Setting the PACE

by Susan Rhode, director of communications and public relations

Back to the basics of BSE

For the past few months, the media has been feasting on the topic of bovine spongiform encephalopathy (BSE). BSE has plagued beef producers in Europe since the mid-1980s. Even though there never has been a documented case of BSE in the United States, the threat of this mysterious killer and similar diseases found in humans, Creutzfeldt-Jakob Disease (CJD) and the more recently identified variant CJD (vCJD), loom in the minds of consumers … consumers who eat beef.

As a beef producer, consumers will look to you for answers to their questions. It's your responsibility to stay informed about what the U.S. Department of Agriculture (USDA), the Food and Drug Administration (FDA), the National Cattlemen's Beef Association (NCBA), and other organizations are doing to protect your herd, your product and your family's livelihood from the threat of BSE.

I've gathered basic facts that will help you get a handle on this complicated issue. I encourage you to use the resources listed at the end of this article to delve even further into the BSE story.

The disease

BSE is a degenerative disease affecting the central nervous system of cattle. Research from the United Kingdom (UK), which is where the most cases of BSE have been documented, indicates that the disease agent has been found in brain tissue, the spinal cord and the retina (eye) tissue of naturally infected cattle. It has not been detected in muscle meat or milk.

A surveillance program founded in 1990 by the USDA has found no evidence of BSE in U.S. cattle. Through the program, the USDA has tested nearly 12,000 brain specimens from cattle displaying any neurological symptoms that might indicate the presence of BSE. More than 60 veterinary diagnostic laboratories throughout the United States participate in the BSE surveillance program, including the National Veterinary Services Laboratory in Ames, Iowa.

The United States halted all imports of beef from the UK in 1985. In 1989, the United States banned the importation of ruminant animals and at-risk ruminant products from countries with confirmed cases of BSE.

The recent wave of media attention came when FDA records showed that feed mills were not fully complying with all aspects of the 1997 FDA feed ban, which prohibits feeding ruminant-derived protein, and most mammal-derived protein, to ruminants. Additional safeguards have been put into place in the past few months to minimize the chance of ruminant-derived proteins', primarily bovine meat and bone meal, entering feed-processing facilities.

The human side

CJD was first identified in the 1920s by German neuroscientists Hans Gerhard Creutzfeldt and Alphons Maria Jakob. CJD affects approximately one person per million each year worldwide and usually strikes those older than 55, with an actual rate of occurrence higher for ages 55 and older. The disease vCJD can be significantly different from other forms of CJD, and the definite and probable cases include 98 people in Europe. Classic CJD does occur in the United States, but cases of vCJD never have been confirmed.

There is no scientific evidence linking classic CJD to diet. While the exact cause of classic CJD is unknown, scientists suspect that it occurs when normal protein structures in the brain change to an abnormal form, called *prions*. As these abnormal structures accumulate, they destroy neurons and result in brain damage that is expressed in the symptoms of classic CJD.

Recent research reports an association between BSE and vCJD. The most likely source of human exposure was consumption of products containing brain or spinal-cord tissue from BSE-infected cattle. To date, the BSE disease agent has not been found in muscle meat or milk, which comprise the majority of cattle products.

What we're doing

The best way to protect our society from BSE, CJD and vCJD is to put strict guidelines in place for the cattle feeding industry to prevent ruminant-derived proteins from entering the cattle production system. Thanks to the work of the USDA, the FDA and other governmental agencies, as well as the support of organizations like the NCBA, those guidelines are in place. Over time, close monitoring of these issues will tell us more about these deadly diseases and better ways to prevent them.

While no one can predict the future, the possibility of finding BSE in the United States is remote. The precautionary measures we have in place are more strict than those you'll find anywhere else in the world.

We continually have to remind consumers and ourselves that the United States still has the safest and most plentiful food supply of any nation in the world. It will take cooperation and teamwork from everyone in the beef production chain, from seedstock producer to processor, to maintain that distinction in the future. I hope you choose to be part of the team.

For more information from U.S. sources on these issues, contact the NCBA at (303) 694-0305 or go to these Web sites:

- *www.beef.org*
- *www.bseinfo.org*
- *www.aphis.usda.gov/oa/bsewww.cjdsurveillance.com*
- *www.cdc.gov/ncidod/diseases/cjd/cjd.htm*
- *www.fda.gov/cvm/index/bse/bsetoc.html*
- *www.cast-science.org*

e-mail: srhode@angus.org

The Last WORD…

Success based on anything but internal fulfillment is bound to be empty.

— Martha Friedman