe from BSE actually increased in the first half of 2001, despite the heavy media attention to the European BSE problems. The reason is because the media was so highly interested in BSE that the beef industry got to tell its positive story far more frequently. Consumers were hearing more about BSE but tended to hear that the U.S. had built strong firewalls and that BSE had not been found here.

What you should know about BSE

by Nolan R. Hartwig, DVM, Extension Veterinarian, Iowa State University (December 29, 2003)

Following are some brief facts about Bovine Spongiform Encephalopathy.

- BSE (so-called Mad Cow Disease) was first diagnosed in the United Kingdom in 1986. There was some spread from the U.K. to the European continent, mostly as a result of importation of exposed cattle.
- BSE is one of several diseases called Transmissible Spongiform Encephalopathies (TSEs). These include:
 - Kuru, Creutzfeldt-Jakob Disease, and Gerstmann-Straussler-Scheinker syndrome in people. All of these are relatively rare human diseases.
 - Variant Creutzfeldt-Jakob Disease (vCJD) of man that is, in essence, the human form of BSE.
 - Scrapie in sheep. Not transmissible to man.
 - Chronic wasting disease (CWD) of deer and elk. Not transmissible to man.
 - Transmissible mink encephalopathy. Not transmissible to man.
- There are no known TSE diseases in swine or poultry.
- Vigorous control and eradication programs have dramatically reduced the incidence of BSE in the U.K. and Europe.
- All of the TSE diseases are caused by the development of abnormal prions in the central nervous system. Prions are large proteins found in the central nervous system (CNS). The body cannot break down these abnormal prions. They build up in the central nervous system and eventually lead to neurological disease. Prions are very heat resistant and contain no DNA (are not “living” in the sense that bacteria, fungi, all animals and plants, and even viruses, are considered as “living”). The precise mechanism of invasion of the body, replication, transmission, and other factors are not fully worked out by research scientists, but many major risk factors are known.
- vCJD is caused by consumption of contaminated beef. The prions are in the nervous system, not muscle tissues, although one cannot be 100% sure that there is absolutely no nerve tissue in beef cuts and ground beef. The vast majority of the prions are in the central nervous system, not the peripheral nerves that might be included in ground beef.
- There have been about 137 cases of vCJD in the United Kingdom. It is 100% fatal. The incidence is decreasing as BSE is eliminated from the country and as additional precautions have been implemented. There is an extremely low risk of getting vCJD, even in the U.K.
- Brain and spinal cord (CNS) tissue are not allowed in ground beef and other processed meats.
- The U.S. has protected its cattle herd from BSE by:
 - An immediate ban on importation of cattle and animal products, including meat and bone meal, from the U.K. once the disease was recognized there in the 1980s.
 - Waste and condemned products are rendered at high temperature and pressure to produce meat and bone meal. This by-product of meat and poultry harvest is a source of high protein supplement for the livestock and poultry industry.
 - Since BSE is thought to be transmitted between cattle by feeding by-products such as meat and bone meal, importation of these products was banned. In 1997, the feeding of meat and bone meal to ruminants (beef, dairy, sheep) derived from all mammals has been banned. This is a vital control mechanism to prevent introduction and spread of the disease in the United States.
 - Testing brains of downer animals and animals that show signs of neurological diseases is mandatory. There have been no cases identified in the U.S. until the cow harvested in Washington State on Dec. 9.
- Veterinarians have been intensively trained to watch for signs of BSE in U.S. cattle.
- No animal that shows signs of systemic disease is allowed to be harvested for human food in the U.S. and most other countries.

continued, next page

Montana Beef Network Update:

Visiting feedlots that are feeding MBN cattle

by Lisa Duffey, Montana Beef Network Coordinator



One primary goal of the Montana Beef Network (MBN) is to continually work toward improving communications between producers, cattle feeders and the packer. MBN staff are visiting feedlots in Iowa, Minnesota, Nebraska and Kansas this winter to view calves enrolled in the Network and communicate with feedlot



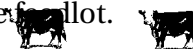
Jeff Merkel's calves at a feedlot in Holstein, Iowa.

managers. The visits allow us to learn more about their experiences with Montana calves and discuss the goals and processes of tracking and carcass data collection.

MBN staff have visited approximately half of the feedlots that have MBN-enrolled calves. The rest will be visited during the next two months.

Generally, feeders indicated they were happy with Montana calves because they are healthy, easy to handle, and gain weight well. The feeders appear to prefer calves that have been vaccinated and weaned before being shipped to the lots. One feeder reported that unvaccinated calves sold for \$10 less/cwt than vaccinated calves at a recent feeder calf sale.

Since the BSE case was discovered in Washington, animal identification has become a much discussed topic. At this point, the feeders were not insisting that calves be tagged with electronic identification tags. They, like the rest of the industry, are waiting to see what protocols industry leaders will recommend and are also waiting for the federal government to address animal health and food safety. After returning to Montana, MBN mails producers a progress report and a picture of their calves in the feedlot.



What you should know about BSE , continued from p. 4

- The herd of origin of the index case in Washington State is quarantined.
- The prions that cause BSE have never been found in milk or blood.
- Risk to humans:
 - Proving a negative (zero risk) is impossible in situations like the one we have now.
 - The risk can accurately be described as “not zero, but so close to zero that it cannot be measured.”
- Beef is safe.
- Cooking will not destroy prions.
- vCJD is not related to common human neurological diseases.
- An accurate system that allows us to trace the complete life history of all meat animals is needed. This can benefit the livestock industry and significantly enhance consumer confidence.



Warren Frank: Yellowstone County

by Paul Dixon, Yellowstone County Extension Agent

Describe your operation.

Warren Frank owns and operates his farm and feeding business in the Yellowstone River Valley between Laurel and Park City. Frank operates his farming, cow-calf and feeding enterprises with one full-time hired man and occasional seasonal help. Like many farm-ranch businesses in Montana, Frank has diversified his operation so “all his eggs are not in one basket.” He grows contracted malt barley, dry edible beans, alfalfa and corn grain on flood irrigated fields. Frank grows most of the feed needed for his 700 head capacity feed yard and cow-calf operation.

The feeding operation consists of both purchased and custom calves. The majority of the calves are on a back-grounding ration. Frank shoots for a 1.8 – 2.5 lb. average daily gain, depending on the calves, the customer’s desire and the desired end point on the calves. Frank utilizes home grown whole corn, barley hay and straw, and alfalfa in his rations. He has moved away from corn silage as the forage base due to the expense of equipment, harvesting and storage issues. Frank believes that he can consistently hit the growth targets without the silage while reducing his labor and equipment costs. Depending on the market, he may finish cattle in his feedyard. For several years he has sent cattle to be finished at Poky Feeders in Scott City, Kan.

How has the incidence of BSE in the U.S. affected your operation so far?

Frank had two pens of cattle ready to sell at the first of this year. He entered the two pens into the Diamond Ring video auction and ended up not selling them. Even though he chose not to sell those cattle that day, Frank believes that the video auction was perfectly timed to help establish the market after the BSE incident and to begin the process of building back the industry’s confidence. Like any other producer who had cattle to sell in January of 2004, Frank took a hit compared to what those cattle would have been worth the first of December 2003.

Where do you think the industry should go from here in dealing with BSE and other food safety issues?

First of all, Frank believes that the system worked when it came to identifying the Washington cow and tracking the recalled meat. However, he said that the USDA was somewhat slow in reporting that the cow in question originated in Canada. The gap between the time the USDA identified the cow as Canadian, and the time that fact was reported, was enough to negatively impact the futures market.

In his opinion, “honesty is always the best policy” and the USDA and other agencies need to adhere to the practice in order to build and retain the confidence of the cattle industry and the U.S. consumer. At this point, he is extremely



Warren Frank’s farm and feeding business is situated between Laurel and Park City

pleased to see that U.S. consumers are holding up their end of the bargain by continuing to buy beef. If consumers lose confidence in the handling of food safety issues by the USDA and other rule-makers, Frank believes that those consumers will move to other protein sources—which no one in the cattle industry can afford.

On the issue of national ID, Frank believes that in theory a system could be beneficial. But it must be affordable. There is too little margin in the cow-calf and feeding sectors to afford an expensive ID system. The system would also have to be utilized by everyone, which probably means that it would have to be mandatory.

If not properly designed, a national ID system would be a logistical nightmare. Just in Frank’s own operation, he can have as many as 20 different sets of cattle from 20 different origins. Keeping a traceback system in place could prove to be very difficult. Frank said that the rule-makers have to keep in mind that cattle in the West are managed uniquely when compared to other regions of the U.S.—Cattle can change owners several times, are co-mingled in grazing allotments and in feedyards, and some mature cows rarely see a chute. Every time an animal has to run through a chute or alleyway to place or read a tag, a cost has to be reconciled for that activity. ID is only one of many issues the industry must work its way through. There are no quick and easy answers and Frank believes that the industry needs to take a hard look at itself and decide on the best practices to follow. For instance, he likes the idea of adding aged beef back into the market, not only for the consistency and quality aspects, but also to retain the ability of testing before the meat enters the food system. He understands that this would be logistically difficult for the large packers, but the

Program offers electronic ID tags

from MSU News Services

Canada has a national livestock ID system. So do Australia, Japan and Brazil. Like Social Security numbers, individual animals are assigned a unique number, so each animal's origins are traceable, even at the grocery store.

If the U.S. ever adopts such a system, Montana producers who are already using electronic ID tags will be one step ahead. Meanwhile, those producers are using another feature of the system, a database of easily trackable individual data.

They are working through the Montana Beef Network, an MSU/Montana Stockgrowers Association program that helps add value to cattle. MBN workers, including several MSU ag students, tagged 16,000 Montana cattle with electronic tags this year. Like supermarket bar codes, the tiny tags hold information about each animal, which is then stored in the CattleLog database run by eMerge Interactive. Bill Mies, an MSU animal science graduate, is a vice president at the Florida-based company.

MBN Project Coordinator Lisa Duffey said the database is as secure as the Federal Reserve and offers instant access to data that formerly required time-consuming record-keeping.



Sam Phares of Bozeman works a hydraulic cattle chute while his cattle are fitted with radio-frequency ID tags.

"It's an attempt to manage data in a way that's helpful to producers," said Duffey.

"Ranchers can download the information in five minutes," said John Paterson, Extension beef specialist. "It helps a rancher know: Do you have good cattle or poor cattle?" Paterson said the data—like any good record-keeping system—helps producers select for certain quality traits. And, he says, "If the federal government ever says, 'What did you do to that calf?' we will know."

Producers and MBN representatives are hopeful that the unique tags will also help them gain carcass data, rates of gain after weaning, and quality grade after the cattle have gone through the feedlot and to the packing plant.

The ease of use and access to data is what attracted Sam Phares, an MSU grad who runs cow/calf pairs at Battle Ridge Ranch near Bozeman.

"I've got enough other things to think about," said Phares, who said the program will help him analyze carcass data and form a cull list. "I'll have more information. I want to take the calf crop from a big, wide bell curve to a small one."

Once cattle are fitted with the tags, an electronic wand uploads data such as vaccination records, weight and genetics. Producers can access their files via the Internet. The Network pays \$7.25 per animal for the data collection and analysis, while producers pay \$2 for each tag.


For more information, contact Lisa Duffey at (406) 994-4323.



Radio-frequency ID tags allow producers to track and receive data on individual cattle using an electronic wand and computer. Similar to supermarket bar codes, each tag has a unique 15-digit number.

Cattle Feeder Profile, continued from p. 6

benefits may outweigh the costs in the long run.

Frank was happy to see the rule put in place keeping downer cattle out of the human food chain. In his opinion, "this should have been done long ago." Frank recommends utilizing some of the Beef Checkoff funds for downer cow disposal. By having a downer cow disposal system in place, "we could make sure that there is no way that they could possibly enter the food supply." "This would make for good public relations and it would help insure that the beef supply in this country is and will continue to be the best and safest in the world." 





BQA certification fees waived

From now until mid-fall, the Montana Beef Network is waiving the \$20 fee required of producers who wish to become Beef Quality Assurance-certified as well as for those who need to re-certify.

BQA is a quality control program of the beef industry, designed to help cattle producers ensure quality, consistency, safety, and source and process verification. The program focuses on producer awareness, educational training and science-based best management practices.

Recent studies have shown that BQA certification adds up to \$40 of value to each certified animal.

Previously, the cost of BQA certification was \$20 per ranch, but after the discovery of BSE in Washington, the Montana Beef Network advisory committee decided to waive the certification and re-certification charges.

For more information, call (406) 994-4323, visit the Web at <http://www.mtbeef.org/beefnetwork/> or talk to your local MSU Extension agent.

Upcoming Events

Cattleman's Day, Ekalaka. Feb. 10

Beef Nutrition Workshop, Jordan. Feb. 11

BQA certification/BSE update via Interactive Television. Feb. 12 in Roundup, Miles City, Jordan, Circle. See your local county agent for details.

MATE, Billings, Feb. 19-21.

Montana Livestock Forum and Nutrition Conference, Bozeman, April 6-7 at the GranTree Inn.



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