



# YOUR role in preventing BSE



*“Read Before You Feed”*

Nebraska University of Lincoln EXTENSION

**Consequences of feeding prohibited material to ruminants:**

- Possibility of spreading BSE-infected material among cattle
- Potential negative effects on our cattle industry
- Regulatory action under the Federal Food, Drug and Cosmetic Act. Regulatory action could include: Seizure of inventory, injunction against feeding prohibited material to ruminants, or prosecution

## For more information:

Contact the Nebraska Department of Agriculture to find out more about BSE feeding regulations. 402.471.2394

## Additional Resources:

USDA - Animal and Plant Health Inspection Service  
<http://www.aphis.usda.gov/>

OIE World Organization for Animal Health  
[http://www.oie.int/eng/oie/en\\_oie.htm](http://www.oie.int/eng/oie/en_oie.htm)

Food and Drug Administration  
<http://www.fda.gov/>

Centers for Disease Control and Prevention  
<http://www.cdc.gov/>

Nebraska Department of Agriculture  
<http://www.agr.ne.gov/>



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The causative agent of BSE is believed to be an unconventional transmissible prion protein. These proteins accumulate in brain tissue, causing changes in behavior that progress to dementia and death.

## WHAT CAUSES BSE AND HOW DO CATTLE BECOME INFECTED?

Bovine spongiform encephalopathy (BSE), also known as “mad cow disease,” is a slow, progressive, fatal disease of the nervous system of cattle. It typically occurs in cattle 5 years of age or older. BSE has been found in cattle native to the USA and Canada. Scientific evidence suggests BSE is associated with a rare human disease called variant Creutzfeldt-Jakob disease (vCJD).

Diagnosis of BSE is difficult because there are no live animal tests. **PREVENTING** transmission of the BSE agent is the **ONLY** safeguard available because there are no treatments and no vaccines available.

## WHAT IS BSE AND WHY IS IT SUCH A CONCERN?

It is widely believed cattle become infected by eating feed contaminated with BSE-infected material. The suspected source of infectivity is rendered proteins derived from ruminants.

## WHAT IS THE USA DOING TO PREVENT BSE TRANSMISSION IN CATTLE?

The USDA regulates the importation of animals from countries with BSE, and actively tests cattle for the disease. FDA’s “Mammalian Protein Ban” in place since 1997 prevents livestock producers from feeding prohibited materials to ruminants. **Prohibited materials** are protein-based materials, including meat and bone meal, derived from ruminants.

**Ruminant animals** are any animals with a four-chambered stomach including, but not limited to, cattle, sheep, goats, buffalo, elk, and deer.

**Although other regulations are in place to help protect humans and cattle from BSE, cattle producers must do their part to prevent the spread of this disease.**



# BSE: Your Actions Matter

Do the FDA's feed regulations apply to you?  
If you feed ruminants, YES!

## What do I need to do to comply with the FDA's feed regulations?

- You **CANNOT** feed ruminants prohibited animal proteins
- You **MUST** keep copies of labels and invoices for all purchased feeds that contain animal proteins, whether they contain prohibited material or not, for at least one year



# 1.

Cattle may become infected by eating BSE-contaminated feed



## FEEDING

**"Read Before You Feed!"**

- **READ** your feed labels and invoices to ensure feeds for ruminants do not contain prohibited materials
- **IF** you only feed ruminants, **TELL** your supplier that you require feeds that are approved for use in ruminants
- **BE SURE** feeds containing prohibited materials are labeled with the warning: **DO NOT FEED TO CATTLE OR OTHER RUMINANTS**
- **Store and handle feeds** intended for ruminants **SEPARATELY** from feeds for non-ruminants to avoid confusion and cross-contamination

# 2. MIXING FEED ON THE FARM



Use *separate equipment* to *mix* and *deliver* ruminant feeds and non-ruminant feeds containing **PROHIBITED MATERIAL**. If this is not possible, then thoroughly clean the equipment between feeds to avoid cross-contamination.

# 3. RECORD KEEPING

- Purchased feeds containing **ANIMAL PROTEIN**, prohibited or not, should include the supplier's name and address, the date of purchase or delivery, and identification of the product and amount. Keep these records for at least **ONE YEAR**



- When mixing feeds containing **PROHIBITED MATERIAL** for non-ruminants, **keep records** of the procedures used, date of manufacture, the formulations and batches mixed for all feeds, and the actions adopted for cleaning equipment



# 4. REPORTING

The clinical signs of BSE are variable and may not include typical "mad cow" behavior. Most cattle with BSE show a **GRADUAL DEVELOPMENT OF SIGNS** over weeks or months, although some can deteriorate very rapidly.

**Call your veterinarian if you observe cattle showing:**

- Changes in behavior (e.g. nervousness or aggression)
- Abnormal posture or incoordinated movement
- Progressive loss of condition or milk yield