ELIMINATING THE RISK

EXECUTIVE SUMMARY

INDUSTRY SUMMIT
ON BOVINE SPONGIFORM ENCEPHALOPATHY

April 26-27, 2004
On this day, the U.S. beef industry changed forever. This day affected every member of the beef industry. For on this day, the United States Department of Agriculture announced that a single cow located in Washington State (later determined to be of Canadian origin) tested positive for Bovine Spongiform Encephalopathy (BSE).

The industry remained confident that firewalls established by the government in the 1990s to prevent the spread of BSE in the cow herd, and protect the safety of the food supply were solid, and based on the latest science. Yet the question arose: how would consumers react?

Despite nearly universal awareness of BSE by U.S. consumers, confidence in the safety of the beef supply did not waiver. Years of effort spent advancing science, building firewalls and educating consumers about the issue proved valuable.

In 2004, as the government investigated this single case, challenges arose. Science was interpreted—and misinterpreted. Media propagated both fact and fiction on a 24/7 basis, using radio, television or Internet. Attacks on the integrity of the U.S. food safety system came from many varied sources.

Maintaining consumers’ trust is, and has always been, the beef industry’s first and foremost responsibility. With that in mind, the Beef Industry Food Safety Council convened the Industry Summit on Bovine Spongiform Encephalopathy April 26-27, 2004, in Fort Worth, Texas. This scientific summit brought together experts from all segments of the beef industry to identify knowledge voids and establish best practices to strengthen the industry’s defenses against BSE.

We must continue to go where the science leads us. Our solutions will not only be good ones, but the right ones. The entire world is watching, and we are up to the task.

Jim McAdams
Texas Beef Producer
President-Elect,
National Cattlemen’s Beef Association
Working Together Works

The Beef Industry Food Safety Council (BIFSCo) brings together representatives from all segments of the beef industry, to develop industry-wide, science-based solutions for food safety challenges.

First formed in 1997, the Beef Industry Food Safety Council coordinates beef industry efforts to eliminate food safety risks. Although industry segments may not always agree, this group’s unified efforts to eliminate BSE in the United States prove that each BIFSCo contributor is dedicated to the larger goal: increasing beef safety.

More information on BIFSCo can be obtained at www.bifsco.org. Questions and comments can be sent to bifsco@beef.org.

WHY A BSE SUMMIT?

Progress Through Science and Fact

The discovery of BSE in the United States profoundly affected the beef industry, prompting changes in production practices, food safety policies, international trade policies and relationships, and the industry’s economic architecture. This discovery also reaffirmed and strengthened the industry’s risk-mitigation efforts.

BSE in the U.S. also created the need to identify gaps in the science and to consider additional science-and risk-based practices.

To this end, the Beef Industry Food Safety Council, with assistance from the national beef checkoff program, convened the historic BSE Summit on April 26-27, 2004, in Fort Worth, Texas. This working session, held just four months after the BSE case was discovered in Washington State, brought together the top experts to:

◆ Identify scientific knowledge gaps about the disease.
◆ Establish industry recommendations to eliminate BSE in the U.S. and North America.
◆ Identify new risk-based practices to strengthen defenses against BSE.

Participants represented these segments of the industry:

Cow/calf producers
Feed manufacturers
Feeders
Packers and processors
Renderers
Grinders
Retailers
Foodservice
Exporters
Government
Communicators

This document is a concise summary of major discussion points, key findings and action points.
BACKGROUND

Nearly a Century of Federal Meat Inspection

Around the world, countries strive to control and eradicate animal diseases. The United States has been particularly successful. For example, while many countries are plagued with outbreaks of Foot and Mouth Disease, the U.S. has not had a case since 1923. Scientific advancements have nearly eradicated once prevalent diseases such as brucellosis, cattle tick fever and tuberculosis.\(^1\) Eliminating the risk of BSE is achievable.

The Federal Meat Inspection Act of 1906 is a major reason for the successful control and eradication of animal diseases. This Act requires that every animal be inspected before it enters the food supply. Identification and examination of diseased animals is the first step toward eradication.

About BSE

First identified in 1985, BSE is a degenerative, neurological animal disease affecting the central nervous system (CNS) of cattle. Scientists believe BSE is caused by misfolded proteins, called prions, which build up in CNS tissues, eventually killing nerve cells. Scientists do not know what factors trigger this conversion. Some believe the abnormal protein itself directly causes the conversion of the normal protein, while others believe a virus-like entity may be involved. Most scientists agree that the accumulation of abnormal proteins in brain cells results in altered function and eventual death of cells.

Scientific studies show that the BSE disease agent is not found in beef muscle meats or milk. Instead, it is found in the CNS tissues of cattle, such as the brain, spinal cord and retina (eye) of naturally infected cattle.\(^2,3,4\)

Commonly known as “mad cow disease,” BSE can be found around the globe, but a majority of cases have been found in the United Kingdom (UK). The first case of BSE in the United States was announced by the United States Department of Agriculture (USDA) on December 23, 2003.

BSE does not spread by contact between animals, nor does it spread via contact between animals and humans. The BSE agent can only be transmitted to animals through feed containing ruminant-derived meat and bone meal (MBM) from BSE-infected cattle. In 1997, the use of ruminant-derived MBM as a protein supplement in cattle feed was banned in the United States.

Further, BSE affects older cattle, typically over 30 months of age. In the U.S., more than 88 percent of market cattle are less than 20 months old. Even in European countries where the bulk of BSE cases have been diagnosed, of the 1.6 million cattle less than 30 months of age tested there in 2002, no positive cases were found.

Implications for Human Health

Research from the U.K. supports an association between BSE and variant Creutzfeldt-Jakob Disease (vCJD). Variant CJD likely developed as a result of people consuming products contaminated with central nervous system tissue of BSE-infected cattle. Therefore, while BSE is a cattle disease, it has implications for human health.

Variant CJD was first documented in the United Kingdom in 1996 and, as of March 2004, reports indicate there are 156 definite and probable cases worldwide, with...
146 of those in the U.K. No indigenous cases of vCJD have been detected in the United States. There are many unknowns about vCJD, including method and amount of exposure, route of transmission and incubation period. Significant steps have been taken in the United States to prevent exposure to the disease.

All vCJD victims to date have had a specific genetic make-up that may make them vulnerable to this disease. About 40 percent of the population has this genetic make-up. Research continues to determine the role genetics may play in this disease.

It is important to remember that sporadic Creutzfeldt-Jakob Disease and vCJD are distinctly separate diseases, each with its own unique clinical and histopathological features. Sporadic CJD was first identified in the 1920s and has a worldwide incidence of approximately one case per million people each year. There is no link between sporadic CJD and BSE.

There are two stages in controlling BSE. One is protecting the cattle population and the other is ensuring the safety of the human food supply. The red boxes depict intervening procedures that prevent, control or eliminate the risk of BSE.

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**History of BSE Firewalls**

In the late 1980s, as BSE became epidemic in the United Kingdom, U.S. government and industry leaders took decisive steps to ensure that if the disease ever entered the United States, it would not spread. The U.S. had an advantage when compared to the U.K. – it was in a position to prevent BSE from becoming established in this country. APHIS conducted a traceback effort to locate each of the 496 cattle that were imported from the U.K. and Ireland into this country between January 1, 1981, and July 1989. None of these animals remain alive in the United States. In 1989 the U.S. banned imports of cattle and cattle products, such as bone meal, from countries with BSE.

Quickly thereafter, in 1990, the U.S. began a targeted BSE surveillance program to identify the disease and allow for quick containment. This surveillance program included testing carcasses for BSE at a level exceeding the recommendations of the Office of International Epizootics (OIE). Establishment of this program meant that the United States became the first country without BSE within its borders to test carcasses for BSE.

In December, 2003, the surveillance program proved effective by identifying the United States’ first case of BSE, in a cow imported from Canada. This animal was born prior to the ruminant-derived MBM feed ban.

While a surveillance program (see below for more details) protects cattle from the spread of BSE, the U.S. government also built effective firewalls to protect both animal health and food safety, beginning in 1989. These are in addition to the strict inspection rules that have been in place since 1906 through the Federal Meat Inspection Act:

- **In 1989,** the U.S. was the first country in the world without BSE to ban imports of beef, cattle products and cattle from countries where BSE is prevalent.
- **In 1990,** the U.S. became the first country in the world without BSE to begin BSE surveillance and testing to find the disease and eliminate it if it came into the United States.
- **In 1997,** The U.S. Federal Drug Administration (FDA) banned feeding cattle the type of animal-derived protein that can spread BSE. International experts agree that a feed ban breaks the cycle of BSE and assures it will be eliminated.

On December 30, 2003, USDA announced additional measures to ensure that U.S. beef remains the safest in the world. New measures include:

- **All non-ambulatory cattle are banned from the human food supply.**
- **Any animal tested for BSE is prohibited from entering the food supply until tests confirm it is safe.**
- **Specified Risk Material (SRM) from cattle over 30 months is banned from entering the human food supply.**
- **Rules for using Advanced Meat Recovery (AMR) techniques are strengthened to further ensure potentially infective nerve tissue does not enter the human food supply.**
Air-injection stunning devices (used during the humane euthanasia of cattle during the harvest process) are banned. These devices have not been used by the U.S. beef industry for a number of years, but the ban means countries exporting beef to the U.S. must adopt an equivalent standard.

Additionally, FDA has announced plans to strengthen existing BSE transmission firewalls by:

- Banning all non-ambulatory cattle and SRM from cattle over 30 months of age from FDA-regulated human food, dietary supplements and cosmetics.
- Banning the use of mammalian blood and blood products, poultry litter and plate waste in ruminant feed.
- Requiring that equipment, facilities or production lines that use any protein prohibited in ruminant feed be dedicated solely to non-ruminant feeds.
- Conducting an annual inspection of 100 percent of all renderers and feed mills known to process ruminant feed.
- Both government and industry have accelerated efforts to implement a national animal identification system. The U.S. Animal Identification Plan (www.usaip.info), which has been in development for two years, would aid in monitoring and surveillance of livestock for animal disease.

Risk Assessment

USDA asked Harvard University’s Center for Risk Analysis in 1998 to evaluate the robustness of U.S. measures to prevent the spread of BSE to animals and related risks to human health. An extensive simulation model was developed to characterize the consequences of introduction of BSE into the U.S. and the response of the U.S. system. The report, completed in 2001, concludes that “measures taken by the U.S. government and industry make the United States robust against the spread of BSE among animals should it be introduced into this country.”

The 2001 Harvard report said:

“Our analysis finds that the U.S. is highly resistant to any introduction of BSE or a similar disease. BSE is extremely unlikely to become established in the U.S. For example, in a hypothetical scenario in which ten cattle infected with BSE are imported into the U.S., on average only three new cases of BSE would occur. Moreover, the disease is virtually certain to be eliminated from the country with 20 years after its introduction. These results assume that the conditions affecting the spread of BSE in the U.S. would remain unchanged for the 20 years following its introduction. The new cases of BSE would come primarily from lack of compliance with the regulations enacted to protect animal feed. The import of one sick animal yields on average less than one new BSE case in 20 years and the disease is likely to be quickly eliminated from the U.S. following its introduction. Similarly, there appears to be no potential for an epidemic of BSE resulting from scrapie, chronic wasting disease, or other crossspecies transmission of similar diseases found in the U.S. Even if they existed, these hypothetical sources of BSE could give rise to only one to two cases per year.”

In October 2003, Harvard updated its risk assessment to evaluate the implications on animal and human health given an introduction of BSE into the U.S. from Canada, following the finding of a single case of BSE in Canada in May 2003. This scenario did not alter the Center’s original findings. In both the 2001 and...
2003 reports, noncompliance with the feed ban was identified as the key point of vulnerability. The 2003 report said:

“...the results of the Cohen et al. (2001) study show that the presence of the disease will continue to diminish with time. The degree of compliance with the FDA feed ban and other risk management measures [e.g., (U.S. Department of Agriculture (FSIS) 2002)] will influence the rate at which the disease would be eliminated from the U.S.”

**Surveillance Program**

The purpose of the U.S. government’s BSE surveillance program is to identify animals with the disease. During its fiscal year 2003, USDA sampled 20,543 animals—a sample size designed to detect the disease if it occurred in one animal per million adult cattle with a 95 percent confidence level, which is 47 times the international standard for low-risk countries like the U.S.7

In its February 2, 2004, report, the USDA’s international scientific review panel recommended a one-year enhanced surveillance program to establish the prevalence of BSE in the United States.8 The report said:

*◆ The goals of surveillance are to estimate the prevalence of BSE in the cattle population and monitor the success of the prevention and control measures. Now that it has been established that the BSE agent is in North America, the surveillance program in the USA must be significantly extended in order to measure the magnitude of the problem.

◆ Future surveillance programs should be targeted to the cattle population with highest risk of exposure to the BSE agent.

◆ Testing of all cattle slaughtered for human consumption is unjustified in terms of protecting human and animal health.*

In accordance with this recommendation, USDA announced inception of the enhanced BSE surveillance program in March 2004, and sampling began on June 1, 2004. Using statistically based geographic modeling, the program will test at least 268,000 high-risk cattle, allowing for a BSE detection rate of one positive in 10 million adult cattle with a 99 percent confidence level. An additional 20,000 clinically-normal cattle more than 30 months of age will also be tested. Carcasses from tested animals will be held and not allowed to enter the human food supply until test results show the samples are negative for BSE.9

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7USDA news release: “Veneman Announces Expanded BSE SurveillanceProgram,” March 15, 2004

www.usda.gov/Newsroom/0105.04.html


A working group was appointed for each of the five areas of emphasis. Based on its meetings, each working group formulated action points, and then reported to the full assembly, where additional discussion was conducted. Common points brought forward by all of the working groups (see below), indicates high importance. An industry-wide goal was also discussed and agreed upon.

**GOAL**

**Eliminate the Risk of BSE in U.S. Cattle Herds and Related Human Illness**

**Common Points Among All Working Groups**

◆ Maintaining the trust of domestic and international customers is the beef industry’s highest priority.
◆ There is a need to build an understanding among consumers that BSE is an animal health issue, but one with human health implications.
◆ The situation in the U.S. is very different than that in the United Kingdom or European Union, where there are much higher levels of BSE. Applying the same trade restrictions to a low-risk country such as the U.S. as countries that have experienced high BSE rates is not supported by science.
◆ Normalization of North American trade is of utmost importance to reopening U.S. export markets.
◆ The Harvard BSE Risk Assessment should be re-run using the USDA/FSIS rules implemented in 2004 regarding SRM removal and the ban on non-ambulatory animals.
◆ Regulations must be examined carefully before they are published. Once regulations are in place, they rarely are rescinded, even when the risk is removed. This is especially true when regulations are put into place during times of crisis.
◆ Regulations should increase consumer safety and be based on science.

**Specified Risk Material Removal Working Group**

**Purpose**

◆ Review the rationale for prohibiting SRM from the food and feed chains
◆ Examine best practices for removing and handling SRM
◆ Determine methodologies to accurately determine the age of cattle

**Discussion Summary**

International research has proven that any human health risk from BSE is related to the consumption of central nervous system tissue. Therefore, it is imperative that the best techniques be used to remove this tissue and sanitize equipment. Two very important issues for the industry are removal and disposal of SRM and prevention of cross contamination.

Because of new regulations for cattle and product handling based upon age, a need exists for universally accepted methods to validate an animal’s age. An ongoing research study, conducted by the National Cattlemen’s Beef Association on behalf of the Cattlemen’s Beef Board, evaluated the effectiveness of using dentition and skeletal ossification, as well as a documentation-based system, to determine the age of cattle.10 Preliminary results show that:

- Of the 4,772 cattle in the study with ages of 18 to 29 months, use of FSIS dentition guidelines falsely classified 100 cattle (2.1% falsely rejected) as 30 months or older.

10Frederick, et al. 2004. Food Safety Net Services/Colorado State University/CBB and NCBA

“Our solutions will be good ones. They will also be the right ones.”

Jim McAdams, Texas beef producer
• Skeletal maturity (ossification) was not effective for identifying differences in chronological age among cattle in the study. Further, carcass maturity scoring typically occurs too late in the harvesting/processing sequence to allow proper SRM controls to be used on the harvest floor for cross-contamination prevention.
• Results of the check-off funded study suggest that until such time as it is possible to document actual ages of all U.S. cattle, the use of dentition to identify cattle that are 30 months old and older may be the next best alternative.

The latest science on the use of advanced meat recovery (AMR) technology was also discussed. The group concluded that current regulatory guidelines adequately ensure the safe production and utilization of AMR products.

Key Findings
◆ Because there is no uniform method to document cattle age, dentition most likely is the best alternative at this time.
◆ Based on current SRM removal regulations, AMR is not an area of risk.
◆ The distal ileum has been designated as SRM and this decision is validated by science. However, the current USDA/FSIS rule requires that the entire small intestine be removed to accomplish acceptable removal of the distal ileum.

Action Items
◆ Obtain more data from cattle 30 months of age and older to fully evaluate the effectiveness of dentition for these age groups.
◆ Develop standard proof-of-age documentation for use by producers. This documentation must meet the validity and verification requirements of regulatory, harvesting and manufacturing sectors.
◆ Find additional validation methods to verify equipment surface sanitation in addition to the current Glial Fibrillary Acidic Protein (GFAP) test, which reveals the presence of central nervous system tissue.
◆ Conduct a cost/benefit analysis of SRM removal practices based upon the impact on public health to help focus resources in the most valuable areas.
◆ Develop an approved protocol to ensure removal of the distal ileum without sacrificing the entire small intestine.
◆ Complete a decision document to validate plant sanitation in case a BSE positive animal is found.
◆ Recommend that Harvard re-run the risk assessment based on the new interim final rules from FSIS.
◆ Develop and validate new intervention strategies to prevent BSE prions from entering the human and animal food chains.

Minimizing Trade Disruptions & Change in Domestic Markets

Purpose
◆ Discuss strategies that will lead to science-based, international standards for use in making trade decisions by countries around the world

Discussion Summary
International trade is a vital part of the U.S. beef industry. Cattle-Fax estimates that closed borders resulting from BSE cost the industry $165 to $190 per animal.
Animal health and food safety international standards must be science-based and adhered to by major trading partners. Trade cannot be handled on a country-by-country basis. A risk-based approach is needed, but not being used by most countries. The current Office of International Epizootics (OIE) recommendations for BSE were discussed in detail.

Key Findings
◆ Science must be the basis for decision-making in trade issues relating to BSE and other food safety issues.
◆ An obvious lack of uniformity exists in how countries use OIE guidelines.
◆ Dealing with trade issues of this magnitude on a country-by-country basis will not work because of the tremendous time and resources required. Further, country-by-country negotiations have the potential to transmit mixed messages to trading partners.
◆ Many countries do not have the infrastructure necessary to protect animal health on a similar level as North America.
◆ Some countries will be inclined to turn food safety issues into protectionist opportunities.
◆ The beef industry within North America is highly integrated. The U.S. and Canadian systems for dealing with BSE are almost identical.
**Action Items - Short Term:**
- Prioritize countries for discussions leading to resumed trade, in order to better use available resources.
- Expand the list of experts available to trading partners, especially for technical information.
- Conduct government-to-government communications on technical/science issues.
- Identify and communicate with key allies, such as wholesalers and retailers, within trading countries so they also have the science-based facts.
- Establish guidelines for handling product that is already in transit when trade is restricted.
- Provide trade officials from the various government agencies with detailed and consistent information.

**Action Items - Long Term:**
- Establish multinational agreements that adhere to science, including adoption of a “minimal risk” classification by the OIE, which would keep markets open for those countries with low risk.
- Maintain dialogue with importing countries at all times, working toward harmonization.
- Facilitate closer working relationships with country OIE coordinators and build the capacity for countries to have veterinary authority for implementation of OIE guidelines.
- Adopt a consistent BSE strategy for North America. The North American beef industry continues to become more interrelated. Seek acceptance of a North American BSE strategy from other countries, such as Australia and New Zealand.
- Work to harmonize food safety standards on an international level in conjunction with international standards groups such as the OIE.
- Work with U.S. trading partners to conduct BSE risk assessments within their countries.

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**By-Product Handling**

**Purpose**
- Review and discuss options available to the rendering and feed manufacturing industries in this new regulatory environment

**Discussion Summary**
The historical perspective on BSE presented during the working group confirmed that prohibiting ruminant protein in cattle feed is perhaps the most important firewall. Economic contributions from beef by-products are significant. By-product usage also reduces waste and disposal issues. Consumer and customer information was viewed as very important to maintain the usage of safe by-products.

The rendering industry in North America provides a valuable service to the beef industry, including assuring safe and sanitary disposal. In addition, this industry is an important part of any complete traceback effort. There is concern by the rendering industry that animal agriculture will lose by-product usage options, and that these changes may not be justified by science.

**Key Findings**
- Rendering serves an important role in agriculture and in the animal disease surveillance system.
- Maximizing by-product value is important for the beef industry as well as all animal agriculture.
- Rendering facilities and feed mills may become species-specific.
- Scientific evidence does not support banning SRM in non-ruminant feeds.
- Public perception is the basis for some decisions affecting by-product usage, instead of science.

**Action Items**
- Develop certified disposal options to protect human and animal health.
- Assist animal disposal facilities in order to complete the surveillance and traceback system.
- Obtain science-based information about by-product facility and transportation segregation requirements that may develop in the upcoming feed rule.
- Research alternative uses for SRM tallow and proteins to increase their value.
- Promote regulatory agency cooperation on alternative uses of rendered products, e.g. USDA, FDA, EPA.
- Federal regulatory agencies need to develop a proactive message letting the public know that with increased testing we are likely to obtain inconclusive test results and find BSE positive animals in the cattle population. However, the firewalls in place will minimize any impact of these cases on animal or human health.
Standardized Testing for Surveillance and Verification

**Purpose**
- Conduct a review of current thinking on surveillance and verification testing
- Gain understanding of the existing technologies

**Discussion Summary**
Extensive and in-depth discussions took place on the topic of testing. Experts from a number of areas shared their viewpoints. These included representatives from the USDA and Harvard Center for Risk Assessment. Participants agree that BSE has proven to be an economic disease as well as one affecting animal health. Too often, the disease is defined by public perception rather than scientific fact. The group was reminded that the purpose of BSE testing is to monitor animal health; while other existing firewalls protect human health.

The USDA enhanced surveillance program’s testing process was discussed at great length. Participants expressed concern that the parameters of the new surveillance program would not prove to trading partners that the U.S. incidence level does not represent a public health issue. Additionally, participants questioned whether the program would be an accurate measure of disease prevalence. Valid concerns about assuring the integrity of the testing process and the proper handling of results were expressed. Individual marketing needs on the part of companies economically stressed by export bans could provide a significant challenge to continuation of science-based decision making.

**Key Findings**
- BSE testing raises questions of public perception and promulgates new regulations that are unsupported by science. The beef industry needs to recognize and stand behind the science of this issue.
- Currently, no test to detect BSE in the early stages of the disease exists. There is no test that can be used on live animals.
- The USDA enhanced surveillance program needs to have a plan for future testing needs, using principles of epidemiological progression. If the enhanced USDA surveillance program does not yield additional cases of BSE, then the testing level should be lowered as the science would indicate. However, if the program identifies new cases of BSE, the industry should be prepared for an extension and expansion of the enhanced surveillance program.
- Communications to industry segments, consumers, customers and regulators is imperative. Explaining the testing issue to the public presents a challenge because of its complexity.
- The emphasis of the USDA testing program is changing from surveillance to estimating prevalence. This directly affects the issue of how much testing is necessary. Expanded testing presents its own unique issues, as benchmark data doesn’t exist for testing at this level.
- Data collected by USDA must protect confidentiality.

**Action Items**
- Support the current level of testing proposed by USDA in March 2004; science does not support a higher level.
- Monitor the testing protocol so a representative sampling is accomplished.
- Work with USDA to determine how the results of the enhanced surveillance program will influence future testing.
- Divert animals chosen for testing to non-commercial harvesting facilities.
- Establish standard protocols for testing samples.
- Conduct all testing in government labs or government-approved labs.
- Work with USDA to assure appropriate confidentiality and security of test results.
- Anticipate possible scenarios resulting from the testing to be prepared for communication needs.
- Work with industry to identify and implement approved disposal options for non-ambulatory and disabled cattle and also those cattle being tested for BSE, if desired by the processing facility.

**Consumer Relations**

**Purpose**
- Review consumer attitude research, media analysis and Internet activity during the U.S. BSE case
- Discuss how to mitigate perceptual risks and coordinate industry response

**Discussion Summary**
Various reviews of the past year’s BSE coverage were discussed as participants contributed state and local viewpoints. Experts in monitoring global communications methods explained how the BSE issue permeated virtually every communications medium. Negative message content and delivery were also discussed. Research on consumer reaction to messages and the effect of such messages on consumer beef consumption was presented.
Evaluating the communications strategies and results to date paved the way for preparation for the upcoming months.

**Key Findings**

- Research continues to show that consumers, although highly aware of the BSE issue, have confidence in the safety of the U.S. beef supply.
- All messages must be based on sound science and delivered by the most credible sources.
- Some messages work better with consumers than others. Continual message evaluation is important.
- Media began searching for alternative story angles as the issue progressed. As the amount of new information declined, the media was hungry for a new angle on the story.
- All sectors of the beef industry must be cohesive in delivering the main messages.

**Action Items**

- Adjust communication plans to anticipate future challenges (e.g. if additional cases are found) and provide scientific information to balance anti-beef messages.
- Develop an Issues Management Plan for adoption by the entire beef industry. Ensure collaboration across the beef industry. Include both national and regional components in the plan.
- Continue on-going dialogue with thought leaders.
- Develop story angles for use as the issue progresses and the media searches for new information to cover.
- Ensure that communications messages include a message that additional cases will be found.

**Creating Real-Time Solutions**

The beef industry will eliminate the risk of BSE. This BSE Summit is testimony to the level of commitment felt by all segments of the industry.

The action steps identified during the BSE Summit give the industry its road map – and we know the trip won’t be without potholes and slippery slopes that must be maneuvered. It will require collaborations, frank discussions and a dedication to science-based decisions. Eliminating the risk of BSE is a heavy load – one that is too much for any one segment.

In the upcoming months, the Beef Industry Food Safety Council will serve as the coordinating body to communicate results of the BSE Summit to all industry segments and move the action steps forward. This Council has a superb track record of coordinating all segments of the industry, and it must do no less now.

All segments of the beef industry must remain united in using science as our final arbitrator and being worthy of our customers’ trust.

*Terry Stokes*

*Chief Executive Officer, National Cattlemen’s Beef Association*

**For more detailed information on BSE, please refer to www.bseinfo.org**